Chronic Diarrhea

A Medical Dictionary, Bibliography,
and Annotated Research Guide to
Internet References

James N. Parker, M.D.
and Philip M. Parker, Ph.D., Editors

ICON Health Publications
ICON Group International, Inc.
4370 La Jolla Village Drive, 4th Floor
San Diego, CA 92122 USA

Printed in the United States of America.

Last digit indicates print number: 10 9 8 7 6 4 5 3 2 1

Publisher, Health Care: Philip Parker, Ph.D.
Editor(s): James Parker, M.D., Philip Parker, Ph.D.

Publisher's note: The ideas, procedures, and suggestions contained in this book are not intended for the diagnosis or treatment of a health problem. As new medical or scientific information becomes available from academic and clinical research, recommended treatments and drug therapies may undergo changes. The authors, editors, and publisher have attempted to make the information in this book up to date and accurate in accord with accepted standards at the time of publication. The authors, editors, and publisher are not responsible for errors or omissions or for consequences from application of the book, and make no warranty, expressed or implied, in regard to the contents of this book. Any practice described in this book should be applied by the reader in accordance with professional standards of care used in regard to the unique circumstances that may apply in each situation. The reader is advised to always check product information (package inserts) for changes and new information regarding dosage and contraindications before prescribing any drug or pharmacological product. Caution is especially urged when using new or infrequently ordered drugs, herbal remedies, vitamins and supplements, alternative therapies, complementary therapies and medicines, and integrative medical treatments.

Cataloging-in-Publication Data

Parker, James N., 1961-
Parker, Philip M., 1960-

Chronic Diarrhea: A Medical Dictionary, Bibliography, and Annotated Research Guide to Internet References / James N. Parker and Philip M. Parker, editors
p. cm.
Includes bibliographical references, glossary, and index.
ISBN: 0-497-00247-7
1. Chronic Diarrhea-Popular works. I. Title.

Disclaimer

This publication is not intended to be used for the diagnosis or treatment of a health problem. It is sold with the understanding that the publisher, editors, and authors are not engaging in the rendering of medical, psychological, financial, legal, or other professional services.

References to any entity, product, service, or source of information that may be contained in this publication should not be considered an endorsement, either direct or implied, by the publisher, editors, or authors. ICON Group International, Inc., the editors, and the authors are not responsible for the content of any Web pages or publications referenced in this publication.

Copyright Notice

Acknowledgements

The collective knowledge generated from academic and applied research summarized in various references has been critical in the creation of this book which is best viewed as a comprehensive compilation and collection of information prepared by various official agencies which produce publications on chronic diarrhea. Books in this series draw from various agencies and institutions associated with the United States Department of Health and Human Services, and in particular, the Office of the Secretary of Health and Human Services (OS), the Administration for Children and Families (ACF), the Administration on Aging (AOA), the Agency for Healthcare Research and Quality (AHRQ), the Agency for Toxic Substances and Disease Registry (ATSDR), the Centers for Disease Control and Prevention (CDC), the Food and Drug Administration (FDA), the Healthcare Financing Administration (HCFA), the Health Resources and Services Administration (HRSA), the Indian Health Service (IHS), the institutions of the National Institutes of Health (NIH), the Program Support Center (PSC), and the Substance Abuse and Mental Health Services Administration (SAMHSA). In addition to these sources, information gathered from the National Library of Medicine, the United States Patent Office, the European Union, and their related organizations has been invaluable in the creation of this book. Some of the work represented was financially supported by the Research and Development Committee at INSEAD. This support is gratefully acknowledged. Finally, special thanks are owed to Tiffany Freeman for her excellent editorial support.

About the Editors

James N. Parker, M.D.

Dr. James N. Parker received his Bachelor of Science degree in Psychobiology from the University of California, Riverside and his M.D. from the University of California, San Diego. In addition to authoring numerous research publications, he has lectured at various academic institutions. Dr. Parker is the medical editor for health books by ICON Health Publications.

Philip M. Parker, Ph.D.

Philip M. Parker is the Eli Lilly Chair Professor of Innovation, Business and Society at INSEAD (Fontainebleau, France and Singapore). Dr. Parker has also been Professor at the University of California, San Diego and has taught courses at Harvard University, the Hong Kong University of Science and Technology, the Massachusetts Institute of Technology, Stanford University, and UCLA. Dr. Parker is the associate editor for ICON Health Publications.

About ICON Health Publications

To discover more about ICON Health Publications, simply check with your preferred online booksellers, including Barnes&Noble.com and Amazon.com which currently carry all of our titles. Or, feel free to contact us directly for bulk purchases or institutional discounts:

ICON Group International, Inc.
4370 La Jolla Village Drive, Fourth Floor
San Diego, CA 92122 USA
Fax: 858-546-4341
Web site: **www.icongrouponline.com/health**

Table of Contents

FORWARD

In March 2001, the National Institutes of Health issued the following warning: "The number of Web sites offering health-related resources grows every day. Many sites provide valuable information, while others may have information that is unreliable or misleading."[1] Furthermore, because of the rapid increase in Internet-based information, many hours can be wasted searching, selecting, and printing. Since only the smallest fraction of information dealing with chronic diarrhea is indexed in search engines, such as **www.google.com** or others, a non-systematic approach to Internet research can be not only time consuming, but also incomplete. This book was created for medical professionals, students, and members of the general public who want to know as much as possible about chronic diarrhea, using the most advanced research tools available and spending the least amount of time doing so.

In addition to offering a structured and comprehensive bibliography, the pages that follow will tell you where and how to find reliable information covering virtually all topics related to chronic diarrhea, from the essentials to the most advanced areas of research. Public, academic, government, and peer-reviewed research studies are emphasized. Various abstracts are reproduced to give you some of the latest official information available to date on chronic diarrhea. Abundant guidance is given on how to obtain free-of-charge primary research results via the Internet. **While this book focuses on the field of medicine, when some sources provide access to non-medical information relating to chronic diarrhea, these are noted in the text.**

E-book and electronic versions of this book are fully interactive with each of the Internet sites mentioned (clicking on a hyperlink automatically opens your browser to the site indicated). If you are using the hard copy version of this book, you can access a cited Web site by typing the provided Web address directly into your Internet browser. You may find it useful to refer to synonyms or related terms when accessing these Internet databases. **NOTE:** At the time of publication, the Web addresses were functional. However, some links may fail due to URL address changes, which is a common occurrence on the Internet.

For readers unfamiliar with the Internet, detailed instructions are offered on how to access electronic resources. For readers unfamiliar with medical terminology, a comprehensive glossary is provided. For readers without access to Internet resources, a directory of medical libraries, that have or can locate references cited here, is given. We hope these resources will prove useful to the widest possible audience seeking information on chronic diarrhea.

The Editors

[1] From the NIH, National Cancer Institute (NCI): **http://www.cancer.gov/cancerinfo/ten-things-to-know**.

CHAPTER 1. STUDIES ON CHRONIC DIARRHEA

Overview

In this chapter, we will show you how to locate peer-reviewed references and studies on chronic diarrhea.

The Combined Health Information Database

The Combined Health Information Database summarizes studies across numerous federal agencies. To limit your investigation to research studies and chronic diarrhea, you will need to use the advanced search options. First, go to **http://chid.nih.gov/index.html**. From there, select the "Detailed Search" option (or go directly to that page with the following hyperlink: **http://chid.nih.gov/detail/detail.html**). The trick in extracting studies is found in the drop boxes at the bottom of the search page where "You may refine your search by." Select the dates and language you prefer, and the format option "Journal Article." At the top of the search form, select the number of records you would like to see (we recommend 100) and check the box to display "whole records." We recommend that you type "chronic diarrhea" (or synonyms) into the "For these words:" box. Consider using the option "anywhere in record" to make your search as broad as possible. If you want to limit the search to only a particular field, such as the title of the journal, then select this option in the "Search in these fields" drop box. The following is what you can expect from this type of search:

- **Diagnostic Approach to the Patient With a Chronic Diarrheal Disorder**

  Source: Disease-A-Month. 36(3): 135-179. March 1990.

  Summary: Chronic diarrhea is a common problem of diagnosis facing the medical practitioner. In all patients with **chronic diarrhea,** arbitrarily defined as diarrhea that has persisted over at least 2 months, there is a need for a careful, orderly approach to the differential diagnosis. In this article, the author details a method used in evaluating such patients with **chronic diarrhea.** Despite impressive advances in diagnostic technology, many patients continue to have **chronic diarrhea** without a firm diagnosis being established. Most important, the history and physical examination are often perfunctory, and the patient undergoes a number of contrast and imaging studies, endoscopic procedures, and laboratory investigations which still may be non-diagnostic. The method described emphasizes a careful history and physical examination, judicious and

sequential use of laboratory investigations, contrast studies, and endoscopic procedures, and calls attention to special situations where more detailed investigations are required. Unless this detailed diagnostic approach is used, disorders that can be readily diagnosed will be missed, and more importantly, such patients may not be given appropriate treatment. 4 figures. 15 tables. 26 references. (AA-M).

- **Bile Acid Malabsorption as a Cause of Chronic Diarrhea**

  Source: Digestive Diseases and Sciences. 44(1): 14-19. January 1999.

  Summary: Chronic diarrhea may be caused by a broad spectrum of disease processes, which are usually identified by a combination of patient history, clinical examination, analysis of stool specimens, and endoscopic procedures. In some patients, however, the routine workup fails to yield a clear diagnosis. In this latter group with **chronic diarrhea** of unknown origin, bile acid malabsorption is thought to play a causative role in up to one third of patients. This article reports on a study undertaken to evaluate the usefulness of HCO (7alpha-hydroxy-4-cholesten-3-one) serum concentrations as a diagnostic marker of bile acid malabsorption. The authors determined the reference range of HCO in 106 normal subjects (55 women, and 51 men, median age 40.2 years) and conducted a utility study in 23 patients with **chronic diarrhea** of unknown origin (13 women, and 10 men, median age 49.4 years). Bile acid malabsorption was identified by an increase of HCO in serum with a sensitivity of 90 percent and a specificity of 79 percent. The authors conclude that analyzing HCO in serum may serve as a novel, simple, and sensitive method for detecting bile acid malabsorption in patients with **chronic diarrhea** of unknown origin. 2 figures. 21 references. (AA-M).

- **Chronic Diarrhea: Differential Diagnosis and Management**

  Source: Consultant. 41(1): 53-57. January 2001.

  Contact: Available from Cliggott Publishing Company. 55 Holly Hill Lane, Box 4010, Greenwich, CT 06831-0010. (203) 661-0600.

  Summary: Diarrhea that lasts longer than 4 weeks is considered chronic. This article reviews the differential diagnosis and management of patients with **chronic diarrhea.** Physicians are advised to first examine the patient for signs of fluid and nutritional depletion. Patients should be asked about exacerbating and alleviating factors, diet, drug use, recent travel, abdominal pain, weight loss, and stool characteristics. Blood in the diarrhea may implicate malignancy or chronic inflammatory bowel disease; food particles or oil in the stool may indicate maldigestion or malabsorption. Fecal leukocytes suggest inflammation, and eosinophilia is seen with neoplasms, allergy, collagen vascular diseases, parasitic infestation, and colitis. Stool analysis for fecal weight, osmotic gap, fat, occult blood, pH, and laxative abuse is often important in making the diagnosis. A 24 hour stool collection weighing less than 200 grams suggests incontinence, irritable bowel syndrome (IBS), or rectal disease, but not true diarrhea. Stool weight of more than 500 grams is rare with IBS; weight of less than 1,000 grams rules out pancreatic cholera syndrome. When the weight exceeds 2,000 grams per day, patients usually require intravenous fluids. Treatment options include bismuth subsalicylate, opiates, bulking agents, kaolin attapulgite, anticholinergics, and cholestyramine. 1 figure. 3 tables. 15 references.

- **Acute and Chronic Diarrhea: How to Keep Laboratory Testing to a Minimum**

  Source: Postgraduate Medicine. 96(3): 30-46. September 1, 1994.

Summary: In this article, the authors offer a pragmatic approach to the differential diagnosis of acute and **chronic diarrhea.** Topics covered include history taking; patient evaluation; physical examination; acute infectious diarrhea; traveler's diarrhea; diarrhea in immunocompromised patients; antibiotic-related diarrhea; the five categories of **chronic diarrhea,** i.e., secretory, osmotic, exudative, motor, and functional; and the laboratory evaluation of patients with **chronic diarrhea.** The authors stress that pathophysiologic mechanisms of acute diarrhea are different from those of **chronic diarrhea,** so adequate history taking and physical examination are essential in narrowing the diagnosis. Laboratory investigation can then be directed using the information obtained, and the cause of the diarrhea can be established without subjecting the patient to extensive and expensive testing. 6 tables. 16 references. (AA-M).

- **Evaluation of Patients With Chronic Diarrhea**

  Source: New England Journal of Medicine. 332(11): 725-729. March 16, 1995.

  Summary: In this article, the authors provide a discussion of the evaluation of patients with **chronic diarrhea.** They suggest a two-stage outpatient evaluation, which relies initially on the history and physical examination to direct studies and then on a systematic outpatient evaluation, followed, if necessary, by a third-stage inpatient evaluation. They discuss the outpatient evaluation of specific diseases, including giardiasis, Crohn's disease, HIV-related diarrhea, steatorrhea, carbohydrate malabsorption, and pancreatic cholera. The authors also consider diarrhea of undetermined origin. 5 tables. 42 references.

- **Chronic Diarrhea in Infancy and Childhood**

  Source: Contemporary Gastroenterology. 4(3): 30-35, 38. May-June 1991.

  Summary: Sources of persistent diarrhea early in life are many: infectious agents, intolerance to milk protein or gluten, reactivity to antibiotics, even genetic predisposition. This article discusses **chronic diarrhea** in infancy and childhood, focusing on patients who have diarrhea with or without significant malabsorption that persists beyond 14 days. Topics include the clinical approach to the child with abnormal stools and common causes of diarrhea, including chronic nonspecific diarrhea, antibiotic-induced diarrhea, giardia lamblia infestation, gluten-sensitive enteropathy or celiac disease, milk protein enteropathy, exocrine pancreatic insufficiency, notably cystic fibrosis and Shwachman-Diamond syndrome. 1 figure. 1 table. 30 references.

- **Prevalence and Causes of Chronic Diarrhea in Patients with Celiac Sprue Treated With a Gluten-Free Diet**

  Source: Gastroenterology. 112(6): 1830-1838. June 1997.

  Summary: The majority of patients with celiac sprue (CS) experience diarrhea before they are diagnosed with the disease. Previously, there have been no studies of the prevalence or causes of **chronic diarrhea** in these patients after treatment with a gluten-free diet. Seventy-eight patients with CS (59 women and 19 men) treated with a gluten-free diet for at least 12 months were surveyed about their bowel habits. Those with **chronic diarrhea,** defined as passage of loose stools three or more times per week for 6 months, underwent an extensive diagnostic evaluation to determine its cause. Sixty-two of the 78 patients (79 percent) experienced diarrhea before treatment, and 13 (17 percent) had **chronic diarrhea** (of lesser severity) after treatment. The causes of diarrhea in 11 patients consenting to this study were microscopic colitis, steatorrhea secondary to exocrine pancreatic insufficiency, dietary lactose or fructose malabsorption, anal

sphincter dysfunction causing fecal incontinence, and the irritable bowel syndrome (IBS). Only 1 patient had antigliadin antibodies detected in serum or small intestinal villous atrophy. The authors conclude that, after treatment of CS with a gluten-free diet, **chronic diarrhea** persists in a substantial percentage of patients. Although ongoing gluten ingestion is one possible cause, other causes may be more frequent. The authors call for diagnostic investigation of diarrhea in CS that persists after treatment with a gluten-free diet. 2 figures. 3 tables. 44 references. (AA-M).

- **Chronic Diarrhea of Obscure Origin**

  Source: Endoscopy Review. 8(8): 32-44, 46. October 1991.

  Summary: This article reprints information from a book entitled Diarrheal Diseases, edited by Michael Field, M.D. The chapter briefly reviews the causes of diarrhea of obscure origin and discusses the clinical approaches to these entities. Topics include the evaluation of the patient with diarrhea; fecal incontinence; iatrogenic diarrhea, including postsurgical diarrhea, postradiation diarrhea, and diarrhea resulting from drug therapy; laxative abuse; microscopic or collagenous colitis; carbohydrate malabsorption; bacterial overgrowth; bile acid-induced diarrhea; and chronic idiopathic secretory diarrhea. 8 tables. 56 references.

- **Guidelines for Evaluating and Treating Chronic Diarrhea**

  Source: Consultant. 39(9): 2463-2464. September 1999.

  Contact: Available from Cliggott Publishing Company. 55 Holly Hill Lane, Box 4010, Greenwich, CT 06831-0010.

  Summary: This article summarizes strategies for evaluating and treating **chronic diarrhea,** a common problem that has many possible causes. A careful patient history taking is vital for identifying the possible causes of diarrhea. The author notes that although the physical examination may not help establish the cause of the patient's diarrhea, it can help establish the severity of the problem. Serum chemistry screening can help clarify the patient's fluid and electrolyte status and nutritional status, as well as identify any liver problems or dysproteinemia. A quantitative or a spot stool collection and analysis is useful to classify the type of diarrhea, which in turn may help identify its cause and indicate a management strategy. Stool tests include sodium and potassium concentrations in stool water, stool pH, fecal occult blood test, white blood cells, excess stool fat, and laxative screening. The author outlines additional testing that may be recommended for patients with chronic secretory diarrhea, chronic osmotic diarrhea, chronic inflammatory diarrhea, and chronic fatty diarrhea. The author recommends that empiric therapy should be administered under specific circumstances: as an initial measure before diagnostic testing; when diagnostic test results are inconclusive; or when the patient does not respond to treatment or when no treatment is available. Because adequate hydration is essential to successful treatment, some patients may require administration of oral hydration solutions. 1 table. 1 reference.

- **Chronic Diarrhea and Malabsorption**

  Source: Pediatric Clinics of North America. 43(2): 307-331. April 1996.

  Contact: Available from W.B. Saunders Company. Periodicals Fulfillment, 6277 Sea Harbor Drive, Orlando, FL 32887. (800) 654-2452.

  Summary: This review article, from an issue on pediatric gastroenterology that focuses on diarrheal diseases in children, discusses **chronic diarrhea** and malabsorption. The

authors summarize some of the specific causes of malabsorptive diarrhea in infancy and childhood, emphasizing pathophysiology and approaches to therapy. Specific topics include the mechanisms of diarrhea; the etiology of **chronic diarrhea;** infections, including those with Giardia lamblia, or amebiasis; tropical sprue; Whipple's disease; parenteral diarrhea; postinfectious diarrhea; dietary causes, including cow's milk protein hypersensitivity, soy protein hypersensitivity, and irritable bowel syndrome; carbohydrate malabsorption, including lactase deficiency, congenital sucrase-isomaltase deficiency, and glucoamylase deficiency; immune deficiencies, including autoimmune enteropathy, abetalipoproteinemia, Wolman's disease, acrodermatitis enteropathica, and familial microvillous atrophy; endocrine disorders, including hyperthyroidism, adrenal insufficiency, hypoparathyroidism, diabetes mellitus, intestinal lymphangiectasia, eosinophilic gastroenteritis, and enterokinase deficiency; hepatic disorders; vascular lesions, notably necrotizing enterocolitis; anatomic lesions, including Hirschsprung's disease; and pseudomembranous enterocolitis. 1 table. 107 references.

Federally Funded Research on Chronic Diarrhea

The U.S. Government supports a variety of research studies relating to chronic diarrhea. These studies are tracked by the Office of Extramural Research at the National Institutes of Health.[2] CRISP (Computerized Retrieval of Information on Scientific Projects) is a searchable database of federally funded biomedical research projects conducted at universities, hospitals, and other institutions.

Search the CRISP Web site at **http://crisp.cit.nih.gov/crisp/crisp_query.generate_screen**. You will have the option to perform targeted searches by various criteria, including geography, date, and topics related to chronic diarrhea.

For most of the studies, the agencies reporting into CRISP provide summaries or abstracts. As opposed to clinical trial research using patients, many federally funded studies use animals or simulated models to explore chronic diarrhea. The following is typical of the type of information found when searching the CRISP database for chronic diarrhea:

- **Project Title: ABSORPTION, SECRETION, MALABSORPTION AND DIARRHEA**

  Principal Investigator & Institution: Fordtran, John S.; Baylor Research Institute 3434 Live Oak St, Ste 125 Dallas, Tx 75204

  Timing: Fiscal Year 2002; Project Start 01-SEP-1985; Project End 30-NOV-2002

  Summary: The major subject of our research is **chronic diarrhea,** which is important for several reasons. First, the symptom is highly disabling. Second, its etiology may be hard to determine. And third, current therapies often do not bring relief. To help remedy these problems, we have established a center for the study of diarrhea and/or malabsorption syndrome. We study the physiology of absorption/secretion, the pathophysiology of diarrhea and malabsorption, and we study patients with intractable diarrhea/malabsorption. During the last 11 years we have lyophilized stool from each patient, specimens weighing kilograms are reduced to solids that can be stored in small plastic vials. When new ideas arise we can go to our stool bank and examine specimens

[2] Healthcare projects are funded by the National Institutes of Health (NIH), Substance Abuse and Mental Health Services (SAMHSA), Health Resources and Services Administration (HRSA), Food and Drug Administration (FDA), Centers for Disease Control and Prevention (CDCP), Agency for Healthcare Research and Quality (AHRQ), and Office of Assistant Secretary of Health (OASH).

from 100 or more patients, to test a hypothesis or to answer a question. Our research techniques includes metabolic balance methods to measure net gastrointestinal absorption or secretin of nutrients, minerals and electrolytes; or steady state intestinal perfusion which allows detailed examination of mucosal absorption or secretion rate in the jejunum, ileum and colon. Observations in patients often lead to research ideas in volunteers and vice versa. Some of our specific goals for the next five years are as follows: 1) to develop the hypothesis that inhibition of normal gastrointestinal secretions can be beneficial in the therapy of diarrhea; 2) to search for drug that inhibit active intestinal secretion of chloride, as a method for treatment of secretory diarrhea; 3) to explore the pathogenesis of idiopathic **chronic diarrhea,** especially in regard to ileal malabsorption of sodium chloride and bile acids; 4) to study the pathogenesis of diarrhea when it occurs as part of "Gulf War Syndrome"; 5) to evaluate the hypothesis that conjugated bile acid replacement therapy is beneficial to patients with Short Bowel Syndrome; 6) to develop more accurate methods for the measurement of caloric losses due to carbohydrate, fat and protein malabsorption; 7) to determine the physical factors which control fecal consistency; and 8) to determine the mechanisms by which gastrointestinal diseases result in disorders of acid-base balance and potassium depletion.

Website: http://crisp.cit.nih.gov/crisp/Crisp_Query.Generate_Screen

- **Project Title: ACUPUNCTURE & MOXA FOR CHRONIC DIARRHEA IN HIV PTS**

  Principal Investigator & Institution: Anastasi, Joyce K.; Associate Professor; None; Columbia University Health Sciences Po Box 49 New York, Ny 10032

  Timing: Fiscal Year 2002; Project Start 30-SEP-1999; Project End 31-AUG-2005

  Summary: (Adapted from applicant's abstract The objective of this proposal is to test alternative treatment strategies to reduce the frequency of **chronic diarrhea** among HIV positive individuals. 60 percent of patients with HIV disease in the U.S. will have diarrhea at some point in their illness. Although in general many of the opportunistic infections (OI's) associated with HIV have decreased due to new "drug cocktails," many of these drugs however, have diarrhea as a side effect. In Asian countries, acupuncture (including moxibustion) has been widely used for the treatment of various gastrointestinal (GI) disorders. However, there are no published studies that test treatment protocols using acupuncture or moxibustion on patients with HIV experiencing **chronic diarrhea.** The subjects in the proposed experiment will be 144 men and women with HIV infection who report experiencing 3 or more episodes of diarrhea (non-pathogen related) per 24 hour period for 3 weeks or more. Subjects will be randomized to one of four experimental intervention conditions: Condition 1 subjects receive true acupuncture and placebo moxibustion; Condition 3, subjects receive true moxibustion and sham acupuncture; Condition 4 (Control Group), subjects receive sham acupuncture and placebo moxibustion. Subjects in Conditions 1, 2, 3 and 4 will attend 20 scheduled sessions over 24 weeks. Week 1 is a baseline session followed by two sessions per week for weeks 2-8 (sessions 2-15), one session per week for weeks 9, 10, 11 and 12 (sessions 16, 17, 18 and 19) and a final follow-up session at week 24. All subjects will complete daily bowel movement and medication data collection diaries for the duration of the study. Measurement of quality of life and level of functioning will be taken pre-intervention (session 1), week 6 (session 10), week 12 (session 19) and week 24 (session 20). All interventions will be implemented by licensed acupuncturists trained in traditional Chinese medicine. This study is designed to assess the efficacy of two alternative medicine treatments for **chronic diarrhea** associated with HIV in a prospective, randomized, controlled, blinded, parallel groups study under the intent-to-

treat principle. True acupuncture, moxibustion, and combination therapy, in which specific meridian points are stimulated according to protocol, will be compared to each other and with the control group, with one-way ANOVA models for pre-treatment minus post-treatment difference scores for diarrhea frequency and stool consistency as the dependent measures and treatment group assignment (Conditions 1-4) as the independent variable. Average pretreatment diarrhea frequency and stool consistency scores will be entered as covariates into these models. Sample size determination for the above analysis, based on Preliminary data, with 80% power and a two-tailed type I error rate of.05% by the method of Holm (1979) and a 20% attrition factor indicates the need for 36 subjects assigned to each condition to detect a 0.95-standardized difference between the most extreme experimental conditions.

Website: http://crisp.cit.nih.gov/crisp/Crisp_Query.Generate_Screen

- **Project Title: ENCEPHALITOZOAN CUNICULI--HOST IMMUNITY AND PATHOGENESIS**

  Principal Investigator & Institution: Khan, Imtiaz A.; Associate Professor; Microbiol/Immunolgy/Parasitlgy; Louisiana State Univ Hsc New Orleans New Orleans, La 70112

  Timing: Fiscal Year 2001; Project Start 15-SEP-1998; Project End 31-AUG-2004

  Summary: Microsporidia are obligate intracellular protozoan parasites which cause wide variety of opportunistic infections in AIDS patients. The most common microsporidium associated with AIDS, Enterocytozoon beneusi, causes **chronic diarrhea** in the HIV-infected individuals. However, an animal model for E. beneusi is not available at present. Most of the experimental studies on microsporidia have been carried out on with Encephalitozoon cuniculi. This microsporidium, which commonly infects rodents, has been reported in humans as well. Several reports of disseminated E. cuniculi infection in HIV-infected patients have appeared recently. E. cuniculi is also very closely related to other microsporidia like Encephalitozoon hellum and Encephalitozoon intestinalis, which are also known to cause complications in AIDS individuals. Very little is known about the immune mechanisms against microsporidial infection in the normal host. The cellular immunity appears to be important for protection against an E. cuniculi challenge. Preliminary studies suggest that CD8+ T cells are an essential component of the immune response. Therefore, the detailed analysis of CD8+ T cell immunity is essential for understanding the immunoprotective mechanism against E. cuniculi infection. The first specific aim in this project will be to evaluate the kinetics of CD8+ T cell response during the course of E. cuniculi infection. The difference in this response between the resistant and susceptible species of mice will be determined and compared; the cytotoxic activity of the CD8+ T cells from the infected normal and immunocompromised animals will be assayed. The second specific aim is to determine the efficacy of the adoptive transfer of immune CD8+ T cells into infected immunocompromise host. Next, the length of time for which the immune CD8+ T cells can retain their activated/memory state in the naive immunocompromised host will be determined. In the third specific aim the role of gamma/delta T cells and the CD4+ T cells in the induction and maintenance of CD8+ T cell immunity will be evaluated. These studies will enable extrapolation to the immune mechanisms against other microsporidia, like E. beneusi, which is more frequently encountered by AIDS patients.

  Website: http://crisp.cit.nih.gov/crisp/Crisp_Query.Generate_Screen

- **Project Title: EPIDEMIOLOGY & EPIZOOLOGY OF MICROSPORIDIOSIS: OPPORTUNISTIC INFECTION**

  Principal Investigator & Institution: Didier, Elizabeth Schmidt.; Research Scientist; Tulane University of Louisiana New Orleans, La New Orleans, La 70112

  Timing: Fiscal Year 2002

  Summary: Stool specimens submitted to Charity Hospital and the HIV Outpatient Clinic, New Orleans, LA from HIV-infected individuals with abdominal pain and/or **chronic diarrhea** were examined for the presence of microsporidia by histochemistry and PCR-based methods. During 1998, 48 of 378 (12.7%) stool specimens were positive for microsporidia by histochemical staining compared with prevalence rates of 16% in 1997 and 35% in 1996. Persons receiving protease inhibitors and those with >100 CD4+ T cells/ul blood were more likely to have resolved their microsporidiosis at the 6-month follow-up visit compared with those not receiving protease inhibitiors or with lower levels of CD4+ T cells. Additional risk factors identified for microsporidiosis included exposure to freshwater or seawater fish, and living in a rural setting. In addition, microsporidiosis is believed to be zoonotic since several species of microsporidia identified in humans are also known to infect other animals. Several incidenta l case reports support this hypothesis. Encephalitozoon cuniculi strain III (originally identified in domestic dogs) was identified in AIDS patients in the U.S.A., and a recent outbreak of E. cuniculi has been reported in another litter of dogs in MN. Urine and serum from the pet owners are currently being examined for microsporidia, as well, to determine if transmission from pets to owners (or vice versa) may have occurred. Encephalitozoon hellem, which had only been identified in AIDS patients, was recently identified in psittacine birds in an aviary in Mississippi and from archival avian tissues in Texas. A recent outbreak of microsporidiosis in tanagers is being evaluated to determine if birds other than psittacines may harbor this species. A new Encephalitozoon species in African lizards (skinks) was characterized and given the name E. lacertae (n.sp.). FUNDING NIH; 1RO1 AI39968-03 (E.S. Didier, P.I.); 08/01/96-07/31/99; $163,397 (year three directs; 100% to RPRC) PUBLICATIONS Abstracts Didier, E.S., K. Dascomb, L.B. Rogers, P. Kissinger, and R. Clark. 1998. Diagnostic and epidemiological features of microsporidiosis in AIDS. Abstract at the Keystone Symposium on Opportunistic Infections in AIDS, Keystone, CO (abstract Y2-202). Snowden, K, E.S. Didier, and D. Phalen. 1998. What is the source of Encephalitozoon infections in immunocompromised humans? 49th Ann. Southwest Conference on Disease in Nature Transmissible to Man. College Station, TX (abstract). Snowden, K., D. Phalen, and E.S. Didier. 1998 Where are the reservoirs of human microsporidial infections? Second European Congr. Trop. Med., Liverpool, U.K. (abstract 438) and Amer. J. Trop. Med. Hyg. 59:302 (abstract 554). Peer-reviewed publications Boldorini, R., G. Monga, A. Tosoni, E.S. Didier, and J.M. Orenstein. 1998. Renal Encephalitozoon intestinalis infection in a patient with AIDS Post-mortem identification by means of transmission electron microscopy and PCR. Virch. Arch. 432:535-539. Koudela, B, E.S. Didier, L.B. Rogers, D. Modry, and S. Kucerova. 1998. Intestinal microsporidiosis in African skinks Mabuya perrotetii. Folia Parasitol. 45:149-155. Reviews and book chapters Didier, E.S., K.A. Snowden, J.A. Shadduck. 1998. The biology of Microsporidian species infecting mammals. Adv. Parasitol. 40:279-316. Didier, E.S. 1998. State-of-the-Art Clinical Article Microsporidiosis. Clin. Infect. Dis. 27:1-7. Soave, R. and E.S. Didier. 1999. Cryptosporidium and Microsporidium. In Textbook of AIDS Medicine (2nd ed.). T.C. Merigan, J.G. Bartlett, and D. Bolognesi (eds.). Williams and Wilkins, Baltimore, MD. pp. 327-356. Didier, E.S. and G.T. Bessinger. 1999. Host-parasite relationships in microsporidiosis animal models and immunology. In:The Microsporidia and Microsporidiosis. M. Wittner (ed.). American Society for Microbiology, Washington, D.C. pp. 225-257. Didier, E.S. 1999.

Immunology of Microsporidiosis. In Contributions to Microbiology. F. Petry (ed). S. Karger AG, Basel, Switzerland (in press).

Website: http://crisp.cit.nih.gov/crisp/Crisp_Query.Generate_Screen

- **Project Title: EPIDEMIOLOGY OF CELIAC DISEASE--A POPULATION BASED STUDY**

  Principal Investigator & Institution: Murray, Joseph A.; Professor; Mayo Clinic Coll of Medicine, Rochester 200 1St St Sw Rochester, Mn 55905

  Timing: Fiscal Year 2002; Project Start 15-JUL-2000; Project End 30-JUN-2005

  Summary: In parts of Europe celiac disease is considered one of the most common chronic autoimmune diseases. It has been identified as a cause of significant morbidity and an increased risk of malignancies. Celiac disease is thought to be quite rare in the United States. Because it is thought to be rare, it is rarely considered in the differential diagnosis of many common conditions. As general population screening requires a great expenditure of resources it would make sense to study the prevalence of the disease in those groups of people most likely to have it. If it is present in these groups at the same level as has been seen in countries where celiac disease is common then this would justify consideration of more widespread screening. This study aims to examine the prevalence of celiac disease in those thought most at risk: Type one diabetes, family history of celiac disease or dermatitis herpetiformis; osteoporosis, **chronic diarrhea** with abdominal pain, and iron deficiency anemia (Specific aim number 1). We will use standardized validated gastrointestinal questionnaires to identify any clinical predictors of the who may have celiac disease (Specific aim number 2). We aim to study whether the HLA associations seen in European populations are unaltered by the more heterogenous population of the US and screen for other predictive HLA genotypes for disease risk in American celiacs (Specific aim number 3). If celiac disease is a common condition, that is undiagnosed, it is important to know what benefit (or detriment) may accrue to the individual when the diagnosis has been made. To study how making the diagnosis of CD as the result of a screening project affects both gastrointestinal and non-gastrointestinal symptoms, the patient's quality of life, and the utilization of health care resources (Specific aim number 4). If this proposal demonstrates that celiac disease is more common than believed, it will provide important insights into who it affects, how to detect the condition or predict risk, while demonstrating a substantial benefit in both relief of suffering, improved functioning and reduced utilization of health care. This will be possible, because the subjects who will be diagnosed with CD will actually live in Olmsted County, and their medical histories and ongoing medical care will be recorded in community medical records accumulated by the Rochester Epidemiology Project.

  Website: http://crisp.cit.nih.gov/crisp/Crisp_Query.Generate_Screen

- **Project Title: HAITIAN PROGRAM FOR RESEARCH AND TRAINING IN HIV/AIDS**

  Principal Investigator & Institution: Pape, Jean W.; Gheskio Centers 33 Blvd Harry Truman Port-Au-Prince,

  Timing: Fiscal Year 2004; Project Start 01-FEB-2004; Project End 31-JAN-2006

  Summary: (provided by applicant): The goal of this application is to prepare the GHESKIO Centers in Port-au-Prince, Haiti for a multi-project CIPRA in five years. This goal will be achieved through the conduct of a randomized clinical trial of early versus delayed antiretroviral therapy for people with pre-AIDS symptomatic HIV disease and through research training and capacity building. The GHESKIO Centers, directed by

Jean Pape, is a Haitian non-governmental research and training organization working in close partnership with the Haitian Government on HIV/AIDS. Over the next five years, GHESKIO will become a regional HIV/AIDS center providing training and conducting research in collaboration with partners in Haiti and the Caribbean. The specific aims are: Aim 1: To determine the optimal time to start antiretroviral therapy (ART). We propose to conduct a randomized clinical trial to determine the outcome of early versus delayed antiretroviral therapy (ART) in HIV infected adults with pre-AIDS symptomatic HIV disease (WHO Sate II or III symptoms, such as pulmonary TB, **chronic diarrhea,** or oral thrush) and a CD4 count between 200 and 350 cells/mm3. The primary hypothesis is: Early initiation of ART in HIV infected adults with pre-AIDS symptoms and a CD4 count between 200 and 350 cells/mm3 will improve survival at 36 months when compared to delaying ART until subjects develop clinical AIDS (WHO stage IV) or CD4 count <200 cells/mm3. Aim 2: To build on the existing capacity of the GHESKIO Center in Port au Prince Haiti and to prepare for a multi-project CIPRA within five years. Capacity will be increased in: 1) Administration, including development of an advisory council, increasing ethics capacity, strengthening grants management, and strengthening training. 2) Clinical investigation; 3) Data management and analysis; 4) Laboratory capacity including HIV virology and immunology. In each of these capacity building areas, we have identified promising young Haitians who will participate in the CIPRA project and who will also receive advanced training and mentorship by senior investigators from the US. These Haitians will be leaders in a multi-project CIPRA in five years.

Website: http://crisp.cit.nih.gov/crisp/Crisp_Query.Generate_Screen

- **Project Title: INTESTINAL CYTOKINES IN CRYPTOSPORIDIOSIS**

  Principal Investigator & Institution: White, Arthur C.; Professor; Medicine; Baylor College of Medicine 1 Baylor Plaza Houston, Tx 77030

  Timing: Fiscal Year 2002; Project Start 01-SEP-1997; Project End 31-MAY-2006

  Summary: (Provided by the applicant): Cryptosporidium parvum is a major cause of diarrhea worldwide, for which there is no reliable antiparasitic therapy. In immunocompetent individuals, C. parvum infection results in a self-limited diarrheal illness. By contrast, AIDS patients may develop **chronic diarrhea,** which can be fatal. Effective antiretroviral therapy can lead to resolution of AiDS-associated cryptosporidiosis, presumably due to improvement in the intestinal immune response. The long-term goals of this project are to determine the immune mechanisms involved in the control of cryptosporidiosis in healthy adults and AIDS patients on effective antiretroviral treatment. We have demonstrated that sensitized, immunocompetent volunteers expressed interferon gamma (IFNT) in response to C. parvum exposure and that IFN7 expression was associated with resistance to infection. By contrast, naive, symptomatic individuals initially expressed Interleukin 15 (IL-15), which was associated with control of oocyst excretion. Neither IL-15 nor IFN7 was detected in AIDS-associated chronic cryptosporidiosis, but expression of IL-15 and IFN7 was noted in biopsies obtained from patients responding to antiretroviral therapy. Preliminary studies demonstrated that IL-15 can activate lymphocytes to lyse infected epithelial cells. However, many questions remain. For example, what are the effector mechanisms used by IL-15 and IFNgamma, in the control phase and how are these responses coordinated? Can Thl cytokines in fact lead to resolution of cryptosporidiosis in AIDS patients in the absence of immune recovery? What is the sequence of responses in AIDS patients with immune recovery with effective anti-retroviral therapy. The specific aims of the current proposal are: 1) To test the hypothesis that IL-15 and IFNgamma help

clear infection of epithelial cells by activation of cytolytic cells and establish the mechanisms used by the effector cells. 2) To confirm the importance of Thl cytokines in resolution of cryptosporidiosis by conducting a pilot, proof-of-concept, open-label trial of IL-12 therapy in chronic cryptosporidiosis in AIDS patients not responding to antiretroviral therapy. 3) To confirm that mechanisms used by cytolytic cells defined in aim 1 and associated cytokines, effector molecules, and chemokines are expressed in the intestines in human cryptosporidiosis using microarray analysis of intestinal biopsies obtained before and after experimental challenge of immunocompetent adults with C. parvurn oocysts. 4) To test the hypothesis that AIDS patients with cryptosporidiosis sequentially expresses innate and then Thl memory responses during immune reconstitution. These studies should identify key aspects of the human immune response needed for vaccines to prevent cryptosporidiosis and identify the host responses that can be targeted for adjunctive immunotherapy for cryptosporidiosis in patients with AIDS and other immunodeficiencies. The results should also provide insights into the mechanisms involved in mucosal immunity to other intracellular pathogens.

Website: http://crisp.cit.nih.gov/crisp/Crisp_Query.Generate_Screen

- **Project Title: OLEIC ACID EFFECTS ON TRANSIT AND ABSORPTION IN SBS**

  Principal Investigator & Institution: Compher, Charlene W.; Assistant Professor in Nutrition Science; None; University of Pennsylvania 3451 Walnut Street Philadelphia, Pa 19104

  Timing: Fiscal Year 2003; Project Start 01-JUL-2003; Project End 30-JUN-2005

  Summary: (provided by applicant): Short bowel syndrome (SBS) results from extensive resection of the small intestine +/- the colon, due to disease. Malnutrition ensues as a result of malabsorption and is treated with total parenteral nutrition (TPN). Patients with severe SBS remain chronically dependent on TPN with its attendant risks, yet must cope with debilitating diarrhea. Long-chain fatty acids (such as oleic acid) in the intestinal lumen slow transit in more proximal bowel in normal subjects and patients with **chronic diarrhea.** This delay in transit, if it occurs in SBS and is sustained, could enhance digestion and absorption of nutrients and defray the need for TPN. The primary aims of the proposed investigation are: 1. To determine in a dose-response trial the dose of preprandial oleic acid that will be acceptable to patients with SBS, and that will result in slowing of intestinal transit time. 2. To determine by a randomized double-blind placebo-controlled crossover pilot trial the patient burden, and the effect size of oleic acid treatment on transit time, nutrient absorption and quality of life. The long-term objectives of the proposed line of investigation are to improve the nutritional care and quality of life of patients with SBS. If the oleic acid treatment proves promising in the current pilot study, a larger multi-center trial (to include pediatric patients) will be designed to evaluate transit, micro- and macro-nutrient absorption, nutritional status, quality of life, and growth (children).

  Website: http://crisp.cit.nih.gov/crisp/Crisp_Query.Generate_Screen

- **Project Title: SUBSTANCE P IN PATHOGENESIS OF CRYPTOSPORIDIOSIS IN AIDS**

  Principal Investigator & Institution: Robinson, Prema; Medicine; Baylor College of Medicine 1 Baylor Plaza Houston, Tx 77030

  Timing: Fiscal Year 2003; Project Start 05-JUN-2003; Project End 31-MAY-2005

Summary: (provided by applicant): Cryptosporidiosis, caused by the protozoan parasite, Cryptosporidium parvum, is self-limited in normal hosts but can cause life threatening, **chronic diarrhea** in AIDS patients. No safe and effective treatment has been successfully developed for cryptospofidiosis associated with advanced AIDS. C. parvum infection causes intestinal physiologic changes like, increased chloride anion secretion (CI) and epithelial barrier disruption that leads to watery diarrhea. Substance P (SP), a neuropeptide, is a pain transmitter and can cause C1- ion secretion in human intestinal explants. We have previously studied SP expression in jejunal biopsies of AIDS patients with natural severe cryptosporidiosis and normal volunteers experimentally challenged with C. parvum (mild disease). SP expression was stronger in AIDS patients compared to normal volunteers with mild self-limited cryptosporidiosis. We hypothesize that SP is a key mediator of chronic intestinal symptoms in AIDS associated cryptosporidiosis. We also hypothesize that SP expression will be elevated in intestinal tissues of immunodeficient hosts because of cryptosporidiosis infection, HIV infection alone will not cause increased SP expression. To verify these hypotheses, we propose to use an immunodeficient animal model of cryptosporidiosis, ie. primates with AIDS (after experimental SIV infection) and cryptosporidiosis as an opportunistic naturally occurring infection. Advantage of an animal model is that, it is easier to procure large tissue samples from an animal model to that from AIDS patients with cryptosporidiosis, and, studies aimed at defining molecular targets responsible for disease pathogenesis and initial therapeutic testing of specific antagonists can best be studied using animal derived tissues. The goal of this project is to test the hypothesis that SP mediates severe symptoms of cryptosporidiosis in immunodeficient hosts. Specific aim 1: To determine if intestinal SP is upregulated in immunodeficient animals with chronic naturally infected cryptosporidiosis as compared to immunodeficient animals without cryptosporidiosis or normal immunocompetent macaques with subclinical experimental cryptosporidiosis. Ileal expression of SP mRNA and protein levels will be compared between immunodeficient macaques (with AIDS) with and without naturally occurring C. parvum infection and in normal macaques with and without subclinical experimental C. parvum infection. Specific aim 2: To test the hypothesis that SP is a key factor that mediates intestinal physiological alterations that lead to watery diarrhea in naturally occurring chronic cryptosporidiosis associated with immunodeficient hosts. C1- ion secretion and barrier integrity will be compared between ileal tissues from SIV infected macaques (with AIDS) with and without naturally occurring C. parvum infection in the presence and absence of SP receptor antagonist by the Ussing chamber technique. These studies will determine the role of SP in the pathogenesis of C. parvum induced diarrhea. Evidence implicating SP in the disease process would support the use of SP receptor antagonists as a therapy for the life threatening illness associated with AIDS related cryptosporidiosis and perhaps other intestinal pathogens.

Website: http://crisp.cit.nih.gov/crisp/Crisp_Query.Generate_Screen

E-Journals: PubMed Central[3]

PubMed Central (PMC) is a digital archive of life sciences journal literature developed and managed by the National Center for Biotechnology Information (NCBI) at the U.S. National

[3] Adapted from the National Library of Medicine: **http://www.pubmedcentral.nih.gov/about/intro.html**.

Library of Medicine (NLM).[4] Access to this growing archive of e-journals is free and unrestricted.[5] To search, go to **http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=Pmc**, and type "chronic diarrhea" (or synonyms) into the search box. This search gives you access to full-text articles. The following is a sample of items found for chronic diarrhea in the PubMed Central database:

- **Identification of Encephalitozoon intestinalis in Travelers with Chronic Diarrhea by Specific PCR Amplification.** by Raynaud L, Delbac F, Broussolle V, Rabodonirina M, Girault V, Wallon M, Cozon G, Vivares CP, Peyron F.; 1998 Jan; http://www.pubmedcentral.gov/articlerender.fcgi?tool=pmcentrez&artid=124803
- **Trichuris vulpis Recovered from a Patient with Chronic Diarrhea and Five Dogs.** by Dunn JJ, Columbus ST, Aldeen WE, Davis M, Carroll KC.; 2002 Jul; http://www.pubmedcentral.gov/articlerender.fcgi?tool=pmcentrez&artid=120537

The National Library of Medicine: PubMed

One of the quickest and most comprehensive ways to find academic studies in both English and other languages is to use PubMed, maintained by the National Library of Medicine.[6] The advantage of PubMed over previously mentioned sources is that it covers a greater number of domestic and foreign references. It is also free to use. If the publisher has a Web site that offers full text of its journals, PubMed will provide links to that site, as well as to sites offering other related data. User registration, a subscription fee, or some other type of fee may be required to access the full text of articles in some journals.

To generate your own bibliography of studies dealing with chronic diarrhea, simply go to the PubMed Web site at **http://www.ncbi.nlm.nih.gov/pubmed**. Type "chronic diarrhea" (or synonyms) into the search box, and click "Go." The following is the type of output you can expect from PubMed for chronic diarrhea (hyperlinks lead to article summaries):

- **A 13-month-old child with chronic diarrhea, weight loss, and tachypnea.**
  Author(s): Knutsen AP, Goodman GM.
  Source: Ann Allergy. 1993 October; 71(4): 352-6.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8214798

- **A 3-year-old boy's chronic diarrhea and unexplained death.**
  Author(s): Sugar JA, Belfer M, Israel E, Herzog DB.
  Source: Journal of the American Academy of Child and Adolescent Psychiatry. 1991 November; 30(6): 1015-21.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=1757428

---

[4] With PubMed Central, NCBI is taking the lead in preservation and maintenance of open access to electronic literature, just as NLM has done for decades with printed biomedical literature. PubMed Central aims to become a world-class library of the digital age.

[5] The value of PubMed Central, in addition to its role as an archive, lies in the availability of data from diverse sources stored in a common format in a single repository. Many journals already have online publishing operations, and there is a growing tendency to publish material online only, to the exclusion of print.

[6] PubMed was developed by the National Center for Biotechnology Information (NCBI) at the National Library of Medicine (NLM) at the National Institutes of Health (NIH). The PubMed database was developed in conjunction with publishers of biomedical literature as a search tool for accessing literature citations and linking to full-text journal articles at Web sites of participating publishers. Publishers that participate in PubMed supply NLM with their citations electronically prior to or at the time of publication.

- **A comparison of two microsporidian parasites in enterocytes of AIDS patients with chronic diarrhea.**
  Author(s): Cali A, Orenstein JM, Kotler DP, Owen R.
  Source: J Protozool. 1991 November-December; 38(6): 96S-98S.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=1818224

- **A diagnostic approach to chronic diarrhea.**
  Author(s): Donovan EJ.
  Source: Diseases of the Colon and Rectum. 1969 September-October; 12(5): 364-70.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=5823091

- **A double blind crossover comparison of loperamide with diphenoxylate in the symptomatic treatment of chronic diarrhea.**
  Author(s): Pelemans W, Vantrappen F.
  Source: Gastroenterology. 1976 June; 70(6): 1030-4.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=773736

- **A large colonic intraluminal mass in a young man with chronic diarrhea.**
  Author(s): Gould RJ, Gore RM.
  Source: Jama : the Journal of the American Medical Association. 1983 November 18; 250(19): 2675-6.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=6632169

- **A medium chain triglyceride-based diet in patients with HIV and chronic diarrhea reduces diarrhea and malabsorption: a prospective, controlled trial.**
  Author(s): Wanke CA, Pleskow D, Degirolami PC, Lambl BB, Merkel K, Akrabawi S.
  Source: Nutrition (Burbank, Los Angeles County, Calif.). 1996 November-December; 12(11-12): 766-71.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8974102

- **A nematode (ascaris) recognized by enteroclysis: a rare reason for chronic diarrhea.**
  Author(s): Tiryakioglu O, Celik AF, Kadioglu P, Korman U, Recep O.
  Source: The American Journal of Gastroenterology. 2001 January; 96(1): 259-61.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11197274

- **A point source outbreak of chronic diarrhea in Texas: no known exposure to raw milk.**
  Author(s): Martin DL, Hoberman LJ.
  Source: Jama : the Journal of the American Medical Association. 1986 July 25; 256(4): 469.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=3723735

- **A preparation from bovine colostrum in the treatment of HIV-positive patients with chronic diarrhea.**
  Author(s): Plettenberg A, Stoehr A, Stellbrink HJ, Albrecht H, Meigel W.
  Source: Clin Investig. 1993 January; 71(1): 42-5.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8453259

- **A pruritic skin rash followed by chronic diarrhea.**
  Author(s): Archer TP, Burgun SJ, Frankel WL, Mazzaferri EL.
  Source: Hosp Pract (Off Ed). 1999 May 15; 34(5): 125-6, 131-2. No Abstract Available.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10340039

- **A rare but endocrine cause of chronic diarrhea.**
  Author(s): Landauer N, Gartner R, Folwaczny C.
  Source: The American Journal of Gastroenterology. 2003 January; 98(1): 227-8.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=12526977

- **AA-amyloidosis presenting with chronic diarrhea and cardiac manifestations.**
  Author(s): Demirtas M, Uluhan A, Paydas S, Gonlusen G, Usal A, Tuncer I, Birand A.
  Source: Japanese Heart Journal. 1994 September; 35(5): 695-9.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=7830334

- **Absence of histopathological changes of ileum and colon in functional chronic diarrhea associated with bile acid malabsorption, assessed by SeHCAT test: a prospective study.**
  Author(s): Sciarretta G, Furno A, Morrone B, Malaguti P.
  Source: The American Journal of Gastroenterology. 1994 July; 89(7): 1058-61.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8017365

- **Acute and chronic diarrhea. How to keep laboratory testing to a minimum.**
  Author(s): Talal AH, Murray JA.
  Source: Postgraduate Medicine. 1994 September 1; 96(3): 30-2, 35-8, 43 Passim. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8072913

- **Acute effect of diphenoxylate with atropine (Lomotil) in patients with chronic diarrhea and fecal incontinence.**
  Author(s): Harford WV, Krejs GJ, Santa Ana CA, Fordtran JS.
  Source: Gastroenterology. 1980 March; 78(3): 440-3.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=7351282

- **AGA technical review on the evaluation and management of chronic diarrhea.**
  Author(s): Fine KD, Schiller LR.
  Source: Gastroenterology. 1999 June; 116(6): 1464-86. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10348832

- **AGA technical review: malnutrition and cachexia, chronic diarrhea, and hepatobiliary disease in patients with human immunodeficiency virus infection.**
  Author(s): Wilcox CM, Rabeneck L, Friedman S.
  Source: Gastroenterology. 1996 December; 111(6): 1724-52. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8942756

- **AIDS enteropathy: occult enteric infections and duodenal mucosal alterations in chronic diarrhea.**
  Author(s): Greenson JK, Belitsos PC, Yardley JH, Bartlett JG.
  Source: Annals of Internal Medicine. 1991 March 1; 114(5): 366-72.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=1992878

- **Aluminum hydroxide in the symptomatic treatment of infants with chronic diarrhea.**
  Author(s): Moylan FM.
  Source: Journal of Pediatric Gastroenterology and Nutrition. 1983 May; 2(2): 295-8.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=6410036

- **An approach to evaluation of local intestinal PG production and clinical assessment of its inhibition by indomethacin in chronic diarrhea.**
  Author(s): Bukhave K, Rask-Madsen J.
  Source: Adv Prostaglandin Thromboxane Res. 1980; 8: 1627-31. No Abstract Available.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=6990730

- **An evaluation of the significance of microscopic colitis in patients with chronic diarrhea.**
  Author(s): Bo-Linn GW, Vendrell DD, Lee E, Fordtran JS.
  Source: The Journal of Clinical Investigation. 1985 May; 75(5): 1559-69.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=3998149

- **An outbreak of a newly recognized chronic diarrhea syndrome associated with raw milk consumption.**
  Author(s): Osterholm MT, MacDonald KL, White KE, Wells JG, Spika JS, Potter ME, Forfang JC, Sorenson RM, Milloy PT, Blake PA.
  Source: Jama : the Journal of the American Medical Association. 1986 July 25; 256(4): 484-90.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=3487659

- **Antibiotic and cholestyramine treatment of chronic diarrhea in HIV-infected children.**
  Author(s): Fontana M, Zuin G, Massironi E, Bastoni K, Altamura N, Principi N.
  Source: Ital J Gastroenterol Hepatol. 1997 February; 29(1): 22-4.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=9265574

- **Apple juice. An unappreciated cause of chronic diarrhea.**
  Author(s): Hyams JS, Leichtner AM.
  Source: Am J Dis Child. 1985 May; 139(5): 503-5.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=3984976

- **Autoimmune polyendocrine candidiasis syndrome with associated chronic diarrhea caused by intestinal infection and pancreas insufficiency.**
  Author(s): Scire G, Magliocca FM, Cianfarani S, Scalamandre A, Petrozza V, Bonamico M.
  Source: Journal of Pediatric Gastroenterology and Nutrition. 1991 August; 13(2): 224-7.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=1941421

- **Bacterial contamination of the small intestine as an important cause of chronic diarrhea and abdominal pain: diagnosis by breath hydrogen test.**
  Author(s): Davidson GP, Robb TA, Kirubakaran CP.
  Source: Pediatrics. 1984 August; 74(2): 229-35.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=6431389

- **Bacterial overgrowth in a patient with chronic diarrhea.**
  Author(s): Mahaney-Price AF.
  Source: The Nurse Practitioner. 1995 September; 20(9): 60-3.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=7501317

- **Benefit of oral immune globulin therapy in patients with immunodeficiency and chronic diarrhea.**
  Author(s): Melamed I, Griffiths AM, Roifman CM.
  Source: The Journal of Pediatrics. 1991 September; 119(3): 486-9.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=1880668

- **Bile acid malabsorption as a cause of chronic diarrhea: diagnostic value of 7alpha-hydroxy-4-cholesten-3-one in serum.**
  Author(s): Sauter GH, Munzing W, von Ritter C, Paumgartner G.
  Source: Digestive Diseases and Sciences. 1999 January; 44(1): 14-9.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=9952217

- **Bile acid malabsorption in AIDS-associated chronic diarrhea: a prospective 1-year study.**
  Author(s): Sciarretta G, Bonazzi L, Monti M, Furno A, Mazzoni M, Mazzetti M, Gritti F, Malaguti P.
  Source: The American Journal of Gastroenterology. 1994 March; 89(3): 379-81.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8122649

- **Bile acid malabsorption in microscopic colitis and in previously unexplained functional chronic diarrhea.**
  Author(s): Fernandez-Banares F, Esteve M, Salas A, Forne TM, Espinos JC, Martin-Comin J, Viver JM.
  Source: Digestive Diseases and Sciences. 2001 October; 46(10): 2231-8.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11680602

- **Bismuth subsalicylate in the treatment of chronic diarrhea of childhood.**
  Author(s): Gryboski JD, Hillemeier AC, Grill B, Kocoshis S.
  Source: The American Journal of Gastroenterology. 1985 November; 80(11): 871-6.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=3901731

- **Campylobacter colitis--a cause of chronic diarrhea in children.**
  Author(s): Heyman MB, Paterno VI, Ament ME.
  Source: The Western Journal of Medicine. 1982 September; 137(3): 243-5.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=7147935

- **Campylobacter myocarditis; loose bowels and a baggy heart.**
  Author(s): Cox ID, Fluck DS, Joy MD.
  Source: European Journal of Heart Failure : Journal of the Working Group on Heart Failure of the European Society of Cardiology. 2001 January; 3(1): 105-7.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11163743

- **Causes of chronic diarrhea in infants and children.**
  Author(s): Poley JR.
  Source: Postgraduate Medicine. 1970 December; 48(6): 143-7.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=5495554

- **Causes of chronic diarrhea in patients with AIDS in Thailand: a prospective clinical and microbiological study.**
  Author(s): Manatsathit S, Tansupasawasdikul S, Wanachiwanawin D, Setawarin S, Suwanagool P, Prakasvejakit S, Leelakusolwong S, Eampokalap B, Kachintorn U.
  Source: Journal of Gastroenterology. 1996 August; 31(4): 533-7.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8844474

- **Cecal inflammatory fibroid polyp presenting with chronic diarrhea. A case report and review of the literature.**
  Author(s): Merkel IS, Rabinovitz M, Dekker A.
  Source: Digestive Diseases and Sciences. 1992 January; 37(1): 133-6. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=1728518

- **Cerebrotendinous xanthomatosis: juvenile cataract and chronic diarrhea before the onset of neurologic disease.**
  Author(s): Cruysberg JR.
  Source: Archives of Neurology. 2002 December; 59(12): 1975.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=12470193

- **Children with chronic diarrhea and altered disaccharidase ratio who respond to sucrose withdrawal.**
  Author(s): Davidson GP, Robb TA.
  Source: Lancet. 1982 August 7; 2(8293): 325.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=6124732

- **Cholestyramine for treatment of chronic diarrhea.**
  Author(s): Yarze JC.
  Source: The American Journal of Gastroenterology. 2001 February; 96(2): 599-601.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11232719

- **Cholestyramine treatment of chronic diarrhea associated with immune deficiency syndrome.**
  Author(s): Bujanover Y, Sullivan P, Liebman WM, Goodman J, Thaler MM.
  Source: Clinical Pediatrics. 1979 October; 18(10): 630, 633.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=477176

- **Chronic diarrhea among adults in Kigali, Rwanda: association with bacterial enteropathogens, rectocolonic inflammation, and human immunodeficiency virus infection.**
  Author(s): Clerinx J, Bogaerts J, Taelman H, Habyarimana JB, Nyirabareja A, Ngendahayo P, Van de Perre P.
  Source: Clinical Infectious Diseases : an Official Publication of the Infectious Diseases Society of America. 1995 November; 21(5): 1282-4.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8589155

- **Chronic diarrhea and bacteremia caused by Campylobacter lari in a neonate.**
  Author(s): Chiu CH, Kuo CY, Ou JT.
  Source: Clinical Infectious Diseases : an Official Publication of the Infectious Diseases Society of America. 1995 September; 21(3): 700-1.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8527581

- **Chronic diarrhea and failure to thrive in an infant with Campylobacter jejuni.**
  Author(s): Pignata C, Guandalini S, Guarino A, De Vizia B, Capano G, de Ritis G.
  Source: Journal of Pediatric Gastroenterology and Nutrition. 1984 November; 3(5): 812-4.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=6502384

- **Chronic diarrhea and failure to thrive secondary to ganglioneuroma.**
  Author(s): Peterson HD, Collins OD 3rd.
  Source: Archives of Surgery (Chicago, Ill. : 1960). 1967 December; 95(6): 934-6.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=6058798

- **Chronic diarrhea and failure to thrive.**
  Author(s): Holmes R, Clune S, Cacciarelli A, Yang SS.
  Source: The Journal of Pediatrics. 1983 September; 103(3): 491-5.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=6886921

- **Chronic diarrhea and increasing disability in an older woman due to an unusual cause.**
  Author(s): Haude V, Kretschmer H.
  Source: Journal of the American Geriatrics Society. 1999 February; 47(2): 261-2.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=9988306

- **Chronic diarrhea and malabsorption (including short gut syndrome): Working Group Report of the First World Congress of Pediatric Gastroenterology, Hepatology, and Nutrition.**
  Author(s): Walker-Smith J, Barnard J, Bhutta Z, Heubi J, Reeves Z, Schmitz J.
  Source: Journal of Pediatric Gastroenterology and Nutrition. 2002; 35 Suppl 2: S98-105.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=12192177

- **Chronic diarrhea and malabsorption associated with enteropathogenic bacterial infection in a patient with AIDS.**
  Author(s): Kotler DP, Orenstein JM.
  Source: Annals of Internal Medicine. 1993 July 15; 119(2): 127-8.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8512161

- **Chronic diarrhea and malabsorption.**
  Author(s): Branski D, Lerner A, Lebenthal E.
  Source: Pediatric Clinics of North America. 1996 April; 43(2): 307-31. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8614603

- **Chronic diarrhea and malnutrition--histology of the small intestinal lesion.**
  Author(s): Sullivan PB, Marsh MN, Mirakian R, Hill SM, Milla PJ, Neale G.
  Source: Journal of Pediatric Gastroenterology and Nutrition. 1991 February; 12(2): 195-203.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=1904932

- **Chronic diarrhea and neutropenia not associated with pancreatic insufficiency: a non-Shwachman-Diamond entity.**
  Author(s): Marino LR, Dahms BB, Halpin TC.
  Source: Journal of Pediatric Gastroenterology and Nutrition. 1983; 2(3): 559-62.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=6620062

- **Chronic diarrhea and pneumonia.**
  Author(s): Bielory L, Basile F, Palmisano M, Oppenheimer J, Orenstein M.
  Source: Annals of Allergy, Asthma & Immunology : Official Publication of the American College of Allergy, Asthma, & Immunology. 1997 April; 78(4): 339-44.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=9109699

- **Chronic diarrhea and vomiting in an elderly woman.**
  Author(s): Bazzi MN, Iyer G.
  Source: Hosp Pract (Off Ed). 1993 November 15; 28(11): 26-7. No Abstract Available.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8227247

- **Chronic diarrhea and weight loss in a patient with common variable immunodeficiency.**
  Author(s): Henochowicz S.
  Source: Ann Allergy. 1986 May; 56(5): 382-3, 410-3. No Abstract Available.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=2422989

- **Chronic diarrhea and weight loss in HIV-infected patients.**
  Author(s): Ehrenpreis E.
  Source: Journal of Acquired Immune Deficiency Syndromes (1999). 1999 August 1; 21(4): 351-3.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10428118

- **Chronic diarrhea as a result of intestinal microsposidiosis in a liver transplant recipient.**
  Author(s): Goetz M, Eichenlaub S, Pape GR, Hoffmann RM.
  Source: Transplantation. 2001 January 27; 71(2): 334-7.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11213083

- **Chronic diarrhea associated with campylobacter.**
  Author(s): Smalley JR, Klish WJ, Brown MR, Campbell MA.
  Source: Clinical Pediatrics. 1982 April; 21(4): 220.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=7067315

- **Chronic diarrhea associated with Clostridium difficile in children.**
  Author(s): Sutphen JL, Grand RJ, Flores A, Chang TW, Bartlett JG.
  Source: Am J Dis Child. 1983 March; 137(3): 275-8.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=6823927

- **Chronic diarrhea associated with drinking untreated water.**
  Author(s): Parsonnet J, Trock SC, Bopp CA, Wood CJ, Addiss DG, Alai F, Gorelkin L, Hargrett-Bean N, Gunn RA, Tauxe RV.
  Source: Annals of Internal Medicine. 1989 June 15; 110(12): 985-91.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=2729809

- **Chronic diarrhea associated with hypogammaglobulinemia and enteropathy in infants and children.**
  Author(s): Perlmutter DH, Leichtner AM, Goldman H, Winter HS.
  Source: Digestive Diseases and Sciences. 1985 December; 30(12): 1149-55.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=4064865

- **Chronic diarrhea associated with the A3243G mtDNA mutation.**
  Author(s): Santorelli FM, Villanova M, Malandrini A, Grieco GS, Palmeri S, Merlini L, Casali C.
  Source: Neurology. 2000 January 11; 54(1): 266-7.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10636171

- **Chronic diarrhea associated with thymoma and hypogammaglobulinemia (Good's syndrome).**
  Author(s): Verne GN, Amann ST, Cosgrove C, Cerda JJ.
  Source: Southern Medical Journal. 1997 April; 90(4): 444-6.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=9114841

- **Chronic diarrhea associated with vagal nerve stimulation.**
  Author(s): Sanossian N, Haut S.
  Source: Neurology. 2002 January 22; 58(2): 330.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11805274

- **Chronic diarrhea associated with Vibrio alginolyticus in an immunocompromised patient.**
  Author(s): Caccamese SM, Rastegar DA.
  Source: Clinical Infectious Diseases : an Official Publication of the Infectious Diseases Society of America. 1999 October; 29(4): 946-7.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10589925

- **Chronic diarrhea due to a single strain of Aeromonas caviae.**
  Author(s): Rautelin H, Hanninen ML, Sivonen A, Turunen U, Valtonen V.
  Source: European Journal of Clinical Microbiology & Infectious Diseases : Official Publication of the European Society of Clinical Microbiology. 1995 January; 14(1): 51-3.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=7537217

- **Chronic diarrhea due to cow's milk allergy. A 4- to 10-year follow-up study.**
  Author(s): Businco L, Benincori N, Cantani A, Tacconi L, Picarazzi A.
  Source: Ann Allergy. 1985 December; 55(6): 844-7.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=4073603

- **Chronic diarrhea due to surreptitious use of bisacodyl: case reports and methods for detection.**
  Author(s): Kacere RD, Srivatsa SS, Tremaine WJ, Ebnet LE, Batts KP.
  Source: Mayo Clinic Proceedings. 1993 April; 68(4): 355-7.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8455393

- **Chronic diarrhea due to VIPoma in two children.**
  Author(s): Socha J, Dobrzanska A, Rowecka K, Cichy W, Bierla J, Stodulski J, Wozniewicz B.
  Source: Journal of Pediatric Gastroenterology and Nutrition. 1984; 3(1): 143-8.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=6319655

- **Chronic diarrhea in a 5 1/2-month-old infant.**
  Author(s): Mings R, Knutsen AP, Krantman H, Schwarz KB, Roodman ST.
  Source: Ann Allergy. 1987 May; 58(5): 322,372-4. No Abstract Available.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=3578923

- **Chronic diarrhea in a 57-year-old woman with diabetes.**
  Author(s): Hussein WI, Reddy SS.
  Source: Cleve Clin J Med. 1997 February; 64(2): 107-8. No Abstract Available.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=9046688

- **Chronic diarrhea in adult population in Bombay: a review.**
  Author(s): Desai HG.
  Source: Indian Journal of Medical Sciences. 1967 April; 21(4): 240-9. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=4859831

- **Chronic diarrhea in an adult with hypokalemic nephropathy and osteomalacia due to a functioning ganglioneuroblastoma.**
  Author(s): Cameron DG, Warner HA, Szabo AJ.
  Source: Trans Am Clin Climatol Assoc. 1967; 78: 205-17. No Abstract Available.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=4961457

- **Chronic diarrhea in an adult with hypokalemic nephropathy and osteomalacia due to functioning ganglioneuroblastoma.**
  Author(s): Cameron DG, Warner HA, Szabo AJ.
  Source: The American Journal of the Medical Sciences. 1967 April; 253(4): 417-24.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=6021377

- **Chronic diarrhea in childhood: a new look at an old problem.**
  Author(s): Gall DG, Hamilton JR.
  Source: Pediatric Clinics of North America. 1974 November; 21(4): 1001-17. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=4154426

- **Chronic diarrhea in children of tropics.**
  Author(s): Mittal SK, Aggarwal V, Kalra KK.
  Source: Indian J Pediatr. 1994 November-December; 61(6): 635-42.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=7721367

- **Chronic diarrhea in children.**
  Author(s): Barness LA.
  Source: Postgraduate Medicine. 1979 February; 65(2): 163-6, 168-9.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=419014

- **Chronic diarrhea in diabetes mellitus: mechanisms and an approach to diagnosis and treatment.**
  Author(s): Valdovinos MA, Camilleri M, Zimmerman BR.
  Source: Mayo Clinic Proceedings. 1993 July; 68(7): 691-702. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8350642

- **Chronic diarrhea in essential mixed cryoglobulinemia: a manifestation of visceral vasculitis?**
  Author(s): Jones MP, Pandak WM, Moxley GF.
  Source: The American Journal of Gastroenterology. 1991 April; 86(4): 522-4.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=2012055

- **Chronic diarrhea in infancy and childhood.**
  Author(s): Mehta DI, Blecker U.
  Source: J La State Med Soc. 1998 September; 150(9): 419-29. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=9785754

- **Chronic diarrhea in infancy with resultant disaccharide malabsorption.**
  Author(s): Jarrett EC, Holman GH.
  Source: J Med Assoc Ga. 1966 May; 55(5): 170-3. No Abstract Available.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=5973853

- **Chronic diarrhea in infancy.**
  Author(s): Copeland L.
  Source: The American Journal of Nursing. 1977 March; 77(3): 461-3.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=584666

- **Chronic diarrhea in infants and children.**
  Author(s): Bhan MK, Arora NK, Khoshoo V, Ghai OP.
  Source: Indian J Pediatr. 1985 September-October; 52(418): 483-95. No Abstract Available.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=4077192

- **Chronic diarrhea in infants and children.**
  Author(s): George DE.
  Source: American Family Physician. 1984 May; 29(5): 280-8.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=6731245

- **Chronic diarrhea in infants and children.**
  Author(s): Arasu TS, Wyllie R, Fitzgerald JF.
  Source: American Family Physician. 1979 April; 19(4): 87-94.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=433727

- **Chronic diarrhea in infants and children. I.**
  Author(s): Poley JR.
  Source: Southern Medical Journal. 1973 September; 66(9): 1035-49. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=4582128

- **Chronic diarrhea in infants and children. II.**
  Author(s): Poley JR.
  Source: Southern Medical Journal. 1973 October; 66(10): 1133-41. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=4598190

- **Chronic diarrhea in infants caused by adherent enteropathogenic Escherichia coli.**
  Author(s): Clausen CR, Christie DL.
  Source: The Journal of Pediatrics. 1982 March; 100(3): 358-61.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=7038073

- **Chronic diarrhea in returing travelers: intestinal parasitic infection with the fluke Metagonimus yokogawai.**
  Author(s): Goldsmith RS.
  Source: Southern Medical Journal. 1978 December; 71(12): 1513-5, 1518.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=725630

- **Chronic diarrhea in the acquired immunodeficiency syndrome: evidence for another opportunist.**
  Author(s): Lewis DE, Oldfield EC 3rd.
  Source: The American Journal of Gastroenterology. 1991 October; 86(10): 1550-1.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=1928057

- **Chronic diarrhea in the returned traveler.**
  Author(s): Taylor DN, Connor BA, Shlim DR.
  Source: The Medical Clinics of North America. 1999 July; 83(4): 1033-52, Vii. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10453262

- **Chronic diarrhea in travelers: diagnostic and therapeutic considerations.**
  Author(s): Giannella RA.
  Source: Reviews of Infectious Diseases. 1986 May-June; 8 Suppl 2: S223-6. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=3523719

- **Chronic diarrhea in treated celiacs: are they really celiacs?**
  Author(s): Biagi F, Ellis HJ, Morris MA, Parnell ND, Ciclitira PJ.
  Source: Gastroenterology. 1998 February; 114(2): 420-1, 425.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=9453510

- **Chronic diarrhea in tropics.**
  Author(s): Mittal SK.
  Source: Indian J Pediatr. 1999; 66(1 Suppl): S4-15. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11132468

- **Chronic diarrhea of childhood and the misuse of elimination diets.**
  Author(s): Lloyd-Still JD.
  Source: The Journal of Pediatrics. 1979 July; 95(1): 10-3.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=479988

- **Chronic diarrhea of infancy: nonbeta islet cell hyperplasia.**
  Author(s): Ghishan FK, Soper RT, Nassif ED, Younoszai MK.
  Source: Pediatrics. 1979 July; 64(1): 46-9.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=221877

- **Chronic diarrhea of unknown origin.**
  Author(s): Read NW, Krejs GJ, Read MG, Santa Ana CA, Morawski SG, Fordtran JS.
  Source: Gastroenterology. 1980 February; 78(2): 264-71.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=7350049

- **Chronic diarrhea related to Endolimax nana: response to treatment with metronidazole.**
  Author(s): Stauffer JQ, Levine WL.
  Source: Am J Dig Dis. 1974 January; 19(1): 59-63. No Abstract Available.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=4809031

- **Chronic diarrhea with ganglioneuroblastoma.**
  Author(s): Galbert MW.
  Source: Clinical Pediatrics. 1971 August; 10(8): 476-9.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=5564986

- **Chronic diarrhea with massive intestinal plasma cell infiltration and high polyclonal immunoglobulin A serum level.**
  Author(s): Lacaille F, Emile JF, Canioni D, Pierre P, Vaerman JP, Brousse N, Schmitz J.
  Source: Journal of Pediatric Gastroenterology and Nutrition. 1998 March; 26(3): 345-50.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=9523873

- **Chronic diarrhea with normal stool and colonic examinations: organic or functional?**
  Author(s): Bertomeu A, Ros E, Barragan V, Sachje L, Navarro S.
  Source: Journal of Clinical Gastroenterology. 1991 October; 13(5): 531-6.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=1744388

- **Chronic diarrhea, hemorrhagic colitis, and hemolytic-uremic syndrome associated with HEp-2 adherent Escherichia coli in adults infected with human immunodeficiency virus in Bangui, Central African Republic.**
  Author(s): Mossoro C, Glaziou P, Yassibanda S, Lan NT, Bekondi C, Minssart P, Bernier C, Le Bouguenec C, Germani Y.
  Source: Journal of Clinical Microbiology. 2002 August; 40(8): 3086-8.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=12149388

- **Chronic diarrhea, weight loss and hypotension.**
  Author(s): Regolisti G, Cavatorta A, Coghi P, Zoni A.
  Source: Ann Ital Med Int. 1992 October-December; 7(4): 245-9. No Abstract Available.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=1298336

- **Chronic diarrhea.**
  Author(s): Fitzgerald JF, Clark JH.
  Source: Pediatric Clinics of North America. 1982 February; 29(1): 221-31.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=7058073

- **Chronic diarrhea.**
  Author(s): Ament ME, Barclay GN.
  Source: Pediatric Annals. 1982 January; 11(1): 124-31.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=7063259

- **Chronic diarrhea.**
  Author(s): Gryboski JD.
  Source: Curr Probl Pediatr. 1979 March; 9(5): 1-52. No Abstract Available.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=436445

- **Chronic diarrhea.**
  Author(s): Fleischli DJ.
  Source: Jama : the Journal of the American Medical Association. 1967 March 20; 199(12): 925-7.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=6071562

- **Chronic diarrhea.**
  Author(s): Tealey AR, Reichelderfer M.
  Source: Lippincott's Primary Care Practice. 1998 July-August; 2(4): 410-6. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=9709086

- **Chronic diarrhea. A practical approach for the pediatrician.**
  Author(s): Baldassano RN, Liacouras CA.
  Source: Pediatric Clinics of North America. 1991 June; 38(3): 667-86. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=2047145

- **Chronic diarrhea. A practical approach.**
  Author(s): Matseshe JW, Phillips SF.
  Source: The Medical Clinics of North America. 1978 January; 62(1): 141-54. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=340815

- **Chronic diarrhea: a review on pathophysiology and management for the clinical gastroenterologist.**
  Author(s): Camilleri M.
  Source: Clin Gastroenterol Hepatol. 2004 March; 2(3): 198-206. Review. No Abstract Available.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=15017602

- **Chronic diarrhea: an uncommon side effect of celiac plexus block.**
  Author(s): Chan VW.
  Source: Anesthesia and Analgesia. 1996 January; 82(1): 205-7.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8712401

- **Chronic diarrhea: causes, presentation, and management.**
  Author(s): Mehta DI, Lebenthal E, Blecker U.
  Source: Indian J Pediatr. 1996 July-August; 63(4): 459-71. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10832466

- **Chronic diarrhea: evaluation and treatment.**
  Author(s): Lipsky MS, Adelman M.
  Source: American Family Physician. 1993 December; 48(8): 1461-6. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8249777

- **Chronic diarrhea: identifying a new syndrome.**
  Author(s): Habba SF.
  Source: The American Journal of Gastroenterology. 2000 August; 95(8): 2140-1.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10950089

- **Chronic diarrhea: management in pediatrics.**
  Author(s): Brady M, Grey M, Buzby M.
  Source: Journal of Pediatric Health Care : Official Publication of National Association of Pediatric Nurse Associates & Practitioners. 1989 May-June; 3(3): 163-5.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=2724024

- **Chronic diarrhea: newly appreciated syndromes.**
  Author(s): Bayless TM.
  Source: Hosp Pract (Off Ed). 1989 January 15; 24(1): 117-22, 124-6, 131-2 Passim. No Abstract Available.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=2492029

- **Chronic diarrhea: the role of magnesium.**
  Author(s): Ho J, Moyer TP, Phillips SF.
  Source: Mayo Clinic Proceedings. 1995 November; 70(11): 1091-2.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=7475340

- **Chronic diarrhea: to scope or not to scope?**
  Author(s): Achkar JP.
  Source: Inflammatory Bowel Diseases. 2001 August; 7(3): 276-7.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11515856

- **Chronic diarrhea--induced by celiac plexus block?**
  Author(s): Gafanovich I, Shir Y, Tsvang E, Ben-Chetrit E.
  Source: Journal of Clinical Gastroenterology. 1998 June; 26(4): 300-2.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=9649016

- **Chronic mesenteric ischemia presenting as chronic diarrhea and weight loss with pneumatosis intestinalis.**
  Author(s): Cipolla DM, Boley SJ, Luchs S, Pasternak B, Floch C, DiCorato M, Floch MH.
  Source: Gastroenterologist. 1996 June; 4(2): 134-41. No Abstract Available.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8792144

- **Clinical and diagnostic aspects of intestinal microsporidiosis in HIV-infected patients with chronic diarrhea in Rio de Janeiro, Brazil.**
  Author(s): Brasil P, de Lima DB, de Paiva DD, Lobo MS, Sodre FC, Silva SP, Villela EV, Silva EJ, Peralta JM, Morgado M, Moura H.
  Source: Revista Do Instituto De Medicina Tropical De Sao Paulo. 2000 November-December; 42(6): 299-304.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11136515

- **Clinical impact of stool cultures for Campylobacter in adults with acute or chronic diarrhea.**
  Author(s): Tabibian N, Clarridge JE, Smith JL, Alpert E, Shaw I, Graham DY.
  Source: Southern Medical Journal. 1987 June; 80(6): 709-11.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=3589763

- **Clinical microbiological case: a 35-year-old HIV-positive man with intermittent fever and chronic diarrhea.**
  Author(s): Bange FC, Ruttkowski S, Kist M, Bereswill S, Meyer D, Schmidt RE, Tillmann H, Schedel I, Manns MP, Gunzer F.
  Source: Clinical Microbiology and Infection : the Official Publication of the European Society of Clinical Microbiology and Infectious Diseases. 2000 November; 6(11): 613-5.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11168065

- **Clostridium difficile toxin associated with chronic diarrhea and failure to gain weight.**
  Author(s): Liston TE.
  Source: Clinical Pediatrics. 1983 June; 22(6): 458-60.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=6839628

- **Coffee, sugars, and chronic diarrhea. Why a dietary history is important.**
  Author(s): Babb RR.
  Source: Postgraduate Medicine. 1984 June; 75(8): 82, 86-7.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=6728746

- **Collagenous colitis as a cause of chronic diarrhea.**
  Author(s): Henley CE.
  Source: The Journal of the American Board of Family Practice / American Board of Family Practice. 1991 January-February; 4(1): 55-7.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=1996513

- **Collagenous colitis as a cause of chronic diarrhea.**
  Author(s): Bott SJ.
  Source: J S C Med Assoc. 1990 February; 86(2): 85-7.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=1968524

- **Collagenous colitis: a cause of chronic diarrhea diagnosed only by biopsy of normal appearing colonic mucosa.**
  Author(s): Salt WB 2nd, Llaneza PP.
  Source: Gastrointestinal Endoscopy. 1986 December; 32(6): 421-3.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=3803844

- **Collagenous colitis: a cause of chronic diarrhea.**
  Author(s): Brady SK, McKee DD.
  Source: American Family Physician. 1993 November 1; 48(6): 1081-4. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=7901984

- **Colonic epithelial lymphocytosis associated with an epidemic of chronic diarrhea.**
  Author(s): Bryant DA, Mintz ED, Puhr ND, Griffin PM, Petras RE.
  Source: The American Journal of Surgical Pathology. 1996 September; 20(9): 1102-9.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8764747

- **Colonoscopy versus flexible sigmoidoscopy in evaluation of chronic diarrhea.**
  Author(s): Srinivasan R, Friedel DM.
  Source: Gastrointestinal Endoscopy. 2000 October; 52(4): 589-90.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11023595

- **Comparison of endogenous and radiolabeled bile acid excretion in patients with idiopathic chronic diarrhea.**
  Author(s): Schiller LR, Bilhartz LE, Santa Ana CA, Fordtran JS.
  Source: Gastroenterology. 1990 April; 98(4): 1036-43.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=2311860

- **Comparison of the D-xylose and polyethylene glycol absorption tests as indicators of mucosal damage in infants with chronic diarrhea.**
  Author(s): Lifschitz CH, Shulman RJ, Langston C, Gopalakrishna GS.
  Source: Journal of Pediatric Gastroenterology and Nutrition. 1989 January; 8(1): 47-50.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=2732863

- **Correlation of jejunal function and morphology in patients with acute and chronic diarrhea in East Pakistan.**
  Author(s): Kent TH, Lindenbaum J.
  Source: Gastroenterology. 1967 June; 52(6): 972-84.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=6026492

- **Cost of workup for chronic diarrhea.**
  Author(s): Hirschhorn N, Vincent D.
  Source: Postgraduate Medicine. 1977 October; 62(4): 40-3.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=909854

- **Cow's milk protein-sensitive enteropathy (CMPSE) in infant with chronic diarrhea.**
  Author(s): Sutjiningsih, Soeparto P, Salim H, Hardjadinata D, Djupri L.
  Source: Paediatr Indones. 1982 January-February; 22(1-2): 23-31. No Abstract Available.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=7177674

- **Cryptosporidium causing chronic diarrhea.**
  Author(s): Sehgal R, Mahajan RC, Thapa BR, Ganguly NK.
  Source: Indian J Pediatr. 1989 January-February; 56(1): 129-31.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=2583759

- **Cryptosporidium, malnutrition, and chronic diarrhea in children.**
  Author(s): Sallon S, Deckelbaum RJ, Schmid II, Harlap S, Baras M, Spira DT.
  Source: Am J Dis Child. 1988 March; 142(3): 312-5.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=3344720

- **Dead fecal yeasts and chronic diarrhea.**
  Author(s): Caselli M, Trevisani L, Bighi S, Aleotti A, Balboni PG, Gaiani R, Bovolenta MR, Stabellini G.
  Source: Digestion. 1988; 41(3): 142-8.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=3224766

- **Declining CD4+ T-lymphocyte counts are associated with increased risk of enteric parasitosis and chronic diarrhea: results of a 3-year longitudinal study.**
  Author(s): Navin TR, Weber R, Vugia DJ, Rimland D, Roberts JM, Addiss DG, Visvesvara GS, Wahlquist SP, Hogan SE, Gallagher LE, Juranek DD, Schwartz DA, Wilcox CM, Stewart JM, Thompson SE 3rd, Bryan RT.
  Source: Journal of Acquired Immune Deficiency Syndromes and Human Retrovirology : Official Publication of the International Retrovirology Association. 1999 February 1; 20(2): 154-9.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10048902

- **Defective neutrophil chemotactic responses in patients with recurrent episodes of otitis media and chronic diarrhea.**
  Author(s): Hill HR, Book LS, Hemming VG, Herbst JJ.
  Source: Am J Dis Child. 1977 April; 131(4): 433-6.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=848466

- **Delayed chronic diarrhea and weight loss possibly due to ticlopidine therapy.**
  Author(s): Mansoor GA, Aziz K.
  Source: The Annals of Pharmacotherapy. 1997 July-August; 31(7-8): 870-2.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=9220049

- **Delayed gastric emptying and chronic diarrhea in a patient with oculodentodigital dysplasia syndrome.**
  Author(s): Levine DS.
  Source: Journal of Pediatric Gastroenterology and Nutrition. 1986 March-April; 5(2): 329-33.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=3083083

- **Detection of Enterocytozoon bieneusi in two human immunodeficiency virus-negative patients with chronic diarrhea by polymerase chain reaction in duodenal biopsy specimens and review.**
  Author(s): Gainzarain JC, Canut A, Lozano M, Labora A, Carreras F, Fenoy S, Navajas R, Pieniazek NJ, da Silva AJ, del Aguila C.
  Source: Clinical Infectious Diseases : an Official Publication of the Infectious Diseases Society of America. 1998 August; 27(2): 394-8. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=9709895

- **Determinants of chronic diarrhea in infants in Manado.**
  Author(s): Munir M.
  Source: Paediatr Indones. 1985 January-February; 25(1-2): 22-32. No Abstract Available.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=4047696

- **Diagnosis and therapy of acute and chronic diarrhea.**
  Author(s): Bruckstein AH.
  Source: Postgraduate Medicine. 1989 December; 86(8): 151-9.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=2587460

- **Diagnostic accuracy of fecal calprotectin assay in distinguishing organic causes of chronic diarrhea from irritable bowel syndrome: a prospective study in adults and children.**
  Author(s): Carroccio A, Iacono G, Cottone M, Di Prima L, Cartabellotta F, Cavataio F, Scalici C, Montalto G, Di Fede G, Rini G, Notarbartolo A, Averna MR.
  Source: Clinical Chemistry. 2003 June; 49(6 Pt 1): 861-7.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=12765980

- **Diagnostic value of fasting plasma peptide concentrations in patients with chronic diarrhea.**
  Author(s): Schiller LR, Rivera LM, Santangelo WC, Little KH, Fordtran JS.
  Source: Digestive Diseases and Sciences. 1994 October; 39(10): 2216-22.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=7924745

- **Diagnostic workup strategies for patients with HIV-related chronic diarrhea. What is the end result?**
  Author(s): Rabeneck L.
  Source: Journal of Clinical Gastroenterology. 1993 April; 16(3): 245-50. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8505500

- **Dietary management of chronic diarrhea in children.**
  Author(s): Ellett ML, Fitzgerald JF, Winchester M.
  Source: Gastroenterology Nursing : the Official Journal of the Society of Gastroenterology Nurses and Associates. 1993 February; 15(4): 170-7.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8443265

- **Difenoxine (R 15403), the active metabolite of diphenoxylate (R 1132). 5. Clinical comparison of difenoxine and diphenoxylate in volunteers and in patients with chronic diarrhea. Double-blind cross-over assessments.**
  Author(s): Rubens R, Verhaegen H, Brugmans J, Schuermans V.
  Source: Arzneimittel-Forschung. 1972 March; 22(3): 526-9.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=4556767

- **Disaccharidase activities, jejunal morphology, and carbohydrate tolerance in children with chronic diarrhea.**
  Author(s): Calvin RT, Klish WJ, Nichols BL.
  Source: Journal of Pediatric Gastroenterology and Nutrition. 1985 December; 4(6): 949-53.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=4067784

- **Disseminated cryptococcal infection, AIDS, Kaposi's sarcoma, chronic diarrhea, hepatitis B carrier, and cytomegalovirus.**
  Author(s): Vongxaiburana M.
  Source: W V Med J. 1985 November; 81(11): 248-51. No Abstract Available.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=3000089

- **Does bismuth subnitrate normalize intestinal conditions in patients with chronic diarrhea?**
  Author(s): Umeki S.
  Source: Archives of Internal Medicine. 1988 September; 148(9): 2073.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=3415407

- **Double-blind cross-over study comparing loperamide, codeine and diphenoxylate in the treatment of chronic diarrhea.**
  Author(s): Palmer KR, Corbett CL, Holdsworth CD.
  Source: Gastroenterology. 1980 December; 79(6): 1272-5.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=7002706

- **D-xylose malabsorption: characteristic finding in patients with the AIDS wasting syndrome and chronic diarrhea.**
  Author(s): Ehrenpreis ED, Ganger DR, Kochvar GT, Patterson BK, Craig RM.
  Source: Journal of Acquired Immune Deficiency Syndromes (1999). 1992 October; 5(10): 1047-50.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=1453320

- **Effect of bismuth subsalicylate on chronic diarrhea in childhood: a preliminary report.**
  Author(s): Gryboski JD, Kocoshis S.
  Source: Reviews of Infectious Diseases. 1990 January-February; 12 Suppl 1: S36-40.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=2305176

- **Effect of formula carbohydrate concentration on tolerance and macronutrient absorption in infants with severe, chronic diarrhea.**
  Author(s): Lifschitz CH, Carrazza F.
  Source: The Journal of Pediatrics. 1990 September; 117(3): 378-83.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=2391592

- **Effect of three dietary treatments upon the histopathology of jejunal biopsies of children with chronic diarrhea.**
  Author(s): Vegas ME, Romer H, Olivero E, Moreno E, Freites-Parra AM, Siverio-Leon M, Urrestarazu MI, Cavazza ME, Romer P.
  Source: G E N. 1989 October-December; 43(4): 283-90.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=2535450

- **Effects of loperamide on anal sphincter function in patients complaining of chronic diarrhea with fecal incontinence and urgency.**
  Author(s): Read M, Read NW, Barber DC, Duthie HL.
  Source: Digestive Diseases and Sciences. 1982 September; 27(9): 807-14.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=7105952

- **Emerging and opportunistic intestinal parasites in HIV-infected patients with chronic diarrhea in Rio de Janeiro, Brazil.**
  Author(s): Brasil P, de Lima DB, de Paiva DD, Lobo MS, Sodre FC, da Silva SP, Verissimo-Villela E, da Silva EJ, Peralta JM, Morgado M, Moura H.
  Source: The Journal of Eukaryotic Microbiology. 1999 September-October; 46(5): 40S-41S.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10519240

- **Endoscopic diagnosis of Waldenstrom's macroglobulinemia masquerading as chronic diarrhea.**
  Author(s): Rusynyk RA, Ghosh MS, Babameto GP, Grundfast MB.
  Source: Gastrointestinal Endoscopy. 2003 May; 57(6): 800-1.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=12739570

- **Enteric disease in rabbits inoculated with stool filtrates from persons with chronic diarrhea.**
  Author(s): Myers LL, Shoop DS, Potter ME, Wells JG.
  Source: The Journal of Infectious Diseases. 1989 January; 159(1): 133-5.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=2909631

- **Enteric viruses associated with HIV infection in Tanzanian children with chronic diarrhea.**
  Author(s): Cegielski JP, Msengi AE, Miller SE.
  Source: Pediatr Aids Hiv Infect. 1994 October; 5(5): 296-9.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11361370

- **Enterocytozoon bieneusi as a cause of chronic diarrhea in a heart-lung transplant recipient who was seronegative for human immunodeficiency virus.**
  Author(s): Rabodonirina M, Bertocchi M, Desportes-Livage I, Cotte L, Levrey H, Piens MA, Monneret G, Celard M, Mornex JF, Mojon M.
  Source: Clinical Infectious Diseases : an Official Publication of the Infectious Diseases Society of America. 1996 July; 23(1): 114-7.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8816139

- **Etiology of chronic diarrhea.**
  Author(s): Al-Bayatti SM.
  Source: Saudi Med J. 2002 June; 23(6): 675-9.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=12070546

- **Etiology of chronic diarrhea.**
  Author(s): Altuntas B, Gul H, Yarali N, Ertan U.
  Source: Indian J Pediatr. 1999 September-October; 66(5): 657-61.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10798125

- **Evaluating the child with chronic diarrhea.**
  Author(s): Leung AK, Robson WL.
  Source: American Family Physician. 1996 February 1; 53(2): 635-43. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8629543

- **Evaluation of chronic diarrhea in patients with human immunodeficiency virus infection.**
  Author(s): Oldfield EC 3rd.
  Source: Reviews in Gastroenterological Disorders. 2002 Fall; 2(4): 176-88. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=12481169

- **Evaluation of patients with chronic diarrhea.**
  Author(s): Donowitz M, Kokke FT, Saidi R.
  Source: The New England Journal of Medicine. 1995 March 16; 332(11): 725-9. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=7854381

- **Examination of small bowel enzymes in chronic diarrhea.**
  Author(s): Simadibrata M, Wanders RJ, Jan G, Tytgat GN, Lesmana LA, Daldiyono, Ariawan I.
  Source: Journal of Gastroenterology and Hepatology. 2003 January; 18(1): 53-6.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=12519224

- **Examination of the prevalence and seasonal variation of intestinal microsporidiosis in the stools of persons with chronic diarrhea and human immunodeficiency virus infection.**
  Author(s): Conteas CN, Berlin OG, Lariviere MJ, Pandhumas SS, Speck CE, Porschen R, Nakaya T.
  Source: The American Journal of Tropical Medicine and Hygiene. 1998 May; 58(5): 559-61.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=9598441

- **Excessive fluid intake as a cause of chronic diarrhea in young children.**
  Author(s): Greene HL, Ghishan FK.
  Source: The Journal of Pediatrics. 1983 June; 102(6): 836-40.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=6854446

- **Factors of weight loss in patients with HIV and chronic diarrhea.**
  Author(s): Beaugerie L, Carbonnel F, Carrat F, Rached AA, Maslo C, Gendre JP, Rozenbaum W, Cosnes J.
  Source: Journal of Acquired Immune Deficiency Syndromes and Human Retrovirology : Official Publication of the International Retrovirology Association. 1998 September 1; 19(1): 34-9.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=9732066

- **Fecal calprotectin levels predict colorectal inflammation among patients with chronic diarrhea referred for colonoscopy.**
  Author(s): Limburg PJ, Ahlquist DA, Sandborn WJ, Mahoney DW, Devens ME, Harrington JJ, Zinsmeister AR.
  Source: The American Journal of Gastroenterology. 2000 October; 95(10): 2831-7.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11051356

- **Fecal incontinence in chronic diarrhea. Report of a case with improvement after training with rectally infused saline.**
  Author(s): Schiller LR, Santa Ana C, Davis GR, Fordtran JS.
  Source: Gastroenterology. 1979 October; 77(4 Pt 1): 751-3.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=467931

- **Fecal pancreatic elastase 1 in the work up of patients with chronic diarrhea.**
  Author(s): Masoero G, Zaffino C, Laudi C, Lombardo L, Rocca R, Gallo L, Della Monica P, Pera A.
  Source: International Journal of Pancreatology : Official Journal of the International Association of Pancreatology. 2000 December; 28(3): 175-9.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11373054

- **Fluorescence techniques for diagnosing intestinal microsporidiosis in stool, enteric fluid, and biopsy specimens from acquired immunodeficiency syndrome patients with chronic diarrhea.**
  Author(s): Conteas CN, Sowerby T, Berlin GW, Dahlan F, Nguyen A, Porschen R, Donovan J, LaRiviere M, Orenstein JM.
  Source: Archives of Pathology & Laboratory Medicine. 1996 September; 120(9): 847-53.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=9140290

- **Fructose malabsorption in a child with chronic diarrhea.**
  Author(s): Tajiri H, Hamamoto T, Harada T, Okada S.
  Source: Journal of Pediatric Gastroenterology and Nutrition. 1994 January; 18(1): 100-3.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8126607

- **Gastroenterology: A hypothetical case of chronic diarrhea incorporating a management self-test.**
  Author(s): Reisman T, Morton RE, Rogers AI.
  Source: Postgraduate Medicine. 1976 February; 59(2): 203-210.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=1250807

- **Gastrointestinal carcinoid tumor in a patient with chronic diarrhea.**
  Author(s): Jothi SP, Miller S.
  Source: Archives of Internal Medicine. 2002 January 14; 162(1): 95-6.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11784227

- **Giardiasis: a common cause of chronic diarrhea.**
  Author(s): Burke JA.
  Source: J Ky Med Assoc. 1975 September; 73(9): 479-84. No Abstract Available.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=1185053

- **Habba et al.: chronic diarrhea--identifying a new syndrome.**
  Author(s): Hershfield NB.
  Source: The American Journal of Gastroenterology. 2001 February; 96(2): 599; Author Reply 600-1.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11232720

- **HEp-2 cell adherence patterns, serotyping, and DNA analysis of Escherichia coli isolates from eight patients with AIDS and chronic diarrhea.**
  Author(s): Polotsky Y, Nataro JP, Kotler D, Barrett TJ, Orenstein JM.
  Source: Journal of Clinical Microbiology. 1997 August; 35(8): 1952-8.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=9230362

- **HIV seroprevalence in disseminated tuberculosis and chronic diarrhea.**
  Author(s): Merchant RH, Shroff RC.
  Source: Indian Pediatrics. 1998 September; 35(9): 883-7.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10216597

- **Human microsporidiosis in African AIDS patients with chronic diarrhea.**
  Author(s): Drobniewski F, Kelly P, Carew A, Ngwenya B, Luo N, Pankhurst C, Farthing M.
  Source: The Journal of Infectious Diseases. 1995 February; 171(2): 515-6.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=7844408

- **Hydrolysis and absorption of glucose polymers from rice compared with corn in chronic diarrhea of infancy.**
  Author(s): Sloven DG, Jirapinyo P, Lebenthal E.
  Source: The Journal of Pediatrics. 1990 June; 116(6): 876-81. Erratum In: J Pediatr 1990 September; 117(3): 502.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=1693396

- **Identification of Encephalitozoon intestinalis in travelers with chronic diarrhea by specific PCR amplification.**
  Author(s): Raynaud L, Delbac F, Broussolle V, Rabodonirina M, Girault V, Wallon M, Cozon G, Vivares CP, Peyron F.
  Source: Journal of Clinical Microbiology. 1998 January; 36(1): 37-40.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=9431916

- **Impact of protease inhibitors on the outcome of human immunodeficiency virus-infected patients with chronic diarrhea.**
  Author(s): Bini EJ, Cohen J.
  Source: The American Journal of Gastroenterology. 1999 December; 94(12): 3553-9.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10606318

- **Improvement of chronic diarrhea after treatment for intestinal spirochetosis.**
  Author(s): Peghini PL, Guccion JG, Sharma A.
  Source: Digestive Diseases and Sciences. 2000 May; 45(5): 1006-10.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10795768

- **Incidence of celiac disease identified by the presence of serum endomysial antibodies in children with chronic diarrhea, short stature, or insulin-dependent diabetes mellitus.**
  Author(s): Rossi TM, Albini CH, Kumar V.
  Source: The Journal of Pediatrics. 1993 August; 123(2): 262-4.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8345423

- **Increased paracellular macromolecular transport and subnormal glucose uptake in duodenal biopsies of patients with microvillus inclusion disease. Comparisons to other chronic diarrhea patients and to nondiarrhea patients.**
  Author(s): Bijlsma PB, Kiliaan AJ, Scholten G, van der Wal A, Heyman M, Heymans HS, Groot JA, Taminiau JA.
  Source: Annals of the New York Academy of Sciences. 2000; 915: 267-9.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11193585

- **Increased tacrolimus levels in a pediatric renal transplant patient attributed to chronic diarrhea.**
  Author(s): Eades SK, Boineau FG, Christensen ML.
  Source: Pediatric Transplantation. 2000 February; 4(1): 63-6.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10731062

- **Infectious causes of chronic diarrhea.**
  Author(s): Lee SD, Surawicz CM.
  Source: Gastroenterology Clinics of North America. 2001 September; 30(3): 679-92, Viii. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11586552

- **Initial assessment and management of chronic diarrhea in toddlers.**
  Author(s): DeBenham BJ, Ellett M, Perez RC, Clark JH.
  Source: Pediatric Nursing. 1985 July-August; 11(4): 281-5.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=3848799

- **Intestinal capillariasis: a cause of chronic diarrhea and hypoalbuminemia.**
  Author(s): Chunlertrith K, Mairiang P, Sukeepaisarnjaroen W.
  Source: Southeast Asian J Trop Med Public Health. 1992 September; 23(3): 433-6.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=1488697

- **Intestinal coinfection with Enterocytozoon bieneusi and Cryptosporidium in a human immunodeficiency virus-infected child with chronic diarrhea.**
  Author(s): Weber R, Sauer B, Luthy R, Nadal D.
  Source: Clinical Infectious Diseases : an Official Publication of the Infectious Diseases Society of America. 1993 September; 17(3): 480-3. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8218693

- **Intestinal microsporidiosis in HIV infected patients with chronic diarrhea in Thailand.**
  Author(s): Wanachiwanawin D, Manatsathit S, Lertlaituan P, Thakerngpol K, Suwanagool P.
  Source: Southeast Asian J Trop Med Public Health. 1998 December; 29(4): 767-71.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10772562

- **Intestinal microsporidiosis in HIV-infected children with acute and chronic diarrhea.**
  Author(s): Leelayoova S, Vithayasai N, Watanaveeradej V, Chotpitayasunondh T, Therapong V, Naaglor T, Mungthin M.
  Source: Southeast Asian J Trop Med Public Health. 2001 March; 32(1): 33-7.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11485091

- **Intestinal nodular lymphoid hyperplasia in a patient with chronic diarrhea and recurrent sinopulmonary infections.**
  Author(s): Al Samman M, Zuckerman MJ, Mohandas A, Ting S, Hoffpauir JT.
  Source: The American Journal of Gastroenterology. 2000 August; 95(8): 2147-9.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10950096

- **Intestinal parasites and HIV infection in Tanzanian children with chronic diarrhea.**
  Author(s): Cegielski JP, Msengi AE, Dukes CS, Mbise R, Redding-Lallinger R, Minjas JN, Wilson ML, Shao J, Durack DT.
  Source: Aids (London, England). 1993 February; 7(2): 213-21.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8466683

- **Intestinal secretory IgA immune response against human immunodeficiency virus among infected patients with acute and chronic diarrhea.**
  Author(s): Mathewson JJ, Jiang ZD, DuPont HL, Chintu C, Luo N, Zumla A.
  Source: The Journal of Infectious Diseases. 1994 March; 169(3): 614-7.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8158035

- **Intestinal spirochetosis: a poorly understood infection causing chronic diarrhea.**
  Author(s): Tunuguntla A, Youngberg G, Sibley D, Thomas E.
  Source: Tenn Med. 2004 February; 97(2): 75-6.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=15007860

- **Juvenile cataract associated with chronic diarrhea in pediatric cerebrotendinous xanthomatosis.**
  Author(s): Cruysberg JR, Wevers RA, Tolboom JJ.
  Source: American Journal of Ophthalmology. 1991 November 15; 112(5): 606-7.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=1951610

- **Lactose intolerance in chronic diarrhea among Indonesian children.**
  Author(s): Sunoto, Suharjono, Mangiwa J, Sutedjo.
  Source: Paediatr Indones. 1971 September-October; 11(5): 1-6. No Abstract Available.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=5158604

- **Lactulose/mannitol test has high efficacy for excluding organic causes of chronic diarrhea.**
  Author(s): Di Leo V, D'Inca R, Diaz-Granado N, Fries W, Venturi C, D'Odorico A, Martines D, Sturniolo GC.
  Source: The American Journal of Gastroenterology. 2003 October; 98(10): 2245-52.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=14572575

- **Limitations in the use of 14C-glycocholate breath and stool bile acid determinations in patients with chronic diarrhea.**
  Author(s): Ferguson J, Walker K, Thomson AB.
  Source: Journal of Clinical Gastroenterology. 1986 June; 8(3 Pt 1): 258-62.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=3090133

- **Loperamide (R 18 553), a novel type of antidiarrheal agent. Part 7: Clinical investigation. Efficacy and safety of loperamide in patients with severe chronic diarrhea.**
  Author(s): Verhaegen H, De Cree J, Schuermans V.
  Source: Arzneimittel-Forschung. 1974 October; 24(10): 1657-60.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=4611433

- **Loperamide in chronic diarrhea and after ileostomy: a placebo-controlled double-blind cross-over study.**
  Author(s): Tytgat GN, Huibregtse K, Meuwissen SG.
  Source: Arch Chir Neerl. 1976; 28(1): 13-20.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=779663

- **Loperamide, a new antidiarrheal agent in the treatment of chronic diarrhea.**
  Author(s): Galambos JT.
  Source: Schweiz Med Wochenschr. 1978 July 15; 108(28): 1080-1.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=97779

- **Loperamide: a new antidiarrheal agent in the treatment of chronic diarrhea.**
  Author(s): Galambos JT, Hersh T, Schroder S, Wenger J.
  Source: Gastroenterology. 1976 June; 70(6): 1026-9.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=773735

- **Malabsorption and deficiency of vitamin B12 in HIV-infected patients with chronic diarrhea.**
  Author(s): Ehrenpreis ED, Carlson SJ, Boorstein HL, Craig RM.
  Source: Digestive Diseases and Sciences. 1994 October; 39(10): 2159-62.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=7924736

- **Management of chronic diarrhea with parenteral nutrition and enteral infusion techniques.**
  Author(s): Ament ME.
  Source: Pediatric Annals. 1985 January; 14(1): 53, 57-60.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=3919361

- **Metabolic acidosis due to inapparent defects in renal acid excretion in a patient with chronic diarrhea.**
  Author(s): Phelps KR, Uribarri J.
  Source: American Journal of Nephrology. 1990; 10(1): 37-43.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=2343879

- **Metformin as a cause of late-onset chronic diarrhea.**
  Author(s): Foss MT, Clement KD.
  Source: Pharmacotherapy. 2001 November; 21(11): 1422-4.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11714216

- **Methods for detection of an intestinal secretory immunoglobulin A response to Candida spp. and their preliminary application in human immunodeficiency virus-infected patients with chronic diarrhea.**
  Author(s): Scerpella EG, Gould SS, Mathewson JJ, DuPont HL.
  Source: Clinical and Diagnostic Laboratory Immunology. 1995 March; 2(2): 246-8.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=7697539

- **Microscopic colitis: a new cause of chronic diarrhea in children?**
  Author(s): Mashako MN, Sonsino E, Navarro J, Mougenot JF, Gargouri A, Boige N, Cezard JP.
  Source: Journal of Pediatric Gastroenterology and Nutrition. 1990 January; 10(1): 21-6.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=2324876

- **Mitochondrial DNA rearrangements with onset as chronic diarrhea with villous atrophy.**
  Author(s): Cormier-Daire V, Bonnefont JP, Rustin P, Maurage C, Ogler H, Schmitz J, Ricour C, Saudubray JM, Munnich A, Rotig A.
  Source: The Journal of Pediatrics. 1994 January; 124(1): 63-70.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8283377

- **Molecular diagnosis of an Enterocytozoon bieneusi human genotype C infection in a moderately immunosuppressed human immunodeficiency virus seronegative liver-transplant recipient with severe chronic diarrhea.**
  Author(s): Sing A, Tybus K, Heesemann J, Mathis A.
  Source: Journal of Clinical Microbiology. 2001 June; 39(6): 2371-2. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11414246

- **Mosaic expression of brush-border enzymes in infants with chronic diarrhea and malnutrition.**
  Author(s): Nichols BL, Carrazza F, Nichols VN, Putman M, Johnston P, Rodrigues M, Quaroni A, Shiner M.
  Source: Journal of Pediatric Gastroenterology and Nutrition. 1992 May; 14(4): 371-9.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=1355533

- **Multifocal colitis associated with an epidemic of chronic diarrhea.**
  Author(s): Janda RC, Conklin JL, Mitros FA, Parsonnet J.
  Source: Gastroenterology. 1991 February; 100(2): 458-64.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=1985042

- **Neural-crest tumor presenting with chronic diarrhea: a report of three cases.**
  Author(s): Tang KT, Lee HC, Liang DC, Chen SH, Liu HC, Sheu JC.
  Source: J Formos Med Assoc. 2002 December; 101(12): 864-7.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=12632821

- **No effect of propranolol on chronic diarrhea.**
  Author(s): Donowitz M, Charney AN.
  Source: The New England Journal of Medicine. 1979 January 25; 300(4): 201.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=759856

- **Nutritional management of chronic diarrhea and malnutrition: primary reliance on oral feeding.**
  Author(s): MacLean WC Jr, Lopez de Romana G, Massa E, Graham GG.
  Source: The Journal of Pediatrics. 1980 August; 97(2): 316-23.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=6772751

- **Nutritional management of chronic diarrhea and/or malabsorption.**
  Author(s): Kleinman RE, Galeano NF, Ghishan F, Lebenthal E, Sutphen J, Ulshen MH.
  Source: Journal of Pediatric Gastroenterology and Nutrition. 1989 November; 9(4): 407-15. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=2486305

- **Overview of chronic diarrhea caused by functional neuroendocrine neoplasms.**
  Author(s): Jensen RT.
  Source: Semin Gastrointest Dis. 1999 October; 10(4): 156-72. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10548409

- **Pathogenesis of small-intestinal mucosal lesions in chronic diarrhea of infancy: I. A light microscopic study.**
  Author(s): Shiner M, Putman M, Nichols VN, Nichols BL.
  Source: Journal of Pediatric Gastroenterology and Nutrition. 1990 November; 11(4): 455-63.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=2262834

- **Pathogenesis of small-intestinal mucosal lesions in chronic diarrhea of infancy: II. An electron microscopic study.**
  Author(s): Shiner M, Nichols VN, Barrish JP, Nichols BL.
  Source: Journal of Pediatric Gastroenterology and Nutrition. 1990 November; 11(4): 464-80.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=2262835

- **Pathogenic Escherichia coli in children with and without chronic diarrhea in Tanzania.**
  Author(s): Cegielski JP, Msengi AE, Dukes CS, Levine MM.
  Source: The Journal of Infectious Diseases. 1996 September; 174(3): 675-7.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8769640

- **Patients with chronic diarrhea.**
  Author(s): Eisenberg L.
  Source: The New England Journal of Medicine. 1995 July 27; 333(4): 257-8.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=7791850

- **Patients with chronic diarrhea.**
  Author(s): Cottone M, Aiala R, Di Mitri R.
  Source: The New England Journal of Medicine. 1995 July 27; 333(4): 257; Author Reply 257-8.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=7791849

- **Patients with chronic diarrhea.**
  Author(s): Ballinger AB, Cevallos AM, Clark ML.
  Source: The New England Journal of Medicine. 1995 July 27; 333(4): 257; Author Reply 257-8.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=7646693

- **Pericrypt eosinophilic enterocolitis and chronic diarrhea.**
  Author(s): Clouse RE, Alpers DH, Hockenbery DM, DeSchryver-Kecskemeti K.
  Source: Gastroenterology. 1992 July; 103(1): 168-76.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=1612324

- **Perinephric abscess presenting as chronic diarrhea.**
  Author(s): McLellan RA, Fischer MA, Belitsky P.
  Source: Can J Urol. 2000 April; 7(2): 983-5.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11119443

- **Phenelzine treatment of depression with chronic diarrhea.**
  Author(s): Weiss KJ, Schwartz HJ, Berrettini WH.
  Source: The Journal of Clinical Psychiatry. 1982 June; 43(6): 250-1.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=7085581

- **Point mutations in the ileal bile salt transporter cause leaks in the enterohepatic circulation leading to severe chronic diarrhea and malabsorption.**
  Author(s): Small DM.
  Source: The Journal of Clinical Investigation. 1997 April 15; 99(8): 1807-8. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=9109422

- **Polle syndrome: chronic diarrhea in Munchausen's child.**
  Author(s): Ackerman NB Jr, Strobel CT.
  Source: Gastroenterology. 1981 December; 81(6): 1140-2.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=7286591

- **Prevention of chronic diarrhea: nutritional implications.**
  Author(s): Loeb H, Mozin MJ.
  Source: Journal of Pediatric Gastroenterology and Nutrition. 1983; 2 Suppl 1: S328-34.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=6417309

- **Primary adenocarcinoma of large bowel presenting with chronic diarrhea.**
  Author(s): Shuangshoti S.
  Source: J Med Assoc Thai. 1987 March; 70(3): 142-50. No Abstract Available.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=3611999

- **Pseudomembranous colitis presenting as mild, chronic diarrhea in childhood.**
  Author(s): Schwarz RP, Ulshen MH.
  Source: Journal of Pediatric Gastroenterology and Nutrition. 1983; 2(3): 570-3.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=6620064

- **Quality of life and health service use among HIV-infected patients with chronic diarrhea.**
  Author(s): Lubeck DP, Bennett CL, Mazonson PD, Fifer SK, Fries JF.
  Source: Journal of Acquired Immune Deficiency Syndromes (1999). 1993 May; 6(5): 478-84.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8483111

- **Quality of life and self-care management strategies of PLWAs with chronic diarrhea.**
  Author(s): Henry SB, Holzemer WL, Weaver K, Stotts N.
  Source: The Journal of the Association of Nurses in Aids Care : Janac. 1999 March-April; 10(2): 46-54.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10065409

- **Rapid intestinal transit as a primary cause of severe chronic diarrhea in patients with amyloidosis.**
  Author(s): Guirl MJ, Hogenauer C, Santa Ana CA, Porter JL, Little KH, Stone MJ, Fordtran JS.
  Source: The American Journal of Gastroenterology. 2003 October; 98(10): 2219-25.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=14572571

- **Recurrent infection, chronic diarrhea, and failure to thrive in a seven-month-old infant.**
  Author(s): Lahood NN, Hershfield MS, Leiva LE, Sorensen RU.
  Source: Ann Allergy. 1991 October; 67(4): 389-93. No Abstract Available.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=1952294

- **Recurrent periorbital cellulitis and otitis media in an asthmatic child with chronic diarrhea and short stature.**
  Author(s): Younes JS, Simon MR, Moore EC, Bahrainwala AH.
  Source: Annals of Allergy, Asthma & Immunology : Official Publication of the American College of Allergy, Asthma, & Immunology. 2002 February; 88(2): 164-9.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11868920

- **Scurvy and chronic diarrhea in Civil War troops: were they both nutritional deficiency syndromes?**
  Author(s): Bollet AJ.
  Source: Journal of the History of Medicine and Allied Sciences. 1992 January; 47(1): 49-67.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=1556443

- **Septata intestinalis N. G., N. Sp., an intestinal microsporidian associated with chronic diarrhea and dissemination in AIDS patients.**
  Author(s): Cali A, Kotler DP, Orenstein JM.
  Source: The Journal of Eukaryotic Microbiology. 1993 January-February; 40(1): 101-12.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8457797

- **Serum alkaline phosphatase and zinc undernutrition in infants with chronic diarrhea.**
  Author(s): Rothbaum RJ, Maur PR, Farrell MK.
  Source: The American Journal of Clinical Nutrition. 1982 March; 35(3): 595-8.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=6801964

- **Serum and rectal mucosal copper status in acute and chronic diarrhea.**
  Author(s): Sachdev HP, Mittal NK, Yadav HS.
  Source: Journal of Pediatric Gastroenterology and Nutrition. 1989 February; 8(2): 212-6.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=2709251

- **Serum and rectal mucosal zinc levels in acute and chronic diarrhea.**
  Author(s): Sachdev HP, Mittal NK, Yadav HS.
  Source: Indian Pediatrics. 1990 February; 27(2): 125-33.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=2361756

- **Severe chronic diarrhea induced by ticlopidine.**
  Author(s): Fraga MD, Garcia B, Agud JL, Marco J, de Juana P, Cervero M.
  Source: The Annals of Pharmacotherapy. 1996 December; 30(12): 1496.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8968466

- **Severe chronic diarrhea secondary to celiprolol.**
  Author(s): Machet L, Codjovi P, Jonville AP, Autret E.
  Source: The Annals of Pharmacotherapy. 1992 June; 26(6): 842-3.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=1351767

- **Small bowel bacterial overgrowth as a cause of chronic diarrhea after liver transplantation in children.**
  Author(s): Mack DR, Dhawan A, Kaufman SS, Langnas AN, Seemayer TA.
  Source: Liver Transplantation and Surgery : Official Publication of the American Association for the Study of Liver Diseases and the International Liver Transplantation Society. 1998 March; 4(2): 166-9.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=9516570

- **Small bowel function in severe chronic diarrhea in children.**
  Author(s): Mehta S, Wadhwa UN, Prakash A, Chhuttani PN.
  Source: J Assoc Physicians India. 1968 June; 16(6): 342-9. No Abstract Available.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=5714734

- **Small-bowel bacterial overgrowth in children with chronic diarrhea, abdominal pain, or both.**
  Author(s): de Boissieu D, Chaussain M, Badoual J, Raymond J, Dupont C.
  Source: The Journal of Pediatrics. 1996 February; 128(2): 203-7.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8636812

- **Studies of the prevalence and significance of radiolabeled bile acid malabsorption in a group of patients with idiopathic chronic diarrhea.**
  Author(s): Schiller LR, Hogan RB, Morawski SG, Santa Ana CA, Bern MJ, Norgaard RP, Bo-Linn GW, Fordtran JS.
  Source: Gastroenterology. 1987 January; 92(1): 151-60.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=3781183

- **Symposium on diarrhea. 3. Investigation of chronic diarrhea.**
  Author(s): Groll A.
  Source: Can Med Assoc J. 1977 April 9; 116(7): 742-4.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=191173

- **The absorption of digitoxin in patients with acute and chronic diarrhea.**
  Author(s): Takanashi T, Katoh T, Takeda H, Tokuoka T, Hamamoto H, Kitamura K.
  Source: Japanese Circulation Journal. 1978 July; 42(7): 849-53.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=713024

- **The case of primary systemic amyloidosis in chronic diarrhea, weight loss and hypotension.**
  Author(s): Di Stefano R, Fanelli M, Dammacco F.
  Source: Ann Ital Med Int. 1993 January-March; 8(1): 47. No Abstract Available.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8485010

- **The changing etiology of chronic diarrhea in HIV-infected patients with CD4 cell counts less than 200 cells/mm3.**
  Author(s): Call SA, Heudebert G, Saag M, Wilcox CM.
  Source: The American Journal of Gastroenterology. 2000 November; 95(11): 3142-6.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11095332

- **The possible adverse effect of the use of aluminum hydroxide in chronic diarrhea.**
  Author(s): Klein GL.
  Source: Journal of Pediatric Gastroenterology and Nutrition. 1984 September; 3(4): 647.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=6481572

- **The prevalence and causes of chronic diarrhea in patients with celiac sprue treated with a gluten-free diet.**
  Author(s): Fine KD, Meyer RL, Lee EL.
  Source: Gastroenterology. 1997 June; 112(6): 1830-8. Erratum In: Gastroenterology 1998 February; 114(2): 424-5.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=9178673

- **The prevalence of chronic diarrhea among diabetic patients.**
  Author(s): Lysy J, Israeli E, Goldin E.
  Source: The American Journal of Gastroenterology. 1999 August; 94(8): 2165-70.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10445544

- **The prevalence, anatomic distribution, and diagnosis of colonic causes of chronic diarrhea.**
  Author(s): Fine KD, Seidel RH, Do K.
  Source: Gastrointestinal Endoscopy. 2000 March; 51(3): 318-26.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10699778

- **The role of Microsporidia in the pathogenesis of HIV-related chronic diarrhea.**
  Author(s): Rabeneck L, Gyorkey F, Genta RM, Gyorkey P, Foote LW, Risser JM.
  Source: Annals of Internal Medicine. 1993 November 1; 119(9): 895-9.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8215001

- **The role of mucosal biopsy in the diagnosis of chronic diarrhea: value of multiple biopsies when colonoscopic finding is normal or nonspecific.**
  Author(s): Lee JH, Rhee PL, Kim JJ, Koh KC, Paik SW, Han JH, Ree HJ, Rhee JC.
  Source: Korean J Intern Med. 1997 June; 12(2): 182-7.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=9439153

- **The Shwachman Award of the North American Society for Pediatric Gastroenterology, Hepatology and Nutrition 2002: acceptance. Dietary management of the malnourished child with chronic diarrhea: both nurture and nature.**
  Author(s): Nichols BL.
  Source: Journal of Pediatric Gastroenterology and Nutrition. 2003 February; 36(2): 168-9.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=12548049

- **The small bowel mucosa in disease states characterized by chronic diarrhea: observations by scanning electron microscopy.**
  Author(s): Poley JR.
  Source: Scan Electron Microsc. 1983; (Pt 3): 1293-306.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=6648339

- **Tissue magnesium level in chronic diarrhea.**
  Author(s): Lim P, Jacob E.
  Source: The Journal of Laboratory and Clinical Medicine. 1972 September; 80(3): 313-21.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=5055382

- **Treatment of chronic diarrhea with amoxicillin.**
  Author(s): Santoscoy G, Grannell J, Romero M.
  Source: The Journal of Infectious Diseases. 1974 June; 129(0): Suppl: S228-30.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=4601192

- **Trichuris vulpis recovered from a patient with chronic diarrhea and five dogs.**
  Author(s): Dunn JJ, Columbus ST, Aldeen WE, Davis M, Carroll KC.
  Source: Journal of Clinical Microbiology. 2002 July; 40(7): 2703-4.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=12089315

- **Unusual manifestations of neuroblastoma: chronic diarrhea, polymyoclonia-opsoclonus, and erythrocyte abnormalities.**
  Author(s): Williams TH, House RF Jr, Burgert EO Jr, Lynn HB.
  Source: Cancer. 1972 February; 29(2): 475-80.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=5013550

- **Usefulness of colonoscopy with biopsy in the evaluation of patients with chronic diarrhea.**
  Author(s): Shah RJ, Fenoglio-Preiser C, Bleau BL, Giannella RA.
  Source: The American Journal of Gastroenterology. 2001 April; 96(4): 1091-5.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11316152

- **Utility of a rapid fecal latex agglutination test detecting the neutrophil protein, lactoferrin, for diagnosing inflammatory causes of chronic diarrhea.**
  Author(s): Fine KD, Ogunji F, George J, Niehaus MD, Guerrant RL.
  Source: The American Journal of Gastroenterology. 1998 August; 93(8): 1300-5.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=9707055

- **Vasocative intestinal polypeptide (VIP)-producing ganglioneuroma in a child with chronic diarrhea.**
  Author(s): Hansen LP, Lund HT, Fahrenkrug J, Sogaard H.
  Source: Acta Paediatr Scand. 1980 May; 69(3): 419-24.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=7376870

- **What is the differential diagnosis of chronic diarrhea in immunocompetent patients?**
  Author(s): Kruszka PS Jr, Hall LW.
  Source: The Journal of Family Practice. 2002 March; 51(3): 212.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11978230

- **Zinc and copper in hair and plasma of children with chronic diarrhea.**
  Author(s): Rodriguez A, Soto G, Torres S, Venegas G, Castillo-Duran C.
  Source: Acta Paediatr Scand. 1985 September; 74(5): 770-4.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=4050425

- **Zinc dependency as a cause of chronic diarrhea in variant acrodermatitis enteropathica.**
  Author(s): Krieger I, Evans GW, Zelkowitz PS.
  Source: Pediatrics. 1982 June; 69(6): 773-7.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=6918908

CHAPTER 2. NUTRITION AND CHRONIC DIARRHEA

Overview

In this chapter, we will show you how to find studies dedicated specifically to nutrition and chronic diarrhea.

Finding Nutrition Studies on Chronic Diarrhea

The National Institutes of Health's Office of Dietary Supplements (ODS) offers a searchable bibliographic database called the IBIDS (International Bibliographic Information on Dietary Supplements; National Institutes of Health, Building 31, Room 1B29, 31 Center Drive, MSC 2086, Bethesda, Maryland 20892-2086, Tel: 301-435-2920, Fax: 301-480-1845, E-mail: ods@nih.gov). The IBIDS contains over 460,000 scientific citations and summaries about dietary supplements and nutrition as well as references to published international, scientific literature on dietary supplements such as vitamins, minerals, and botanicals.[7] The IBIDS includes references and citations to both human and animal research studies.

As a service of the ODS, access to the IBIDS database is available free of charge at the following Web address: **http://ods.od.nih.gov/databases/ibids.html**. After entering the search area, you have three choices: (1) IBIDS Consumer Database, (2) Full IBIDS Database, or (3) Peer Reviewed Citations Only.

Now that you have selected a database, click on the "Advanced" tab. An advanced search allows you to retrieve up to 100 fully explained references in a comprehensive format. Type "chronic diarrhea" (or synonyms) into the search box, and click "Go." To narrow the search, you can also select the "Title" field.

---

[7] Adapted from **http://ods.od.nih.gov**. IBIDS is produced by the Office of Dietary Supplements (ODS) at the National Institutes of Health to assist the public, healthcare providers, educators, and researchers in locating credible, scientific information on dietary supplements. IBIDS was developed and will be maintained through an interagency partnership with the Food and Nutrition Information Center of the National Agricultural Library, U.S. Department of Agriculture.

The following information is typical of that found when using the "Full IBIDS Database" to search for "chronic diarrhea" (or a synonym):

- **Clinical therapeutic effect of drug-separated moxibustion on chronic diarrhea and its immunologic mechanisms.**
  Author(s): Shanghai Municipal Institute of Acupuncture, Moxibustion and Meridians.
  Source: Wu, H Chen, H Hua, X Shi, Z Zhang, L Chen, J J-Tradit-Chin-Med. 1997 December; 17(4): 253-8 0254-6272
- **Nutrition in chronic diarrhea of infancy.**
  Source: Lifshitz, F. Nestle-Nutr-Workshop-Ser. New York, N.Y. : Raven Press. 1987. volume 11 page 275-289. ill. 0742-2806

Federal Resources on Nutrition

In addition to the IBIDS, the United States Department of Health and Human Services (HHS) and the United States Department of Agriculture (USDA) provide many sources of information on general nutrition and health. Recommended resources include:

- healthfinder®, HHS's gateway to health information, including diet and nutrition: **http://www.healthfinder.gov/scripts/SearchContext.asp?topic=238&page=0**
- The United States Department of Agriculture's Web site dedicated to nutrition information: **www.nutrition.gov**
- The Food and Drug Administration's Web site for federal food safety information: **www.foodsafety.gov**
- The National Action Plan on Overweight and Obesity sponsored by the United States Surgeon General: **http://www.surgeongeneral.gov/topics/obesity/**
- The Center for Food Safety and Applied Nutrition has an Internet site sponsored by the Food and Drug Administration and the Department of Health and Human Services: **http://vm.cfsan.fda.gov/**
- Center for Nutrition Policy and Promotion sponsored by the United States Department of Agriculture: **http://www.usda.gov/cnpp/**
- Food and Nutrition Information Center, National Agricultural Library sponsored by the United States Department of Agriculture: **http://www.nal.usda.gov/fnic/**
- Food and Nutrition Service sponsored by the United States Department of Agriculture: **http://www.fns.usda.gov/fns/**

Additional Web Resources

A number of additional Web sites offer encyclopedic information covering food and nutrition. The following is a representative sample:

- AOL: **http://search.aol.com/cat.adp?id=174&layer=&from=subcats**
- Family Village: **http://www.familyvillage.wisc.edu/med_nutrition.html**
- Google: **http://directory.google.com/Top/Health/Nutrition/**
- Healthnotes: **http://www.healthnotes.com/**

- Open Directory Project: **http://dmoz.org/Health/Nutrition/**
- Yahoo.com: **http://dir.yahoo.com/Health/Nutrition/**
- WebMD®Health: **http://my.webmd.com/nutrition**
- WholeHealthMD.com: **http://www.wholehealthmd.com/reflib/0,1529,00.html**

The following is a specific Web list relating to chronic diarrhea; please note that any particular subject below may indicate either a therapeutic use, or a contraindication (potential danger), and does not reflect an official recommendation:

- **Vitamins**

  Folic Acid
  Source: WholeHealthMD.com, LLC.; www.wholehealthmd.com
  Hyperlink:
  http://www.wholehealthmd.com/refshelf/substances_view/0,1525,887,00.html

  Vitamin K
  Source: Prima Communications, Inc.www.personalhealthzone.com

- **Minerals**

  Sulfur
  Source: Integrative Medicine Communications; www.drkoop.com

  Zinc
  Source: Integrative Medicine Communications; www.drkoop.com

- **Food and Diet**

  Coffee
  Source: Healthnotes, Inc.; www.healthnotes.com

CHAPTER 3. ALTERNATIVE MEDICINE AND CHRONIC DIARRHEA

Overview

In this chapter, we will begin by introducing you to official information sources on complementary and alternative medicine (CAM) relating to chronic diarrhea. At the conclusion of this chapter, we will provide additional sources.

National Center for Complementary and Alternative Medicine

The National Center for Complementary and Alternative Medicine (NCCAM) of the National Institutes of Health (**http://nccam.nih.gov/**) has created a link to the National Library of Medicine's databases to facilitate research for articles that specifically relate to chronic diarrhea and complementary medicine. To search the database, go to the following Web site: **http://www.nlm.nih.gov/nccam/camonpubmed.html**. Select "CAM on PubMed." Enter "chronic diarrhea" (or synonyms) into the search box. Click "Go." The following references provide information on particular aspects of complementary and alternative medicine that are related to chronic diarrhea:

- **"Pink" diarrhoea: osmotic diarrhoea from a sorbitol-containing vitamin C supplement.**
  Author(s): Hill RE, Kamath KR.
  Source: The Medical Journal of Australia. 1982 May 1; 1(9): 387-9.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=7087881

- **A clinical trial of the oral form of 4'-demethyl-epipodophyllotoxin-beta-D ethylidene glucoside (NSC 141540) VP 16-213.**
  Author(s): Falkson G, van Dyk JJ, van Eden EB, van der Merwe AM, van den Bergh JA, Falkson HC.
  Source: Cancer. 1975 April; 35(4): 1141-4.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=163675

- **A randomized controlled clinical trial of zinc, vitamin A or both in undernourished children with persistent diarrhea in Bangladesh.**
  Author(s): Khatun UH, Malek MA, Black RE, Sarkar NR, Wahed MA, Fuchs G, Roy SK.
  Source: Acta Paediatrica (Oslo, Norway : 1992). 2001 April; 90(4): 376-80.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11332926

- **A single-blind trial of reflexology for irritable bowel syndrome.**
  Author(s): Tovey P.
  Source: The British Journal of General Practice : the Journal of the Royal College of General Practitioners. 2002 January; 52(474): 19-23.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11791811

- **A systematic review of alternative therapies in the irritable bowel syndrome.**
  Author(s): Spanier JA, Howden CW, Jones MP.
  Source: Archives of Internal Medicine. 2003 February 10; 163(3): 265-74. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=12578506

- **Acupuncture in the treatment of chronic diarrhea.**
  Author(s): TS'AO HS, LIU CS, WU YH.
  Source: Zhonghua Nei Ke Za Zhi. 1959 January; 7(1): 10-1. Chinese. No Abstract Available.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=13639154

- **Acupuncture treatment for 30 cases of infantile chronic diarrhea.**
  Author(s): Feng WL.
  Source: J Tradit Chin Med. 1989 June; 9(2): 106-7. No Abstract Available.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=2779270

- **Antibiotic efficacy in small intestinal bacterial overgrowth-related chronic diarrhea: a crossover, randomized trial.**
  Author(s): Attar A, Flourie B, Rambaud JC, Franchisseur C, Ruszniewski P, Bouhnik Y.
  Source: Gastroenterology. 1999 October; 117(4): 794-7.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10500060

- **Application of the drugs for expelling the pathogenic wind in treatment of chronic diarrhea.**
  Author(s): Wang K.
  Source: J Tradit Chin Med. 2003 December; 23(4): 264-6. No Abstract Available.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=14719293

- **Chronic diarrhea and soy formulas. Inhibition of diarrhea by lactose.**
  Author(s): Donovan GK, Torres-Pinedo R.

Source: Am J Dis Child. 1987 October; 141(10): 1069-71.
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=3630992

- **Chronic diarrhea.**
Author(s): Vanderhoof JA.
Source: Pediatrics in Review / American Academy of Pediatrics. 1998 December; 19(12): 418-22.
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=9849071

- **Clinical therapeutic effect of drug-separated moxibustion on chronic diarrhea and its immunologic mechanisms.**
Author(s): Wu H, Chen H, Hua X, Shi Z, Zhang L, Chen J.
Source: J Tradit Chin Med. 1997 December; 17(4): 253-8.
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10437206

- **Effect of Lactobacillus strains (L. casei and L. Acidophillus Strains cerela) on bacterial overgrowth-related chronic diarrhea.**
Author(s): Gaon D, Garmendia C, Murrielo NO, de Cucco Games A, Cerchio A, Quintas R, Gonzalez SN, Oliver G.
Source: Medicina (B Aires). 2002; 62(2): 159-63.
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=12038039

- **Evaluation of two diets in the nutritional management of cats with naturally occurring chronic diarrhea.**
Author(s): Laflamme DS, Long GM.
Source: Vet Ther. 2004 Spring; 5(1): 43-51.
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=15150729

- **Multicenter, randomized, controlled trial of heat-killed Lactobacillus acidophilus LB in patients with chronic diarrhea.**
Author(s): Xiao SD, Zhang de Z, Lu H, Jiang SH, Liu HY, Wang GS, Xu GM, Zhang ZB, Lin GJ, Wang GL.
Source: Adv Ther. 2003 September-October; 20(5): 253-60.
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=14964345

- **The radiation of the He-Ne laser on acupoints in treatment of infantile chronic diarrhea in 93 cases.**
Author(s): Shi BP, Shi YM, Lin LY, Bu HD.
Source: J Tradit Chin Med. 1985 June; 5(2): 89-91. No Abstract Available.
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=3851119

- **Therapeutic effects of Saccharomyces boulardii on mild residual symptoms in a stable phase of Crohn's disease with special respect to chronic diarrhea--a pilot study.**
  Author(s): Plein K, Hotz J.
  Source: Zeitschrift Fur Gastroenterologie. 1993 February; 31(2): 129-34.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8465554

Additional Web Resources

A number of additional Web sites offer encyclopedic information covering CAM and related topics. The following is a representative sample:

- Alternative Medicine Foundation, Inc.: **http://www.herbmed.org/**
- AOL: **http://search.aol.com/cat.adp?id=169&layer=&from=subcats**
- Chinese Medicine: **http://www.newcenturynutrition.com/**
- drkoop.com®: **http://www.drkoop.com/InteractiveMedicine/IndexC.html**
- Family Village: **http://www.familyvillage.wisc.edu/med_altn.htm**
- Google: **http://directory.google.com/Top/Health/Alternative/**
- Healthnotes: **http://www.healthnotes.com/**
- MedWebPlus: **http://medwebplus.com/subject/Alternative_and_Complementary_Medicine**
- Open Directory Project: **http://dmoz.org/Health/Alternative/**
- HealthGate: **http://www.tnp.com/**
- WebMD®Health: **http://my.webmd.com/drugs_and_herbs**
- WholeHealthMD.com: **http://www.wholehealthmd.com/reflib/0,1529,00.html**
- Yahoo.com: **http://dir.yahoo.com/Health/Alternative_Medicine/**

The following is a specific Web list relating to chronic diarrhea; please note that any particular subject below may indicate either a therapeutic use, or a contraindication (potential danger), and does not reflect an official recommendation:

- **General Overview**

  Crohn's Disease
  Source: Healthnotes, Inc.; www.healthnotes.com

  Diarrhea
  Source: Healthnotes, Inc.; www.healthnotes.com

  HIV and AIDS Support
  Source: Healthnotes, Inc.; www.healthnotes.com

- **Chinese Medicine**

  Baibiandou
  Alternative names: White Hyacinth Bean; Semen Lablab Album
  Source: Chinese Materia Medica

  Baifan
  Alternative names: lum; Baifan (Bai Fan); Alume
  Source: Chinese Materia Medica

  Chishizhi
  Alternative names: Red Halloysite; Halloysitum Rubrum
  Source: Chinese Materia Medica

  Chunpi
  Alternative names: Tree-of-heaven Bark; Cortex Ailanthi
  Source: Chinese Materia Medica

  Huangqi
  Alternative names: Milkvetch; Radix Astragali
  Source: Chinese Materia Medica

  Jianpi Wan
  Alternative names: Jianpi Pills
  Source: Pharmacopoeia Commission of the Ministry of Health, People's Republic of China

  Nuanqi Gao
  Alternative names: Nuanqi Plaster
  Source: Pharmacopoeia Commission of the Ministry of Health, People's Republic of China

  Qianshi
  Alternative names: Gordon Euryale Seed; Semen Euryales
  Source: Chinese Materia Medica

  Qipi Wan
  Alternative names: Qipi Pills
  Source: Pharmacopoeia Commission of the Ministry of Health, People's Republic of China

  Renshen Jianpi Wan
  Alternative names: enshen Jianpi Pills; Renshen Jianpi Wan(Ren Shen Jian Pi Wan
  Source: Pharmacopoeia Commission of the Ministry of Health, People's Republic of China

  Shanyao
  Alternative names: Common Yam Rhizome; Rhizoma Dioscoreae
  Source: Chinese Materia Medica

Shenling Baizhu San
Alternative names: henling Baizhu Powder; Shenling Baizhu San (Shen Ling Bai Zhu San
Source: Pharmacopoeia Commission of the Ministry of Health, People's Republic of China

Sijunzi Wan
Alternative names: ijunzi Pills; Sijunzi Wan (Si Jun Zi Wan
Source: Pharmacopoeia Commission of the Ministry of Health, People's Republic of China

Yuyuliang
Alternative names: Limonite; Limonitum
Source: Chinese Materia Medica

- **Herbs and Supplements**

Angelica sinensis
Source: Integrative Medicine Communications; www.drkoop.com

Cascara Sagrada
Source: WholeHealthMD.com, LLC.; www.wholehealthmd.com
Hyperlink:
http://www.wholehealthmd.com/refshelf/substances_view/0,1525,10013,00.html

Chinese Angelica
Source: Integrative Medicine Communications; www.drkoop.com

Colostrum
Source: Prima Communications, Inc.www.personalhealthzone.com

Danggui
Alternative names: Angelica sinensis, Chinese Angelica, Dang Gui, Danngui, Dong Qua, Tang Kuei, Tan Kue Bai zhi(Note: Dong quai should not be confused with Angelica root or Angelica seed.)
Source: Integrative Medicine Communications; www.drkoop.com

Dong Quai
Alternative names: Angelica sinensis, Chinese Angelica, Dang Gui, Danngui, Dong Qua, Tang Kuei, Tan Kue Bai zhi(Note: Dong quai should not be confused with Angelica root or Angelica seed.)
Source: Integrative Medicine Communications; www.drkoop.com

Medium-Chain Triglycerides
Source: Prima Communications, Inc.www.personalhealthzone.com

Tang Kuei
Source: Integrative Medicine Communications; www.drkoop.com

General References

A good place to find general background information on CAM is the National Library of Medicine. It has prepared within the MEDLINEplus system an information topic page dedicated to complementary and alternative medicine. To access this page, go to the MEDLINEplus site at **http://www.nlm.nih.gov/medlineplus/alternativemedicine.html**. This Web site provides a general overview of various topics and can lead to a number of general sources.

CHAPTER 4. BOOKS ON CHRONIC DIARRHEA

Overview

This chapter provides bibliographic book references relating to chronic diarrhea. In addition to online booksellers such as **www.amazon.com** and **www.bn.com**, excellent sources for book titles on chronic diarrhea include the Combined Health Information Database and the National Library of Medicine. Your local medical library also may have these titles available for loan.

Book Summaries: Federal Agencies

The Combined Health Information Database collects various book abstracts from a variety of healthcare institutions and federal agencies. To access these summaries, go directly to the following hyperlink: **http://chid.nih.gov/detail/detail.html**. You will need to use the "Detailed Search" option. To find book summaries, use the drop boxes at the bottom of the search page where "You may refine your search by." Select the dates and language you prefer. For the format option, select "Monograph/Book." Now type "chronic diarrhea" (or synonyms) into the "For these words:" box. You should check back periodically with this database which is updated every three months. The following is a typical result when searching for books on chronic diarrhea:

- **Pediatric Nutrition Handbook. 3rd ed**

  Source: Elk Grove Village, IL: American Academy of Pediatrics. 1993. 472 p.

  Contact: Available from American Academy of Pediatrics. P.O. Box 927, 141 Northwest Point Boulevard, Elk Grove Village, IL 60009-0927. (800) 433-9016. PRICE: $47.95 (members) plus $6.25 shipping and handling; $52.95 for nonmembers; plus $8.95 shipping and handling. ISBN: 0910761388.

  Summary: This handbook serves as a ready desk reference on the nutritional requirements and impact of nutritional status on the health of infants, children, and adolescents. Thirty-five chapters cover breastfeeding; formula feeding of term infants; supplemental foods for infants; vitamin and mineral supplement needs of healthy children in the United States; feeding from age 1 year to adolescence; adolescent nutrition; the nutritional needs of preterm infants; energy; proteins; carbohydrate and

dietary fiber; fats and fatty acids; calcium, phosphorus, and magnesium; trace elements; vitamins; infant nutrition and the development of gastrointestinal function; parenteral nutrition; nutrition and oral health; community nutrition services for children; current legislation and regulations regarding infant formulas; assessment of nutritional status; failure to thrive; gastrointestinal disease, **chronic diarrhea,** and malabsorption; oral fluid therapy and posttreatment feeding after enteritis; iron deficiency; inborn errors of metabolism; diabetes mellitus; hypoglycemia; hyperlipidemia; obesity; food hypersensitivity; nutrition and infection; diet in the prevention of cancer or hypertension; nutritional aspects of vegetarian diets; fast foods, organic foods, and megavitamins; and food additives. Extensive appendices and a subject index conclude the volume.

Chapters on Chronic Diarrhea

In order to find chapters that specifically relate to chronic diarrhea, an excellent source of abstracts is the Combined Health Information Database. You will need to limit your search to book chapters and chronic diarrhea using the "Detailed Search" option. Go to the following hyperlink: **http://chid.nih.gov/detail/detail.html**. To find book chapters, use the drop boxes at the bottom of the search page where "You may refine your search by." Select the dates and language you prefer, and the format option "Book Chapter." Type "chronic diarrhea" (or synonyms) into the "For these words:" box. The following is a typical result when searching for book chapters on chronic diarrhea:

- **Secretory Diarrhea**

  Source: in Brandt, L., et al., eds. Clinical Practice of Gastroenterology. Volume One. Philadelphia, PA: Current Medicine. 1999. p. 615-625.

  Contact: Available from W.B. Saunders Company. Order Fulfillment, 6277 Sea Harbor Drive, Orlando, FL 32887. (800) 545-2522. Fax (800) 874-6418 or (407) 352-3445. Website: www.wbsaunders.com. PRICE: $235.00 plus shipping and handling. ISBN: 0443065209 (two volume set); 0443065217 (volume 1); 0443065225 (volume 2).

  Summary: Clinical investigators broadly categorize diarrhea as secretory or osmotic, by measuring electrolytes and the osmolality of fecal fluid. In secretory diarrheas, analysis of the fecal fluid reveals that sodium, potassium, and accompanying anions account entirely for the observed osmolarity. This chapter on secretory diarrhea is from a lengthy textbook that brings practitioners up to date on the complexities of gastroenterology practice, focusing on the essentials of patient care. The author of this chapter reassesses the clinical and basic models of secretory diarrheas and considers how relevant they may be to the realities of clinical practice. Acute diarrheas may have a secretory component, but in Western countries, they are generally transient and rarely life threatening conditions, except perhaps in infants. Despite the vast array of diagnostic studies that can be used to evaluate a complaint of **chronic diarrhea,** making a specific diagnosis is often difficult. The basic and clinical models of secretory diarrhea in use have been shaped by the medical understanding of cholera. A focused and orderly workup of the patient can assist in understanding the pathophysiology, and then one can begin appropriate treatment. However, the symptoms of diarrhea can often be controlled adequately without altering the primary pathophysiologic abnormality. Patients can be placed on a therapeutic trial with loperamide or diphenoxylate. Although patients often take these drugs sporadically with some success, a regular

dosing schedule may provide significant amelioration of symptoms. 5 figures. 5 tables. 36 references.

- **Diarrhea**

  Source: in Feldman, M.; Friedman, L.S.; Sleisenger, M.H. Sleisenger and Fordtran's Gastrointestinal and Liver Disease: Pathophysiology/Diagnosis/Management. 7th ed. [2-volume set]. St. Louis, MO: Saunders. 2002. p. 131-153.

  Contact: Available from Elsevier. 11830 Westline Industrial Drive, St. Louis, MO 63146. (800) 545-2522. Fax (800) 568-5136. Website: www.us.elsevierhealth.com. PRICE: $229.00 plus shipping and handling. ISBN: 0721689736.

  Summary: Diarrhea is a symptom of many conditions and thus the evaluation and management of diarrhea can be complex. This chapter on diarrhea is from a comprehensive and authoritative textbook that covers disorders of the gastrointestinal tract, biliary tree, pancreas, and liver, as well as the related topics of nutrition and peritoneal disorders. Topics include a definition of diarrhea; pathophysiology and mechanisms of diarrhea, including osmotic diarrhea, secretory diarrhea, and complex diarrhea; clinical classification; acute versus **chronic diarrhea;** differential diagnosis of diarrhea; evaluation of the patient with diarrhea; chronic watery diarrhea; chronic fatty diarrhea; chronic inflammatory diarrhea; nonspecific treatment of diarrhea; and highlights of selected diarrheal syndromes, including diarrhea in irritable bowel syndrome (IBS), microscopic colitis syndrome, postsurgical diarrhea, diarrhea in hospitalized patients, bile acid-induced diarrhea, factitious diarrhea, idiopathic secretory diarrhea, and diarrhea of obscure origin. The chapter includes a mini-outline with page citations, full-color illustrations, and extensive references. 9 figures. 8 tables. 175 references.

- **Motility Disorders in the Elderly**

  Source: in Gelb, A.M., ed. Clinical Gastroenterology in the Elderly. New York, NY: Marcel Dekker, Inc. 1996. p. 115-132.

  Contact: Available from Marcel Dekker, Inc. Cimarron Road, P.O. Box 5005, Monticello, NY 12701-5185. (800) 228-1160 or (914) 796-1919. Fax (914) 796-1772. E-mail: bookorders@dekker.com. Website: www.dekker.com. PRICE: $135.00 plus shipping and handling. ISBN: 0824793986.

  Summary: Gastrointestinal motility disorders are common and often unrecognized in older people. This chapter on motility disorders is from a textbook that offers an up to date reference source on geriatric gastroenterology. The author notes that aging in itself has little effect on gut motility, although there is some evidence that there may be minor changes in gastric emptying. Motility conditions can be chronic and difficult to treat, with successful management often based on a good relationship between physician and patient. The author first reviews the physiology of gastric motility and then discusses disorders of gastric emptying, including gastroparesis. The next section covers small intestine motility and then abnormalities of intestinal motility, which can lead to constipation, diarrhea, pseudoobstruction, and malabsorption. The final section considers the colon and its associated motility disorders, notably constipation, fecal impaction, gas, and **chronic diarrhea.** Colonic motility varies with eating; i.e., there is increased activity after meals, particularly in the sigmoid colon. The author emphasizes the importance of a thorough workup for accurate diagnosis of constipation problems. When dietary measures and fiber supplements are not effective in treating constipation, laxatives will usually be needed. One of the goals of treating constipation is avoiding

fecal impaction. For each condition, the author reviews symptoms, etiology, complications, and patient care management, including drug therapy and surgery. 19 references.

- **Complications of Laxative Abuse**

  Source: in Coggins, C.H., Hancock, E.W., and Levitt, L.J., eds. Annual Review of Medicine: Selected Topics in the Clinical Sciences. Palo Alto, CA: Annual Reviews Inc. 1996. Volume 47: 127-134.

  Contact: Available from Annual Reviews Inc. 4139 El Camino Way, P.O. Box 10139, Palo Alto, CA 94303-0139. (800) 523-8635. Fax (415) 424-0910. PRICE: $52.00. ISBN: 0824305477. ISSN: 00664219. Individual article reprints available from Annual Reviews Preprints and Reprints. (800) 347-8007 or (415) 259-5017. Base price $13.50 per article.

  Summary: Laxative abuse is an uncommon but clinically important cause of **chronic diarrhea.** In this entry from the Annual Review of Medicine, the authors try to raise awareness of the diagnosis of laxative abuse, especially in the context of the differential diagnosis of **chronic diarrhea.** They stress that a high index of suspicion, a detailed history, and the detection of laxative in stool or urine or both will establish the diagnosis once routine laboratory, endoscopic, and radiologic investigations have excluded common causes of **chronic diarrhea.** They also note that management is frequently difficult, owing to the laxative abuser's complex underlying psychopathology. 20 references. (AA-M).

- **Hypomagnesemia and Hypermagnesemia**

  Source: in Mandal, A.K. and Nahman, N.S., Jr., eds. Kidney Disease in Primary Care. Baltimore, MD: Williams and Wilkins. 1998. p. 94-101.

  Contact: Available from Williams and Wilkins. 351 West Camden Street, Baltimore, MD 21201-2436. (800) 638-0672 or (410) 528-4223. Fax (800) 447-8438 or (410) 528-8550. E-mail: custserv@wwilkins.com. PRICE: $39.95. ISBN: 0683300571.

  Summary: This chapter on hypomagnesemia (low magnesium levels) and hypermagnesemia (elevated magnesium levels) is from a textbook that provides primary care physicians with practical approaches to common clinical problems of kidney diseases. For each condition, the author outlines the basics, associated conditions, causes, signs and symptoms, diagnostic considerations, management strategies, and indications for referral. Diabetes mellitus, **chronic diarrhea,** and debilitating disorders such as malignancy and chronic loop diuretic therapy are important causes of hypomagnesemia. Serum magnesium may parallel changes in serum potassium. Magnesium deficiency may be an important cause of postoperative cardiac arrhythmias. Intravenous magnesium is still a conventional therapy to treat eclampsia. Intravenous magnesium can result in a rapid and profound reduction of blood pressure. The most common cause of hypermagnesemia is the intake of magnesium-containing products such as Maalox or the use of a magnesium-containing enema in patients with renal failure. Sluggish deep reflexes, quadriparesis, or quadriplegia may be noted. Respiratory failure and complete heart block may develop in patients with hypermagnesemia. Calcium is the direct antagonist of magnesium. In respiratory failure or cardiac arrest caused by hypermagnesemia, calcium gluconate 10 percent, 10 to 20 mL intravenous bolus is the treatment of choice. With good renal function, an intravenous bolus of 40 mg furosemide will reduce blood level rapidly. 3 tables. 13 references.

- **Approach to the Patient with Diarrhea**

  Source: in Textbook of Gastroenterology. 4th ed. [2-volume set]. Hagerstown, MD: Lippincott Williams and Wilkins. 2003. p. 844-894.

  Contact: Available from Lippincott Williams and Wilkins. P.O. Box 1600, Hagerstown, MD 21741. (800) 638-6423. Fax: (301) 223-2400. Website: www.lww.com. PRICE: $289.00. ISBN: 781728614.

  Summary: This chapter on the approach to patients with diarrhea is from a lengthy, two-volume textbook that integrates the various demands of science, technology, expanding information, good judgment, and common sense into the diagnosis and management of gastrointestinal patients. Topics include general epidemiology, general definition, pathophysiology of diarrhea, a definition of acute diarrhea, acute infectious diarrheas, prolonged infectious diarrheas, nosocomial diarrheas, runner's diarrhea, chronic diarrheas, steatorrhea (malabsorptive diseases), watery diarrheas, true secretory diarrheas, inflammatory diarrheas, the clinical evaluation of **chronic diarrhea,** and antidiarrheal therapy. 11 figures. 16 tables. 574 references.

- **Chronic Diarrhoea**

  Source: in World Health Organization (WHO) Global Programme on AIDS. Guidelines for the Clinical Management of HIV Infection in Adults. Geneva, Switzerland: World Health Organization. 1991. p. 3:1-3:10.

  Contact: Available from WHO Publications Center USA. 49 Sheridan Avenue, Albany, NY 12210. Fax (518) 436-7433. E-mail: publications@who.ch. PRICE: $11.70.

  Summary: This chapter, from a book of World Health Organization (WHO) guidelines for the clinical management of HIV infection in adults, addresses the problem of **chronic diarrhea.** The chapter is built on a patient care algorithm framework, in which the authors guide caregivers through basic diagnostic and treatment options. The authors define HIV-related diarrhea as liquid stools three or more times a day, continuously or episodically for more than 1 month, in a patient with symptomatic HIV infection. The authors briefly address etiology, then focus on the assessment and treatment of dehydration. Therapeutic regimens of drug agents are outlined, including those used for diarrhea caused by bacterial, parasitic, and helminthic infections. The authors note that, if a microscopic examination does not identify a pathogen, empiric treatment should be tried prior to giving constipating agents. The choice of drug will depend on the pathogen of **chronic diarrhea** locally prevalent. The guidelines are designed to help health care personnel diagnose and clinically manage people infected with HIV; to reduce the economic burden of HIV infection by preventing excessive use of diagnostic tests and inappropriate treatment; to assist in assessing resource requirements for the HIV epidemic; and to aid health professionals in the teaching and learning process. The guidelines are structured to apply to three different levels of care, based on diagnostic capabilities; this is because of the great variability in health care facilities throughout the world. (AA-M).

- **Approach to the Patient with Nonbloody Diarrhea**

  Source: in Danzi, J.T.; Scopelliti, J.A., eds. Office Management of Digestive Diseases. Malvern, PA: Lea and Febiger. 1992. p. 36-44.

  Contact: Available from Lea and Febiger. Box 3024, Malvern, PA 19355-9725. (215) 251-2230. PRICE: $39.50. ISBN: 0812114361.

Summary: This chapter, from a medical textbook about the office management of common gastrointestinal diseases, focuses on the work-up of organically caused diarrheal illnesses. Topics include acute diarrhea, **chronic diarrhea,** baseline studies used to diagnose the etiology, midgut diarrhea, colonic diarrhea, secretory diarrhea, suspicion of colonic carcinoma, and treating immunocompromised patients, notably those with AIDS.

- **Whipple Disease**

Source: in Feigin, R.D. and Cherry, J.D., eds. Textbook of Pediatric Infectious Diseases. 4th ed. Volume 1. Philadelphia, PA: W.B. Saunders Company. 1998. p. 606-611.

Contact: Available from W.B. Saunders Company. Order Fulfillment, 6277 Sea Harbor Drive, Orlando, FL 32887. (800) 545-2522. Fax (800) 874-6418 or (407) 352-3445. PRICE: $315.00. ISBN: 0721664482.

Summary: Whipple disease is a rare, systemic bacterial infection that until recently was uniformly fatal. This chapter on Whipple disease is from a textbook on pediatric infectious diseases. In its most common form, Whipple disease affects white, middle-aged men with diarrhea, weight loss, abdominal pain, arthralgias, and fever. Although it is extraordinarily rare in children, its recognition may be critical. Simple treatment with appropriate antibiotics may be both curative and lifesaving. The authors consider the disease's history, epidemiology, etiology and pathogenesis, clinical manifestations (symptoms), diagnosis, and treatment. The authors conclude that Whipple disease, despite its rarity in children, deserves diagnostic consideration in any child with failure to thrive, malnutrition, and **chronic diarrhea.** Such findings, especially with central nervous system symptoms or arthralgias (painful joints), should raise Whipple disease as a consideration. Diagnosis of Whipple disease can be made using molecular tests, such as polymerase chain reaction. The preferred treatment in both adults and children is trimethoprim-sulfmethoxazole (antibiotic) given orally twice a day for 1 year. 3 figures. 3 tables. 60 references. (AA-M).

CHAPTER 5. MULTIMEDIA ON CHRONIC DIARRHEA

Overview

In this chapter, we show you how to keep current on multimedia sources of information on chronic diarrhea. We start with sources that have been summarized by federal agencies, and then show you how to find bibliographic information catalogued by the National Library of Medicine.

Video Recordings

An excellent source of multimedia information on chronic diarrhea is the Combined Health Information Database. You will need to limit your search to "Videorecording" and "chronic diarrhea" using the "Detailed Search" option. Go directly to the following hyperlink: **http://chid.nih.gov/detail/detail.html**. To find video productions, use the drop boxes at the bottom of the search page where "You may refine your search by." Select the dates and language you prefer, and the format option "Videorecording (videotape, videocassette, etc.)." Type "chronic diarrhea" (or synonyms) into the "For these words:" box. The following is a typical result when searching for video recordings on chronic diarrhea:

- **Approach to the Patient with Chronic Diarrhea**

  Source: Secaucus, NJ: Network for Continuing Medical Education (NCME). 1993.

  Contact: Available from NCME. One Harmon Plaza, Secaucus, NJ 07094. (800) 223-0272 or, in New Jersey, (800) 624-2102, or (201) 867-3550. PRICE: $20 for 2-week rental or $50 for purchase. Available only to NCME subscribers; subscriber fees as of 1995 are $1,920 for VHS subscription, $2,120 for U-matic subscription.

  Summary: In this continuing education program, Dr. Asher Kornbluth guides viewers through the approach to the patient with **chronic diarrhea.** In the first section, Dr. Kornbluth presents a definition of **chronic diarrhea,** emphasizes the importance of obtaining a comprehensive, accurate patient history, and reviews the categories of **chronic diarrhea,** including altered motility, osmotic, inflammatory, secretory, and factitious. He briefly reviews conditions that may cause fecal incontinence, including advanced age, diabetes, and neuromuscular disease, and comments on HIV-associated diarrhea. In the second section, he reviews the diagnostic tests used to confirm the

diagnosis, including stool examination tests such as culture and sensitivity; the upper GI series; the use of sigmoidoscopy; and endoscopy. The endoscopic differences between ulcerative colitis and Crohn's disease are demonstrated. Dr. Kornbluth concludes with a discussion of the drug treatments available and the indications for each, including opiates and their derivatives, absorbants, anticholinergic agents, agents for treating inflammatory bowel disease (IBD), and octreotide. The video program confers CME credit. (AA-M).

CHAPTER 6. PERIODICALS AND NEWS ON CHRONIC DIARRHEA

Overview

In this chapter, we suggest a number of news sources and present various periodicals that cover chronic diarrhea.

News Services and Press Releases

One of the simplest ways of tracking press releases on chronic diarrhea is to search the news wires. In the following sample of sources, we will briefly describe how to access each service. These services only post recent news intended for public viewing.

PR Newswire

To access the PR Newswire archive, simply go to **http://www.prnewswire.com/**. Select your country. Type "chronic diarrhea" (or synonyms) into the search box. You will automatically receive information on relevant news releases posted within the last 30 days. The search results are shown by order of relevance.

Reuters Health

The Reuters' Medical News and Health eLine databases can be very useful in exploring news archives relating to chronic diarrhea. While some of the listed articles are free to view, others are available for purchase for a nominal fee. To access this archive, go to **http://www.reutershealth.com/en/index.html** and search by "chronic diarrhea" (or synonyms). The following was recently listed in this archive for chronic diarrhea:

- **Thalidomide: Used To Treat Chronic Diarrhea In HIV-Positive Patients**
  Source: Reuters Medical News
  Date: April 16, 1996

- **Zinc supplementation relieves chronic diarrhea in children**
  Source: Reuters Medical News
  Date: December 05, 2000

The NIH

Within MEDLINEplus, the NIH has made an agreement with the New York Times Syndicate, the AP News Service, and Reuters to deliver news that can be browsed by the public. Search news releases at **http://www.nlm.nih.gov/medlineplus/alphanews_a.html**. MEDLINEplus allows you to browse across an alphabetical index. Or you can search by date at the following Web page: **http://www.nlm.nih.gov/medlineplus/newsbydate.html**. Often, news items are indexed by MEDLINEplus within its search engine.

Business Wire

Business Wire is similar to PR Newswire. To access this archive, simply go to **http://www.businesswire.com/**. You can scan the news by industry category or company name.

Market Wire

Market Wire is more focused on technology than the other wires. To browse the latest press releases by topic, such as alternative medicine, biotechnology, fitness, healthcare, legal, nutrition, and pharmaceuticals, access Market Wire's Medical/Health channel at **http://www.marketwire.com/mw/release_index?channel=MedicalHealth**. Or simply go to Market Wire's home page at **http://www.marketwire.com/mw/home**, type "chronic diarrhea" (or synonyms) into the search box, and click on "Search News." As this service is technology oriented, you may wish to use it when searching for press releases covering diagnostic procedures or tests.

Search Engines

Medical news is also available in the news sections of commercial Internet search engines. See the health news page at Yahoo (**http://dir.yahoo.com/Health/News_and_Media/**), or you can use this Web site's general news search page at **http://news.yahoo.com/**. Type in "chronic diarrhea" (or synonyms). If you know the name of a company that is relevant to chronic diarrhea, you can go to any stock trading Web site (such as **http://www.etrade.com/**) and search for the company name there. News items across various news sources are reported on indicated hyperlinks. Google offers a similar service at **http://news.google.com/**.

BBC

Covering news from a more European perspective, the British Broadcasting Corporation (BBC) allows the public free access to their news archive located at **http://www.bbc.co.uk/**. Search by "chronic diarrhea" (or synonyms).

Newsletter Articles

Use the Combined Health Information Database, and limit your search criteria to "newsletter articles." Again, you will need to use the "Detailed Search" option. Go directly to the following hyperlink: **http://chid.nih.gov/detail/detail.html**. Go to the bottom of the search page where "You may refine your search by." Select the dates and language that you prefer. For the format option, select "Newsletter Article." Type "chronic diarrhea" (or synonyms) into the "For these words:" box. You should check back periodically with this database as it is updated every three months. The following is a typical result when searching for newsletter articles on chronic diarrhea:

- **Colonoscopy and Sigmoidoscopy: What to Expect**

  Source: Participate. 9(1): 5-6. Spring 2000.

  Contact: Available from International Foundation for Functional Gastrointestinal Disorders (IFFGD). P.O. Box 170864, Milwaukee, WI 53217. (888) 964-2001 or (414) 964-1799. Fax (414) 964-7176. E-mail: iffgd@iffgd.org. Website: www.iffgd.org.

  Summary: Colonoscopy is an examination in which a flexible tube like device with a light on the end is inserted through the anus into the intestine. An image of the entire large bowel, or colon, is relayed through the instrument onto a video screen. Sigmoidoscopy is a similar test but only the left side of the colon is visualized. This fact sheet explains what patients can expect when they undergo the diagnostic tests of colonoscopy or sigmoidoscopy (the shorter version). The colonoscopy is performed in a licensed facility with staff specially trained for these tests; sigmoidoscopy may be done in a doctor's office. Colonoscopy is commonly indicated for the diagnosis of diseases that cause acute and **chronic diarrhea,** intestinal bleeding, and for the detection and management of colon polyps and cancer. For a sigmoidoscopy, preparation entails taking a phosphate enema (Fleet) about 2 hours before the test. For a colonoscopy, it is necessary that the whole bowel be clean. The patient can take only fluids by mouth after noon the day before the test. The preparation includes ingestion of oral laxatives, which cause a profuse diarrhea; these laxatives may be unpleasant, but they are safe when taken with clear fluids, and necessary if the examination is to be optimal. The patient must sign a consent form prior to the procedure. For a sigmoidoscopy, sedation is seldom given; colonoscopy requires sedation, which lessens the anxiety associated with the test and when given with a pain killer, it reduces the pain. Normally, the patient will be on their left side on the examining table and can watch the examination on a video screen if they wish. The nurse will coach the patient on how to breath (regular breathing is relaxing, minimizes the pain, and maintains good oxygen saturation in the blood). If the patient has been sedated, or if the laboratory results of a biopsy are awaited, it may be necessary to speak with the doctor at a later time or schedule a visit for a full explanation of the test results. 1 figure.

- **Assessment of the Gastrointestinal Tract**

  Source: Support Line. 19(2): 3-7. April 1997.

  Contact: Available from Dietitians in Nutrition Support. American Dietetic Association (ADA), 216 West Jackson Boulevard, Suite 800, Chicago, IL 60606-6995.

  Summary: This article on assessment of the gastrointestinal (GI) tract is one in a series designed to enhance registered dietitians' knowledge of physical examination as it relates to their practice in the field of nutrition support. The author stresses that

assessment of the GI tract is a critical component of the overall physical assessment of patients. Many decisions that nutrition support practitioners must make in providing and continuing therapy depend on the status of the GI tract. The author discusses obtaining a patient's medical history, and encourages readers to include questions about the patient's prior medical history, family history, and socioeconomic history. The next step in an overall patient assessment is to focus on the main symptoms. The author discusses the etiology and classification of acute and **chronic diarrhea,** the anatomy of the abdomen, physical assessment beginning with an oral examination, the abdominal exam (inspection, auscultation, percussion, and palpation), diagnostic tests, and laboratory tests. The most common GI diagnostic tests are abdominal x-rays, endoscopy, ultrasound, and computed tomography (CT scan). Laboratory tests most often consist of blood and stool tests. The author stresses that physical assessment and examination cannot be learned solely from reading an article; they must be taught in a formal setting, practiced, and then performed daily to maintain proficiency. 4 tables. 13 references. (AA-M).

- **Inflammatory Bowel Diseases: Misery Needn't be the Norm**

  Source: Mayo Clinic Health Letter. 19(10): 1-3. October 2001.

  Contact: Available from Mayo Clinic Health Letter. Subscription Services, P.O. Box 53889, Boulder, CO 80322-3889. (800) 333-9037 or (303) 604-1465.

  Summary: This health education newsletter article familiarizes readers with inflammatory bowel disease (IBD), which includes Crohn's disease and ulcerative colitis. The author describes the two types of IBD, and their incidence, symptoms, diagnosis, drug therapy, lifestyle treatments, and surgical options. The signs and symptoms of Crohn's disease and ulcerative colitis may develop gradually or suddenly and can be similar: **chronic diarrhea,** vomiting, abdominal cramping, blood in the stool, weight loss and fatigue, and fever in severe cases. In addition, people with Crohn's disease are more likely to develop open sores (ulcers) in their digestive tract. Blood tests and diagnostic imaging confirm the diagnoses of inflammatory bowel disease. Drug therapy is a key component of treating IBD. Although drugs do not offer a cure for IBD, they often help control the condition. Once the right drug or combination of drugs is determined, symptoms can often be reduced. Drugs can include anti-inflammatory drugs, immune modulators, and antibiotics. Lifestyle treatments include dietary management, adequate fluid intake, stress management (including the use of support groups), and avoidance of nonsteroidal anti-inflammatory drugs (NSAIDs). At least 70 percent of those patients with Crohn's disease will need at least one or more surgeries. One side bar reminds readers of the risk of colon cancer in people with IBD. 1 figure.

- **Toddler's Diarrhea**

  Source: Newsletter for People With Lactose Intolerance and Milk Allergy. p. 9-10. December-January 1995-1996.

  Contact: Available from Newsletter for People With Lactose Intolerance and Milk Allergy. P.O. Box 3129, Ann Arbor, MI 48106-3129. (313) 572-9134.

  Summary: This newsletter article presents information about toddlers' diarrhea, a common type of **chronic diarrhea** in children. Topics include how toddlers' diarrhea differs from other forms of diarrhea, the need for continued fluids or oral rehydration therapy, possible contributing factors, the role of food allergy in diarrhea, and problems with diarrhea in day care centers. The author provides parents with specific suggestions for managing and preventing toddlers' diarrhea.

Academic Periodicals covering Chronic Diarrhea

Numerous periodicals are currently indexed within the National Library of Medicine's PubMed database that are known to publish articles relating to chronic diarrhea. In addition to these sources, you can search for articles covering chronic diarrhea that have been published by any of the periodicals listed in previous chapters. To find the latest studies published, go to **http://www.ncbi.nlm.nih.gov/pubmed**, type the name of the periodical into the search box, and click "Go."

If you want complete details about the historical contents of a journal, you can also visit the following Web site: **http://www.ncbi.nlm.nih.gov/entrez/jrbrowser.cgi**. Here, type in the name of the journal or its abbreviation, and you will receive an index of published articles. At **http://locatorplus.gov/**, you can retrieve more indexing information on medical periodicals (e.g. the name of the publisher). Select the button "Search LOCATORplus." Then type in the name of the journal and select the advanced search option "Journal Title Search."

CHAPTER 7. RESEARCHING MEDICATIONS

Overview

While a number of hard copy or CD-ROM resources are available for researching medications, a more flexible method is to use Internet-based databases. Broadly speaking, there are two sources of information on approved medications: public sources and private sources. We will emphasize free-to-use public sources.

U.S. Pharmacopeia

Because of historical investments by various organizations and the emergence of the Internet, it has become rather simple to learn about the medications recommended for chronic diarrhea. One such source is the United States Pharmacopeia. In 1820, eleven physicians met in Washington, D.C. to establish the first compendium of standard drugs for the United States. They called this compendium the U.S. Pharmacopeia (USP). Today, the USP is a non-profit organization consisting of 800 volunteer scientists, eleven elected officials, and 400 representatives of state associations and colleges of medicine and pharmacy. The USP is located in Rockville, Maryland, and its home page is located at **http://www.usp.org/**. The USP currently provides standards for over 3,700 medications. The resulting USP DI® Advice for the Patient® can be accessed through the National Library of Medicine of the National Institutes of Health. The database is partially derived from lists of federally approved medications in the Food and Drug Administration's (FDA) Drug Approvals database, located at **http://www.fda.gov/cder/da/da.htm**.

While the FDA database is rather large and difficult to navigate, the Phamacopeia is both user-friendly and free to use. It covers more than 9,000 prescription and over-the-counter medications. To access this database, simply type the following hyperlink into your Web browser: **http://www.nlm.nih.gov/medlineplus/druginformation.html**. To view examples of a given medication (brand names, category, description, preparation, proper use, precautions, side effects, etc.), simply follow the hyperlinks indicated within the United States Pharmacopeia (USP).

Below, we have compiled a list of medications associated with chronic diarrhea. If you would like more information on a particular medication, the provided hyperlinks will direct you to ample documentation (e.g. typical dosage, side effects, drug-interaction risks, etc.).

The following drugs have been mentioned in the Pharmacopeia and other sources as being potentially applicable to chronic diarrhea:

Thiamine (Vitamin B 1)

- **Vitamin B 1 - U.S. Brands:** Biamine
  http://www.nlm.nih.gov/medlineplus/druginfo/uspdi/202560.html

Commercial Databases

In addition to the medications listed in the USP above, a number of commercial sites are available by subscription to physicians and their institutions. Or, you may be able to access these sources from your local medical library.

Mosby's Drug Consult™

Mosby's Drug Consult™ database (also available on CD-ROM and book format) covers 45,000 drug products including generics and international brands. It provides prescribing information, drug interactions, and patient information. Subscription information is available at the following hyperlink: **http://www.mosbysdrugconsult.com/**.

PDR*health*

The PDR*health* database is a free-to-use, drug information search engine that has been written for the public in layman's terms. It contains FDA-approved drug information adapted from the Physicians' Desk Reference (PDR) database. PDR*health* can be searched by brand name, generic name, or indication. It features multiple drug interactions reports. Search PDR*health* at **http://www.pdrhealth.com/drug_info/index.html**.

Other Web Sites

Drugs.com (**www.drugs.com**) reproduces the information in the Pharmacopeia as well as commercial information. You may also want to consider the Web site of the Medical Letter, Inc. (**http://www.medletter.com/**) which allows users to download articles on various drugs and therapeutics for a nominal fee.

If you have any questions about a medical treatment, the FDA may have an office near you. Look for their number in the blue pages of the phone book. You can also contact the FDA through its toll-free number, 1-888-INFO-FDA (1-888-463-6332), or on the World Wide Web at **www.fda.gov**.

APPENDICES

APPENDIX A. PHYSICIAN RESOURCES

Overview

In this chapter, we focus on databases and Internet-based guidelines and information resources created or written for a professional audience.

NIH Guidelines

Commonly referred to as "clinical" or "professional" guidelines, the National Institutes of Health publish physician guidelines for the most common diseases. Publications are available at the following by relevant Institute[8]:

- Office of the Director (OD); guidelines consolidated across agencies available at **http://www.nih.gov/health/consumer/conkey.htm**
- National Institute of General Medical Sciences (NIGMS); fact sheets available at **http://www.nigms.nih.gov/news/facts/**
- National Library of Medicine (NLM); extensive encyclopedia (A.D.A.M., Inc.) with guidelines: **http://www.nlm.nih.gov/medlineplus/healthtopics.html**
- National Cancer Institute (NCI); guidelines available at **http://www.cancer.gov/cancerinfo/list.aspx?viewid=5f35036e-5497-4d86-8c2c-714a9f7c8d25**
- National Eye Institute (NEI); guidelines available at **http://www.nei.nih.gov/order/index.htm**
- National Heart, Lung, and Blood Institute (NHLBI); guidelines available at **http://www.nhlbi.nih.gov/guidelines/index.htm**
- National Human Genome Research Institute (NHGRI); research available at **http://www.genome.gov/page.cfm?pageID=10000375**
- National Institute on Aging (NIA); guidelines available at **http://www.nia.nih.gov/health/**

[8] These publications are typically written by one or more of the various NIH Institutes.

- National Institute on Alcohol Abuse and Alcoholism (NIAAA); guidelines available at **http://www.niaaa.nih.gov/publications/publications.htm**
- National Institute of Allergy and Infectious Diseases (NIAID); guidelines available at **http://www.niaid.nih.gov/publications/**
- National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS); fact sheets and guidelines available at **http://www.niams.nih.gov/hi/index.htm**
- National Institute of Child Health and Human Development (NICHD); guidelines available at **http://www.nichd.nih.gov/publications/pubskey.cfm**
- National Institute on Deafness and Other Communication Disorders (NIDCD); fact sheets and guidelines at **http://www.nidcd.nih.gov/health/**
- National Institute of Dental and Craniofacial Research (NIDCR); guidelines available at **http://www.nidr.nih.gov/health/**
- National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK); guidelines available at **http://www.niddk.nih.gov/health/health.htm**
- National Institute on Drug Abuse (NIDA); guidelines available at **http://www.nida.nih.gov/DrugAbuse.html**
- National Institute of Environmental Health Sciences (NIEHS); environmental health information available at **http://www.niehs.nih.gov/external/facts.htm**
- National Institute of Mental Health (NIMH); guidelines available at **http://www.nimh.nih.gov/practitioners/index.cfm**
- National Institute of Neurological Disorders and Stroke (NINDS); neurological disorder information pages available at **http://www.ninds.nih.gov/health_and_medical/disorder_index.htm**
- National Institute of Nursing Research (NINR); publications on selected illnesses at **http://www.nih.gov/ninr/news-info/publications.html**
- National Institute of Biomedical Imaging and Bioengineering; general information at **http://grants.nih.gov/grants/becon/becon_info.htm**
- Center for Information Technology (CIT); referrals to other agencies based on keyword searches available at **http://kb.nih.gov/www_query_main.asp**
- National Center for Complementary and Alternative Medicine (NCCAM); health information available at **http://nccam.nih.gov/health/**
- National Center for Research Resources (NCRR); various information directories available at **http://www.ncrr.nih.gov/publications.asp**
- Office of Rare Diseases; various fact sheets available at **http://rarediseases.info.nih.gov/html/resources/rep_pubs.html**
- Centers for Disease Control and Prevention; various fact sheets on infectious diseases available at **http://www.cdc.gov/publications.htm**

NIH Databases

In addition to the various Institutes of Health that publish professional guidelines, the NIH has designed a number of databases for professionals.[9] Physician-oriented resources provide a wide variety of information related to the biomedical and health sciences, both past and present. The format of these resources varies. Searchable databases, bibliographic citations, full-text articles (when available), archival collections, and images are all available. The following are referenced by the National Library of Medicine:[10]

- **Bioethics:** Access to published literature on the ethical, legal, and public policy issues surrounding healthcare and biomedical research. This information is provided in conjunction with the Kennedy Institute of Ethics located at Georgetown University, Washington, D.C.: **http://www.nlm.nih.gov/databases/databases_bioethics.html**
- **HIV/AIDS Resources:** Describes various links and databases dedicated to HIV/AIDS research: **http://www.nlm.nih.gov/pubs/factsheets/aidsinfs.html**
- **NLM Online Exhibitions:** Describes "Exhibitions in the History of Medicine": **http://www.nlm.nih.gov/exhibition/exhibition.html**. Additional resources for historical scholarship in medicine: **http://www.nlm.nih.gov/hmd/hmd.html**
- **Biotechnology Information:** Access to public databases. The National Center for Biotechnology Information conducts research in computational biology, develops software tools for analyzing genome data, and disseminates biomedical information for the better understanding of molecular processes affecting human health and disease: **http://www.ncbi.nlm.nih.gov/**
- **Population Information:** The National Library of Medicine provides access to worldwide coverage of population, family planning, and related health issues, including family planning technology and programs, fertility, and population law and policy: **http://www.nlm.nih.gov/databases/databases_population.html**
- **Cancer Information:** Access to cancer-oriented databases: **http://www.nlm.nih.gov/databases/databases_cancer.html**
- **Profiles in Science:** Offering the archival collections of prominent twentieth-century biomedical scientists to the public through modern digital technology: **http://www.profiles.nlm.nih.gov/**
- **Chemical Information:** Provides links to various chemical databases and references: **http://sis.nlm.nih.gov/Chem/ChemMain.html**
- **Clinical Alerts:** Reports the release of findings from the NIH-funded clinical trials where such release could significantly affect morbidity and mortality: **http://www.nlm.nih.gov/databases/alerts/clinical_alerts.html**
- **Space Life Sciences:** Provides links and information to space-based research (including NASA): **http://www.nlm.nih.gov/databases/databases_space.html**
- **MEDLINE:** Bibliographic database covering the fields of medicine, nursing, dentistry, veterinary medicine, the healthcare system, and the pre-clinical sciences: **http://www.nlm.nih.gov/databases/databases_medline.html**

---

[9] Remember, for the general public, the National Library of Medicine recommends the databases referenced in MEDLINE*plus* (**http://medlineplus.gov/** or **http://www.nlm.nih.gov/medlineplus/databases.html**).

[10] See **http://www.nlm.nih.gov/databases/databases.html**.

- **Toxicology and Environmental Health Information (TOXNET):** Databases covering toxicology and environmental health: **http://sis.nlm.nih.gov/Tox/ToxMain.html**
- **Visible Human Interface:** Anatomically detailed, three-dimensional representations of normal male and female human bodies: **http://www.nlm.nih.gov/research/visible/visible_human.html**

The NLM Gateway[11]

The NLM (National Library of Medicine) Gateway is a Web-based system that lets users search simultaneously in multiple retrieval systems at the U.S. National Library of Medicine (NLM). It allows users of NLM services to initiate searches from one Web interface, providing one-stop searching for many of NLM's information resources or databases.[12] To use the NLM Gateway, simply go to the search site at **http://gateway.nlm.nih.gov/gw/Cmd**. Type "chronic diarrhea" (or synonyms) into the search box and click "Search." The results will be presented in a tabular form, indicating the number of references in each database category.

Results Summary

Category	Items Found
Journal Articles	5854
Books / Periodicals / Audio Visual	147
Consumer Health	532
Meeting Abstracts	276
Other Collections	1829
Total	8638

HSTAT[13]

HSTAT is a free, Web-based resource that provides access to full-text documents used in healthcare decision-making.[14] These documents include clinical practice guidelines, quick-reference guides for clinicians, consumer health brochures, evidence reports and technology assessments from the Agency for Healthcare Research and Quality (AHRQ), as well as AHRQ's Put Prevention Into Practice.[15] Simply search by "chronic diarrhea" (or synonyms) at the following Web site: **http://text.nlm.nih.gov**.

---

[11] Adapted from NLM: **http://gateway.nlm.nih.gov/gw/Cmd?Overview.x**.

[12] The NLM Gateway is currently being developed by the Lister Hill National Center for Biomedical Communications (LHNCBC) at the National Library of Medicine (NLM) of the National Institutes of Health (NIH).

[13] Adapted from HSTAT: **http://www.nlm.nih.gov/pubs/factsheets/hstat.html**.

[14] The HSTAT URL is **http://hstat.nlm.nih.gov/**.

[15] Other important documents in HSTAT include: the National Institutes of Health (NIH) Consensus Conference Reports and Technology Assessment Reports; the HIV/AIDS Treatment Information Service (ATIS) resource documents; the Substance Abuse and Mental Health Services Administration's Center for Substance Abuse Treatment (SAMHSA/CSAT) Treatment Improvement Protocols (TIP) and Center for Substance Abuse Prevention (SAMHSA/CSAP) Prevention Enhancement Protocols System (PEPS); the Public Health Service (PHS) Preventive Services Task Force's *Guide to Clinical Preventive Services*; the independent, nonfederal Task Force on Community Services' *Guide to Community Preventive Services*; and the Health Technology Advisory Committee (HTAC) of the Minnesota Health Care Commission (MHCC) health technology evaluations.

Coffee Break: Tutorials for Biologists[16]

Coffee Break is a general healthcare site that takes a scientific view of the news and covers recent breakthroughs in biology that may one day assist physicians in developing treatments. Here you will find a collection of short reports on recent biological discoveries. Each report incorporates interactive tutorials that demonstrate how bioinformatics tools are used as a part of the research process. Currently, all Coffee Breaks are written by NCBI staff.[17] Each report is about 400 words and is usually based on a discovery reported in one or more articles from recently published, peer-reviewed literature.[18] This site has new articles every few weeks, so it can be considered an online magazine of sorts. It is intended for general background information. You can access the Coffee Break Web site at the following hyperlink: **http://www.ncbi.nlm.nih.gov/Coffeebreak/**.

Other Commercial Databases

In addition to resources maintained by official agencies, other databases exist that are commercial ventures addressing medical professionals. Here are some examples that may interest you:

- **CliniWeb International:** Index and table of contents to selected clinical information on the Internet; see **http://www.ohsu.edu/cliniweb/**.
- **Medical World Search:** Searches full text from thousands of selected medical sites on the Internet; see **http://www.mwsearch.com/**.

---

[16] Adapted from **http://www.ncbi.nlm.nih.gov/Coffeebreak/Archive/FAQ.html**.

[17] The figure that accompanies each article is frequently supplied by an expert external to NCBI, in which case the source of the figure is cited. The result is an interactive tutorial that tells a biological story.

[18] After a brief introduction that sets the work described into a broader context, the report focuses on how a molecular understanding can provide explanations of observed biology and lead to therapies for diseases. Each vignette is accompanied by a figure and hypertext links that lead to a series of pages that interactively show how NCBI tools and resources are used in the research process.

APPENDIX B. PATIENT RESOURCES

Overview

Official agencies, as well as federally funded institutions supported by national grants, frequently publish a variety of guidelines written with the patient in mind. These are typically called "Fact Sheets" or "Guidelines." They can take the form of a brochure, information kit, pamphlet, or flyer. Often they are only a few pages in length. Since new guidelines on chronic diarrhea can appear at any moment and be published by a number of sources, the best approach to finding guidelines is to systematically scan the Internet-based services that post them.

Patient Guideline Sources

The remainder of this chapter directs you to sources which either publish or can help you find additional guidelines on topics related to chronic diarrhea. Due to space limitations, these sources are listed in a concise manner. Do not hesitate to consult the following sources by either using the Internet hyperlink provided, or, in cases where the contact information is provided, contacting the publisher or author directly.

The National Institutes of Health

The NIH gateway to patients is located at **http://health.nih.gov/**. From this site, you can search across various sources and institutes, a number of which are summarized below.

Topic Pages: MEDLINEplus

The National Library of Medicine has created a vast and patient-oriented healthcare information portal called MEDLINEplus. Within this Internet-based system are "health topic pages" which list links to available materials relevant to chronic diarrhea. To access this system, log on to **http://www.nlm.nih.gov/medlineplus/healthtopics.html**. From there you can either search using the alphabetical index or browse by broad topic areas. Recently, MEDLINEplus listed the following when searched for "chronic diarrhea":

Crohn's Disease
http://www.nlm.nih.gov/medlineplus/crohnsdisease.html

Digestive Diseases
http://www.nlm.nih.gov/medlineplus/digestivediseases.html

Gastroenteritis
http://www.nlm.nih.gov/medlineplus/gastroenteritis.html

Infant and Toddler Health
http://www.nlm.nih.gov/medlineplus/infantandtoddlerhealth.html

Irritable Bowel Syndrome
http://www.nlm.nih.gov/medlineplus/irritablebowelsyndrome.html

You may also choose to use the search utility provided by MEDLINEplus at the following Web address: **http://www.nlm.nih.gov/medlineplus/**. Simply type a keyword into the search box and click "Search." This utility is similar to the NIH search utility, with the exception that it only includes materials that are linked within the MEDLINEplus system (mostly patient-oriented information). It also has the disadvantage of generating unstructured results. We recommend, therefore, that you use this method only if you have a very targeted search.

The Combined Health Information Database (CHID)

CHID Online is a reference tool that maintains a database directory of thousands of journal articles and patient education guidelines on chronic diarrhea. CHID offers summaries that describe the guidelines available, including contact information and pricing. CHID's general Web site is **http://chid.nih.gov/**. To search this database, go to **http://chid.nih.gov/detail/detail.html**. In particular, you can use the advanced search options to look up pamphlets, reports, brochures, and information kits. The following was recently posted in this archive:

- **Gluten-Sensitive Enteropathy (Celiac Disease): More Common Than You Think**

  Source: American Family Physician. 66(12): 2259-2266. December 15, 2002.

  Contact: Available from American Academy of Family Physicians. 8880 Ward Parkway, Kansas City, MO 64114-2797. (800) 274-2237.

  Summary: This article describes gluten-sensitive enteropathy or, as it is more commonly called, celiac disease, an autoimmune inflammatory disease of the small intestine that is precipitated by the ingestion of gluten, a component of wheat protein, in genetically susceptible persons. Exclusion of dietary gluten results in healing of the mucosa, resolution of the malabsorptive state, and reversal of most, if not all, effects of celiac disease. Recent studies in the United States suggest that the prevalence of celiac disease is approximately one case per 250 percents. Gluten-sensitive enteropathy commonly manifests as 'silent' celiac disease (i.e., minimal or no symptoms). Serologic tests for antibodies against endomysium, transglutaminase, and gliadin identify most patients with the disease. The author stresses that serologic testing should be considered in patients who are at increased genetic risk for gluten sensitive enteropathy (i.e., family history of celiac disease or personal history of type I diabetes) and in patients who have **chronic diarrhea,** unexplained anemia, chronic fatigue, or unexplained weight loss.

Early diagnosis and management are important to forestall serious consequences of malabsorption, such as osteoporosis and anemia. 5 figures. 6 tables. 37 references.

- **What is Colonoscopy?**

  Source: Bethesda, MD: American Gastroenterological Association. 1996. 3 p.

  Contact: Available from AGA Patient Education Center. P.O. Box 85080, Richmond, VA 23285-4126. (301) 654-2055 or 654-7850. Fax (301) 654-5920. PRICE: Single copy free; $12.00 plus $3.00 shipping and handling for package of 25.

  Summary: This brochure familiarizes readers with the colonoscopy procedure. Colonoscopy uses a long, thin, flexible tube with a tiny video camera and a light at the end (colonoscope) to view the colon or large bowel. Colonoscopy is a safe and effective way to evaluate problems such as blood loss, pain, changes in bowel habits such as **chronic diarrhea,** or abnormalities that may have first been detected by other studies. In addition, colonoscopy can identify and treat active bleeding from the bowel. The brochure stresses the advantages of colonoscopy over x-ray studies and explains the use of colonoscopy to perform biopsies. After a detailed introduction about the uses of colonoscopy, the brochure explains how patients can best prepare for the procedure. The brochure encourages readers to follow any preoperative instructions as closely as possible. The brochure concludes with a description of what patients can expect during the colonoscopy procedure itself. Simple anatomical drawings illustrate some of the concepts. 5 figures.

- **Malabsorption**

  Source: Milwaukee, WI: International Foundation for Functional Gastrointestinal Disorders. 1995. 2 p.

  Contact: Available from International Foundation for Functional Gastrointestinal Disorders (IFFGD). P.O. Box 170864, Milwaukee, WI 53217. (888) 964-2001 or (414) 964-1799. Fax (414) 964-7176. E-mail: iffgd@iffgd.org. Website: www.iffgd.org. PRICE: $0.50.

  Summary: This fact sheet describes malabsorption, the decreased intestinal absorption of carbohydrate, protein, fat, minerals, or vitamins. The authors note the symptoms associated with malabsorption, including weight loss, diarrhea, greasy stools, abdominal bloating, and gas. In addition, vitamin and mineral deficiencies resulting from malabsorption may cause glossitis (sore tongue), cheilosis (a fissuring and dry scaling of the surface of the lips and angles of the mouth), and anemia. **Chronic diarrhea** is often the first symptom prompting one to seek medical evaluation. The authors describe the anatomical and physiological considerations and causes of malabsorption, the tests used to diagnose the problem, and specific malabsorptive states, including lactose (milk sugar) intolerance, small intestinal disease, pancreatic disease, and liver and biliary disease. Treatment of malabsorption depends on its cause. In patients who cannot be completely restored to normal (for example after extensive surgical removal of the intestine), special dietary measures can be used. If fat is malabsorbed, a low fat diet should be consumed. For carbohydrate malabsorption, disaccharides, specifically lactose, often must be restricted. Vitamin and mineral supplementation needs to be tailored to individual needs, based upon serum levels and clinical symptoms. For the patient with severe malabsorption, in whom dietary measures are not feasible, feeding can be administered intravenously. (AA-M).

The NIH Search Utility

The NIH search utility allows you to search for documents on over 100 selected Web sites that comprise the NIH-WEB-SPACE. Each of these servers is "crawled" and indexed on an ongoing basis. Your search will produce a list of various documents, all of which will relate in some way to chronic diarrhea. The drawbacks of this approach are that the information is not organized by theme and that the references are often a mix of information for professionals and patients. Nevertheless, a large number of the listed Web sites provide useful background information. We can only recommend this route, therefore, for relatively rare or specific disorders, or when using highly targeted searches. To use the NIH search utility, visit the following Web page: **http://search.nih.gov/index.html**.

Additional Web Sources

A number of Web sites are available to the public that often link to government sites. These can also point you in the direction of essential information. The following is a representative sample:

- AOL: **http://search.aol.com/cat.adp?id=168&layer=&from=subcats**
- Family Village: **http://www.familyvillage.wisc.edu/specific.htm**
- Google: **http://directory.google.com/Top/Health/Conditions_and_Diseases/**
- Med Help International: **http://www.medhelp.org/HealthTopics/A.html**
- Open Directory Project: **http://dmoz.org/Health/Conditions_and_Diseases/**
- Yahoo.com: **http://dir.yahoo.com/Health/Diseases_and_Conditions/**
- WebMD®Health: **http://my.webmd.com/health_topics**

Finding Associations

There are several Internet directories that provide lists of medical associations with information on or resources relating to chronic diarrhea. By consulting all of associations listed in this chapter, you will have nearly exhausted all sources for patient associations concerned with chronic diarrhea.

The National Health Information Center (NHIC)

The National Health Information Center (NHIC) offers a free referral service to help people find organizations that provide information about chronic diarrhea. For more information, see the NHIC's Web site at **http://www.health.gov/NHIC/** or contact an information specialist by calling 1-800-336-4797.

Directory of Health Organizations

The Directory of Health Organizations, provided by the National Library of Medicine Specialized Information Services, is a comprehensive source of information on associations. The Directory of Health Organizations database can be accessed via the Internet at

http://www.sis.nlm.nih.gov/Dir/DirMain.html. It is composed of two parts: DIRLINE and Health Hotlines.

The DIRLINE database comprises some 10,000 records of organizations, research centers, and government institutes and associations that primarily focus on health and biomedicine. To access DIRLINE directly, go to the following Web site: **http://dirline.nlm.nih.gov/**. Simply type in "chronic diarrhea" (or a synonym), and you will receive information on all relevant organizations listed in the database.

Health Hotlines directs you to toll-free numbers to over 300 organizations. You can access this database directly at **http://www.sis.nlm.nih.gov/hotlines/**. On this page, you are given the option to search by keyword or by browsing the subject list. When you have received your search results, click on the name of the organization for its description and contact information.

The Combined Health Information Database

Another comprehensive source of information on healthcare associations is the Combined Health Information Database. Using the "Detailed Search" option, you will need to limit your search to "Organizations" and "chronic diarrhea". Type the following hyperlink into your Web browser: **http://chid.nih.gov/detail/detail.html**. To find associations, use the drop boxes at the bottom of the search page where "You may refine your search by." For publication date, select "All Years." Then, select your preferred language and the format option "Organization Resource Sheet." Type "chronic diarrhea" (or synonyms) into the "For these words:" box. You should check back periodically with this database since it is updated every three months.

The National Organization for Rare Disorders, Inc.

The National Organization for Rare Disorders, Inc. has prepared a Web site that provides, at no charge, lists of associations organized by health topic. You can access this database at the following Web site: **http://www.rarediseases.org/search/orgsearch.html**. Type "chronic diarrhea" (or a synonym) into the search box, and click "Submit Query."

APPENDIX C. FINDING MEDICAL LIBRARIES

Overview

In this Appendix, we show you how to quickly find a medical library in your area.

Preparation

Your local public library and medical libraries have interlibrary loan programs with the National Library of Medicine (NLM), one of the largest medical collections in the world. According to the NLM, most of the literature in the general and historical collections of the National Library of Medicine is available on interlibrary loan to any library. If you would like to access NLM medical literature, then visit a library in your area that can request the publications for you.[19]

Finding a Local Medical Library

The quickest method to locate medical libraries is to use the Internet-based directory published by the National Network of Libraries of Medicine (NN/LM). This network includes 4626 members and affiliates that provide many services to librarians, health professionals, and the public. To find a library in your area, simply visit **http://nnlm.gov/members/adv.html** or call 1-800-338-7657.

Medical Libraries in the U.S. and Canada

In addition to the NN/LM, the National Library of Medicine (NLM) lists a number of libraries with reference facilities that are open to the public. The following is the NLM's list and includes hyperlinks to each library's Web site. These Web pages can provide information on hours of operation and other restrictions. The list below is a small sample of

[19] Adapted from the NLM: **http://www.nlm.nih.gov/psd/cas/interlibrary.html**.

libraries recommended by the National Library of Medicine (sorted alphabetically by name of the U.S. state or Canadian province where the library is located)[20]:

- **Alabama:** Health InfoNet of Jefferson County (Jefferson County Library Cooperative, Lister Hill Library of the Health Sciences), **http://www.uab.edu/infonet/**
- **Alabama:** Richard M. Scrushy Library (American Sports Medicine Institute)
- **Arizona:** Samaritan Regional Medical Center: The Learning Center (Samaritan Health System, Phoenix, Arizona), **http://www.samaritan.edu/library/bannerlibs.htm**
- **California:** Kris Kelly Health Information Center (St. Joseph Health System, Humboldt), **http://www.humboldt1.com/~kkhic/index.html**
- **California:** Community Health Library of Los Gatos, **http://www.healthlib.org/orgresources.html**
- **California:** Consumer Health Program and Services (CHIPS) (County of Los Angeles Public Library, Los Angeles County Harbor-UCLA Medical Center Library) - Carson, CA, **http://www.colapublib.org/services/chips.html**
- **California:** Gateway Health Library (Sutter Gould Medical Foundation)
- **California:** Health Library (Stanford University Medical Center), **http://www-med.stanford.edu/healthlibrary/**
- **California:** Patient Education Resource Center - Health Information and Resources (University of California, San Francisco), **http://sfghdean.ucsf.edu/barnett/PERC/default.asp**
- **California:** Redwood Health Library (Petaluma Health Care District), **http://www.phcd.org/rdwdlib.html**
- **California:** Los Gatos PlaneTree Health Library, **http://planetreesanjose.org/**
- **California:** Sutter Resource Library (Sutter Hospitals Foundation, Sacramento), **http://suttermedicalcenter.org/library/**
- **California:** Health Sciences Libraries (University of California, Davis), **http://www.lib.ucdavis.edu/healthsci/**
- **California:** ValleyCare Health Library & Ryan Comer Cancer Resource Center (ValleyCare Health System, Pleasanton), **http://gaelnet.stmarys-ca.edu/other.libs/gbal/east/vchl.html**
- **California:** Washington Community Health Resource Library (Fremont), **http://www.healthlibrary.org/**
- **Colorado:** William V. Gervasini Memorial Library (Exempla Healthcare), **http://www.saintjosephdenver.org/yourhealth/libraries/**
- **Connecticut:** Hartford Hospital Health Science Libraries (Hartford Hospital), **http://www.harthosp.org/library/**
- **Connecticut:** Healthnet: Connecticut Consumer Health Information Center (University of Connecticut Health Center, Lyman Maynard Stowe Library), **http://library.uchc.edu/departm/hnet/**

[20] Abstracted from **http://www.nlm.nih.gov/medlineplus/libraries.html**.

- **Connecticut:** Waterbury Hospital Health Center Library (Waterbury Hospital, Waterbury), **http://www.waterburyhospital.com/library/consumer.shtml**
- **Delaware:** Consumer Health Library (Christiana Care Health System, Eugene du Pont Preventive Medicine & Rehabilitation Institute, Wilmington), **http://www.christianacare.org/health_guide/health_guide_pmri_health_info.cfm**
- **Delaware:** Lewis B. Flinn Library (Delaware Academy of Medicine, Wilmington), **http://www.delamed.org/chls.html**
- **Georgia:** Family Resource Library (Medical College of Georgia, Augusta), **http://cmc.mcg.edu/kids_families/fam_resources/fam_res_lib/frl.htm**
- **Georgia:** Health Resource Center (Medical Center of Central Georgia, Macon), **http://www.mccg.org/hrc/hrchome.asp**
- **Hawaii:** Hawaii Medical Library: Consumer Health Information Service (Hawaii Medical Library, Honolulu), **http://hml.org/CHIS/**
- **Idaho:** DeArmond Consumer Health Library (Kootenai Medical Center, Coeur d'Alene), **http://www.nicon.org/DeArmond/index.htm**
- **Illinois:** Health Learning Center of Northwestern Memorial Hospital (Chicago), **http://www.nmh.org/health_info/hlc.html**
- **Illinois:** Medical Library (OSF Saint Francis Medical Center, Peoria), **http://www.osfsaintfrancis.org/general/library/**
- **Kentucky:** Medical Library - Services for Patients, Families, Students & the Public (Central Baptist Hospital, Lexington), **http://www.centralbap.com/education/community/library.cfm**
- **Kentucky:** University of Kentucky - Health Information Library (Chandler Medical Center, Lexington), **http://www.mc.uky.edu/PatientEd/**
- **Louisiana:** Alton Ochsner Medical Foundation Library (Alton Ochsner Medical Foundation, New Orleans), **http://www.ochsner.org/library/**
- **Louisiana:** Louisiana State University Health Sciences Center Medical Library-Shreveport, **http://lib-sh.lsuhsc.edu/**
- **Maine:** Franklin Memorial Hospital Medical Library (Franklin Memorial Hospital, Farmington), **http://www.fchn.org/fmh/lib.htm**
- **Maine:** Gerrish-True Health Sciences Library (Central Maine Medical Center, Lewiston), **http://www.cmmc.org/library/library.html**
- **Maine:** Hadley Parrot Health Science Library (Eastern Maine Healthcare, Bangor), **http://www.emh.org/hll/hpl/guide.htm**
- **Maine:** Maine Medical Center Library (Maine Medical Center, Portland), **http://www.mmc.org/library/**
- **Maine:** Parkview Hospital (Brunswick), **http://www.parkviewhospital.org/**
- **Maine:** Southern Maine Medical Center Health Sciences Library (Southern Maine Medical Center, Biddeford), **http://www.smmc.org/services/service.php3?choice=10**
- **Maine:** Stephens Memorial Hospital's Health Information Library (Western Maine Health, Norway), **http://www.wmhcc.org/Library/**

- **Manitoba, Canada:** Consumer & Patient Health Information Service (University of Manitoba Libraries), **http://www.umanitoba.ca/libraries/units/health/reference/chis.html**
- **Manitoba, Canada:** J.W. Crane Memorial Library (Deer Lodge Centre, Winnipeg), **http://www.deerlodge.mb.ca/crane_library/about.asp**
- **Maryland:** Health Information Center at the Wheaton Regional Library (Montgomery County, Dept. of Public Libraries, Wheaton Regional Library), **http://www.mont.lib.md.us/healthinfo/hic.asp**
- **Massachusetts:** Baystate Medical Center Library (Baystate Health System), **http://www.baystatehealth.com/1024/**
- **Massachusetts:** Boston University Medical Center Alumni Medical Library (Boston University Medical Center), **http://med-libwww.bu.edu/library/lib.html**
- **Massachusetts:** Lowell General Hospital Health Sciences Library (Lowell General Hospital, Lowell), **http://www.lowellgeneral.org/library/HomePageLinks/WWW.htm**
- **Massachusetts:** Paul E. Woodard Health Sciences Library (New England Baptist Hospital, Boston), **http://www.nebh.org/health_lib.asp**
- **Massachusetts:** St. Luke's Hospital Health Sciences Library (St. Luke's Hospital, Southcoast Health System, New Bedford), **http://www.southcoast.org/library/**
- **Massachusetts:** Treadwell Library Consumer Health Reference Center (Massachusetts General Hospital), **http://www.mgh.harvard.edu/library/chrcindex.html**
- **Massachusetts:** UMass HealthNet (University of Massachusetts Medical School, Worchester), **http://healthnet.umassmed.edu/**
- **Michigan:** Botsford General Hospital Library - Consumer Health (Botsford General Hospital, Library & Internet Services), **http://www.botsfordlibrary.org/consumer.htm**
- **Michigan:** Helen DeRoy Medical Library (Providence Hospital and Medical Centers), **http://www.providence-hospital.org/library/**
- **Michigan:** Marquette General Hospital - Consumer Health Library (Marquette General Hospital, Health Information Center), **http://www.mgh.org/center.html**
- **Michigan:** Patient Education Resouce Center - University of Michigan Cancer Center (University of Michigan Comprehensive Cancer Center, Ann Arbor), **http://www.cancer.med.umich.edu/learn/leares.htm**
- **Michigan:** Sladen Library & Center for Health Information Resources - Consumer Health Information (Detroit), **http://www.henryford.com/body.cfm?id=39330**
- **Montana:** Center for Health Information (St. Patrick Hospital and Health Sciences Center, Missoula)
- **National:** Consumer Health Library Directory (Medical Library Association, Consumer and Patient Health Information Section), **http://caphis.mlanet.org/directory/index.html**
- **National:** National Network of Libraries of Medicine (National Library of Medicine) - provides library services for health professionals in the United States who do not have access to a medical library, **http://nnlm.gov/**
- **National:** NN/LM List of Libraries Serving the Public (National Network of Libraries of Medicine), **http://nnlm.gov/members/**

- **Nevada:** Health Science Library, West Charleston Library (Las Vegas-Clark County Library District, Las Vegas), **http://www.lvccld.org/special_collections/medical/index.htm**
- **New Hampshire:** Dartmouth Biomedical Libraries (Dartmouth College Library, Hanover), **http://www.dartmouth.edu/~biomed/resources.htmld/conshealth.htmld/**
- **New Jersey:** Consumer Health Library (Rahway Hospital, Rahway), **http://www.rahwayhospital.com/library.htm**
- **New Jersey:** Dr. Walter Phillips Health Sciences Library (Englewood Hospital and Medical Center, Englewood), **http://www.englewoodhospital.com/links/index.htm**
- **New Jersey:** Meland Foundation (Englewood Hospital and Medical Center, Englewood), **http://www.geocities.com/ResearchTriangle/9360/**
- **New York:** Choices in Health Information (New York Public Library) - NLM Consumer Pilot Project participant, **http://www.nypl.org/branch/health/links.html**
- **New York:** Health Information Center (Upstate Medical University, State University of New York, Syracuse), **http://www.upstate.edu/library/hic/**
- **New York:** Health Sciences Library (Long Island Jewish Medical Center, New Hyde Park), **http://www.lij.edu/library/library.html**
- **New York:** ViaHealth Medical Library (Rochester General Hospital), **http://www.nyam.org/library/**
- **Ohio:** Consumer Health Library (Akron General Medical Center, Medical & Consumer Health Library), **http://www.akrongeneral.org/hwlibrary.htm**
- **Oklahoma:** The Health Information Center at Saint Francis Hospital (Saint Francis Health System, Tulsa), **http://www.sfh-tulsa.com/services/healthinfo.asp**
- **Oregon:** Planetree Health Resource Center (Mid-Columbia Medical Center, The Dalles), **http://www.mcmc.net/phrc/**
- **Pennsylvania:** Community Health Information Library (Milton S. Hershey Medical Center, Hershey), **http://www.hmc.psu.edu/commhealth/**
- **Pennsylvania:** Community Health Resource Library (Geisinger Medical Center, Danville), **http://www.geisinger.edu/education/commlib.shtml**
- **Pennsylvania:** HealthInfo Library (Moses Taylor Hospital, Scranton), **http://www.mth.org/healthwellness.html**
- **Pennsylvania:** Hopwood Library (University of Pittsburgh, Health Sciences Library System, Pittsburgh), **http://www.hsls.pitt.edu/guides/chi/hopwood/index_html**
- **Pennsylvania:** Koop Community Health Information Center (College of Physicians of Philadelphia), **http://www.collphyphil.org/kooppg1.shtml**
- **Pennsylvania:** Learning Resources Center - Medical Library (Susquehanna Health System, Williamsport), **http://www.shscares.org/services/lrc/index.asp**
- **Pennsylvania:** Medical Library (UPMC Health System, Pittsburgh), **http://www.upmc.edu/passavant/library.htm**
- **Quebec, Canada:** Medical Library (Montreal General Hospital), **http://www.mghlib.mcgill.ca/**

- **South Dakota:** Rapid City Regional Hospital Medical Library (Rapid City Regional Hospital), **http://www.rcrh.org/Services/Library/Default.asp**
- **Texas:** Houston HealthWays (Houston Academy of Medicine-Texas Medical Center Library), **http://hhw.library.tmc.edu/**
- **Washington:** Community Health Library (Kittitas Valley Community Hospital), **http://www.kvch.com/**
- **Washington:** Southwest Washington Medical Center Library (Southwest Washington Medical Center, Vancouver), **http://www.swmedicalcenter.com/body.cfm?id=72**

ONLINE GLOSSARIES

The Internet provides access to a number of free-to-use medical dictionaries. The National Library of Medicine has compiled the following list of online dictionaries:

- ADAM Medical Encyclopedia (A.D.A.M., Inc.), comprehensive medical reference: **http://www.nlm.nih.gov/medlineplus/encyclopedia.html**
- MedicineNet.com Medical Dictionary (MedicineNet, Inc.): **http://www.medterms.com/Script/Main/hp.asp**
- Merriam-Webster Medical Dictionary (Inteli-Health, Inc.): **http://www.intelihealth.com/IH/**
- Multilingual Glossary of Technical and Popular Medical Terms in Eight European Languages (European Commission) - Danish, Dutch, English, French, German, Italian, Portuguese, and Spanish: **http://allserv.rug.ac.be/~rvdstich/eugloss/welcome.html**
- On-line Medical Dictionary (CancerWEB): **http://cancerweb.ncl.ac.uk/omd/**
- Rare Diseases Terms (Office of Rare Diseases): **http://ord.aspensys.com/asp/diseases/diseases.asp**
- Technology Glossary (National Library of Medicine) - Health Care Technology: **http://www.nlm.nih.gov/nichsr/ta101/ta10108.htm**

Beyond these, MEDLINEplus contains a very patient-friendly encyclopedia covering every aspect of medicine (licensed from A.D.A.M., Inc.). The ADAM Medical Encyclopedia can be accessed at **http://www.nlm.nih.gov/medlineplus/encyclopedia.html**. ADAM is also available on commercial Web sites such as drkoop.com (**http://www.drkoop.com/**) and Web MD (**http://my.webmd.com/adam/asset/adam_disease_articles/a_to_z/a**).

Online Dictionary Directories

The following are additional online directories compiled by the National Library of Medicine, including a number of specialized medical dictionaries:

- Medical Dictionaries: Medical & Biological (World Health Organization): **http://www.who.int/hlt/virtuallibrary/English/diction.htm#Medical**
- MEL-Michigan Electronic Library List of Online Health and Medical Dictionaries (Michigan Electronic Library): **http://mel.lib.mi.us/health/health-dictionaries.html**
- Patient Education: Glossaries (DMOZ Open Directory Project): **http://dmoz.org/Health/Education/Patient_Education/Glossaries/**
- Web of Online Dictionaries (Bucknell University): **http://www.yourdictionary.com/diction5.html#medicine**

CHRONIC DIARRHEA DICTIONARY

The definitions below are derived from official public sources, including the National Institutes of Health [NIH] and the European Union [EU].

Abdomen: That portion of the body that lies between the thorax and the pelvis. [NIH]

Abdominal: Having to do with the abdomen, which is the part of the body between the chest and the hips that contains the pancreas, stomach, intestines, liver, gallbladder, and other organs. [NIH]

Abdominal Pain: Sensation of discomfort, distress, or agony in the abdominal region. [NIH]

Abscess: A localized, circumscribed collection of pus. [NIH]

Acetylcholine: A neurotransmitter. Acetylcholine in vertebrates is the major transmitter at neuromuscular junctions, autonomic ganglia, parasympathetic effector junctions, a subset of sympathetic effector junctions, and at many sites in the central nervous system. It is generally not used as an administered drug because it is broken down very rapidly by cholinesterases, but it is useful in some ophthalmological applications. [NIH]

Acidosis: A pathologic condition resulting from accumulation of acid or depletion of the alkaline reserve (bicarbonate content) in the blood and body tissues, and characterized by an increase in hydrogen ion concentration. [EU]

Acquired Immunodeficiency Syndrome: An acquired defect of cellular immunity associated with infection by the human immunodeficiency virus (HIV), a CD4-positive T-lymphocyte count under 200 cells/microliter or less than 14% of total lymphocytes, and increased susceptibility to opportunistic infections and malignant neoplasms. Clinical manifestations also include emaciation (wasting) and dementia. These elements reflect criteria for AIDS as defined by the CDC in 1993. [NIH]

Acrodermatitis: Inflammation involving the skin of the extremities, especially the hands and feet. Several forms are known, some idiopathic and some hereditary. The infantile form is called Gianotti-Crosti syndrome. [NIH]

Acute renal: A condition in which the kidneys suddenly stop working. In most cases, kidneys can recover from almost complete loss of function. [NIH]

Adenocarcinoma: A malignant epithelial tumor with a glandular organization. [NIH]

Adenosine: A nucleoside that is composed of adenine and d-ribose. Adenosine or adenosine derivatives play many important biological roles in addition to being components of DNA and RNA. Adenosine itself is a neurotransmitter. [NIH]

Adjuvant: A substance which aids another, such as an auxiliary remedy; in immunology, nonspecific stimulator (e.g., BCG vaccine) of the immune response. [EU]

Adolescence: The period of life beginning with the appearance of secondary sex characteristics and terminating with the cessation of somatic growth. The years usually referred to as adolescence lie between 13 and 18 years of age. [NIH]

Adolescent Nutrition: Nutrition of children aged 13-18 years. [NIH]

Adoptive Transfer: Form of passive immunization where previously sensitized immunologic agents (cells or serum) are transferred to non-immune recipients. When transfer of cells is used as a therapy for the treatment of neoplasms, it is called adoptive immunotherapy (immunotherapy, adoptive). [NIH]

Adrenal Glands: Paired glands situated in the retroperitoneal tissues at the superior pole of

each kidney. [NIH]

Adrenal insufficiency: The reduced secretion of adrenal glands. [NIH]

Adrenal Medulla: The inner part of the adrenal gland; it synthesizes, stores and releases catecholamines. [NIH]

Adrenergic: Activated by, characteristic of, or secreting epinephrine or substances with similar activity; the term is applied to those nerve fibres that liberate norepinephrine at a synapse when a nerve impulse passes, i.e., the sympathetic fibres. [EU]

Adverse Effect: An unwanted side effect of treatment. [NIH]

Affinity: 1. Inherent likeness or relationship. 2. A special attraction for a specific element, organ, or structure. 3. Chemical affinity; the force that binds atoms in molecules; the tendency of substances to combine by chemical reaction. 4. The strength of noncovalent chemical binding between two substances as measured by the dissociation constant of the complex. 5. In immunology, a thermodynamic expression of the strength of interaction between a single antigen-binding site and a single antigenic determinant (and thus of the stereochemical compatibility between them), most accurately applied to interactions among simple, uniform antigenic determinants such as haptens. Expressed as the association constant (K litres mole -1), which, owing to the heterogeneity of affinities in a population of antibody molecules of a given specificity, actually represents an average value (mean intrinsic association constant). 6. The reciprocal of the dissociation constant. [EU]

Agonist: In anatomy, a prime mover. In pharmacology, a drug that has affinity for and stimulates physiologic activity at cell receptors normally stimulated by naturally occurring substances. [EU]

Albumin: 1. Any protein that is soluble in water and moderately concentrated salt solutions and is coagulable by heat. 2. Serum albumin; the major plasma protein (approximately 60 per cent of the total), which is responsible for much of the plasma colloidal osmotic pressure and serves as a transport protein carrying large organic anions, such as fatty acids, bilirubin, and many drugs, and also carrying certain hormones, such as cortisol and thyroxine, when their specific binding globulins are saturated. Albumin is synthesized in the liver. Low serum levels occur in protein malnutrition, active inflammation and serious hepatic and renal disease. [EU]

Algorithms: A procedure consisting of a sequence of algebraic formulas and/or logical steps to calculate or determine a given task. [NIH]

Alimentary: Pertaining to food or nutritive material, or to the organs of digestion. [EU]

Alkaline: Having the reactions of an alkali. [EU]

Alkaline Phosphatase: An enzyme that catalyzes the conversion of an orthophosphoric monoester and water to an alcohol and orthophosphate. EC 3.1.3.1. [NIH]

Alkaloid: A member of a large group of chemicals that are made by plants and have nitrogen in them. Some alkaloids have been shown to work against cancer. [NIH]

Allergens: Antigen-type substances that produce immediate hypersensitivity (hypersensitivity, immediate). [NIH]

Alpha Particles: Positively charged particles composed of two protons and two neutrons, i.e., helium nuclei, emitted during disintegration of very heavy isotopes; a beam of alpha particles or an alpha ray has very strong ionizing power, but weak penetrability. [NIH]

Alternative medicine: Practices not generally recognized by the medical community as standard or conventional medical approaches and used instead of standard treatments. Alternative medicine includes the taking of dietary supplements, megadose vitamins, and herbal preparations; the drinking of special teas; and practices such as massage therapy,

magnet therapy, spiritual healing, and meditation. [NIH]

Aluminum: A metallic element that has the atomic number 13, atomic symbol Al, and atomic weight 26.98. [NIH]

Aluminum Hydroxide: Hydrated aluminum. A compound with many biomedical applications: as a gastric antacid, an antiperspirant, in dentifrices, as an emulsifier, as an adjuvant in bacterins and vaccines, in water purification, etc. [NIH]

Amebiasis: Infection with any of various amebae. It is an asymptomatic carrier state in most individuals, but diseases ranging from chronic, mild diarrhea to fulminant dysentery may occur. [NIH]

Amino Acid Sequence: The order of amino acids as they occur in a polypeptide chain. This is referred to as the primary structure of proteins. It is of fundamental importance in determining protein conformation. [NIH]

Amino Acids: Organic compounds that generally contain an amino (-NH2) and a carboxyl (-COOH) group. Twenty alpha-amino acids are the subunits which are polymerized to form proteins. [NIH]

Amino Acids: Organic compounds that generally contain an amino (-NH2) and a carboxyl (-COOH) group. Twenty alpha-amino acids are the subunits which are polymerized to form proteins. [NIH]

Amoxicillin: A broad-spectrum semisynthetic antibiotic similar to ampicillin except that its resistance to gastric acid permits higher serum levels with oral administration. [NIH]

Ampicillin: Semi-synthetic derivative of penicillin that functions as an orally active broad-spectrum antibiotic. [NIH]

Amplification: The production of additional copies of a chromosomal DNA sequence, found as either intrachromosomal or extrachromosomal DNA. [NIH]

Ampulla: A sac-like enlargement of a canal or duct. [NIH]

Amyloidosis: A group of diseases in which protein is deposited in specific organs (localized amyloidosis) or throughout the body (systemic amyloidosis). Amyloidosis may be either primary (with no known cause) or secondary (caused by another disease, including some types of cancer). Generally, primary amyloidosis affects the nerves, skin, tongue, joints, heart, and liver; secondary amyloidosis often affects the spleen, kidneys, liver, and adrenal glands. [NIH]

Anaesthesia: Loss of feeling or sensation. Although the term is used for loss of tactile sensibility, or of any of the other senses, it is applied especially to loss of the sensation of pain, as it is induced to permit performance of surgery or other painful procedures. [EU]

Anal: Having to do with the anus, which is the posterior opening of the large bowel. [NIH]

Analgesic: An agent that alleviates pain without causing loss of consciousness. [EU]

Analog: In chemistry, a substance that is similar, but not identical, to another. [NIH]

Anaplasia: Loss of structural differentiation and useful function of neoplastic cells. [NIH]

Anatomical: Pertaining to anatomy, or to the structure of the organism. [EU]

Anemia: A reduction in the number of circulating erythrocytes or in the quantity of hemoglobin. [NIH]

Angina: Chest pain that originates in the heart. [NIH]

Angina Pectoris: The symptom of paroxysmal pain consequent to myocardial ischemia usually of distinctive character, location and radiation, and provoked by a transient stressful situation during which the oxygen requirements of the myocardium exceed the capacity of

the coronary circulation to supply it. [NIH]

Animal model: An animal with a disease either the same as or like a disease in humans. Animal models are used to study the development and progression of diseases and to test new treatments before they are given to humans. Animals with transplanted human cancers or other tissues are called xenograft models. [NIH]

Anions: Negatively charged atoms, radicals or groups of atoms which travel to the anode or positive pole during electrolysis. [NIH]

Annealing: The spontaneous alignment of two single DNA strands to form a double helix. [NIH]

Anode: Electrode held at a positive potential with respect to a cathode. [NIH]

Anorexia: Lack or loss of appetite for food. Appetite is psychologic, dependent on memory and associations. Anorexia can be brought about by unattractive food, surroundings, or company. [NIH]

Antibacterial: A substance that destroys bacteria or suppresses their growth or reproduction. [EU]

Antibiotic: A drug used to treat infections caused by bacteria and other microorganisms. [NIH]

Antibodies: Immunoglobulin molecules having a specific amino acid sequence by virtue of which they interact only with the antigen that induced their synthesis in cells of the lymphoid series (especially plasma cells), or with an antigen closely related to it. [NIH]

Antibody: A type of protein made by certain white blood cells in response to a foreign substance (antigen). Each antibody can bind to only a specific antigen. The purpose of this binding is to help destroy the antigen. Antibodies can work in several ways, depending on the nature of the antigen. Some antibodies destroy antigens directly. Others make it easier for white blood cells to destroy the antigen. [NIH]

Anticholinergic: An agent that blocks the parasympathetic nerves. Called also parasympatholytic. [EU]

Antigen: Any substance which is capable, under appropriate conditions, of inducing a specific immune response and of reacting with the products of that response, that is, with specific antibody or specifically sensitized T-lymphocytes, or both. Antigens may be soluble substances, such as toxins and foreign proteins, or particulate, such as bacteria and tissue cells; however, only the portion of the protein or polysaccharide molecule known as the antigenic determinant (q.v.) combines with antibody or a specific receptor on a lymphocyte. Abbreviated Ag. [EU]

Anti-infective: An agent that so acts. [EU]

Anti-Infective Agents: Substances that prevent infectious agents or organisms from spreading or kill infectious agents in order to prevent the spread of infection. [NIH]

Anti-inflammatory: Having to do with reducing inflammation. [NIH]

Antioxidants: Naturally occurring or synthetic substances that inhibit or retard the oxidation of a substance to which it is added. They counteract the harmful and damaging effects of oxidation in animal tissues. [NIH]

Antipruritic: Relieving or preventing itching. [EU]

Antithrombotic: Preventing or interfering with the formation of thrombi; an agent that so acts. [EU]

Anus: The opening of the rectum to the outside of the body. [NIH]

Anxiety: Persistent feeling of dread, apprehension, and impending disaster. [NIH]

Aqueous: Having to do with water. [NIH]

Arcus Senilis: A corneal disease in which there is a deposition of phospholipid and cholesterol in the corneal stroma and anterior sclera. [NIH]

Arterial: Pertaining to an artery or to the arteries. [EU]

Arteries: The vessels carrying blood away from the heart. [NIH]

Arteriosclerosis: Thickening and loss of elasticity of arterial walls. Atherosclerosis is the most common form of arteriosclerosis and involves lipid deposition and thickening of the intimal cell layers within arteries. Additional forms of arteriosclerosis involve calcification of the media of muscular arteries (Monkeberg medial calcific sclerosis) and thickening of the walls of small arteries or arterioles due to cell proliferation or hyaline deposition (arteriolosclerosis). [NIH]

Arteriovenous: Both arterial and venous; pertaining to or affecting an artery and a vein. [EU]

Arteriovenous Fistula: An abnormal communication between an artery and a vein. [NIH]

Ascaris: A genus of nematodes of the superfamily Ascaridoidea whose species usually inhabit the intestine. [NIH]

Assay: Determination of the amount of a particular constituent of a mixture, or of the biological or pharmacological potency of a drug. [EU]

Asymptomatic: Having no signs or symptoms of disease. [NIH]

Atrophy: Decrease in the size of a cell, tissue, organ, or multiple organs, associated with a variety of pathological conditions such as abnormal cellular changes, ischemia, malnutrition, or hormonal changes. [NIH]

Atropine: A toxic alkaloid, originally from Atropa belladonna, but found in other plants, mainly Solanaceae. [NIH]

Attenuated: Strain with weakened or reduced virulence. [NIH]

Auscultation: Act of listening for sounds within the body. [NIH]

Autacoids: A chemically diverse group of substances produced by various tissues in the body that cause slow contraction of smooth muscle; they have other intense but varied pharmacologic activities. [NIH]

Autoantibodies: Antibodies that react with self-antigens (autoantigens) of the organism that produced them. [NIH]

Autoimmune disease: A condition in which the body recognizes its own tissues as foreign and directs an immune response against them. [NIH]

Autosuggestion: Suggestion coming from the subject himself. [NIH]

Avian: A plasmodial infection in birds. [NIH]

Bacteremia: The presence of viable bacteria circulating in the blood. Fever, chills, tachycardia, and tachypnea are common acute manifestations of bacteremia. The majority of cases are seen in already hospitalized patients, most of whom have underlying diseases or procedures which render their bloodstreams susceptible to invasion. [NIH]

Bacteria: Unicellular prokaryotic microorganisms which generally possess rigid cell walls, multiply by cell division, and exhibit three principal forms: round or coccal, rodlike or bacillary, and spiral or spirochetal. [NIH]

Bacterial Infections: Infections by bacteria, general or unspecified. [NIH]

Bacterium: Microscopic organism which may have a spherical, rod-like, or spiral unicellular or non-cellular body. Bacteria usually reproduce through asexual processes. [NIH]

Base: In chemistry, the nonacid part of a salt; a substance that combines with acids to form salts; a substance that dissociates to give hydroxide ions in aqueous solutions; a substance whose molecule or ion can combine with a proton (hydrogen ion); a substance capable of donating a pair of electrons (to an acid) for the formation of a coordinate covalent bond. [EU]

Belladonna: A species of very poisonous Solanaceous plants yielding atropine (hyoscyamine), scopolamine, and other belladonna alkaloids, used to block the muscarinic autonomic nervous system. [NIH]

Benign: Not cancerous; does not invade nearby tissue or spread to other parts of the body. [NIH]

Bile: An emulsifying agent produced in the liver and secreted into the duodenum. Its composition includes bile acids and salts, cholesterol, and electrolytes. It aids digestion of fats in the duodenum. [NIH]

Bile Acids: Acids made by the liver that work with bile to break down fats. [NIH]

Bile Acids and Salts: Steroid acids and salts. The primary bile acids are derived from cholesterol in the liver and usually conjugated with glycine or taurine. The secondary bile acids are further modified by bacteria in the intestine. They play an important role in the digestion and absorption of fat. They have also been used pharmacologically, especially in the treatment of gallstones. [NIH]

Bile duct: A tube through which bile passes in and out of the liver. [NIH]

Biliary: Having to do with the liver, bile ducts, and/or gallbladder. [NIH]

Biological response modifier: BRM. A substance that stimulates the body's response to infection and disease. [NIH]

Biopsy: Removal and pathologic examination of specimens in the form of small pieces of tissue from the living body. [NIH]

Biopsy specimen: Tissue removed from the body and examined under a microscope to determine whether disease is present. [NIH]

Biosynthesis: The building up of a chemical compound in the physiologic processes of a living organism. [EU]

Biotechnology: Body of knowledge related to the use of organisms, cells or cell-derived constituents for the purpose of developing products which are technically, scientifically and clinically useful. Alteration of biologic function at the molecular level (i.e., genetic engineering) is a central focus; laboratory methods used include transfection and cloning technologies, sequence and structure analysis algorithms, computer databases, and gene and protein structure function analysis and prediction. [NIH]

Bismuth: A metallic element that has the atomic symbol Bi, atomic number 83 and atomic weight 208.98. [NIH]

Bismuth Subsalicylate: A nonprescription medicine such as Pepto-Bismol. Used to treat diarrhea, heartburn, indigestion, and nausea. It is also part of the treatment for ulcers caused by the bacterium Helicobacter pylori (HELL-uh-koh-BAK-tur py-LOH-ree). [NIH]

Bladder: The organ that stores urine. [NIH]

Bloating: Fullness or swelling in the abdomen that often occurs after meals. [NIH]

Blood Coagulation: The process of the interaction of blood coagulation factors that results in an insoluble fibrin clot. [NIH]

Blood Glucose: Glucose in blood. [NIH]

Blood pressure: The pressure of blood against the walls of a blood vessel or heart chamber. Unless there is reference to another location, such as the pulmonary artery or one of the

heart chambers, it refers to the pressure in the systemic arteries, as measured, for example, in the forearm. [NIH]

Blood vessel: A tube in the body through which blood circulates. Blood vessels include a network of arteries, arterioles, capillaries, venules, and veins. [NIH]

Body Fluids: Liquid components of living organisms. [NIH]

Bolus: A single dose of drug usually injected into a blood vessel over a short period of time. Also called bolus infusion. [NIH]

Bolus infusion: A single dose of drug usually injected into a blood vessel over a short period of time. Also called bolus. [NIH]

Bowel: The long tube-shaped organ in the abdomen that completes the process of digestion. There is both a small and a large bowel. Also called the intestine. [NIH]

Bowel Movement: Body wastes passed through the rectum and anus. [NIH]

Brain Diseases: Pathologic conditions affecting the brain, which is composed of the intracranial components of the central nervous system. This includes (but is not limited to) the cerebral cortex; intracranial white matter; basal ganglia; thalamus; hypothalamus; brain stem; and cerebellum. [NIH]

Brain Stem: The part of the brain that connects the cerebral hemispheres with the spinal cord. It consists of the mesencephalon, pons, and medulla oblongata. [NIH]

Broad-spectrum: Effective against a wide range of microorganisms; said of an antibiotic. [EU]

Bulbar: Pertaining to a bulb; pertaining to or involving the medulla oblongata, as bulbar paralysis. [EU]

Bulking Agents: Laxatives that make bowel movements soft and easy to pass. [NIH]

Bullous: Pertaining to or characterized by bullae. [EU]

Bypass: A surgical procedure in which the doctor creates a new pathway for the flow of body fluids. [NIH]

Cachexia: General ill health, malnutrition, and weight loss, usually associated with chronic disease. [NIH]

Calcium: A basic element found in nearly all organized tissues. It is a member of the alkaline earth family of metals with the atomic symbol Ca, atomic number 20, and atomic weight 40. Calcium is the most abundant mineral in the body and combines with phosphorus to form calcium phosphate in the bones and teeth. It is essential for the normal functioning of nerves and muscles and plays a role in blood coagulation (as factor IV) and in many enzymatic processes. [NIH]

Calcium Gluconate: The calcium salt of gluconic acid. The compound has a variety of uses, including its use as a calcium replenisher in hypocalcemic states. [NIH]

Campylobacter: A genus of bacteria found in the reproductive organs, intestinal tract, and oral cavity of animals and man. Some species are pathogenic. [NIH]

Candidiasis: Infection with a fungus of the genus Candida. It is usually a superficial infection of the moist cutaneous areas of the body, and is generally caused by C. albicans; it most commonly involves the skin (dermatocandidiasis), oral mucous membranes (thrush, def. 1), respiratory tract (bronchocandidiasis), and vagina (vaginitis). Rarely there is a systemic infection or endocarditis. Called also moniliasis, candidosis, oidiomycosis, and formerly blastodendriosis. [EU]

Candidosis: An infection caused by an opportunistic yeasts that tends to proliferate and become pathologic when the environment is favorable and the host resistance is weakened. [NIH]

Carbohydrate: An aldehyde or ketone derivative of a polyhydric alcohol, particularly of the pentahydric and hexahydric alcohols. They are so named because the hydrogen and oxygen are usually in the proportion to form water, (CH2O)n. The most important carbohydrates are the starches, sugars, celluloses, and gums. They are classified into mono-, di-, tri-, poly- and heterosaccharides. [EU]

Carcinogen: Any substance that causes cancer. [NIH]

Carcinogenic: Producing carcinoma. [EU]

Carcinoid: A type of tumor usually found in the gastrointestinal system (most often in the appendix), and sometimes in the lungs or other sites. Carcinoid tumors are usually benign. [NIH]

Carcinoma: Cancer that begins in the skin or in tissues that line or cover internal organs. [NIH]

Cardiac: Having to do with the heart. [NIH]

Cardiac arrest: A sudden stop of heart function. [NIH]

Cardioselective: Having greater activity on heart tissue than on other tissue. [EU]

Carrier State: The condition of harboring an infective organism without manifesting symptoms of infection. The organism must be readily transmissable to another susceptible host. [NIH]

Case report: A detailed report of the diagnosis, treatment, and follow-up of an individual patient. Case reports also contain some demographic information about the patient (for example, age, gender, ethnic origin). [NIH]

Cataract: An opacity, partial or complete, of one or both eyes, on or in the lens or capsule, especially an opacity impairing vision or causing blindness. The many kinds of cataract are classified by their morphology (size, shape, location) or etiology (cause and time of occurrence). [EU]

Celiac Disease: A disease characterized by intestinal malabsorption and precipitated by gluten-containing foods. The intestinal mucosa shows loss of villous structure. [NIH]

Celiac Plexus: A complex network of nerve fibers including sympathetic and parasympathetic efferents and visceral afferents. The celiac plexus is the largest of the autonomic plexuses and is located in the abdomen surrounding the celiac and superior mesenteric arteries. [NIH]

Celiprolol: A cardioselective beta-1-adrenergic antagonist that may act as a partial agonist at some adrenergic sites. [NIH]

Cell: The individual unit that makes up all of the tissues of the body. All living things are made up of one or more cells. [NIH]

Cell Count: A count of the number of cells of a specific kind, usually measured per unit volume of sample. [NIH]

Cellulitis: An acute, diffuse, and suppurative inflammation of loose connective tissue, particularly the deep subcutaneous tissues, and sometimes muscle, which is most commonly seen as a result of infection of a wound, ulcer, or other skin lesions. [NIH]

Central Nervous System: The main information-processing organs of the nervous system, consisting of the brain, spinal cord, and meninges. [NIH]

Cerebral: Of or pertaining of the cerebrum or the brain. [EU]

Cerebral Cortex: The thin layer of gray matter on the surface of the cerebral hemisphere that develops from the telencephalon and folds into gyri. It reaches its highest development in man and is responsible for intellectual faculties and higher mental functions. [NIH]

Cerebrotendinous Xanthomatosis: A primary fatty degeneration of the cornea occurring physiologically as an arcus senilis. [NIH]

Character: In current usage, approximately equivalent to personality. The sum of the relatively fixed personality traits and habitual modes of response of an individual. [NIH]

Chemokines: Class of pro-inflammatory cytokines that have the ability to attract and activate leukocytes. They can be divided into at least three structural branches: C (chemokines, C), CC (chemokines, CC), and CXC (chemokines, CXC), according to variations in a shared cysteine motif. [NIH]

Cholera: An acute diarrheal disease endemic in India and Southeast Asia whose causative agent is vibrio cholerae. This condition can lead to severe dehydration in a matter of hours unless quickly treated. [NIH]

Cholesterol: The principal sterol of all higher animals, distributed in body tissues, especially the brain and spinal cord, and in animal fats and oils. [NIH]

Cholestyramine: Strongly basic anion exchange resin whose main constituent is polystyrene trimethylbenzylammonium as Cl(-) anion. It exchanges chloride ions with bile salts, thus decreasing their concentration and that of cholesterol. It is used as a hypocholesteremic in diarrhea and biliary obstruction and as an antipruritic. [NIH]

Chromatin: The material of chromosomes. It is a complex of DNA, histones, and nonhistone proteins (chromosomal proteins, non-histone) found within the nucleus of a cell. [NIH]

Chromosomal: Pertaining to chromosomes. [EU]

Chronic Disease: Disease or ailment of long duration. [NIH]

Chronic renal: Slow and progressive loss of kidney function over several years, often resulting in end-stage renal disease. People with end-stage renal disease need dialysis or transplantation to replace the work of the kidneys. [NIH]

Clinical study: A research study in which patients receive treatment in a clinic or other medical facility. Reports of clinical studies can contain results for single patients (case reports) or many patients (case series or clinical trials). [NIH]

Clinical trial: A research study that tests how well new medical treatments or other interventions work in people. Each study is designed to test new methods of screening, prevention, diagnosis, or treatment of a disease. [NIH]

Cloning: The production of a number of genetically identical individuals; in genetic engineering, a process for the efficient replication of a great number of identical DNA molecules. [NIH]

Codeine: An opioid analgesic related to morphine but with less potent analgesic properties and mild sedative effects. It also acts centrally to suppress cough. [NIH]

Cognitive restructuring: A method of identifying and replacing fear-promoting, irrational beliefs with more realistic and functional ones. [NIH]

Colitis: Inflammation of the colon. [NIH]

Collagen: A polypeptide substance comprising about one third of the total protein in mammalian organisms. It is the main constituent of skin, connective tissue, and the organic substance of bones and teeth. Different forms of collagen are produced in the body but all consist of three alpha-polypeptide chains arranged in a triple helix. Collagen is differentiated from other fibrous proteins, such as elastin, by the content of proline, hydroxyproline, and hydroxylysine; by the absence of tryptophan; and particularly by the high content of polar groups which are responsible for its swelling properties. [NIH]

Collagenous Colitis: A type of colitis. Caused by an abnormal band of collagen, a thread-

like protein. [NIH]

Colon: The long, coiled, tubelike organ that removes water from digested food. The remaining material, solid waste called stool, moves through the colon to the rectum and leaves the body through the anus. [NIH]

Colon Polyps: Small, fleshy, mushroom-shaped growths in the colon. [NIH]

Colonoscope: A thin, lighted tube used to examine the inside of the colon. [NIH]

Colonoscopy: Endoscopic examination, therapy or surgery of the luminal surface of the colon. [NIH]

Colorectal: Having to do with the colon or the rectum. [NIH]

Colostrum: The thin, yellow, serous fluid secreted by the mammary glands during pregnancy and immediately postpartum before lactation begins. It consists of immunologically active substances, white blood cells, water, protein, fat, and carbohydrates. [NIH]

Combination Therapy: Association of 3 drugs to treat AIDS (AZT + DDC or DDI + protease inhibitor). [NIH]

Common Variable Immunodeficiency: Heterogeneous group of immunodeficiency syndromes characterized by hypogammaglobulinemia of most isotypes, variable B-cell defects, and the presence of recurrent bacterial infections. [NIH]

Complement: A term originally used to refer to the heat-labile factor in serum that causes immune cytolysis, the lysis of antibody-coated cells, and now referring to the entire functionally related system comprising at least 20 distinct serum proteins that is the effector not only of immune cytolysis but also of other biologic functions. Complement activation occurs by two different sequences, the classic and alternative pathways. The proteins of the classic pathway are termed 'components of complement' and are designated by the symbols C1 through C9. C1 is a calcium-dependent complex of three distinct proteins C1q, C1r and C1s. The proteins of the alternative pathway (collectively referred to as the properdin system) and complement regulatory proteins are known by semisystematic or trivial names. Fragments resulting from proteolytic cleavage of complement proteins are designated with lower-case letter suffixes, e.g., C3a. Inactivated fragments may be designated with the suffix 'i', e.g. C3bi. Activated components or complexes with biological activity are designated by a bar over the symbol e.g. C1 or C4b,2a. The classic pathway is activated by the binding of C1 to classic pathway activators, primarily antigen-antibody complexes containing IgM, IgG1, IgG3; C1q binds to a single IgM molecule or two adjacent IgG molecules. The alternative pathway can be activated by IgA immune complexes and also by nonimmunologic materials including bacterial endotoxins, microbial polysaccharides, and cell walls. Activation of the classic pathway triggers an enzymatic cascade involving C1, C4, C2 and C3; activation of the alternative pathway triggers a cascade involving C3 and factors B, D and P. Both result in the cleavage of C5 and the formation of the membrane attack complex. Complement activation also results in the formation of many biologically active complement fragments that act as anaphylatoxins, opsonins, or chemotactic factors. [EU]

Complementary and alternative medicine: CAM. Forms of treatment that are used in addition to (complementary) or instead of (alternative) standard treatments. These practices are not considered standard medical approaches. CAM includes dietary supplements, megadose vitamins, herbal preparations, special teas, massage therapy, magnet therapy, spiritual healing, and meditation. [NIH]

Complementary medicine: Practices not generally recognized by the medical community as standard or conventional medical approaches and used to enhance or complement the standard treatments. Complementary medicine includes the taking of dietary supplements,

megadose vitamins, and herbal preparations; the drinking of special teas; and practices such as massage therapy, magnet therapy, spiritual healing, and meditation. [NIH]

Computational Biology: A field of biology concerned with the development of techniques for the collection and manipulation of biological data, and the use of such data to make biological discoveries or predictions. This field encompasses all computational methods and theories applicable to molecular biology and areas of computer-based techniques for solving biological problems including manipulation of models and datasets. [NIH]

Computed tomography: CT scan. A series of detailed pictures of areas inside the body, taken from different angles; the pictures are created by a computer linked to an x-ray machine. Also called computerized tomography and computerized axial tomography (CAT) scan. [NIH]

Computerized axial tomography: A series of detailed pictures of areas inside the body, taken from different angles; the pictures are created by a computer linked to an x-ray machine. Also called CAT scan, computed tomography (CT scan), or computerized tomography. [NIH]

Computerized tomography: A series of detailed pictures of areas inside the body, taken from different angles; the pictures are created by a computer linked to an x-ray machine. Also called computerized axial tomography (CAT) scan and computed tomography (CT scan). [NIH]

Conjugated: Acting or operating as if joined; simultaneous. [EU]

Connective Tissue: Tissue that supports and binds other tissues. It consists of connective tissue cells embedded in a large amount of extracellular matrix. [NIH]

Connective Tissue: Tissue that supports and binds other tissues. It consists of connective tissue cells embedded in a large amount of extracellular matrix. [NIH]

Constipation: Infrequent or difficult evacuation of feces. [NIH]

Constriction: The act of constricting. [NIH]

Contamination: The soiling or pollution by inferior material, as by the introduction of organisms into a wound, or sewage into a stream. [EU]

Contraindications: Any factor or sign that it is unwise to pursue a certain kind of action or treatment, e. g. giving a general anesthetic to a person with pneumonia. [NIH]

Control group: In a clinical trial, the group that does not receive the new treatment being studied. This group is compared to the group that receives the new treatment, to see if the new treatment works. [NIH]

Controlled clinical trial: A clinical study that includes a comparison (control) group. The comparison group receives a placebo, another treatment, or no treatment at all. [NIH]

Convulsions: A general term referring to sudden and often violent motor activity of cerebral or brainstem origin. Convulsions may also occur in the absence of an electrical cerebral discharge (e.g., in response to hypotension). [NIH]

Cornea: The transparent part of the eye that covers the iris and the pupil and allows light to enter the inside. [NIH]

Coronary: Encircling in the manner of a crown; a term applied to vessels; nerves, ligaments, etc. The term usually denotes the arteries that supply the heart muscle and, by extension, a pathologic involvement of them. [EU]

Cortical: Pertaining to or of the nature of a cortex or bark. [EU]

Cranial: Pertaining to the cranium, or to the anterior (in animals) or superior (in humans) end of the body. [EU]

Cryoglobulinemia: A condition characterized by the presence of abnormal or abnormal quantities of cryoglobulins in the blood. They are precipitated into the microvasculature on exposure to cold and cause restricted blood flow in exposed areas. [NIH]

Cryptosporidiosis: Parasitic intestinal infection with severe diarrhea caused by a protozoan, Cryptosporidium. It occurs in both animals and humans. [NIH]

Curative: Tending to overcome disease and promote recovery. [EU]

Cutaneous: Having to do with the skin. [NIH]

Cysteine: A thiol-containing non-essential amino acid that is oxidized to form cystine. [NIH]

Cytokines: Non-antibody proteins secreted by inflammatory leukocytes and some non-leukocytic cells, that act as intercellular mediators. They differ from classical hormones in that they are produced by a number of tissue or cell types rather than by specialized glands. They generally act locally in a paracrine or autocrine rather than endocrine manner. [NIH]

Cytomegalovirus: A genus of the family Herpesviridae, subfamily Betaherpesvirinae, infecting the salivary glands, liver, spleen, lungs, eyes, and other organs, in which they produce characteristically enlarged cells with intranuclear inclusions. Infection with Cytomegalovirus is also seen as an opportunistic infection in AIDS. [NIH]

Cytoplasm: The protoplasm of a cell exclusive of that of the nucleus; it consists of a continuous aqueous solution (cytosol) and the organelles and inclusions suspended in it (phaneroplasm), and is the site of most of the chemical activities of the cell. [EU]

Cytotoxic: Cell-killing. [NIH]

Data Collection: Systematic gathering of data for a particular purpose from various sources, including questionnaires, interviews, observation, existing records, and electronic devices. The process is usually preliminary to statistical analysis of the data. [NIH]

Degenerative: Undergoing degeneration : tending to degenerate; having the character of or involving degeneration; causing or tending to cause degeneration. [EU]

Dehydration: The condition that results from excessive loss of body water. [NIH]

Dementia: An acquired organic mental disorder with loss of intellectual abilities of sufficient severity to interfere with social or occupational functioning. The dysfunction is multifaceted and involves memory, behavior, personality, judgment, attention, spatial relations, language, abstract thought, and other executive functions. The intellectual decline is usually progressive, and initially spares the level of consciousness. [NIH]

Denaturation: Rupture of the hydrogen bonds by heating a DNA solution and then cooling it rapidly causes the two complementary strands to separate. [NIH]

Dentifrices: Any preparations used for cleansing teeth; they usually contain an abrasive, detergent, binder and flavoring agent and may exist in the form of liquid, paste or powder; may also contain medicaments and caries preventives. [NIH]

Dermatitis: Any inflammation of the skin. [NIH]

Dermatitis Herpetiformis: Rare, chronic, papulo-vesicular disease characterized by an intensely pruritic eruption consisting of various combinations of symmetrical, erythematous, papular, vesicular, or bullous lesions. The disease is strongly associated with the presence of HLA-B8 and HLA-DR3 antigens. A variety of different autoantibodies has been detected in small numbers in patients with dermatitis herpetiformis. [NIH]

Deuterium: Deuterium. The stable isotope of hydrogen. It has one neutron and one proton in the nucleus. [NIH]

Developed Countries: Countries that have reached a level of economic achievement through an increase of production, per capita income and consumption, and utilization of

natural and human resources. [NIH]

Diabetes Mellitus: A heterogeneous group of disorders that share glucose intolerance in common. [NIH]

Diagnostic Imaging: Any visual display of structural or functional patterns of organs or tissues for diagnostic evaluation. It includes measuring physiologic and metabolic responses to physical and chemical stimuli, as well as ultramicroscopy. [NIH]

Diagnostic procedure: A method used to identify a disease. [NIH]

Diastolic: Of or pertaining to the diastole. [EU]

Dietary Fiber: The remnants of plant cell walls that are resistant to digestion by the alimentary enzymes of man. It comprises various polysaccharides and lignins. [NIH]

Diffusion: The tendency of a gas or solute to pass from a point of higher pressure or concentration to a point of lower pressure or concentration and to distribute itself throughout the available space; a major mechanism of biological transport. [NIH]

Digestion: The process of breakdown of food for metabolism and use by the body. [NIH]

Digestive system: The organs that take in food and turn it into products that the body can use to stay healthy. Waste products the body cannot use leave the body through bowel movements. The digestive system includes the salivary glands, mouth, esophagus, stomach, liver, pancreas, gallbladder, small and large intestines, and rectum. [NIH]

Digestive tract: The organs through which food passes when food is eaten. These organs are the mouth, esophagus, stomach, small and large intestines, and rectum. [NIH]

Dimethyl: A volatile metabolite of the amino acid methionine. [NIH]

Diphenoxylate: A meperidine congener used as an antidiarrheal, usually in combination with atropine. At high doses, it acts like morphine. Its unesterified metabolite difenoxin has similar properties and is used similarly. It has little or no analgesic activity. [NIH]

Direct: 1. Straight; in a straight line. 2. Performed immediately and without the intervention of subsidiary means. [EU]

Disaccharides: Sugars composed of two monosaccharides linked by glycoside bonds. [NIH]

Discrete: Made up of separate parts or characterized by lesions which do not become blended; not running together; separate. [NIH]

Distal: Remote; farther from any point of reference; opposed to proximal. In dentistry, used to designate a position on the dental arch farther from the median line of the jaw. [EU]

Diuretic: A drug that increases the production of urine. [NIH]

Double-blind: Pertaining to a clinical trial or other experiment in which neither the subject nor the person administering treatment knows which treatment any particular subject is receiving. [EU]

Drug Interactions: The action of a drug that may affect the activity, metabolism, or toxicity of another drug. [NIH]

Drug Tolerance: Progressive diminution of the susceptibility of a human or animal to the effects of a drug, resulting from its continued administration. It should be differentiated from drug resistance wherein an organism, disease, or tissue fails to respond to the intended effectiveness of a chemical or drug. It should also be differentiated from maximum tolerated dose and no-observed-adverse-effect level. [NIH]

Duct: A tube through which body fluids pass. [NIH]

Duodenum: The first part of the small intestine. [NIH]

Dysentery: Any of various disorders marked by inflammation of the intestines, especially of

the colon, and attended by pain in the abdomen, tenesmus, and frequent stools containing blood and mucus. Causes include chemical irritants, bacteria, protozoa, or parasitic worms. [EU]

Dysplasia: Cells that look abnormal under a microscope but are not cancer. [NIH]

Eclampsia: Onset of convulsions or coma in a previously diagnosed pre-eclamptic patient. [NIH]

Edema: Excessive amount of watery fluid accumulated in the intercellular spaces, most commonly present in subcutaneous tissue. [NIH]

Effector: It is often an enzyme that converts an inactive precursor molecule into an active second messenger. [NIH]

Effector cell: A cell that performs a specific function in response to a stimulus; usually used to describe cells in the immune system. [NIH]

Efficacy: The extent to which a specific intervention, procedure, regimen, or service produces a beneficial result under ideal conditions. Ideally, the determination of efficacy is based on the results of a randomized control trial. [NIH]

Effusion: The escape of fluid into a part or tissue, as an exudation or a transudation. [EU]

Elastic: Susceptible of resisting and recovering from stretching, compression or distortion applied by a force. [EU]

Elastin: The protein that gives flexibility to tissues. [NIH]

Electrolysis: Destruction by passage of a galvanic electric current, as in disintegration of a chemical compound in solution. [NIH]

Electrolyte: A substance that dissociates into ions when fused or in solution, and thus becomes capable of conducting electricity; an ionic solute. [EU]

Electrons: Stable elementary particles having the smallest known negative charge, present in all elements; also called negatrons. Positively charged electrons are called positrons. The numbers, energies and arrangement of electrons around atomic nuclei determine the chemical identities of elements. Beams of electrons are called cathode rays or beta rays, the latter being a high-energy biproduct of nuclear decay. [NIH]

Emaciation: Clinical manifestation of excessive leanness usually caused by disease or a lack of nutrition. [NIH]

Embryo: The prenatal stage of mammalian development characterized by rapid morphological changes and the differentiation of basic structures. [NIH]

Empiric: Empirical; depending upon experience or observation alone, without using scientific method or theory. [EU]

Endemic: Present or usually prevalent in a population or geographical area at all times; said of a disease or agent. Called also endemial. [EU]

Endocarditis: Exudative and proliferative inflammatory alterations of the endocardium, characterized by the presence of vegetations on the surface of the endocardium or in the endocardium itself, and most commonly involving a heart valve, but sometimes affecting the inner lining of the cardiac chambers or the endocardium elsewhere. It may occur as a primary disorder or as a complication of or in association with another disease. [EU]

Endocrine System: The system of glands that release their secretions (hormones) directly into the circulatory system. In addition to the endocrine glands, included are the chromaffin system and the neurosecretory systems. [NIH]

Endogenous: Produced inside an organism or cell. The opposite is external (exogenous) production. [NIH]

Endoscope: A thin, lighted tube used to look at tissues inside the body. [NIH]

Endoscopic: A technique where a lateral-view endoscope is passed orally to the duodenum for visualization of the ampulla of Vater. [NIH]

Endoscopy: Endoscopic examination, therapy or surgery performed on interior parts of the body. [NIH]

Enema: The injection of a liquid through the anus into the large bowel. [NIH]

Enteritis: Inflammation of the intestine, applied chiefly to inflammation of the small intestine; see also enterocolitis. [EU]

Enterocolitis: Inflammation of the intestinal mucosa of the small and large bowel. [NIH]

Enterocytes: Terminally differentiated cells comprising the majority of the external surface of the intestinal epithelium (see intestinal mucosa). Unlike goblet cells, they do not produce or secrete mucins, nor do they secrete cryptdins as do the paneth cells. [NIH]

Enterohepatic: Of or involving the intestine and liver. [EU]

Enterohepatic Circulation: Recycling through liver by excretion in bile, reabsorption from intestines into portal circulation, passage back into liver, and re-excretion in bile. [NIH]

Environmental Health: The science of controlling or modifying those conditions, influences, or forces surrounding man which relate to promoting, establishing, and maintaining health. [NIH]

Enzymatic: Phase where enzyme cuts the precursor protein. [NIH]

Enzyme: A protein that speeds up chemical reactions in the body. [NIH]

Eosinophilia: Abnormal increase in eosinophils in the blood, tissues or organs. [NIH]

Eosinophilic: A condition found primarily in grinding workers caused by a reaction of the pulmonary tissue, in particular the eosinophilic cells, to dust that has entered the lung. [NIH]

Eosinophilic Gastroenteritis: Infection and swelling of the lining of the stomach, small intestine, or large intestine. The infection is caused by white blood cells (eosinophils). [NIH]

Eosinophils: Granular leukocytes with a nucleus that usually has two lobes connected by a slender thread of chromatin, and cytoplasm containing coarse, round granules that are uniform in size and stainable by eosin. [NIH]

Epidemic: Occurring suddenly in numbers clearly in excess of normal expectancy; said especially of infectious diseases but applied also to any disease, injury, or other health-related event occurring in such outbreaks. [EU]

Epidemiological: Relating to, or involving epidemiology. [EU]

Epigastric: Having to do with the upper middle area of the abdomen. [NIH]

Epithelial: Refers to the cells that line the internal and external surfaces of the body. [NIH]

Epithelial Cells: Cells that line the inner and outer surfaces of the body. [NIH]

Epithelium: One or more layers of epithelial cells, supported by the basal lamina, which covers the inner or outer surfaces of the body. [NIH]

Erythrocytes: Red blood cells. Mature erythrocytes are non-nucleated, biconcave disks containing hemoglobin whose function is to transport oxygen. [NIH]

Esophagus: The muscular tube through which food passes from the throat to the stomach. [NIH]

Evacuation: An emptying, as of the bowels. [EU]

Excipients: Usually inert substances added to a prescription in order to provide suitable consistency to the dosage form; a binder, matrix, base or diluent in pills, tablets, creams,

salves, etc. [NIH]

Exocrine: Secreting outwardly, via a duct. [EU]

Exogenous: Developed or originating outside the organism, as exogenous disease. [EU]

Extracellular: Outside a cell or cells. [EU]

Eye Movements: Voluntary or reflex-controlled movements of the eye. [NIH]

Eye socket: One of the two cavities in the skull which contains an eyeball. Each eye is located in a bony socket or orbit. [NIH]

Faecal: Pertaining to or of the nature of feces. [EU]

Failure to Thrive: A condition in which an infant or child's weight gain and growth are far below usual levels for age. [NIH]

Family Planning: Programs or services designed to assist the family in controlling reproduction by either improving or diminishing fertility. [NIH]

Fat: Total lipids including phospholipids. [NIH]

Fatigue: The state of weariness following a period of exertion, mental or physical, characterized by a decreased capacity for work and reduced efficiency to respond to stimuli. [NIH]

Fatty acids: A major component of fats that are used by the body for energy and tissue development. [NIH]

Febrile: Pertaining to or characterized by fever. [EU]

Fecal Incontinence: Failure of voluntary control of the anal sphincters, with involuntary passage of feces and flatus. [NIH]

Fecal occult blood test: A test to check for blood in stool. (Fecal refers to stool; occult means hidden.) [NIH]

Feces: The excrement discharged from the intestines, consisting of bacteria, cells exfoliated from the intestines, secretions, chiefly of the liver, and a small amount of food residue. [EU]

Fibrin: A protein derived from fibrinogen in the presence of thrombin, which forms part of the blood clot. [NIH]

Fibroid: A benign smooth muscle tumor, usually in the uterus or gastrointestinal tract. Also called leiomyoma. [NIH]

Fibrosis: Any pathological condition where fibrous connective tissue invades any organ, usually as a consequence of inflammation or other injury. [NIH]

Fistula: Abnormal communication most commonly seen between two internal organs, or between an internal organ and the surface of the body. [NIH]

Flatus: Gas passed through the rectum. [NIH]

Flavoring Agents: Substances added to foods and medicine to improve the quality of taste. [NIH]

Fluid Therapy: Therapy whose basic objective is to restore the volume and composition of the body fluids to normal with respect to water-electrolyte balance. Fluids may be administered intravenously, orally, by intermittent gavage, or by hypodermoclysis. [NIH]

Foam Cells: Lipid-laden macrophages originating from monocytes or from smooth muscle cells. [NIH]

Fold: A plication or doubling of various parts of the body. [NIH]

Food Additives: Substances which are of little or no nutritive value, but are used in the processing or storage of foods or animal feed, especially in the developed countries; includes

antioxidants, food preservatives, food coloring agents, flavoring agents, anti-infective agents (both plain and local), vehicles, excipients and other similarly used substances. Many of the same substances are pharmaceutic aids when added to pharmaceuticals rather than to foods. [NIH]

Food Coloring Agents: Natural or synthetic dyes used as coloring agents in processed foods. [NIH]

Food Hypersensitivity: Gastrointestinal disturbances, skin eruptions, or shock due to allergic reactions to allergens ingested in food. [NIH]

Food Preservatives: Substances capable of inhibiting, retarding or arresting the process of fermentation, acidification or other deterioration of foods. [NIH]

Forearm: The part between the elbow and the wrist. [NIH]

Fructose: A type of sugar found in many fruits and vegetables and in honey. Fructose is used to sweeten some diet foods. It is considered a nutritive sweetener because it has calories. [NIH]

Fungus: A general term used to denote a group of eukaryotic protists, including mushrooms, yeasts, rusts, moulds, smuts, etc., which are characterized by the absence of chlorophyll and by the presence of a rigid cell wall composed of chitin, mannans, and sometimes cellulose. They are usually of simple morphological form or show some reversible cellular specialization, such as the formation of pseudoparenchymatous tissue in the fruiting body of a mushroom. The dimorphic fungi grow, according to environmental conditions, as moulds or yeasts. [EU]

Furosemide: A sulfamyl saluretic and diuretic. It has a fast onset and short duration of action and is used in edema and chronic renal insufficiency. [NIH]

Gallbladder: The pear-shaped organ that sits below the liver. Bile is concentrated and stored in the gallbladder. [NIH]

Ganglion: 1. A knot, or knotlike mass. 2. A general term for a group of nerve cell bodies located outside the central nervous system; occasionally applied to certain nuclear groups within the brain or spinal cord, e.g. basal ganglia. 3. A benign cystic tumour occurring on a aponeurosis or tendon, as in the wrist or dorsum of the foot; it consists of a thin fibrous capsule enclosing a clear mucinous fluid. [EU]

Ganglioneuroblastoma: A moderately malignant neoplasm composed of primitive neuroectodermal cells dispersed in myxomatous or fibrous stroma intermixed with mature ganglion cells. It may undergo transformation into a neuroblastoma. It arises from the sympathetic trunk or less frequently from the adrenal medulla, cerebral cortex, and other locations. Cervical ganglioneuroblastomas may be associated with Horner syndrome and the tumor may occasionally secrete vasoactive intestinal peptide, resulting in chronic diarrhea. [NIH]

Gas: Air that comes from normal breakdown of food. The gases are passed out of the body through the rectum (flatus) or the mouth (burp). [NIH]

Gas exchange: Primary function of the lungs; transfer of oxygen from inhaled air into the blood and of carbon dioxide from the blood into the lungs. [NIH]

Gastric: Having to do with the stomach. [NIH]

Gastric Acid: Hydrochloric acid present in gastric juice. [NIH]

Gastric Emptying: The evacuation of food from the stomach into the duodenum. [NIH]

Gastroenteritis: An acute inflammation of the lining of the stomach and intestines, characterized by anorexia, nausea, diarrhoea, abdominal pain, and weakness, which has various causes, including food poisoning due to infection with such organisms as

Escherichia coli, Staphylococcus aureus, and Salmonella species; consumption of irritating food or drink; or psychological factors such as anger, stress, and fear. Called also enterogastritis. [EU]

Gastroenterologist: A doctor who specializes in diagnosing and treating disorders of the digestive system. [NIH]

Gastroenterology: A subspecialty of internal medicine concerned with the study of the physiology and diseases of the digestive system and related structures (esophagus, liver, gallbladder, and pancreas). [NIH]

Gastrointestinal: Refers to the stomach and intestines. [NIH]

Gastrointestinal tract: The stomach and intestines. [NIH]

Gastroparesis: Nerve or muscle damage in the stomach. Causes slow digestion and emptying, vomiting, nausea, or bloating. Also called delayed gastric emptying. [NIH]

Gavage: Feeding by a tube passed into the stomach; called also tube feeding. [NIH]

Gene: The functional and physical unit of heredity passed from parent to offspring. Genes are pieces of DNA, and most genes contain the information for making a specific protein. [NIH]

Genetic testing: Analyzing DNA to look for a genetic alteration that may indicate an increased risk for developing a specific disease or disorder. [NIH]

Genotype: The genetic constitution of the individual; the characterization of the genes. [NIH]

Geriatric: Pertaining to the treatment of the aged. [EU]

Giardia: A genus of flagellate intestinal protozoa parasitic in various vertebrates, including humans. Characteristics include the presence of four pairs of flagella arising from a complicated system of axonemes and cysts that are ellipsoidal to ovoidal in shape. [NIH]

Giardia lamblia: A species of parasitic protozoa that attaches itself to the intestinal mucosa and feeds on mucous secretions. The organism is roughly pear-shaped and motility is somewhat erratic, with a slow oscillation about the long axis. Considered for many years to be non-pathogenic and often found in completely asymptomatic individuals, there is presently strong evidence for its pathogenic potential. [NIH]

Giardiasis: An infection of the small intestine caused by the flagellated protozoan Giardia lamblia. It is spread via contaminated food and water and by direct person-to-person contact. [NIH]

Gland: An organ that produces and releases one or more substances for use in the body. Some glands produce fluids that affect tissues or organs. Others produce hormones or participate in blood production. [NIH]

Gliadin: Simple protein, one of the prolamines, derived from the gluten of wheat, rye, etc. May be separated into 4 discrete electrophoretic fractions. It is the toxic factor associated with celiac disease. [NIH]

Glomerular: Pertaining to or of the nature of a glomerulus, especially a renal glomerulus. [EU]

Glomerular Filtration Rate: The volume of water filtered out of plasma through glomerular capillary walls into Bowman's capsules per unit of time. It is considered to be equivalent to inulin clearance. [NIH]

Glossitis: Inflammation of the tongue. [NIH]

Glucose: D-Glucose. A primary source of energy for living organisms. It is naturally occurring and is found in fruits and other parts of plants in its free state. It is used therapeutically in fluid and nutrient replacement. [NIH]

Glucose Intolerance: A pathological state in which the fasting plasma glucose level is less than 140 mg per deciliter and the 30-, 60-, or 90-minute plasma glucose concentration following a glucose tolerance test exceeds 200 mg per deciliter. This condition is seen frequently in diabetes mellitus but also occurs with other diseases. [NIH]

Gluten: The protein of wheat and other grains which gives to the dough its tough elastic character. [EU]

Gluten Sensitive Enteropathy: A general term that refers to celiac disease and dermatitis herpetiformis. [NIH]

Glycoside: Any compound that contains a carbohydrate molecule (sugar), particularly any such natural product in plants, convertible, by hydrolytic cleavage, into sugar and a nonsugar component (aglycone), and named specifically for the sugar contained, as glucoside (glucose), pentoside (pentose), fructoside (fructose) etc. [EU]

Goblet Cells: Cells of the epithelial lining that produce and secrete mucins. [NIH]

Governing Board: The group in which legal authority is vested for the control of health-related institutions and organizations. [NIH]

Graft: Healthy skin, bone, or other tissue taken from one part of the body and used to replace diseased or injured tissue removed from another part of the body. [NIH]

Graft Rejection: An immune response with both cellular and humoral components, directed against an allogeneic transplant, whose tissue antigens are not compatible with those of the recipient. [NIH]

Granulocytes: Leukocytes with abundant granules in the cytoplasm. They are divided into three groups: neutrophils, eosinophils, and basophils. [NIH]

Health Education: Education that increases the awareness and favorably influences the attitudes and knowledge relating to the improvement of health on a personal or community basis. [NIH]

Heartburn: Substernal pain or burning sensation, usually associated with regurgitation of gastric juice into the esophagus. [NIH]

Helminths: Commonly known as parasitic worms, this group includes the acanthocephala, nematoda, and platyhelminths. Some authors consider certain species of leeches that can become temporarily parasitic as helminths. [NIH]

Hemoglobin: One of the fractions of glycosylated hemoglobin A1c. Glycosylated hemoglobin is formed when linkages of glucose and related monosaccharides bind to hemoglobin A and its concentration represents the average blood glucose level over the previous several weeks. HbA1c levels are used as a measure of long-term control of plasma glucose (normal, 4 to 6 percent). In controlled diabetes mellitus, the concentration of glycosylated hemoglobin A is within the normal range, but in uncontrolled cases the level may be 3 to 4 times the normal conentration. Generally, complications are substantially lower among patients with Hb levels of 7 percent or less than in patients with HbA1c levels of 9 percent or more. [NIH]

Hemolytic: A disease that affects the blood and blood vessels. It destroys red blood cells, cells that cause the blood to clot, and the lining of blood vessels. HUS is often caused by the Escherichia coli bacterium in contaminated food. People with HUS may develop acute renal failure. [NIH]

Hemolytic-Uremic Syndrome: Syndrome of hemolytic anemia, thrombocytopenia, and acute renal failure, with pathological finding of thrombotic microangiopathy in kidney and renal cortical necrosis. [NIH]

Hepatic: Refers to the liver. [NIH]

Hepatitis: Inflammation of the liver and liver disease involving degenerative or necrotic alterations of hepatocytes. [NIH]

Hepatobiliary: Pertaining to the liver and the bile or the biliary ducts. [EU]

Hepatocytes: The main structural component of the liver. They are specialized epithelial cells that are organized into interconnected plates called lobules. [NIH]

Hereditary: Of, relating to, or denoting factors that can be transmitted genetically from one generation to another. [NIH]

Heterogenic: Derived from a different source or species. Also called heterogenous. [NIH]

Heterogenous: Derived from a different source or species. Also called heterogenic. [NIH]

Histamine: 1H-Imidazole-4-ethanamine. A depressor amine derived by enzymatic decarboxylation of histidine. It is a powerful stimulant of gastric secretion, a constrictor of bronchial smooth muscle, a vasodilator, and also a centrally acting neurotransmitter. [NIH]

Histology: The study of tissues and cells under a microscope. [NIH]

Hormonal: Pertaining to or of the nature of a hormone. [EU]

Hormone: A substance in the body that regulates certain organs. Hormones such as gastrin help in breaking down food. Some hormones come from cells in the stomach and small intestine. [NIH]

Hydration: Combining with water. [NIH]

Hydrogen: The first chemical element in the periodic table. It has the atomic symbol H, atomic number 1, and atomic weight 1. It exists, under normal conditions, as a colorless, odorless, tasteless, diatomic gas. Hydrogen ions are protons. Besides the common H1 isotope, hydrogen exists as the stable isotope deuterium and the unstable, radioactive isotope tritium. [NIH]

Hydrolysis: The process of cleaving a chemical compound by the addition of a molecule of water. [NIH]

Hydroxylysine: A hydroxylated derivative of the amino acid lysine that is present in certain collagens. [NIH]

Hydroxyproline: A hydroxylated form of the imino acid proline. A deficiency in ascorbic acid can result in impaired hydroxyproline formation. [NIH]

Hyperlipidemia: An excess of lipids in the blood. [NIH]

Hyperplasia: An increase in the number of cells in a tissue or organ, not due to tumor formation. It differs from hypertrophy, which is an increase in bulk without an increase in the number of cells. [NIH]

Hypersensitivity: Altered reactivity to an antigen, which can result in pathologic reactions upon subsequent exposure to that particular antigen. [NIH]

Hypertension: Persistently high arterial blood pressure. Currently accepted threshold levels are 140 mm Hg systolic and 90 mm Hg diastolic pressure. [NIH]

Hyperthyroidism: Excessive functional activity of the thyroid gland. [NIH]

Hypertrophy: General increase in bulk of a part or organ, not due to tumor formation, nor to an increase in the number of cells. [NIH]

Hypogammaglobulinemia: The most common primary immunodeficiency in which antibody production is deficient. [NIH]

Hypoglycemia: Abnormally low blood sugar [NIH]

Hypotension: Abnormally low blood pressure. [NIH]

Hypoxic: Having too little oxygen. [NIH]

Iatrogenic: Resulting from the activity of physicians. Originally applied to disorders induced in the patient by autosuggestion based on the physician's examination, manner, or discussion, the term is now applied to any adverse condition in a patient occurring as the result of treatment by a physician or surgeon, especially to infections acquired by the patient during the course of treatment. [EU]

Idiopathic: Describes a disease of unknown cause. [NIH]

Ileal: Related to the ileum, the lowest end of the small intestine. [NIH]

Ileostomy: Surgical creation of an external opening into the ileum for fecal diversion or drainage. Loop or tube procedures are most often employed. [NIH]

Ileum: The lower end of the small intestine. [NIH]

Immune response: The activity of the immune system against foreign substances (antigens). [NIH]

Immune system: The organs, cells, and molecules responsible for the recognition and disposal of foreign ("non-self") material which enters the body. [NIH]

Immunity: Nonsusceptibility to the invasive or pathogenic effects of foreign microorganisms or to the toxic effect of antigenic substances. [NIH]

Immunization: Deliberate stimulation of the host's immune response. Active immunization involves administration of antigens or immunologic adjuvants. Passive immunization involves administration of immune sera or lymphocytes or their extracts (e.g., transfer factor, immune RNA) or transplantation of immunocompetent cell producing tissue (thymus or bone marrow). [NIH]

Immunocompromised: Having a weakened immune system caused by certain diseases or treatments. [NIH]

Immunocompromised Host: A human or animal whose immunologic mechanism is deficient because of an immunodeficiency disorder or other disease or as the result of the administration of immunosuppressive drugs or radiation. [NIH]

Immunodeficiency: The decreased ability of the body to fight infection and disease. [NIH]

Immunodeficiency syndrome: The inability of the body to produce an immune response. [NIH]

Immunologic: The ability of the antibody-forming system to recall a previous experience with an antigen and to respond to a second exposure with the prompt production of large amounts of antibody. [NIH]

Immunology: The study of the body's immune system. [NIH]

Immunosuppression: Deliberate prevention or diminution of the host's immune response. It may be nonspecific as in the administration of immunosuppressive agents (drugs or radiation) or by lymphocyte depletion or may be specific as in desensitization or the simultaneous administration of antigen and immunosuppressive drugs. [NIH]

Immunosuppressive: Describes the ability to lower immune system responses. [NIH]

Immunosuppressive therapy: Therapy used to decrease the body's immune response, such as drugs given to prevent transplant rejection. [NIH]

Immunotherapy: Manipulation of the host's immune system in treatment of disease. It includes both active and passive immunization as well as immunosuppressive therapy to prevent graft rejection. [NIH]

Impaction: The trapping of an object in a body passage. Examples are stones in the bile duct or hardened stool in the colon. [NIH]

In vitro: In the laboratory (outside the body). The opposite of in vivo (in the body). [NIH]

In vivo: In the body. The opposite of in vitro (outside the body or in the laboratory). [NIH]

Incontinence: Inability to control the flow of urine from the bladder (urinary incontinence) or the escape of stool from the rectum (fecal incontinence). [NIH]

Indigestion: Poor digestion. Symptoms include heartburn, nausea, bloating, and gas. Also called dyspepsia. [NIH]

Indomethacin: A non-steroidal anti-inflammatory agent (NSAID) that inhibits the enzyme cyclooxygenase necessary for the formation of prostaglandins and other autacoids. It also inhibits the motility of polymorphonuclear leukocytes. [NIH]

Induction: The act or process of inducing or causing to occur, especially the production of a specific morphogenetic effect in the developing embryo through the influence of evocators or organizers, or the production of anaesthesia or unconsciousness by use of appropriate agents. [EU]

Infancy: The period of complete dependency prior to the acquisition of competence in walking, talking, and self-feeding. [NIH]

Infant Nutrition: Nutrition of children from birth to 2 years of age. [NIH]

Infantile: Pertaining to an infant or to infancy. [EU]

Infarction: A pathological process consisting of a sudden insufficient blood supply to an area, which results in necrosis of that area. It is usually caused by a thrombus, an embolus, or a vascular torsion. [NIH]

Infection: 1. Invasion and multiplication of microorganisms in body tissues, which may be clinically unapparent or result in local cellular injury due to competitive metabolism, toxins, intracellular replication, or antigen-antibody response. The infection may remain localized, subclinical, and temporary if the body's defensive mechanisms are effective. A local infection may persist and spread by extension to become an acute, subacute, or chronic clinical infection or disease state. A local infection may also become systemic when the microorganisms gain access to the lymphatic or vascular system. 2. An infectious disease. [EU]

Infectious Diarrhea: Diarrhea caused by infection from bacteria, viruses, or parasites. [NIH]

Infestation: Parasitic attack or subsistence on the skin and/or its appendages, as by insects, mites, or ticks; sometimes used to denote parasitic invasion of the organs and tissues, as by helminths. [NIH]

Infiltration: The diffusion or accumulation in a tissue or cells of substances not normal to it or in amounts of the normal. Also, the material so accumulated. [EU]

Inflammation: A pathological process characterized by injury or destruction of tissues caused by a variety of cytologic and chemical reactions. It is usually manifested by typical signs of pain, heat, redness, swelling, and loss of function. [NIH]

Inflammatory bowel disease: A general term that refers to the inflammation of the colon and rectum. Inflammatory bowel disease includes ulcerative colitis and Crohn's disease. [NIH]

Infusion: A method of putting fluids, including drugs, into the bloodstream. Also called intravenous infusion. [NIH]

Ingestion: Taking into the body by mouth [NIH]

Initiation: Mutation induced by a chemical reactive substance causing cell changes; being a step in a carcinogenic process. [NIH]

Insulin: A protein hormone secreted by beta cells of the pancreas. Insulin plays a major role

in the regulation of glucose metabolism, generally promoting the cellular utilization of glucose. It is also an important regulator of protein and lipid metabolism. Insulin is used as a drug to control insulin-dependent diabetes mellitus. [NIH]

Insulin-dependent diabetes mellitus: A disease characterized by high levels of blood glucose resulting from defects in insulin secretion, insulin action, or both. Autoimmune, genetic, and environmental factors are involved in the development of type I diabetes. [NIH]

Interferon: A biological response modifier (a substance that can improve the body's natural response to disease). Interferons interfere with the division of cancer cells and can slow tumor growth. There are several types of interferons, including interferon-alpha, -beta, and -gamma. These substances are normally produced by the body. They are also made in the laboratory for use in treating cancer and other diseases. [NIH]

Interferon-alpha: One of the type I interferons produced by peripheral blood leukocytes or lymphoblastoid cells when exposed to live or inactivated virus, double-stranded RNA, or bacterial products. It is the major interferon produced by virus-induced leukocyte cultures and, in addition to its pronounced antiviral activity, it causes activation of NK cells. [NIH]

Intermittent: Occurring at separated intervals; having periods of cessation of activity. [EU]

Internal Medicine: A medical specialty concerned with the diagnosis and treatment of diseases of the internal organ systems of adults. [NIH]

Interstitial: Pertaining to or situated between parts or in the interspaces of a tissue. [EU]

Intestinal: Having to do with the intestines. [NIH]

Intestinal Mucosa: The surface lining of the intestines where the cells absorb nutrients. [NIH]

Intestine: A long, tube-shaped organ in the abdomen that completes the process of digestion. There is both a large intestine and a small intestine. Also called the bowel. [NIH]

Intoxication: Poisoning, the state of being poisoned. [EU]

Intracellular: Inside a cell. [NIH]

Intramuscular: IM. Within or into muscle. [NIH]

Intravenous: IV. Into a vein. [NIH]

Invasive: 1. Having the quality of invasiveness. 2. Involving puncture or incision of the skin or insertion of an instrument or foreign material into the body; said of diagnostic techniques. [EU]

Involuntary: Reaction occurring without intention or volition. [NIH]

Ions: An atom or group of atoms that have a positive or negative electric charge due to a gain (negative charge) or loss (positive charge) of one or more electrons. Atoms with a positive charge are known as cations; those with a negative charge are anions. [NIH]

Irritable Bowel Syndrome: A disorder that comes and goes. Nerves that control the muscles in the GI tract are too active. The GI tract becomes sensitive to food, stool, gas, and stress. Causes abdominal pain, bloating, and constipation or diarrhea. Also called spastic colon or mucous colitis. [NIH]

Ischemia: Deficiency of blood in a part, due to functional constriction or actual obstruction of a blood vessel. [EU]

Jejunum: That portion of the small intestine which extends from the duodenum to the ileum; called also intestinum jejunum. [EU]

Kb: A measure of the length of DNA fragments, 1 Kb = 1000 base pairs. The largest DNA fragments are up to 50 kilobases long. [NIH]

Kidney Disease: Any one of several chronic conditions that are caused by damage to the

cells of the kidney. People who have had diabetes for a long time may have kidney damage. Also called nephropathy. [NIH]

Kidney Failure: The inability of a kidney to excrete metabolites at normal plasma levels under conditions of normal loading, or the inability to retain electrolytes under conditions of normal intake. In the acute form (kidney failure, acute), it is marked by uremia and usually by oliguria or anuria, with hyperkalemia and pulmonary edema. The chronic form (kidney failure, chronic) is irreversible and requires hemodialysis. [NIH]

Kinetics: The study of rate dynamics in chemical or physical systems. [NIH]

Lactation: The period of the secretion of milk. [EU]

Large Intestine: The part of the intestine that goes from the cecum to the rectum. The large intestine absorbs water from stool and changes it from a liquid to a solid form. The large intestine is 5 feet long and includes the appendix, cecum, colon, and rectum. Also called colon. [NIH]

Latent: Phoria which occurs at one distance or another and which usually has no troublesome effect. [NIH]

Laxative: An agent that acts to promote evacuation of the bowel; a cathartic or purgative. [EU]

Leiomyoma: A benign tumor derived from smooth muscle tissue, also known as a fibroid tumor. They rarely occur outside of the uterus and the gastrointestinal tract but can occur in the skin and subcutaneous tissues, probably arising from the smooth muscle of small blood vessels in these tissues. [NIH]

Lens: The transparent, double convex (outward curve on both sides) structure suspended between the aqueous and vitreous; helps to focus light on the retina. [NIH]

Lesion: An area of abnormal tissue change. [NIH]

Lipid: Fat. [NIH]

Litter: Appliance consisting of an oblong frame over which is stretched a canvas or other material, used for carrying an injured or disabled person. [NIH]

Liver: A large, glandular organ located in the upper abdomen. The liver cleanses the blood and aids in digestion by secreting bile. [NIH]

Liver Transplantation: The transference of a part of or an entire liver from one human or animal to another. [NIH]

Localized: Cancer which has not metastasized yet. [NIH]

Longitudinal study: Also referred to as a "cohort study" or "prospective study"; the analytic method of epidemiologic study in which subsets of a defined population can be identified who are, have been, or in the future may be exposed or not exposed, or exposed in different degrees, to a factor or factors hypothesized to influence the probability of occurrence of a given disease or other outcome. The main feature of this type of study is to observe large numbers of subjects over an extended time, with comparisons of incidence rates in groups that differ in exposure levels. [NIH]

Loop: A wire usually of platinum bent at one end into a small loop (usually 4 mm inside diameter) and used in transferring microorganisms. [NIH]

Loperamide: 4-(p-Chlorophenyl)-4-hydroxy-N.N-dimethyl-alpha,alpha-diphenyl-1-piperidine butyramide hydrochloride. Synthetic anti-diarrheal agent with a long duration of action; it is not significantly absorbed from the gut, has no effect on the adrenergic system or central nervous system, but may antagonize histamine and interfere with acetylcholine release locally. [NIH]

Lymphatic: The tissues and organs, including the bone marrow, spleen, thymus, and lymph nodes, that produce and store cells that fight infection and disease. [NIH]

Lymphatic system: The tissues and organs that produce, store, and carry white blood cells that fight infection and other diseases. This system includes the bone marrow, spleen, thymus, lymph nodes and a network of thin tubes that carry lymph and white blood cells. These tubes branch, like blood vessels, into all the tissues of the body. [NIH]

Lymphocyte Count: A count of the number of lymphocytes in the blood. [NIH]

Lymphocytes: White blood cells formed in the body's lymphoid tissue. The nucleus is round or ovoid with coarse, irregularly clumped chromatin while the cytoplasm is typically pale blue with azurophilic (if any) granules. Most lymphocytes can be classified as either T or B (with subpopulations of each); those with characteristics of neither major class are called null cells. [NIH]

Lymphocytosis: Excess of normal lymphocytes in the blood or in any effusion. [NIH]

Lymphoid: Referring to lymphocytes, a type of white blood cell. Also refers to tissue in which lymphocytes develop. [NIH]

Lytic: 1. Pertaining to lysis or to a lysin. 2. Producing lysis. [EU]

Malabsorption: Impaired intestinal absorption of nutrients. [EU]

Malabsorption syndrome: A group of symptoms such as gas, bloating, abdominal pain, and diarrhea resulting from the body's inability to properly absorb nutrients. [NIH]

Malignancy: A cancerous tumor that can invade and destroy nearby tissue and spread to other parts of the body. [NIH]

Malignant: Cancerous; a growth with a tendency to invade and destroy nearby tissue and spread to other parts of the body. [NIH]

Malnutrition: A condition caused by not eating enough food or not eating a balanced diet. [NIH]

Mammary: Pertaining to the mamma, or breast. [EU]

Mannitol: A diuretic and renal diagnostic aid related to sorbitol. It has little significant energy value as it is largely eliminated from the body before any metabolism can take place. It can be used to treat oliguria associated with kidney failure or other manifestations of inadequate renal function and has been used for determination of glomerular filtration rate. Mannitol is also commonly used as a research tool in cell biological studies, usually to control osmolarity. [NIH]

Mediator: An object or substance by which something is mediated, such as (1) a structure of the nervous system that transmits impulses eliciting a specific response; (2) a chemical substance (transmitter substance) that induces activity in an excitable tissue, such as nerve or muscle; or (3) a substance released from cells as the result of the interaction of antigen with antibody or by the action of antigen with a sensitized lymphocyte. [EU]

Medical Records: Recording of pertinent information concerning patient's illness or illnesses. [NIH]

MEDLINE: An online database of MEDLARS, the computerized bibliographic Medical Literature Analysis and Retrieval System of the National Library of Medicine. [NIH]

Membrane: A very thin layer of tissue that covers a surface. [NIH]

Memory: Complex mental function having four distinct phases: (1) memorizing or learning, (2) retention, (3) recall, and (4) recognition. Clinically, it is usually subdivided into immediate, recent, and remote memory. [NIH]

Meninges: The three membranes that cover and protect the brain and spinal cord. [NIH]

Menopause: Permanent cessation of menstruation. [NIH]

Mental: Pertaining to the mind; psychic. 2. (L. mentum chin) pertaining to the chin. [EU]

Meperidine: 1-Methyl-4-phenyl-4-piperidinecarboxylic acid ethyl ester. A narcotic analgesic that can be used for the relief of most types of moderate to severe pain, including postoperative pain and the pain of labor. Prolonged use may lead to dependence of the morphine type; withdrawal symptoms appear more rapidly than with morphine and are of shorter duration. [NIH]

Mesenteric: Pertaining to the mesentery : a membranous fold attaching various organs to the body wall. [EU]

Mesentery: A layer of the peritoneum which attaches the abdominal viscera to the abdominal wall and conveys their blood vessels and nerves. [NIH]

Metabolite: Any substance produced by metabolism or by a metabolic process. [EU]

Metastasis: The spread of cancer from one part of the body to another. Tumors formed from cells that have spread are called "secondary tumors" and contain cells that are like those in the original (primary) tumor. The plural is metastases. [NIH]

Metronidazole: Antiprotozoal used in amebiasis, trichomoniasis, giardiasis, and as treponemacide in livestock. It has also been proposed as a radiation sensitizer for hypoxic cells. According to the Fourth Annual Report on Carcinogens (NTP 85-002, 1985, p133), this substance may reasonably be anticipated to be a carcinogen (Merck, 11th ed). [NIH]

Microbiological: Pertaining to microbiology : the science that deals with microorganisms, including algae, bacteria, fungi, protozoa and viruses. [EU]

Microbiology: The study of microorganisms such as fungi, bacteria, algae, archaea, and viruses. [NIH]

Microorganism: An organism that can be seen only through a microscope. Microorganisms include bacteria, protozoa, algae, and fungi. Although viruses are not considered living organisms, they are sometimes classified as microorganisms. [NIH]

Microscopy: The application of microscope magnification to the study of materials that cannot be properly seen by the unaided eye. [NIH]

Microsporidiosis: Infections with protozoa of the phylum Microspora. [NIH]

Microvillus: A minute process or protrusion from the free surface of a cell. [EU]

Mineralization: The action of mineralizing; the state of being mineralized. [EU]

Modification: A change in an organism, or in a process in an organism, that is acquired from its own activity or environment. [NIH]

Molecular: Of, pertaining to, or composed of molecules : a very small mass of matter. [EU]

Molecule: A chemical made up of two or more atoms. The atoms in a molecule can be the same (an oxygen molecule has two oxygen atoms) or different (a water molecule has two hydrogen atoms and one oxygen atom). Biological molecules, such as proteins and DNA, can be made up of many thousands of atoms. [NIH]

Morphine: The principal alkaloid in opium and the prototype opiate analgesic and narcotic. Morphine has widespread effects in the central nervous system and on smooth muscle. [NIH]

Morphology: The science of the form and structure of organisms (plants, animals, and other forms of life). [NIH]

Motility: The ability to move spontaneously. [EU]

Motor Activity: The physical activity of an organism as a behavioral phenomenon. [NIH]

Mucins: A secretion containing mucopolysaccharides and protein that is the chief

constituent of mucus. [NIH]

Mucosa: A mucous membrane, or tunica mucosa. [EU]

Mucus: The viscous secretion of mucous membranes. It contains mucin, white blood cells, water, inorganic salts, and exfoliated cells. [NIH]

Muscular Diseases: Acquired, familial, and congenital disorders of skeletal muscle and smooth muscle. [NIH]

Myocardial infarction: Gross necrosis of the myocardium as a result of interruption of the blood supply to the area; it is almost always caused by atherosclerosis of the coronary arteries, upon which coronary thrombosis is usually superimposed. [NIH]

Myocarditis: Inflammation of the myocardium; inflammation of the muscular walls of the heart. [EU]

Myocardium: The muscle tissue of the heart composed of striated, involuntary muscle known as cardiac muscle. [NIH]

Nausea: An unpleasant sensation in the stomach usually accompanied by the urge to vomit. Common causes are early pregnancy, sea and motion sickness, emotional stress, intense pain, food poisoning, and various enteroviruses. [NIH]

Necrosis: A pathological process caused by the progressive degradative action of enzymes that is generally associated with severe cellular trauma. It is characterized by mitochondrial swelling, nuclear flocculation, uncontrolled cell lysis, and ultimately cell death. [NIH]

Necrotizing Enterocolitis: A condition in which part of the tissue in the intestines is destroyed. Occurs mainly in under-weight newborn babies. A temporary ileostomy may be necessary. [NIH]

Neoplasm: A new growth of benign or malignant tissue. [NIH]

Nephropathy: Disease of the kidneys. [EU]

Nerve Fibers: Slender processes of neurons, especially the prolonged axons that conduct nerve impulses. [NIH]

Nervous System: The entire nerve apparatus composed of the brain, spinal cord, nerves and ganglia. [NIH]

Neuroblastoma: Cancer that arises in immature nerve cells and affects mostly infants and children. [NIH]

Neuroendocrine: Having to do with the interactions between the nervous system and the endocrine system. Describes certain cells that release hormones into the blood in response to stimulation of the nervous system. [NIH]

Neurologic: Having to do with nerves or the nervous system. [NIH]

Neuromuscular: Pertaining to muscles and nerves. [EU]

Neuromuscular Diseases: A general term encompassing lower motor neuron disease; peripheral nervous system diseases; and certain muscular diseases. Manifestations include muscle weakness; fasciculation; muscle atrophy; spasm; myokymia; muscle hypertonia, myalgias, and musclehypotonia. [NIH]

Neuropeptide: A member of a class of protein-like molecules made in the brain. Neuropeptides consist of short chains of amino acids, with some functioning as neurotransmitters and some functioning as hormones. [NIH]

Neurotransmitters: Endogenous signaling molecules that alter the behavior of neurons or effector cells. Neurotransmitter is used here in its most general sense, including not only messengers that act directly to regulate ion channels, but also those that act through second

messenger systems, and those that act at a distance from their site of release. Included are neuromodulators, neuroregulators, neuromediators, and neurohumors, whether or not acting at synapses. [NIH]

Neutrons: Electrically neutral elementary particles found in all atomic nuclei except light hydrogen; the mass is equal to that of the proton and electron combined and they are unstable when isolated from the nucleus, undergoing beta decay. Slow, thermal, epithermal, and fast neutrons refer to the energy levels with which the neutrons are ejected from heavier nuclei during their decay. [NIH]

Neutropenia: An abnormal decrease in the number of neutrophils, a type of white blood cell. [NIH]

Neutrophil: A type of white blood cell. [NIH]

Nitrogen: An element with the atomic symbol N, atomic number 7, and atomic weight 14. Nitrogen exists as a diatomic gas and makes up about 78% of the earth's atmosphere by volume. It is a constituent of proteins and nucleic acids and found in all living cells. [NIH]

Nosocomial: Pertaining to or originating in the hospital, said of an infection not present or incubating prior to admittance to the hospital, but generally occurring 72 hours after admittance; the term is usually used to refer to patient disease, but hospital personnel may also acquire nosocomial infection. [EU]

Nucleus: A body of specialized protoplasm found in nearly all cells and containing the chromosomes. [NIH]

Nursing Care: Care given to patients by nursing service personnel. [NIH]

Nutritional Status: State of the body in relation to the consumption and utilization of nutrients. [NIH]

Nutritive Value: An indication of the contribution of a food to the nutrient content of the diet. This value depends on the quantity of a food which is digested and absorbed and the amounts of the essential nutrients (protein, fat, carbohydrate, minerals, vitamins) which it contains. This value can be affected by soil and growing conditions, handling and storage, and processing. [NIH]

Occult: Obscure; concealed from observation, difficult to understand. [EU]

Occult Blood: Chemical, spectroscopic, or microscopic detection of extremely small amounts of blood. [NIH]

Octreotide: A potent, long-acting somatostatin octapeptide analog which has a wide range of physiological actions. It inhibits growth hormone secretion, is effective in the treatment of hormone-secreting tumors from various organs, and has beneficial effects in the management of many pathological states including diabetes mellitus, orthostatic hypertension, hyperinsulinism, hypergastrinemia, and small bowel fistula. [NIH]

Office Management: Planning, organizing, and administering activities in an office. [NIH]

Oliguria: Clinical manifestation of the urinary system consisting of a decrease in the amount of urine secreted. [NIH]

Opacity: Degree of density (area most dense taken for reading). [NIH]

Opportunistic Infections: An infection caused by an organism which becomes pathogenic under certain conditions, e.g., during immunosuppression. [NIH]

Oral Health: The optimal state of the mouth and normal functioning of the organs of the mouth without evidence of disease. [NIH]

Orbit: One of the two cavities in the skull which contains an eyeball. Each eye is located in a bony socket or orbit. [NIH]

Orderly: A male hospital attendant. [NIH]

Orthostatic: Pertaining to or caused by standing erect. [EU]

Osmolality: The concentration of osmotically active particles in solution expressed in terms of osmoles of solute per kilogram of solvent. The osmolality is directly proportional to the colligative properties of solutions; osmotic pressure, boiling point elevation, freezing point depression, and vapour pressure lowering. [EU]

Osmolarity: The concentration of osmotically active particles expressed in terms of osmoles of solute per litre of solution. [EU]

Osmoles: The standard unit of osmotic pressure. [NIH]

Osmosis: Tendency of fluids (e.g., water) to move from the less concentrated to the more concentrated side of a semipermeable membrane. [NIH]

Osmotic: Pertaining to or of the nature of osmosis (= the passage of pure solvent from a solution of lesser to one of greater solute concentration when the two solutions are separated by a membrane which selectively prevents the passage of solute molecules, but is permeable to the solvent). [EU]

Osteomalacia: A condition marked by softening of the bones (due to impaired mineralization, with excess accumulation of osteoid), with pain, tenderness, muscular weakness, anorexia, and loss of weight, resulting from deficiency of vitamin D and calcium. [EU]

Osteoporosis: Reduction of bone mass without alteration in the composition of bone, leading to fractures. Primary osteoporosis can be of two major types: postmenopausal osteoporosis and age-related (or senile) osteoporosis. [NIH]

Otitis: Inflammation of the ear, which may be marked by pain, fever, abnormalities of hearing, hearing loss, tinnitus, and vertigo. [EU]

Otitis Media: Inflammation of the middle ear. [NIH]

Outpatient: A patient who is not an inmate of a hospital but receives diagnosis or treatment in a clinic or dispensary connected with the hospital. [NIH]

Palliative: 1. Affording relief, but not cure. 2. An alleviating medicine. [EU]

Palpation: Application of fingers with light pressure to the surface of the body to determine consistence of parts beneath in physical diagnosis; includes palpation for determining the outlines of organs. [NIH]

Pancreas: A mixed exocrine and endocrine gland situated transversely across the posterior abdominal wall in the epigastric and hypochondriac regions. The endocrine portion is comprised of the Islets of Langerhans, while the exocrine portion is a compound acinar gland that secretes digestive enzymes. [NIH]

Pancreatic: Having to do with the pancreas. [NIH]

Pancreatic Elastase: A protease of broad specificity, obtained from dried pancreas. Molecular weight is approximately 25,000. The enzyme breaks down elastin, the specific protein of elastic fibers, and digests other proteins such as fibrin, hemoglobin, and albumin. EC 3.4.21.36. [NIH]

Pancreatic Insufficiency: Absence of or reduced pancreatic exocrine secretion into the duodenum and resultant poor digestion of lipids, vitamins, nitrogen, and carbohydrates. [NIH]

Paneth Cells: Epithelial cells found in the basal part of the intestinal glands (crypts of Lieberkuhn). Paneth cells synthesize and secrete lysozyme and cryptdins. [NIH]

Paralysis: Loss of ability to move all or part of the body. [NIH]

Parasite: An animal or a plant that lives on or in an organism of another species and gets at least some of its nutrition from that other organism. [NIH]

Parasitic: Having to do with or being a parasite. A parasite is an animal or a plant that lives on or in an organism of another species and gets at least some of its nutrients from it. [NIH]

Parenteral: Not through the alimentary canal but rather by injection through some other route, as subcutaneous, intramuscular, intraorbital, intracapsular, intraspinal, intrasternal, intravenous, etc. [EU]

Parenteral Nutrition: The administering of nutrients for assimilation and utilization by a patient who cannot maintain adequate nutrition by enteral feeding alone. Nutrients are administered by a route other than the alimentary canal (e.g., intravenously, subcutaneously). [NIH]

Pathogen: Any disease-producing microorganism. [EU]

Pathologic: 1. Indicative of or caused by a morbid condition. 2. Pertaining to pathology (= branch of medicine that treats the essential nature of the disease, especially the structural and functional changes in tissues and organs of the body caused by the disease). [EU]

Pathophysiology: Altered functions in an individual or an organ due to disease. [NIH]

Patient Care Management: Generating, planning, organizing, and administering medical and nursing care and services for patients. [NIH]

Patient Education: The teaching or training of patients concerning their own health needs. [NIH]

Pediatrics: A medical specialty concerned with maintaining health and providing medical care to children from birth to adolescence. [NIH]

Pelvis: The lower part of the abdomen, located between the hip bones. [NIH]

Pepsin: An enzyme made in the stomach that breaks down proteins. [NIH]

Peptide: Any compound consisting of two or more amino acids, the building blocks of proteins. Peptides are combined to make proteins. [NIH]

Perfusion: Bathing an organ or tissue with a fluid. In regional perfusion, a specific area of the body (usually an arm or a leg) receives high doses of anticancer drugs through a blood vessel. Such a procedure is performed to treat cancer that has not spread. [NIH]

Periorbital: Situated around the orbit, or eye socket. [EU]

Peripheral Nervous System: The nervous system outside of the brain and spinal cord. The peripheral nervous system has autonomic and somatic divisions. The autonomic nervous system includes the enteric, parasympathetic, and sympathetic subdivisions. The somatic nervous system includes the cranial and spinal nerves and their ganglia and the peripheral sensory receptors. [NIH]

Peripheral Nervous System Diseases: Diseases of the peripheral nerves external to the brain and spinal cord, which includes diseases of the nerve roots, ganglia, plexi, autonomic nerves, sensory nerves, and motor nerves. [NIH]

Peritoneal: Having to do with the peritoneum (the tissue that lines the abdominal wall and covers most of the organs in the abdomen). [NIH]

Peritoneum: Endothelial lining of the abdominal cavity, the parietal peritoneum covering the inside of the abdominal wall and the visceral peritoneum covering the bowel, the mesentery, and certain of the organs. The portion that covers the bowel becomes the serosal layer of the bowel wall. [NIH]

Pharmaceutic Aids: Substances which are of little or no therapeutic value, but are necessary in the manufacture, compounding, storage, etc., of pharmaceutical preparations or drug

dosage forms. They include solvents, diluting agents, and suspending agents, and emulsifying agents. Also, antioxidants; preservatives, pharmaceutical; dyes (coloring agents); flavoring agents; vehicles; excipients; ointment bases. [NIH]

Pharmacologic: Pertaining to pharmacology or to the properties and reactions of drugs. [EU]

Phospholipids: Lipids containing one or more phosphate groups, particularly those derived from either glycerol (phosphoglycerides; glycerophospholipids) or sphingosine (sphingolipids). They are polar lipids that are of great importance for the structure and function of cell membranes and are the most abundant of membrane lipids, although not stored in large amounts in the system. [NIH]

Phosphorus: A non-metallic element that is found in the blood, muscles, nevers, bones, and teeth, and is a component of adenosine triphosphate (ATP; the primary energy source for the body's cells.) [NIH]

Physical Examination: Systematic and thorough inspection of the patient for physical signs of disease or abnormality. [NIH]

Physiologic: Having to do with the functions of the body. When used in the phrase "physiologic age," it refers to an age assigned by general health, as opposed to calendar age. [NIH]

Physiology: The science that deals with the life processes and functions of organismus, their cells, tissues, and organs. [NIH]

Pilot study: The initial study examining a new method or treatment. [NIH]

Plants: Multicellular, eukaryotic life forms of the kingdom Plantae. They are characterized by a mainly photosynthetic mode of nutrition; essentially unlimited growth at localized regions of cell divisions (meristems); cellulose within cells providing rigidity; the absence of organs of locomotion; absense of nervous and sensory systems; and an alteration of haploid and diploid generations. [NIH]

Plasma: The clear, yellowish, fluid part of the blood that carries the blood cells. The proteins that form blood clots are in plasma. [NIH]

Plasma cells: A type of white blood cell that produces antibodies. [NIH]

Platelet Aggregation: The attachment of platelets to one another. This clumping together can be induced by a number of agents (e.g., thrombin, collagen) and is part of the mechanism leading to the formation of a thrombus. [NIH]

Plexus: A network or tangle; a general term for a network of lymphatic vessels, nerves, or veins. [EU]

Pneumonia: Inflammation of the lungs. [NIH]

Poisoning: A condition or physical state produced by the ingestion, injection or inhalation of, or exposure to a deleterious agent. [NIH]

Polyethylene: A vinyl polymer made from ethylene. It can be branched or linear. Branched or low-density polyethylene is tough and pliable but not to the same degree as linear polyethylene. Linear or high-density polyethylene has a greater hardness and tensile strength. Polyethylene is used in a variety of products, including implants and prostheses. [NIH]

Polymerase: An enzyme which catalyses the synthesis of DNA using a single DNA strand as a template. The polymerase copies the template in the 5'-3'direction provided that sufficient quantities of free nucleotides, dATP and dTTP are present. [NIH]

Polymerase Chain Reaction: In vitro method for producing large amounts of specific DNA or RNA fragments of defined length and sequence from small amounts of short oligonucleotide flanking sequences (primers). The essential steps include thermal

denaturation of the double-stranded target molecules, annealing of the primers to their complementary sequences, and extension of the annealed primers by enzymatic synthesis with DNA polymerase. The reaction is efficient, specific, and extremely sensitive. Uses for the reaction include disease diagnosis, detection of difficult-to-isolate pathogens, mutation analysis, genetic testing, DNA sequencing, and analyzing evolutionary relationships. [NIH]

Polymers: Compounds formed by the joining of smaller, usually repeating, units linked by covalent bonds. These compounds often form large macromolecules (e.g., polypeptides, proteins, plastics). [NIH]

Polyp: A growth that protrudes from a mucous membrane. [NIH]

Polypeptide: A peptide which on hydrolysis yields more than two amino acids; called tripeptides, tetrapeptides, etc. according to the number of amino acids contained. [EU]

Posterior: Situated in back of, or in the back part of, or affecting the back or dorsal surface of the body. In lower animals, it refers to the caudal end of the body. [EU]

Postmenopausal: Refers to the time after menopause. Menopause is the time in a woman's life when menstrual periods stop permanently; also called "change of life." [NIH]

Postoperative: After surgery. [NIH]

Potassium: An element that is in the alkali group of metals. It has an atomic symbol K, atomic number 19, and atomic weight 39.10. It is the chief cation in the intracellular fluid of muscle and other cells. Potassium ion is a strong electrolyte and it plays a significant role in the regulation of fluid volume and maintenance of the water-electrolyte balance. [NIH]

Practice Guidelines: Directions or principles presenting current or future rules of policy for the health care practitioner to assist him in patient care decisions regarding diagnosis, therapy, or related clinical circumstances. The guidelines may be developed by government agencies at any level, institutions, professional societies, governing boards, or by the convening of expert panels. The guidelines form a basis for the evaluation of all aspects of health care and delivery. [NIH]

Precursor: Something that precedes. In biological processes, a substance from which another, usually more active or mature substance is formed. In clinical medicine, a sign or symptom that heralds another. [EU]

Predisposition: A latent susceptibility to disease which may be activated under certain conditions, as by stress. [EU]

Pre-eclamptic: A syndrome characterized by hypertension, albuminuria, and generalized oedema, occurring only in pregnancy. [NIH]

Preoperative: Preceding an operation. [EU]

Prevalence: The total number of cases of a given disease in a specified population at a designated time. It is differentiated from incidence, which refers to the number of new cases in the population at a given time. [NIH]

Progression: Increase in the size of a tumor or spread of cancer in the body. [NIH]

Progressive: Advancing; going forward; going from bad to worse; increasing in scope or severity. [EU]

Proline: A non-essential amino acid that is synthesized from glutamic acid. It is an essential component of collagen and is important for proper functioning of joints and tendons. [NIH]

Propranolol: A widely used non-cardioselective beta-adrenergic antagonist. Propranolol is used in the treatment or prevention of many disorders including acute myocardial infarction, arrhythmias, angina pectoris, hypertension, hypertensive emergencies, hyperthyroidism, migraine, pheochromocytoma, menopause, and anxiety. [NIH]

Prospective study: An epidemiologic study in which a group of individuals (a cohort), all free of a particular disease and varying in their exposure to a possible risk factor, is followed over a specific amount of time to determine the incidence rates of the disease in the exposed and unexposed groups. [NIH]

Prostaglandins: A group of compounds derived from unsaturated 20-carbon fatty acids, primarily arachidonic acid, via the cyclooxygenase pathway. They are extremely potent mediators of a diverse group of physiological processes. [NIH]

Prostaglandins A: (13E,15S)-15-Hydroxy-9-oxoprosta-10,13-dien-1-oic acid (PGA(1)); (5Z,13E,15S)-15-hydroxy-9-oxoprosta-5,10,13-trien-1-oic acid (PGA(2)); (5Z,13E,15S,17Z)-15-hydroxy-9-oxoprosta-5,10,13,17-tetraen-1-oic acid (PGA(3)). A group of naturally occurring secondary prostaglandins derived from PGE. PGA(1) and PGA(2) as well as their 19-hydroxy derivatives are found in many organs and tissues. [NIH]

Protease: Proteinase (= any enzyme that catalyses the splitting of interior peptide bonds in a protein). [EU]

Protease Inhibitors: Compounds which inhibit or antagonize biosynthesis or actions of proteases (endopeptidases). [NIH]

Protein S: The vitamin K-dependent cofactor of activated protein C. Together with protein C, it inhibits the action of factors VIIIa and Va. A deficiency in protein S can lead to recurrent venous and arterial thrombosis. [NIH]

Proteins: Polymers of amino acids linked by peptide bonds. The specific sequence of amino acids determines the shape and function of the protein. [NIH]

Protocol: The detailed plan for a clinical trial that states the trial's rationale, purpose, drug or vaccine dosages, length of study, routes of administration, who may participate, and other aspects of trial design. [NIH]

Protons: Stable elementary particles having the smallest known positive charge, found in the nuclei of all elements. The proton mass is less than that of a neutron. A proton is the nucleus of the light hydrogen atom, i.e., the hydrogen ion. [NIH]

Protozoa: A subkingdom consisting of unicellular organisms that are the simplest in the animal kingdom. Most are free living. They range in size from submicroscopic to macroscopic. Protozoa are divided into seven phyla: Sarcomastigophora, Labyrinthomorpha, Apicomplexa, Microspora, Ascetospora, Myxozoa, and Ciliophora. [NIH]

Protozoal: Having to do with the simplest organisms in the animal kingdom. Protozoa are single-cell organisms, such as ameba, and are different from bacteria, which are not members of the animal kingdom. Some protozoa can be seen without a microscope. [NIH]

Protozoan: 1. Any individual of the protozoa; protozoon. 2. Of or pertaining to the protozoa; protozoal. [EU]

Proximal: Nearest; closer to any point of reference; opposed to distal. [EU]

Pruritic: Pertaining to or characterized by pruritus. [EU]

Pruritus: An intense itching sensation that produces the urge to rub or scratch the skin to obtain relief. [NIH]

Psychoactive: Those drugs which alter sensation, mood, consciousness or other psychological or behavioral functions. [NIH]

Psychopathology: The study of significant causes and processes in the development of mental illness. [NIH]

Public Policy: A course or method of action selected, usually by a government, from among alternatives to guide and determine present and future decisions. [NIH]

Publishing: "The business or profession of the commercial production and issuance of literature" (Webster's 3d). It includes the publisher, publication processes, editing and editors. Production may be by conventional printing methods or by electronic publishing. [NIH]

Pulmonary: Relating to the lungs. [NIH]

Pulmonary Artery: The short wide vessel arising from the conus arteriosus of the right ventricle and conveying unaerated blood to the lungs. [NIH]

Purgative: 1. Cathartic (def. 1); causing evacuation of the bowels. 2. A cathartic, particularly one that stimulates peristaltic action. [EU]

Quadriplegia: Severe or complete loss of motor function in all four limbs which may result from brain diseases; spinal cord diseases; peripheral nervous system diseases; neuromuscular diseases; or rarely muscular diseases. The locked-in syndrome is characterized by quadriplegia in combination with cranial muscle paralysis. Consciousness is spared and the only retained voluntary motor activity may be limited eye movements. This condition is usually caused by a lesion in the upper brain stem which injures the descending cortico-spinal and cortico-bulbar tracts. [NIH]

Quality of Life: A generic concept reflecting concern with the modification and enhancement of life attributes, e.g., physical, political, moral and social environment. [NIH]

Radiation: Emission or propagation of electromagnetic energy (waves/rays), or the waves/rays themselves; a stream of electromagnetic particles (electrons, neutrons, protons, alpha particles) or a mixture of these. The most common source is the sun. [NIH]

Radioactive: Giving off radiation. [NIH]

Radiolabeled: Any compound that has been joined with a radioactive substance. [NIH]

Randomized: Describes an experiment or clinical trial in which animal or human subjects are assigned by chance to separate groups that compare different treatments. [NIH]

Randomized clinical trial: A study in which the participants are assigned by chance to separate groups that compare different treatments; neither the researchers nor the participants can choose which group. Using chance to assign people to groups means that the groups will be similar and that the treatments they receive can be compared objectively. At the time of the trial, it is not known which treatment is best. It is the patient's choice to be in a randomized trial. [NIH]

Reabsorption: 1. The act or process of absorbing again, as the selective absorption by the kidneys of substances (glucose, proteins, sodium, etc.) already secreted into the renal tubules, and their return to the circulating blood. 2. Resorption. [EU]

Receptor: A molecule inside or on the surface of a cell that binds to a specific substance and causes a specific physiologic effect in the cell. [NIH]

Rectal: By or having to do with the rectum. The rectum is the last 8 to 10 inches of the large intestine and ends at the anus. [NIH]

Rectum: The last 8 to 10 inches of the large intestine. [NIH]

Red blood cells: RBCs. Cells that carry oxygen to all parts of the body. Also called erythrocytes. [NIH]

Refer: To send or direct for treatment, aid, information, de decision. [NIH]

Reflex: An involuntary movement or exercise of function in a part, excited in response to a stimulus applied to the periphery and transmitted to the brain or spinal cord. [NIH]

Refraction: A test to determine the best eyeglasses or contact lenses to correct a refractive error (myopia, hyperopia, or astigmatism). [NIH]

Regimen: A treatment plan that specifies the dosage, the schedule, and the duration of treatment. [NIH]

Renal failure: Progressive renal insufficiency and uremia, due to irreversible and progressive renal glomerular tubular or interstitial disease. [NIH]

Resection: Removal of tissue or part or all of an organ by surgery. [NIH]

Respiratory failure: Inability of the lungs to conduct gas exchange. [NIH]

Retinoids: Derivatives of vitamin A. Used clinically in the treatment of severe cystic acne, psoriasis, and other disorders of keratinization. Their possible use in the prophylaxis and treatment of cancer is being actively explored. [NIH]

Rickettsiae: One of a group of obligate intracellular parasitic microorganisms, once regarded as intermediate in their properties between bacteria and viruses but now classified as bacteria in the order Rickettsiales, which includes 17 genera and 3 families: Rickettsiace. [NIH]

Risk factor: A habit, trait, condition, or genetic alteration that increases a person's chance of developing a disease. [NIH]

Rye: A hardy grain crop, Secale cereale, grown in northern climates. It is the most frequent host to ergot (claviceps), the toxic fungus. Its hybrid with wheat is triticale, another grain. [NIH]

Saline: A solution of salt and water. [NIH]

Salivary: The duct that convey saliva to the mouth. [NIH]

Salivary glands: Glands in the mouth that produce saliva. [NIH]

Sarcoma: A connective tissue neoplasm formed by proliferation of mesodermal cells; it is usually highly malignant. [NIH]

Schizoid: Having qualities resembling those found in greater degree in schizophrenics; a person of schizoid personality. [NIH]

Schizophrenia: A mental disorder characterized by a special type of disintegration of the personality. [NIH]

Schizotypal Personality Disorder: A personality disorder in which there are oddities of thought (magical thinking, paranoid ideation, suspiciousness), perception (illusions, depersonalization), speech (digressive, vague, overelaborate), and behavior (inappropriate affect in social interactions, frequently social isolation) that are not severe enough to characterize schizophrenia. [NIH]

Screening: Checking for disease when there are no symptoms. [NIH]

Secretin: A hormone made in the duodenum. Causes the stomach to make pepsin, the liver to make bile, and the pancreas to make a digestive juice. [NIH]

Secretion: 1. The process of elaborating a specific product as a result of the activity of a gland; this activity may range from separating a specific substance of the blood to the elaboration of a new chemical substance. 2. Any substance produced by secretion. [EU]

Secretory: Secreting; relating to or influencing secretion or the secretions. [NIH]

Sedative: 1. Allaying activity and excitement. 2. An agent that allays excitement. [EU]

Semisynthetic: Produced by chemical manipulation of naturally occurring substances. [EU]

Senile: Relating or belonging to old age; characteristic of old age; resulting from infirmity of old age. [NIH]

Sequencing: The determination of the order of nucleotides in a DNA or RNA chain. [NIH]

Serologic: Analysis of a person's serum, especially specific immune or lytic serums. [NIH]

Serous: Having to do with serum, the clear liquid part of blood. [NIH]

Serum: The clear liquid part of the blood that remains after blood cells and clotting proteins have been removed. [NIH]

Sex Characteristics: Those characteristics that distinguish one sex from the other. The primary sex characteristics are the ovaries and testes and their related hormones. Secondary sex characteristics are those which are masculine or feminine but not directly related to reproduction. [NIH]

Shock: The general bodily disturbance following a severe injury; an emotional or moral upset occasioned by some disturbing or unexpected experience; disruption of the circulation, which can upset all body functions: sometimes referred to as circulatory shock. [NIH]

Side effect: A consequence other than the one(s) for which an agent or measure is used, as the adverse effects produced by a drug, especially on a tissue or organ system other than the one sought to be benefited by its administration. [EU]

Sigmoid: 1. Shaped like the letter S or the letter C. 2. The sigmoid colon. [EU]

Sigmoid Colon: The lower part of the colon that empties into the rectum. [NIH]

Sigmoidoscopy: Endoscopic examination, therapy or surgery of the sigmoid flexure. [NIH]

Signs and Symptoms: Clinical manifestations that can be either objective when observed by a physician, or subjective when perceived by the patient. [NIH]

Small intestine: The part of the digestive tract that is located between the stomach and the large intestine. [NIH]

Smooth muscle: Muscle that performs automatic tasks, such as constricting blood vessels. [NIH]

Smooth Muscle Tumor: A tumor composed of smooth muscle tissue, as opposed to leiomyoma, a tumor derived from smooth muscle. [NIH]

Social Environment: The aggregate of social and cultural institutions, forms, patterns, and processes that influence the life of an individual or community. [NIH]

Social Support: Support systems that provide assistance and encouragement to individuals with physical or emotional disabilities in order that they may better cope. Informal social support is usually provided by friends, relatives, or peers, while formal assistance is provided by churches, groups, etc. [NIH]

Sodium: An element that is a member of the alkali group of metals. It has the atomic symbol Na, atomic number 11, and atomic weight 23. With a valence of 1, it has a strong affinity for oxygen and other nonmetallic elements. Sodium provides the chief cation of the extracellular body fluids. Its salts are the most widely used in medicine. (From Dorland, 27th ed) Physiologically the sodium ion plays a major role in blood pressure regulation, maintenance of fluid volume, and electrolyte balance. [NIH]

Solvent: 1. Dissolving; effecting a solution. 2. A liquid that dissolves or that is capable of dissolving; the component of a solution that is present in greater amount. [EU]

Somatic: 1. Pertaining to or characteristic of the soma or body. 2. Pertaining to the body wall in contrast to the viscera. [EU]

Sorbitol: A polyhydric alcohol with about half the sweetness of sucrose. Sorbitol occurs naturally and is also produced synthetically from glucose. It was formerly used as a diuretic and may still be used as a laxative and in irrigating solutions for some surgical procedures. It is also used in many manufacturing processes, as a pharmaceutical aid, and in several research applications. [NIH]

Spastic: 1. Of the nature of or characterized by spasms. 2. Hypertonic, so that the muscles are stiff and the movements awkward. 3. A person exhibiting spasticity, such as occurs in spastic paralysis or in cerebral palsy. [EU]

Specialist: In medicine, one who concentrates on 1 special branch of medical science. [NIH]

Species: A taxonomic category subordinate to a genus (or subgenus) and superior to a subspecies or variety, composed of individuals possessing common characters distinguishing them from other categories of individuals of the same taxonomic level. In taxonomic nomenclature, species are designated by the genus name followed by a Latin or Latinized adjective or noun. [EU]

Specificity: Degree of selectivity shown by an antibody with respect to the number and types of antigens with which the antibody combines, as well as with respect to the rates and the extents of these reactions. [NIH]

Spectroscopic: The recognition of elements through their emission spectra. [NIH]

Spectrum: A charted band of wavelengths of electromagnetic vibrations obtained by refraction and diffraction. By extension, a measurable range of activity, such as the range of bacteria affected by an antibiotic (antibacterial s.) or the complete range of manifestations of a disease. [EU]

Sphincter: A ringlike band of muscle fibres that constricts a passage or closes a natural orifice; called also musculus sphincter. [EU]

Spinal cord: The main trunk or bundle of nerves running down the spine through holes in the spinal bone (the vertebrae) from the brain to the level of the lower back. [NIH]

Spinal Cord Diseases: Pathologic conditions which feature spinal cord damage or dysfunction, including disorders involving the meninges and perimeningeal spaces surrounding the spinal cord. Traumatic injuries, vascular diseases, infections, and inflammatory/autoimmune processes may affect the spinal cord. [NIH]

Spleen: An organ that is part of the lymphatic system. The spleen produces lymphocytes, filters the blood, stores blood cells, and destroys old blood cells. It is located on the left side of the abdomen near the stomach. [NIH]

Sprue: A non febrile tropical disease of uncertain origin. [NIH]

Steady state: Dynamic equilibrium. [EU]

Steatorrhea: A condition in which the body cannot absorb fat. Causes a buildup of fat in the stool and loose, greasy, and foul bowel movements. [NIH]

Stimulus: That which can elicit or evoke action (response) in a muscle, nerve, gland or other excitable issue, or cause an augmenting action upon any function or metabolic process. [NIH]

Stomach: An organ of digestion situated in the left upper quadrant of the abdomen between the termination of the esophagus and the beginning of the duodenum. [NIH]

Stool: The waste matter discharged in a bowel movement; feces. [NIH]

Stool test: A test to check for hidden blood in the bowel movement. [NIH]

Strand: DNA normally exists in the bacterial nucleus in a helix, in which two strands are coiled together. [NIH]

Stress: Forcibly exerted influence; pressure. Any condition or situation that causes strain or tension. Stress may be either physical or psychologic, or both. [NIH]

Stress management: A set of techniques used to help an individual cope more effectively with difficult situations in order to feel better emotionally, improve behavioral skills, and often to enhance feelings of control. Stress management may include relaxation exercises, assertiveness training, cognitive restructuring, time management, and social support. It can

be delivered either on a one-to-one basis or in a group format. [NIH]

Stroma: The middle, thickest layer of tissue in the cornea. [NIH]

Subacute: Somewhat acute; between acute and chronic. [EU]

Subclinical: Without clinical manifestations; said of the early stage(s) of an infection or other disease or abnormality before symptoms and signs become apparent or detectable by clinical examination or laboratory tests, or of a very mild form of an infection or other disease or abnormality. [EU]

Subcutaneous: Beneath the skin. [NIH]

Subspecies: A category intermediate in rank between species and variety, based on a smaller number of correlated characters than are used to differentiate species and generally conditioned by geographical and/or ecological occurrence. [NIH]

Substance P: An eleven-amino acid neurotransmitter that appears in both the central and peripheral nervous systems. It is involved in transmission of pain, causes rapid contractions of the gastrointestinal smooth muscle, and modulates inflammatory and immune responses. [NIH]

Supplementation: Adding nutrients to the diet. [NIH]

Support group: A group of people with similar disease who meet to discuss how better to cope with their cancer and treatment. [NIH]

Suppurative: Consisting of, containing, associated with, or identified by the formation of pus. [NIH]

Symptomatic: Having to do with symptoms, which are signs of a condition or disease. [NIH]

Symptomatic treatment: Therapy that eases symptoms without addressing the cause of disease. [NIH]

Synapse: The region where the processes of two neurons come into close contiguity, and the nervous impulse passes from one to the other; the fibers of the two are intermeshed, but, according to the general view, there is no direct contiguity. [NIH]

Systemic: Affecting the entire body. [NIH]

Systolic: Indicating the maximum arterial pressure during contraction of the left ventricle of the heart. [EU]

Tachycardia: Excessive rapidity in the action of the heart, usually with a heart rate above 100 beats per minute. [NIH]

Tachypnea: Rapid breathing. [NIH]

Tacrolimus: A macrolide isolated from the culture broth of a strain of Streptomyces tsukubaensis that has strong immunosuppressive activity in vivo and prevents the activation of T-lymphocytes in response to antigenic or mitogenic stimulation in vitro. [NIH]

Therapeutics: The branch of medicine which is concerned with the treatment of diseases, palliative or curative. [NIH]

Thermal: Pertaining to or characterized by heat. [EU]

Threshold: For a specified sensory modality (e. g. light, sound, vibration), the lowest level (absolute threshold) or smallest difference (difference threshold, difference limen) or intensity of the stimulus discernible in prescribed conditions of stimulation. [NIH]

Thrombocytopenia: A decrease in the number of blood platelets. [NIH]

Thrush: A disease due to infection with species of fungi of the genus Candida. [NIH]

Thymoma: A tumor of the thymus, an organ that is part of the lymphatic system and is

located in the chest, behind the breastbone. [NIH]

Thymus: An organ that is part of the lymphatic system, in which T lymphocytes grow and multiply. The thymus is in the chest behind the breastbone. [NIH]

Thyroid: A gland located near the windpipe (trachea) that produces thyroid hormone, which helps regulate growth and metabolism. [NIH]

Thyroid Gland: A highly vascular endocrine gland consisting of two lobes, one on either side of the trachea, joined by a narrow isthmus; it produces the thyroid hormones which are concerned in regulating the metabolic rate of the body. [NIH]

Ticks: Blood-sucking arachnids of the order Acarina. [NIH]

Ticlopidine: Ticlopidine is an effective inhibitor of platelet aggregation. The drug has been found to significantly reduce infarction size in acute myocardial infarcts and is an effective antithrombotic agent in arteriovenous fistulas, aorto-coronary bypass grafts, ischemic heart disease, venous thrombosis, and arteriosclerosis. [NIH]

Tinnitus: Sounds that are perceived in the absence of any external noise source which may take the form of buzzing, ringing, clicking, pulsations, and other noises. Objective tinnitus refers to noises generated from within the ear or adjacent structures that can be heard by other individuals. The term subjective tinnitus is used when the sound is audible only to the affected individual. Tinnitus may occur as a manifestation of cochlear diseases; vestibulocochlear nerve diseases; intracranial hypertension; craniocerebral trauma; and other conditions. [NIH]

Tissue: A group or layer of cells that are alike in type and work together to perform a specific function. [NIH]

Tolerance: 1. The ability to endure unusually large doses of a drug or toxin. 2. Acquired drug tolerance; a decreasing response to repeated constant doses of a drug or the need for increasing doses to maintain a constant response. [EU]

Tomography: Imaging methods that result in sharp images of objects located on a chosen plane and blurred images located above or below the plane. [NIH]

Toxic: Having to do with poison or something harmful to the body. Toxic substances usually cause unwanted side effects. [NIH]

Toxicity: The quality of being poisonous, especially the degree of virulence of a toxic microbe or of a poison. [EU]

Toxicology: The science concerned with the detection, chemical composition, and pharmacologic action of toxic substances or poisons and the treatment and prevention of toxic manifestations. [NIH]

Toxin: A poison; frequently used to refer specifically to a protein produced by some higher plants, certain animals, and pathogenic bacteria, which is highly toxic for other living organisms. Such substances are differentiated from the simple chemical poisons and the vegetable alkaloids by their high molecular weight and antigenicity. [EU]

Trace element: Substance or element essential to plant or animal life, but present in extremely small amounts. [NIH]

Transfection: The uptake of naked or purified DNA into cells, usually eukaryotic. It is analogous to bacterial transformation. [NIH]

Transmitter: A chemical substance which effects the passage of nerve impulses from one cell to the other at the synapse. [NIH]

Trichomoniasis: An infection with the protozoan parasite Trichomonas vaginalis. [NIH]

Triglyceride: A lipid carried through the blood stream to tissues. Most of the body's fat

tissue is in the form of triglycerides, stored for use as energy. Triglycerides are obtained primarily from fat in foods. [NIH]

Tropical Sprue: A condition of unknown cause. Abnormalities in the lining of the small intestine prevent the body from absorbing food normally. [NIH]

Tryptophan: An essential amino acid that is necessary for normal growth in infants and for nitrogen balance in adults. It is a precursor serotonin and niacin. [NIH]

Tuberculosis: Any of the infectious diseases of man and other animals caused by species of Mycobacterium. [NIH]

Tunica: A rather vague term to denote the lining coat of hollow organs, tubes, or cavities. [NIH]

Ulcer: A localized necrotic lesion of the skin or a mucous surface. [NIH]

Ulcerative colitis: Chronic inflammation of the colon that produces ulcers in its lining. This condition is marked by abdominal pain, cramps, and loose discharges of pus, blood, and mucus from the bowel. [NIH]

Uremia: The illness associated with the buildup of urea in the blood because the kidneys are not working effectively. Symptoms include nausea, vomiting, loss of appetite, weakness, and mental confusion. [NIH]

Urethra: The tube through which urine leaves the body. It empties urine from the bladder. [NIH]

Urinary: Having to do with urine or the organs of the body that produce and get rid of urine. [NIH]

Urine: Fluid containing water and waste products. Urine is made by the kidneys, stored in the bladder, and leaves the body through the urethra. [NIH]

Uterus: The small, hollow, pear-shaped organ in a woman's pelvis. This is the organ in which a fetus develops. Also called the womb. [NIH]

Vaccine: A substance or group of substances meant to cause the immune system to respond to a tumor or to microorganisms, such as bacteria or viruses. [NIH]

Vagal: Pertaining to the vagus nerve. [EU]

Vagina: The muscular canal extending from the uterus to the exterior of the body. Also called the birth canal. [NIH]

Vaginitis: Inflammation of the vagina characterized by pain and a purulent discharge. [NIH]

Vagus Nerve: The 10th cranial nerve. The vagus is a mixed nerve which contains somatic afferents (from skin in back of the ear and the external auditory meatus), visceral afferents (from the pharynx, larynx, thorax, and abdomen), parasympathetic efferents (to the thorax and abdomen), and efferents to striated muscle (of the larynx and pharynx). [NIH]

Vascular: Pertaining to blood vessels or indicative of a copious blood supply. [EU]

Vasculitis: Inflammation of a blood vessel. [NIH]

Vasoactive: Exerting an effect upon the calibre of blood vessels. [EU]

Vasoactive Intestinal Peptide: A highly basic, single-chain polypeptide isolated from the intestinal mucosa. It has a wide range of biological actions affecting the cardiovascular, gastrointestinal, and respiratory systems. It is also found in several parts of the central and peripheral nervous systems and is a neurotransmitter. [NIH]

Vein: Vessel-carrying blood from various parts of the body to the heart. [NIH]

Venous: Of or pertaining to the veins. [EU]

Venous Thrombosis: The formation or presence of a thrombus within a vein. [NIH]

Vertigo: An illusion of movement; a sensation as if the external world were revolving around the patient (objective vertigo) or as if he himself were revolving in space (subjective vertigo). The term is sometimes erroneously used to mean any form of dizziness. [EU]

Vesicular: 1. Composed of or relating to small, saclike bodies. 2. Pertaining to or made up of vesicles on the skin. [EU]

Veterinary Medicine: The medical science concerned with the prevention, diagnosis, and treatment of diseases in animals. [NIH]

Vibrio: A genus of Vibrionaceae, made up of short, slightly curved, motile, gram-negative rods. Various species produce cholera and other gastrointestinal disorders as well as abortion in sheep and cattle. [NIH]

Vibrio cholerae: The etiologic agent of cholera. [NIH]

Villi: The tiny, fingerlike projections on the surface of the small intestine. Villi help absorb nutrients. [NIH]

Villous: Of a surface, covered with villi. [NIH]

Virus: Submicroscopic organism that causes infectious disease. In cancer therapy, some viruses may be made into vaccines that help the body build an immune response to, and kill, tumor cells. [NIH]

Visceral: , from viscus a viscus) pertaining to a viscus. [EU]

Visceral Afferents: The sensory fibers innervating the viscera. [NIH]

Vitamin A: A substance used in cancer prevention; it belongs to the family of drugs called retinoids. [NIH]

Vitro: Descriptive of an event or enzyme reaction under experimental investigation occurring outside a living organism. Parts of an organism or microorganism are used together with artificial substrates and/or conditions. [NIH]

White blood cell: A type of cell in the immune system that helps the body fight infection and disease. White blood cells include lymphocytes, granulocytes, macrophages, and others. [NIH]

Withdrawal: 1. A pathological retreat from interpersonal contact and social involvement, as may occur in schizophrenia, depression, or schizoid avoidant and schizotypal personality disorders. 2. (DSM III-R) A substance-specific organic brain syndrome that follows the cessation of use or reduction in intake of a psychoactive substance that had been regularly used to induce a state of intoxication. [EU]

Xanthomatosis: A condition of morphologic change in which there is accumulation of lipids in the large foam cells of tissues. It is the cutaneous manifestation of lipidosis in which plasma fatty acids and lipoproteins are quantitatively changed. The xanthomatous eruptions have several different distinct morphologies dependent upon the specific form taken by the disease. [NIH]

Xenograft: The cells of one species transplanted to another species. [NIH]

X-ray: High-energy radiation used in low doses to diagnose diseases and in high doses to treat cancer. [NIH]

Yeasts: A general term for single-celled rounded fungi that reproduce by budding. Brewers' and bakers' yeasts are Saccharomyces cerevisiae; therapeutic dried yeast is dried yeast. [NIH]

INDEX


9 780497 002473