Body Lice

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

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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.

Cataloging-in-Publication Data

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

Body Lice: 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: 0-497-00163-2
1. Body Lice-Popular works. I. Title.

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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 body lice. 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.

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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 body lice 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 body lice, 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 body lice, 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 body lice. 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 body lice, 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 body lice.

The Editors

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

CHAPTER 1. STUDIES ON BODY LICE

Overview

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

The Combined Health Information Database

The Combined Health Information Database summarizes studies across numerous federal agencies. To limit your investigation to research studies and body lice, 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 "body lice" (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:

- **Eradication of Ectoparasites in Children: How To Treat Infestations of Lice, Scabies, and Chiggers**

  Source: Postgraduate Medicine. 110(1): 57-59,63-64. July 2001.

  Summary: This journal article, the second of four on skin problems in children, provides health professionals with information on the presentation of ectoparasite infestations in children and discusses conservative treatment. Typical infestations are caused by six legged arthropods such as lice and chigger larvae and eight legged arthropods such as scabies and mites. The head louse is responsible for the most common pediatric ectoparasite infestation. Head lice are transmitted by hair to hair contact and through hats and other hair accessories. Hygiene does not have a role in transmission. Healthy children between the ages of 3 and 10 are most often affected. The most common clinical presentation is scalp pruritus. Excoriations and nits can be found at the proximal ends of

hair shafts. Posterior cervical adenopathy is also commonly observed. The mainstay of care is the removal of nits and lice with a quality nit comb. Treatment may also involve pediculicides such as permethrin 1 and 5 percent cream, malathion 0.5 percent lotion, and crotamiton 10 percent lotion or cream. The body louse is larger than the head louse. It does not live on the skin but lives and lays eggs in the seams of clothing. The body louse is a vector for various diseases, including typhus, relapsing fever, and trench fever. Poor hygiene has a role in the transmission of **body lice.** Pruritus with nocturnal exacerbation is the most common clinical feature of **body lice.** Treatment for isolated infestations usually involves simple hygiene measures. Scabies, another common ectoparasite, is transmitted by close personal contact and is common in poor or crowded living conditions. The clinical features include pruritus and burrows and erythematous papules. Diagnosis can be made by microscopically examining scrapings from burrows and papules; however, this can be inconclusive. Treatment usually involves application of a pediculicide such as crotamiton, lindane, or permethrin. Orally administered ivermectin has been shown to be safe and effective, but it has not been approved by the Food and Drug Administration for oral use. Chiggers are also a common cause of a pruritic rash. The chigger crawls onto a human host, anchors itself to the skin, injects proteolytic enzymes, and ingests the degraded tissue. Outdoor exposure is a hallmark feature of chigger bites. Treatment is aimed at relieving pruritus. 3 figures, 1 table, and 8 references.

Federally Funded Research on Body Lice

The U.S. Government supports a variety of research studies relating to body lice. 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 body lice.

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 body lice.

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 Library of Medicine (NLM).[4] Access to this growing archive of e-journals is free and

[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).

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

[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.

unrestricted.[5] To search, go to **http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=Pmc**, and type "body lice" (or synonyms) into the search box. This search gives you access to full-text articles. The following is a sample of items found for body lice in the PubMed Central database:

- **Detection of Rickettsia prowazekii in Body Lice and Their Feces by Using Monoclonal Antibodies.** by Fang R, Houhamdi L, Raoult D.; 2002 Sep; http://www.pubmedcentral.gov/articlerender.fcgi?tool=pmcentrez&artid=130794

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 body lice, simply go to the PubMed Web site at **http://www.ncbi.nlm.nih.gov/pubmed**. Type "body lice" (or synonyms) into the search box, and click "Go." The following is the type of output you can expect from PubMed for body lice (hyperlinks lead to article summaries):

- **An attempt to infect human body lice, Pediculus humanus var corporis on a mild case of murine typhus.**
  Author(s): Li JX, Fu RS, Liu WT.
  Source: Chinese Medical Journal. 1984 March; 97(3): 158-64.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=6432477

- **Antibody and antibiotic action on Rickettsia prowazeki in body lice across the host-vector interface, with observations on strain virulence and retrieval mechanisms.**
  Author(s): Boese JL, Wisseman CL Jr, Walsh WT, Fiset P.
  Source: American Journal of Epidemiology. 1973 October; 98(4): 262-82.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=4200566

- **Bartonella quintana in body lice collected from homeless persons in Russia.**
  Author(s): Rydkina EB, Roux V, Gagua EM, Predtechenski AB, Tarasevich IV, Raoult D.
  Source: Emerging Infectious Diseases. 1999 January-February; 5(1): 176-8.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10081691

[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.

- **Body lice as tools for diagnosis and surveillance of reemerging diseases.**
  Author(s): Roux V, Raoult D.
  Source: Journal of Clinical Microbiology. 1999 March; 37(3): 596-9.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=9986818

- **Detection and culture of Bartonella quintana, Serratia marcescens, and Acinetobacter spp. from decontaminated human body lice.**
  Author(s): La Scola B, Fournier PE, Brouqui P, Raoult D.
  Source: Journal of Clinical Microbiology. 2001 May; 39(5): 1707-9.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11325978

- **Detection of Bartonella quintana from body lice (Anoplura: Pediculidae) infesting homeless people in Tokyo by molecular technique.**
  Author(s): Sasaki T, Kobayashi M, Agui N.
  Source: Journal of Medical Entomology. 2002 May; 39(3): 427-9.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=12061434

- **Ecological separation of the human head lice and body lice (Anoplura: Pediculidae).**
  Author(s): Schaefer CW.
  Source: Transactions of the Royal Society of Tropical Medicine and Hygiene. 1978; 72(6): 669-70.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=734730

- **Evidence from mitochondrial DNA that head lice and body lice of humans (Phthiraptera: Pediculidae) are conspecific.**
  Author(s): Leo NP, Campbell NJ, Yang X, Mumcuoglu K, Barker SC.
  Source: Journal of Medical Entomology. 2002 July; 39(4): 662-6.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=12144300

- **First report of resistance of human body lice to malathion.**
  Author(s): Miller RN, Wisseman CL, Sweeney GW, Verschueren A, Fabrikant IB.
  Source: Transactions of the Royal Society of Tropical Medicine and Hygiene. 1972; 66(2): 372-5.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=5048872

- **Further notes on the susceptibility of body lice, Pediculus humanus humanus to insecticides in Egypt.**
  Author(s): Mahdi AH, Kamel OM.
  Source: J Egypt Public Health Assoc. 1971; 46(4): 284-8. No Abstract Available.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=4114427

- **Further sleeve tests of new powders for control of body lice.**
  Author(s): Hirst JM, Cole MM, Gilbert IH, Adams CT.
  Source: Journal of Economic Entomology. 1970 June; 63(3): 861-2.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=5431679

- **Prevalence of body lice in elementary school students in three Ethiopian towns at different altitudes.**
  Author(s): Tesfayohannes T.
  Source: Ethiop Med J. 1989 October; 27(4): 201-7.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=2598908

- **Resistance to malathion in a strain of body lice from Burundi.**
  Author(s): Cole MM, Clark PH, Washington F, Ellerbe W, VanNatta DL.
  Source: Journal of Economic Entomology. 1973 February; 66(1): 118-9.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=4690250

- **Sleeve tests of insecticidal powders for control of body lice.**
  Author(s): Cole MM, Hirst JM, McWilliams JG, Gilbert IH.
  Source: Journal of Economic Entomology. 1969 February; 62(1): 198-200.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=5763286

- **Sleeve tests of insecticides for control of body lice in 1969-70.**
  Author(s): Cole MM, Hirst JM, Gilbert IH, Adams CT.
  Source: Journal of Economic Entomology. 1971 June; 64(3): 761-2.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=5558290

- **Toxicological and entomological field evaluation of the effects of Mobam powder against body lice (Anoplura: Pediculidae).**
  Author(s): Steinberg M, Cole MM, Evans ES, Whitlaw JT, Yoon JJ.
  Source: Journal of Medical Entomology. 1971 March 30; 8(1): 68-72.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=5555011

- **Toxins produced by arthropod parasites: salivary gland proteins of human body lice and venom proteins of chelonine wasps.**
  Author(s): Jones D, Wache S, Chhokar V.
  Source: Toxicon : Official Journal of the International Society on Toxinology. 1996 November-December; 34(11-12): 1421-9. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=9027999

CHAPTER 2. NUTRITION AND BODY LICE

Overview

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

Finding Nutrition Studies on Body Lice

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 "body lice" (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 "body lice" (or a synonym):

- **Evaluation of ear tags impregnated with cypermethrin for the control of sheep body lice (Damalinia ovis).**
  Author(s): Department of Agriculture, Adelaide, South Australia.
  Source: James, P J Erkerlenz, P Meade, R J Aust-Vet-J. 1990 April; 67(4): 128-31 0005-0423
- **Survival by sheep body lice (Bovicola ovis) after plunge dipping in synthetic pyrethroid lousicides.**
  Author(s): Department of Agriculture, Ararat, Victoria.
  Source: Keys, R G Toohey, L A Thilakan, T A Aust-Vet-J. 1993 March; 70(3): 117 0005-0423

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**

CHAPTER 3. ALTERNATIVE MEDICINE AND BODY LICE

Overview

In this chapter, we will begin by introducing you to official information sources on complementary and alternative medicine (CAM) relating to body lice. 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 body lice 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 "body lice" (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 body lice:

- **A lousy problem.**
  Author(s): Sadler C.
  Source: Nursing Standard : Official Newspaper of the Royal College of Nursing. 2000 October 11-17; 15(4): 16-7.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11971483

- **A preliminary pilot survey on head lice, pediculosis in Sharkia Governorate and treatment of lice with natural plant extracts.**
  Author(s): El-Basheir ZM, Fouad MA.
  Source: J Egypt Soc Parasitol. 2002 December; 32(3): 725-36.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=12512805

- **AAP releases clinical report on head lice.**
  Author(s): Ressel GW; AAP.

Source: American Family Physician. 2003 March 15; 67(6): 1391-2.
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=12674471

- **An observer-blinded study of 1% permethrin creme rinse with and without adjunctive combing in patients with head lice.**
Author(s): Meinking TL, Clineschmidt CM, Chen C, Kolber MA, Tipping RW, Furtek CI, Villar ME, Guzzo CA.
Source: The Journal of Pediatrics. 2002 November; 141(5): 665-70.
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=12410195

- **Anti-headlice activity of a preparation of Annona squamosa seed extract.**
Author(s): Tiangda CH, Gritsanapan W, Sookvanichsilp N, Limchalearn A.
Source: Southeast Asian J Trop Med Public Health. 2000; 31 Suppl 1: 174-7.
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11414452

- **Current treatments for scabies and pediculosis.**
Author(s): Cochrane Database Syst Rev. 2001;(2):CD001165
Source: Skin Therapy Letter. 1999; 5(1): 1-3.
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11405977

- **Detection combing.**
Author(s): Burgess I.
Source: Nurs Times. 2002 November 12-18; 98(46): 57. No Abstract Available.
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=12478939

- **Differential permethrin susceptibility of head lice sampled in the United States and Borneo.**
Author(s): Pollack RJ, Kiszewski A, Armstrong P, Hahn C, Wolfe N, Rahman HA, Laserson K, Telford SR 3rd, Spielman A.
Source: Archives of Pediatrics & Adolescent Medicine. 1999 September; 153(9): 969-73.
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10482215

- **Drug-resistant lice.**
Author(s): Elston DM.
Source: Archives of Dermatology. 2003 August; 139(8): 1061-4.
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=12925396

- **Effectiveness of permethrin-treated military uniform fabric against human body lice.**
Author(s): Sholdt LL, Rogers EJ Jr, Gerberg EJ, Schreck CE.
Source: Military Medicine. 1989 February; 154(2): 90-3.
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=2494588

- **Efficacy of 1% permethrin for the treatment of head louse infestations among Kosovar refugees.**
  Author(s): Manjrekar RR, Partridge SK, Korman AK, Barwick RS, Juranek DD.
  Source: Military Medicine. 2000 September; 165(9): 698-700.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11011544

- **Evaluation of ear tags impregnated with cypermethrin for the control of sheep body lice (Damalinia ovis).**
  Author(s): James PJ, Erkerlenz P, Meade RJ.
  Source: Aust Vet J. 1990 April; 67(4): 128-31.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=2375721

- **Head lice for A & E nurses.**
  Author(s): Hadfield-Law L.
  Source: Accident and Emergency Nursing. 2000 April; 8(2): 84-7.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10818373

- **Head lice infestation: bug busting vs. traditional treatment.**
  Author(s): Plastow L, Luthra M, Powell R, Wright J, Russell D, Marshall MN.
  Source: Journal of Clinical Nursing. 2001 November; 10(6): 775-83.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11822849

- **Head lice.**
  Author(s): Frydenberg A, Starr M.
  Source: Aust Fam Physician. 2003 August; 32(8): 607-11. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=12973867

- **Interventions for treating head lice.**
  Author(s): Dodd CS.
  Source: Cochrane Database Syst Rev. 2001; (2): Cd001165. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11405977

- **Interventions for treating headlice.**
  Author(s): Dodd CS.
  Source: Cochrane Database Syst Rev. 2001; (3): Cd001165. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11686980

- **Interventions for treating headlice.**
  Author(s): Dodd CS.
  Source: Cochrane Database Syst Rev. 2000; (2): Cd001165. Review. Update In:
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10796608

- **Kinetic disposition of an emulsifiable concentrate formulation of deltamethrin applied to sheep in a plunge-dip and its effect on lice.**
  Author(s): Johnson PW, Darwish A, Dixon R, Steel JW.
  Source: International Journal for Parasitology. 1995 December; 25(12): 1451-6.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8719957

- **Kinetic disposition of xylene-based or aqueous formulations of deltamethrin applied to the dorsal mid-line of sheep and their effect on lice.**
  Author(s): Johnson PW, Darwish A, Dixon R, Steel JW.
  Source: International Journal for Parasitology. 1995 April; 25(4): 471-82.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=7635623

- **Pediculocidal and scabicidal properties of Lippia multiflora essential oil.**
  Author(s): Oladimeji FA, Orafidiya OO, Ogunniyi TA, Adewunmi TA.
  Source: Journal of Ethnopharmacology. 2000 September; 72(1-2): 305-11.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10967487

- **Permethrin resistance in the head louse Pediculus capitis from Israel.**
  Author(s): Mumcuoglu KY, Hemingway J, Miller J, Ioffe-Uspensky I, Klaus S, Ben-Ishai F, Galun R.
  Source: Medical and Veterinary Entomology. 1995 October; 9(4): 427-32, 447.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8541597

- **Permethrin-resistant human head lice, Pediculus capitis, and their treatment.**
  Author(s): Yoon KS, Gao JR, Lee SH, Clark JM, Brown L, Taplin D.
  Source: Archives of Dermatology. 2003 August; 139(8): 994-1000.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=12925385

- **Prevalence and treatment of Pediculus humanus capitis with 1% permethrin and 0.4% d-phenothrin in Turkey.**
  Author(s): Tanyuksel M, Araz RE, Albay A, Aycicek H.
  Source: Acta Medica (Hradec Kralove). 2003; 46(2): 73-5.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=12926604

- **Resistance and the control of lice on humans and production animals.**
  Author(s): Levot G.
  Source: International Journal for Parasitology. 2000 March; 30(3): 291-7. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10719122

- **Resistance to insecticides and effect of synergists on permethrin toxicity in Pediculus capitis (Anoplura: Pediculidae) from Buenos Aires.**
  Author(s): Picollo MI, Vassena CV, Mougabure Cueto GA, Vernetti M, Zerba EN.

Source: Journal of Medical Entomology. 2000 September; 37(5): 721-5.
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11004784

- **Review of common therapeutic options in the United States for the treatment of pediculosis capitis.**
  Author(s): Jones KN, English JC 3rd.
  Source: Clinical Infectious Diseases : an Official Publication of the Infectious Diseases Society of America. 2003 June 1; 36(11): 1355-61. Epub 2003 May 22.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=12766828

- **Survival by sheep body lice (Bovicola ovis) after plunge dipping in synthetic pyrethroid lousicides.**
  Author(s): Keys RG, Toohey LA, Thilakan TA.
  Source: Aust Vet J. 1993 March; 70(3): 117. No Abstract Available.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8476359

- **Testing head lice.**
  Author(s): Ali NM.
  Source: Aust Fam Physician. 2000 February; 29(2): 103, 105. No Abstract Available.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10743261

- **The challenge of choosing a pediculicide.**
  Author(s): Hensel P.
  Source: Public Health Nursing (Boston, Mass.). 2000 July-August; 17(4): 300-4. Review.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10943778

- **The in vivo pediculicidal efficacy of a natural remedy.**
  Author(s): Mumcuoglu KY, Miller J, Zamir C, Zentner G, Helbin V, Ingber A.
  Source: Isr Med Assoc J. 2002 October; 4(10): 790-3.
  http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=12389342

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/**

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. PATENTS ON BODY LICE

Overview

Patents can be physical innovations (e.g. chemicals, pharmaceuticals, medical equipment) or processes (e.g. treatments or diagnostic procedures). The United States Patent and Trademark Office defines a patent as a grant of a property right to the inventor, issued by the Patent and Trademark Office.[8] Patents, therefore, are intellectual property. For the United States, the term of a new patent is 20 years from the date when the patent application was filed. If the inventor wishes to receive economic benefits, it is likely that the invention will become commercially available within 20 years of the initial filing. It is important to understand, therefore, that an inventor's patent does not indicate that a product or service is or will be commercially available. The patent implies only that the inventor has "the right to exclude others from making, using, offering for sale, or selling" the invention in the United States. While this relates to U.S. patents, similar rules govern foreign patents.

In this chapter, we show you how to locate information on patents and their inventors. If you find a patent that is particularly interesting to you, contact the inventor or the assignee for further information. **IMPORTANT NOTE:** When following the search strategy described below, you may discover non-medical patents that use the generic term "body lice" (or a synonym) in their titles. To accurately reflect the results that you might find while conducting research on body lice, we have not necessarily excluded non-medical patents in this bibliography.

Patents on Body Lice

By performing a patent search focusing on body lice, you can obtain information such as the title of the invention, the names of the inventor(s), the assignee(s) or the company that owns or controls the patent, a short abstract that summarizes the patent, and a few excerpts from the description of the patent. The abstract of a patent tends to be more technical in nature, while the description is often written for the public. Full patent descriptions contain much more information than is presented here (e.g. claims, references, figures, diagrams, etc.). We

[8] Adapted from the United States Patent and Trademark Office: **http://www.uspto.gov/web/offices/pac/doc/general/whatis.htm**.

will tell you how to obtain this information later in the chapter. The following is an example of the type of information that you can expect to obtain from a patent search on body lice:

- **Terpene based pesticide treatments for killing terrestrial arthropods including, amongst others, lice, lice eggs, mites and ants**

  Inventor(s): Cunnington; Gary David (Long Wittenham, GB), Franklin; Lanny Udell (Atlanta, GA), Young; David E. (Watlington, GB)

  Assignee(s): XiMed Group PLC (Didcot)

  Patent Number: 6,130,253

  Date filed: August 23, 1999

  Abstract: Pesticides for the extermination of terrestrial arthropods are disclosed which comprise formulations of a combination of terpenes in aqueous solutions which may be used together with citral. No resistance to the formulations of the invention has been seen. When used on the scalp or body for lice infestation no extended dwell time is required. The formulations do not have unpleasant odors. The formulations are directed towards providing topical preparations which may be used on the skin, scalp and hairy body parts of humans and animals, sprays for use directly against terrestrial arthropods, a dipping solution for combs and a laundry additive, amongst others.

  Excerpt(s): This invention is concerned with the control of pest infestation of man, animals and their environment by terrestrial arthropods. The invention is a group of pharmaceutical formulations comprising a combination of terpenes, together with citral. The selected terpenes when mixed, with or without citral added, have been found to be highly effective, in aqueous solutions, in killing lice and their eggs, ants, mites and other parasites. The principal mode of action on adults and larvae is by direct solvent action on the wax-containing epicuticle of the chitinous exoskeleton, which is the primary means of controlling water loss in terrestrial arthropods. Pediculosis (lice infestation) in humans has been known since ancient times. Lice infestations are common throughout the world. In the United States alone, an estimated ten million cases of pediculosis occurred during 1985 and the numbers have increased substantially since then. In Europe, lice infestation has reached epidemic proportions. Three types of lice infest humans: 1) head lice, 2) **body lice** and 3) crab or pubic lice. All are members of the family Pediculidae and most are species within the genus Pediculus. They are small, flat, grayish-black, wingless insects. Their six legs are short and stout, with a large claw on each leg for grasping and holding onto hair. They have piercing and sucking mouth parts for blood feeding and require close contact with human hosts, to which they are very well adapted. The three types differ considerably in habitat and to a small degree, in their life cycles. Lice also infest domestic, farm and wild animals.

  Web site: http://www.delphion.com/details?pn=US06130253__

Patent Applications on Body Lice

As of December 2000, U.S. patent applications are open to public viewing.[9] Applications are patent requests which have yet to be granted. (The process to achieve a patent can take

[9] This has been a common practice outside the United States prior to December 2000.

several years.) The following patent applications have been filed since December 2000 relating to body lice:

- **Methods and compositions for treating ectoparasite infestation**

  Inventor(s): Campbell, William R.; (Jamestown, NC), Palma, Kathleen G.; (McLeansville, NC), Paulsen, Neil E.; (Davidson, NC)

  Correspondence: Foley & Lardner; P.O. Box 80278; San Diego; CA; 92138-0278; US

  Patent Application Number: 20030202997

  Date filed: April 29, 2002

  Abstract: Compositions and methods for killing ectoparasites on a subject. Compositions containing a fatty acid ester, e.g., isopropyl myristate, effective for killing ectoparasites is described. Also described are compositions containing a fatty acid ester and a siloxane (e.g. decacyclomethicone). The compositions can also contain a mectin and/or a mycin, and S-methoprene. The compositions are useful against a variety of ectoparasites that afflict humans, animals, and plants, e.g., head lice, fleas, **body lice,** crab lice, scabies, ticks, and plant parasites.

  Excerpt(s): The present invention relates generally to methods and compositions for killing ectoparasites. Head lice infestation is a persistent problem with as many as 6-12 million people worldwide affected each year. The problem is particularly prevalent in children with preschool and elementary-age children aged 3-10 and their families becoming infested most often. Head lice infestation is produced by the common head louse Pediculus humanus capitis, and typically causes itching of the scalp. As the lice feed on human blood, they may cause lesions to develop on the scalp, swollen glands on the neck or under arms, or other symptoms. Head lice infestation causes serious problems due to the negative social implications of the infestation. **Body lice** are also bothersome to humans and carry the additional hazard of being the vectors of certain diseases, such as exanthematic or epidemic typhus and recurrent fever. Various compositions are available for treating these infestations, which generally take a topical approach to treatment. Most of these treatments involve the use of insecticides that are harsh agents, thus raising toxicity concerns. The lice can also become resistant to the insecticides used and therefore the compositions can lose their effectiveness over time.

  Web site: http://appft1.uspto.gov/netahtml/PTO/search-bool.html

Keeping Current

In order to stay informed about patents and patent applications dealing with body lice, you can access the U.S. Patent Office archive via the Internet at the following Web address: **http://www.uspto.gov/patft/index.html**. You will see two broad options: (1) Issued Patent, and (2) Published Applications. To see a list of issued patents, perform the following steps: Under "Issued Patents," click "Quick Search." Then, type "body lice" (or synonyms) into the "Term 1" box. After clicking on the search button, scroll down to see the various patents which have been granted to date on body lice.

You can also use this procedure to view pending patent applications concerning body lice. Simply go back to **http://www.uspto.gov/patft/index.html**. Select "Quick Search" under "Published Applications." Then proceed with the steps listed above.

CHAPTER 5. BOOKS ON BODY LICE

Overview

This chapter provides bibliographic book references relating to body lice. In addition to online booksellers such as **www.amazon.com** and **www.bn.com**, excellent sources for book titles on body lice 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 "body lice" (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 body lice:

- **AIDS in Schools**

  Source: Understanding and Preventing AIDS: A Book for Everyone. 2nd Edition.

  Contact: Health Alert Press, PO Box 2060, Cambridge, MA, 02238-2060, (617) 497-4190.

  Summary: This chapter raises policy issues for schools regarding Acquired immunodeficiency syndrome (AIDS). It recommends that seropositive students not be placed in restricted settings as long as they are able to function mentally and physically and the school maintains infection control. This holds true for employees as well. It urges careful monitoring of students with Human immunodeficiency virus (HIV) and that decisionmaking regarding school participation be done on a case-by-case basis. Neurological problems, open lesions, biting, or lack of body control may indicate a need for more restrictive placement. The chapter suggests education of students and staff and the conducting of periodic checks for **body lice.**

Chapters on Body Lice

In order to find chapters that specifically relate to body lice, an excellent source of abstracts is the Combined Health Information Database. You will need to limit your search to book chapters and body lice 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 "body lice" (or synonyms) into the "For these words:" box. The following is a typical result when searching for book chapters on body lice:

- **Chapter 239: Scabies and Pediculosis**

  Source: in Freedberg, I.M., et al., eds. Fitzpatrick's Dermatology in General Medicine. 5th ed., Vol. 2. New York, NY: McGraw-Hill. 1999. p. 2677-2684.

  Contact: Available from McGraw-Hill Customer Services. P.O. Box 548, Blacklick, OH 43004-0548. (800) 262-4729 or (877) 833-5524. Fax (614) 759-3749 or (614) 759-3641. E-mail: customer.service@mcgraw-hill.com. PRICE: $395.00 plus shipping and handling. ISBN: 0070219435.

  Summary: This chapter provides health professionals with information on the etiology, clinical manifestations, diagnosis, and treatment of scabies and pediculosis. Scabies, which occurs in both sexes and in any age group, is transmitted by skin to skin contact. Itching, a symptom of classic scabies, is usually nocturnal. Diagnosis is made by microscopic identification of the mites, eggs, or fecal pellet. Treatment involves application of scabicides such as permethrin 5 percent cream, lindane, sulfur, crotamiton cream, and ivermectin. Special forms of scabies include scabies in patients with good hygiene, scabies incognito, nodular scabies, scabies in infants and young children, scabies in the elderly, crusted scabies, scabies in patients with human immunodeficiency syndrome and acquired immunodeficiency syndrome, scabies of the scalp, and bullous scabies. Pediculosis is an infestation by the head louse, the body or clothing louse, or the pubic or crab louse. Pruritus is the most common symptom in any type of pediculosis. Head lice infestations, which are usually confined to the scalp, are common in children. The main symptom is intense itching. Diagnosis is confirmed by plucking the hairs and studying them microscopically to differentiate the nits from seborrheic scales, hair casts, and artifacts of the hair that may be brushed off easily. Agents used to treat head lice include a 1 percent synthetic pyrethroid permethrin cream rinse, synergized pyrethrins, and lindane shampoo. Pubic lice are transmitted sexually. The pubis is the most commonly affected site. Diagnosis is usually made by identifying the more numerous nits cemented on the pubic or perianal hair. Agents used to treat pubic lice include synergized pyrethrins and lindane shampoo. **Body lice** are mainly transmitted by contaminated clothing or bedding. The characteristic eruption consists of numerous vertical excoriations caused by intense itching. Therapy for **body lice** consists mainly of proper hygiene, bathing, use of clean clothing and bedding, and proper nutrition. 10 figures, 2 tables, and 22 references.

- **Chapter 203: Parasitic Skin Infections**

  Source: in Berkow, R., ed. The Merck Manual of Medical Information: Home Edition (online version). Rahway, NJ: Merck and Company, Inc. 2000. 4 p.

Contact: Available online from Merck and Company, Inc. (800) 819-9456. Website: www.merck.com/pubs/mmanual_home/contents.htm. Also available from your local book store. PRICE: $29.95 plus shipping.

Summary: This chapter provides the general public and people who have parasitic skin infections with information on the symptoms, diagnosis, and treatment of scabies, lice infestation, and creeping eruption. Scabies, an infestation caused by the itch mite Sarcoptes scabiei, is characterized by tiny reddish pimples and intense itching. Diagnosis is based on the combination of itching and the burrows of the mites. Treatment involves applying a cream containing permethrin or a solution of lindane. A corticosteroid cream may be used for a few days to relieve itching. Family members and people with skin to skin contact should be treated simultaneously. A lice infestation, which causes intense itching, can affect the head, body, or pubic area. Head lice are spread by personal contact and shared personal items. **Body lice** usually infest people who have poor hygiene and those living in crowded conditions. Pubic lice are spread during sexual contact. Diagnosis is based on an examination of the affected area. Medications used to treat lice infestations include permethrin, lindane, and pyrethrin. Creeping eruption is a hookworm infection transmitted to exposed skin from dog and cat feces deposited on the ground. The infection causes intense itching, and it is treated with a liquid preparation of thiabendazole. 1 figure.

CHAPTER 6. PERIODICALS AND NEWS ON BODY LICE

Overview

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

News Services and Press Releases

One of the simplest ways of tracking press releases on body lice 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 "body lice" (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 body lice. 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 "body lice" (or synonyms). The following was recently listed in this archive for body lice:

- **Cat Fleas, Body Lice Spread Infection**
  Source: Reuters Health eLine
  Date: December 24, 1997

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 "body lice" (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 "body lice" (or synonyms). If you know the name of a company that is relevant to body lice, 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 "body lice" (or synonyms).

Academic Periodicals covering Body Lice

Numerous periodicals are currently indexed within the National Library of Medicine's PubMed database that are known to publish articles relating to body lice. In addition to

these sources, you can search for articles covering body lice 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."

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[10]:

- 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/**

[10] 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.[11] 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:[12]

- **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**

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[11] 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**).
[12] 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[13]

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.[14] To use the NLM Gateway, simply go to the search site at **http://gateway.nlm.nih.gov/gw/Cmd**. Type "body lice" (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	399
Books / Periodicals / Audio Visual	3
Consumer Health	770
Meeting Abstracts	0
Other Collections	803
Total	1975

HSTAT[15]

HSTAT is a free, Web-based resource that provides access to full-text documents used in healthcare decision-making.[16] 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.[17] Simply search by "body lice" (or synonyms) at the following Web site: **http://text.nlm.nih.gov**.

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

[14] 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).

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

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

[17] 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[18]

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.[19] 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.[20] 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/**.

[18] Adapted from **http://www.ncbi.nlm.nih.gov/Coffeebreak/Archive/FAQ.html**.
[19] 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.
[20] 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 body lice 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 body lice. 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 body lice. 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 "body lice":

Chagas Disease
http://www.nlm.nih.gov/medlineplus/chagasdisease.html

Cryptosporidiosis
http://www.nlm.nih.gov/medlineplus/cryptosporidiosis.html

Giardia Infections
http://www.nlm.nih.gov/medlineplus/giardiainfections.html

Leishmaniasis
http://www.nlm.nih.gov/medlineplus/leishmaniasis.html

Parasitic Diseases
http://www.nlm.nih.gov/medlineplus/parasiticdiseases.html

Within the health topic page dedicated to body lice, the following was listed:

- General/Overviews

  Parasites and Foodborne Illness
  Source: Dept. of Agriculture, Food Safety and Inspection Service
  http://www.fsis.usda.gov/OA/pubs/parasite.htm

  Parasitic Disease Information: Alphabetical Listing
  Source: National Center for Infectious Diseases, Division of Parasitic Diseases
  http://www.cdc.gov/ncidod/dpd/parasites/listing.htm

- Diagnosis/Symptoms

  Diagnosis of Parasitic Diseases
  Source: National Center for Infectious Diseases, Division of Parasitic Diseases
  http://www.cdc.gov/ncidod/dpd/public/geninfo_diagnosis_diseases.htm

  O&P
  Source: American Association for Clinical Chemistry
  http://www.labtestsonline.org/understanding/analytes/op/test.html

- Specific Conditions/Aspects

  Acanthamoeba Infection
  Source: National Center for Infectious Diseases, Division of Parasitic Diseases
  http://www.cdc.gov/ncidod/dpd/parasites/acanthomoeba/factsht_acanthamoeba.htm

  Angiostrongylus cantonensis Infection
  Source: National Center for Infectious Diseases
  http://www.cdc.gov/ncidod/dpd/parasites/angiostrongylus/factsht_angiostrongylus.htm

  Babesiosis
  Source: American Academy of Family Physicians
  http://familydoctor.org/689.xml

  Balantidium Coli Infections
  Source: American Academy of Pediatrics
  http://www.medem.com/medlb/article_detaillb.cfm?article_ID=ZZZLQ2JZYJC&s

ub_cat=661

Baylisascaris Infection (Raccoon Roundworm Infection)
Source: Centers for Disease Control and Prevention
http://www.cdc.gov/ncidod/dpd/parasites/baylisacaris/default.htm

Blastocystis Hominis Infection
Source: National Center for Infectious Diseases, Division of Parasitic Diseases
http://www.cdc.gov/ncidod/dpd/parasites/blastocystishominis/factsht_blastocystis_hominis.htm

Cyclospora Infection
Source: National Center for Infectious Diseases, Division of Parasitic Diseases
http://www.cdc.gov/ncidod/dpd/parasites/cyclospora/factsht_cyclospora.htm

Dientamoeba Fragilis Infection
Source: National Center for Infectious Diseases, Division of Parasitic Diseases
http://www.cdc.gov/ncidod/dpd/parasites/dientamoeba/factsht_dientamoeba.htm

How to Find a Physician
Source: National Center for Infectious Diseases, Division of Parasitic Diseases
http://www.cdc.gov/ncidod/dpd/public/geninfo_find_physician.htm

Onchocerciasis (River Blindness)
Source: National Institute of Allergy and Infectious Diseases
http://www2.niaid.nih.gov/newsroom/focuson/bugborne01/onchoc.htm

Parasitic Roundworm Diseases
Source: National Institute of Allergy and Infectious Diseases
http://www.niaid.nih.gov/factsheets/roundwor.htm

Pets and Parasites
Source: American Academy of Family Physicians
http://familydoctor.org/261.xml

Pubic Lice or "Crabs": Pthirus pubis (THEER-us pu-bis)
Source: National Center for Infectious Diseases, Division of Parasitic Diseases
http://www.cdc.gov/ncidod/dpd/parasites/lice/factsht_pubic_lice.htm

Swimmer's Itch: Cercarial Dermatitis
Source: National Center for Infectious Diseases, Division of Parasitic Diseases
http://www.cdc.gov/ncidod/dpd/parasites/schistosomiasis/factsht_cardmermatitis.htm

Toxocariasis: Roundworm Infection (Zoonotic)
Source: National Center for Infectious Diseases, Division of Parasitic Diseases
http://www.cdc.gov/ncidod/dpd/parasites/toxocara/factsht_toxocara.htm

- Children

Amebiasis
Source: Nemours Foundation
http://kidshealth.org/parent/infections/parasitic/amebiasis.html

Ascariasis
Source: Nemours Foundation
http://kidshealth.org/parent/infections/stomach/ascariasis.html

Stool Tests
Source: Nemours Foundation
http://kidshealth.org/parent/general/sick/labtest8.html

Toxocariasis
Source: Nemours Foundation
http://kidshealth.org/parent/infections/parasitic/toxocariasis.html

- From the National Institutes of Health

  Microbes in Sickness and in Health
  Source: National Institute of Allergy and Infectious Diseases
  http://www.niaid.nih.gov/publications/microbes.htm

- Latest News

  Some Salad Mixes May Be Infected, FDA Warns
  Source: 05/24/2004, Reuters Health
  http://www.nlm.nih.gov//www.nlm.nih.gov/medlineplus/news/fullstory_17922.html

- Organizations

  National Center for Infectious Diseases, Division of Parasitic Diseases
  http://www.cdc.gov/ncidod/dpd/default.htm

  National Institute of Allergy and Infectious Diseases
  http://www.niaid.nih.gov/

- Prevention/Screening

  Healthy Swimming
  Source: National Center for Infectious Diseases, Division of Parasitic Diseases
  http://www.cdc.gov/healthyswimming/

  Risks from Food and Drink: Health Information for International Travel
  Source: Centers for Disease Control and Prevention
  http://www.cdc.gov/travel/food-drink-risks.htm

  Why is Handwashing Important?
  Source: Centers for Disease Control and Prevention
  http://www.cdc.gov/od/oc/media/pressrel/r2k0306c.htm

- Research

  Scientists Identify Weak Spot in a Parasite's Armor
  Source: National Institute of General Medical Sciences
  http://www.nigms.nih.gov/news/releases/brief_stuart.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 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 body lice. 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 body lice. By consulting all of associations listed in this chapter, you will have nearly exhausted all sources for patient associations concerned with body lice.

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 body lice. 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 "body lice" (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 "body lice". 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 "body lice" (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 "body lice" (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.[21]

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

[21] 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)[22]:

- **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/**

[22] 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**). The NIH suggests the following Web sites in the ADAM Medical Encyclopedia when searching for information on body lice:

- **Basic Guidelines for Body Lice**

  Body lice
  Web site: http://www.nlm.nih.gov/medlineplus/ency/article/000838.htm

- **Signs & Symptoms for Body Lice**

  Itching
  Web site: http://www.nlm.nih.gov/medlineplus/ency/article/003217.htm

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**

BODY LICE DICTIONARY

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

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]

Acanthamoeba: A genus of free-living soil amoebae that produces no flagellate stage. Its organisms are pathogens for several infections in humans and have been found in the eye, bone, brain, and respiratory tract. [NIH]

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]

Adenopathy: Large or swollen lymph glands. [NIH]

Adrenal Cortex: The outer layer of the adrenal gland. It secretes mineralocorticoids, androgens, and glucocorticoids. [NIH]

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

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

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: Any organic compound containing an amino (-NH2 and a carboxyl (- COOH) group. The 20 a-amino acids listed in the accompanying table are the amino acids from which proteins are synthesized by formation of peptide bonds during ribosomal translation of messenger RNA; all except glycine, which is not optically active, have the L configuration. Other amino acids occurring in proteins, such as hydroxyproline in collagen, are formed by posttranslational enzymatic modification of amino acids residues in polypeptide chains. There are also several important amino acids, such as the neurotransmitter y-aminobutyric acid, that have no relation to proteins. Abbreviated AA. [EU]

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

Analytes: A component of a test sample the presence of which has to be demonstrated. The term "analyte" includes where appropriate formed from the analyte during the analyses. [NIH]

Androgens: A class of sex hormones associated with the development and maintenance of the secondary male sex characteristics, sperm induction, and sexual differentiation. In addition to increasing virility and libido, they also increase nitrogen and water retention and

stimulate skeletal growth. [NIH]

Angiostrongylus: A genus of parasitic nematodes of the superfamily Metastrongyloidea. Two species, Angiostrongylus cantonensis and A. vasorum, infest the lungs of rats and dogs, respectively. A. cantonensis is transmissible to man where it causes frequently fatal infection of the central nervous system. [NIH]

Antiallergic: Counteracting allergy or allergic conditions. [EU]

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

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

Anti-Inflammatory Agents: Substances that reduce or suppress inflammation. [NIH]

Antineoplastic: Inhibiting or preventing the development of neoplasms, checking the maturation and proliferation of malignant cells. [EU]

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

Aqueous: Having to do with water. [NIH]

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

Artifacts: Any visible result of a procedure which is caused by the procedure itself and not by the entity being analyzed. Common examples include histological structures introduced by tissue processing, radiographic images of structures that are not naturally present in living tissue, and products of chemical reactions that occur during analysis. [NIH]

Ascariasis: Infection by nematodes of the genus Ascaris. Ingestion of infective eggs causes diarrhea and pneumonitis. Its distribution is more prevalent in areas of poor sanitation and where human feces are used for fertilizer. [NIH]

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

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]

Blastocystis: A genus of protozoa of the suborder Blastocystina. It was first classified as a yeast but further studies have shown it to be a protozoan. [NIH]

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

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]

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]

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 Division: The fission of a cell. [NIH]

Cellulose: A polysaccharide with glucose units linked as in cellobiose. It is the chief constituent of plant fibers, cotton being the purest natural form of the substance. As a raw material, it forms the basis for many derivatives used in chromatography, ion exchange materials, explosives manufacturing, and pharmaceutical preparations. [NIH]

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

Cervical: Relating to the neck, or to the neck of any organ or structure. Cervical lymph nodes are located in the neck; cervical cancer refers to cancer of the uterine cervix, which is the lower, narrow end (the "neck") of the uterus. [NIH]

Cervix: The lower, narrow end of the uterus that forms a canal between the uterus and vagina. [NIH]

Chronic: A disease or condition that persists or progresses over a long period of time. [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]

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]

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]

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]

Coronary Thrombosis: Presence of a thrombus in a coronary artery, often causing a myocardial infarction. [NIH]

Corticosteroid: Any of the steroids elaborated by the adrenal cortex (excluding the sex hormones of adrenal origin) in response to the release of corticotrophin (adrenocorticotropic hormone) by the pituitary gland, to any of the synthetic equivalents of these steroids, or to angiotensin II. They are divided, according to their predominant biological activity, into three major groups: glucocorticoids, chiefly influencing carbohydrate, fat, and protein metabolism; mineralocorticoids, affecting the regulation of electrolyte and water balance; and C19 androgens. Some corticosteroids exhibit both types of activity in varying degrees, and others exert only one type of effect. The corticosteroids are used clinically for hormonal replacement therapy, for suppression of ACTH secretion by the anterior pituitary, as antineoplastic, antiallergic, and anti-inflammatory agents, and to suppress the immune response. Called also adrenocortical hormone and corticoid. [EU]

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]

Cyclospora: A genus of coccidian parasites in the family Eimeriidae. Cyclospora cayetanensis is pathogenic in humans, probably transmitted via the fecal-oral route, and causes nausea and diarrhea. [NIH]

Cysteine: A thiol-containing non-essential amino acid that is oxidized to form cystine. [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]

Diagnostic procedure: A method used to identify a disease. [NIH]

Dialysate: A cleansing liquid used in the two major forms of dialysis--hemodialysis and peritoneal dialysis. [NIH]

Diarrhea: Passage of excessively liquid or excessively frequent stools. [NIH]

Dientamoeba: A genus of minute protozoa that are characterized by the preponderance of binucleate over uninucleate forms, the presence of several distinct granules in the karyosome, and the lack of a cystic stage. It is parasitic in the large intestine of humans and certain monkeys. [NIH]

Digestion: The process of breakdown of food for metabolism and use by the body. [NIH]

Diploid: Having two sets of chromosomes. [NIH]

Direct: 1. Straight; in a straight line. 2. Performed immediately and without the intervention of subsidiary means. [EU]

Disease Vectors: Invertebrates or non-human vertebrates which transmit infective organisms from one host to another. [NIH]

Disposition: A tendency either physical or mental toward certain diseases. [EU]

Domesticated: Species in which the evolutionary process has been influenced by humans to meet their needs. [NIH]

Dorsal: 1. Pertaining to the back or to any dorsum. 2. Denoting a position more toward the back surface than some other object of reference; same as posterior in human anatomy; superior in the anatomy of quadrupeds. [EU]

Dorsum: A plate of bone which forms the posterior boundary of the sella turcica. [NIH]

Drug Interactions: The action of a drug that may affect the activity, metabolism, or toxicity of another drug. [NIH]

Duct: A tube through which body fluids pass. [NIH]

Duodenum: The first part of the small intestine. [NIH]

Dwell time: In peritoneal dialysis, the amount of time a bag of dialysate remains in the patient's abdominal cavity during an exchange. [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]

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]

Electrolyte: A substance that dissociates into ions when fused or in solution, and thus becomes capable of conducting electricity; an ionic solute. [EU]

Emaciation: Clinical manifestation of excessive leanness usually caused by disease or a lack of nutrition. [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]

Enzyme: A protein that speeds up chemical reactions in the body. [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]

Esophagus: The muscular tube through which food passes from the throat to the stomach. [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]

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]

Fleas: Parasitic, blood-sucking, wingless insects comprising the order Siphonaptera. [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]

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]

Glucocorticoids: A group of corticosteroids that affect carbohydrate metabolism (gluconeogenesis, liver glycogen deposition, elevation of blood sugar), inhibit corticotropin secretion, and possess pronounced anti-inflammatory activity. They also play a role in fat and protein metabolism, maintenance of arterial blood pressure, alteration of the connective tissue response to injury, reduction in the number of circulating lymphocytes, and functioning of the central nervous system. [NIH]

Governing Board: The group in which legal authority is vested for the control of health-related institutions and organizations. [NIH]

Habitat: An area considered in terms of its environment, particularly as this determines the type and quality of the vegetation the area can carry. [NIH]

Haploid: An organism with one basic chromosome set, symbolized by n; the normal condition of gametes in diploids. [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]

Homeless Persons: Persons who have no permanent residence. The concept excludes nomadic peoples. [NIH]

Hookworm: A parasitic infection that may affect workers exposed to warm moist soil in which the larvae of the worm lives. [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]

Hydrolysis: The process of cleaving a chemical compound by the addition of a molecule of water. [NIH]

Immune response: The activity of the immune system against foreign substances (antigens). [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]

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]

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]

Infection Control: Programs of disease surveillance, generally within health care facilities, designed to investigate, prevent, and control the spread of infections and their causative microorganisms. [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]

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]

Insecticides: Pesticides designed to control insects that are harmful to man. The insects may be directly harmful, as those acting as disease vectors, or indirectly harmful, as destroyers of crops, food products, or textile fabrics. [NIH]

Intermittent: Occurring at separated intervals; having periods of cessation of activity. [EU]

Intestinal: Having to do with the intestines. [NIH]

Intestines: The section of the alimentary canal from the stomach to the anus. It includes the large intestine and small intestine. [NIH]

Intracellular: Inside a cell. [NIH]

Isopropyl: A gene mutation inducer. [NIH]

Ivermectin: A mixture of ivermectin component B1a (RN 71827-03-7) and B1b (RN 70209-81-3), which is a semisynthetic product from Streptomyces avermitilis. A potent macrocyclic lactone disaccharide antiparasitic agent used to prevent and treat parasite infestations in animals. The compound has activity against internal and external parasites and has been found effective against arthropods, insects, nematodes, filarioidea, platyhelminths, and protozoa. [NIH]

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]

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]

Larva Migrans: Infections caused by nematode larvae which never develop into the adult stage and migrate through various body tissues. They commonly infect the skin, eyes, and viscera in man. Ancylostoma brasiliensis causes cutaneous larva migrans. Toxocara causes

visceral larva migrans. [NIH]

Leishmaniasis: A disease caused by any of a number of species of protozoa in the genus Leishmania. There are four major clinical types of this infection: cutaneous (Old and New World), diffuse cutaneous, mucocutaneous, and visceral leishmaniasis. [NIH]

Life cycle: The successive stages through which an organism passes from fertilized ovum or spore to the fertilized ovum or spore of the next generation. [NIH]

Lindane: An organochlorine insecticide that has been used as a pediculicide and a scabicide. It has been shown to cause cancer. [NIH]

Liver: A large, glandular organ located in the upper abdomen. The liver cleanses the blood and aids in digestion by secreting bile. [NIH]

Localized: Cancer which has not metastasized yet. [NIH]

Locomotion: Movement or the ability to move from one place or another. It can refer to humans, vertebrate or invertebrate animals, and microorganisms. [NIH]

Lymph: The almost colorless fluid that travels through the lymphatic system and carries cells that help fight infection and disease. [NIH]

Lymph node: A rounded mass of lymphatic tissue that is surrounded by a capsule of connective tissue. Also known as a lymph gland. Lymph nodes are spread out along lymphatic vessels and contain many lymphocytes, which filter the lymphatic fluid (lymph). [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]

Lymphocyte: A white blood cell. Lymphocytes have a number of roles in the immune system, including the production of antibodies and other substances that fight infection and diseases. [NIH]

Lymphocyte Count: A count of the number of lymphocytes in the blood. [NIH]

Malathion: A wide spectrum aliphatic organophosphate insecticide widely used for both domestic and commercial agricultural purposes. [NIH]

Malignant: Cancerous; a growth with a tendency to invade and destroy nearby tissue and spread to other parts of the body. [NIH]

MEDLINE: An online database of MEDLARS, the computerized bibliographic Medical Literature Analysis and Retrieval System of the National Library of Medicine. [NIH]

Mental: Pertaining to the mind; psychic. 2. (L. mentum chin) pertaining to the chin. [EU]

Metamorphosis: The ontogeny of insects, i. e. the series of changes undergone from egg, through larva and pupa, or through nymph, to adult. [NIH]

Methionine: A sulfur containing essential amino acid that is important in many body functions. It is a chelating agent for heavy metals. [NIH]

Methoprene: Juvenile hormone analog and insect growth regulator used to control insects by disrupting metamorphosis. Has been effective in controlling mosquito larvae. [NIH]

MI: 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]

Microbe: An organism which cannot be observed with the naked eye; e. g. unicellular animals, lower algae, lower fungi, bacteria. [NIH]

Mineralocorticoids: A group of corticosteroids primarily associated with the regulation of water and electrolyte balance. This is accomplished through the effect on ion transport in

renal tubules, resulting in retention of sodium and loss of potassium. Mineralocorticoid secretion is itself regulated by plasma volume, serum potassium, and angiotensin II. [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]

Mucocutaneous: Pertaining to or affecting the mucous membrane and the skin. [EU]

Myocardium: The muscle tissue of the heart composed of striated, involuntary muscle known as cardiac muscle. [NIH]

Myristate: Pharmacological activator of protein kinase C. [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]

Neoplasms: New abnormal growth of tissue. Malignant neoplasms show a greater degree of anaplasia and have the properties of invasion and metastasis, compared to benign neoplasms. [NIH]

Ocular: 1. Of, pertaining to, or affecting the eye. 2. Eyepiece. [EU]

Opportunistic Infections: An infection caused by an organism which becomes pathogenic under certain conditions, e.g., during immunosuppression. [NIH]

Ovum: A female germ cell extruded from the ovary at ovulation. [NIH]

Palliative: 1. Affording relief, but not cure. 2. An alleviating medicine. [EU]

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]

Pediculosis: Infestation with lice of the family Pediculidae, especially infestation with Pediculus humanus. [EU]

Peptide: Any compound consisting of two or more amino acids, the building blocks of proteins. Peptides are combined to make proteins. [NIH]

Perianal: Located around the anus. [EU]

Peritoneal: Having to do with the peritoneum (the tissue that lines the abdominal wall and covers most of the organs in the abdomen). [NIH]

Peritoneal Dialysis: Dialysis fluid being introduced into and removed from the peritoneal cavity as either a continuous or an intermittent procedure. [NIH]

Pharmacologic: Pertaining to pharmacology or to the properties and reactions of drugs. [EU]

Pituitary Gland: A small, unpaired gland situated in the sella turcica tissue. It is connected to the hypothalamus by a short stalk. [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]

Platyhelminths: A phylum of acoelomate, bilaterally symmetrical flatworms, without a definite anus. It includes three classes: Cestoda, Turbellaria, and Trematoda. [NIH]

Pneumonia: Inflammation of the lungs. [NIH]

Pneumonitis: A disease caused by inhaling a wide variety of substances such as dusts and molds. Also called "farmer's disease". [NIH]

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]

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]

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]

Proteolytic: 1. Pertaining to, characterized by, or promoting proteolysis. 2. An enzyme that promotes proteolysis (= the splitting of proteins by hydrolysis of the peptide bonds with formation of smaller polypeptides). [EU]

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]

Protozoan: 1. Any individual of the protozoa; protozoon. 2. Of or pertaining to the protozoa; protozoal. [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]

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]

Pyrethrins: The active insecticidal constituent of pyrethrum flowers. Pyrethrin I is the pyretholone ester of chrysanthemummonocarboxylic acid and pyrethrin II is the pyretholone ester of chrysanthemumdicarboxylic acid monomethyl ester. [NIH]

Pyrethrum: Species cinerafolium vis. and coccineum willd. of the genus Chrysanthemum (Compositae). The flowers contain pyrethrins, cinerolones, and chrysanthemines which are powerful contact insecticides. [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]

Recombinant: A cell or an individual with a new combination of genes not found together

in either parent; usually applied to linked genes. [EU]

Refer: To send or direct for treatment, aid, information, de decision. [NIH]

Regimen: A treatment plan that specifies the dosage, the schedule, and the duration of treatment. [NIH]

Saliva: The clear, viscous fluid secreted by the salivary glands and mucous glands of the mouth. It contains mucins, water, organic salts, and ptylin. [NIH]

Salivary: The duct that convey saliva to the mouth. [NIH]

Sanitation: The development and establishment of environmental conditions favorable to the health of the public. [NIH]

Scabicide: An agent which has the power to destroy sarcoptes scabiei. [NIH]

Scabies: A contagious cutaneous inflammation caused by the bite of the mite Sarcoptes scabiei. It is characterized by pruritic papular eruptions and burrows and affects primarily the axillae, elbows, wrists, and genitalia, although it can spread to cover the entire body. [NIH]

Screening: Checking for disease when there are no symptoms. [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]

Semisynthetic: Produced by chemical manipulation of naturally occurring substances. [EU]

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]

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]

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]

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]

Splenomegaly: Enlargement of the spleen. [NIH]

Steroids: Drugs used to relieve swelling and inflammation. [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]

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]

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]

Sulfur: An element that is a member of the chalcogen family. It has an atomic symbol S, atomic number 16, and atomic weight 32.066. It is found in the amino acids cysteine and methionine. [NIH]

Suppression: A conscious exclusion of disapproved desire contrary with repression, in which the process of exclusion is not conscious. [NIH]

Systemic: Affecting the entire body. [NIH]

Therapeutics: The branch of medicine which is concerned with the treatment of diseases, palliative or curative. [NIH]

Ticks: Blood-sucking arachnids of the order Acarina. [NIH]

Tissue: A group or layer of cells that are alike in type and work together to perform a specific function. [NIH]

Topical: On the surface of the body. [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]

Toxins: Specific, characterizable, poisonous chemicals, often proteins, with specific biological properties, including immunogenicity, produced by microbes, higher plants, or animals. [NIH]

Toxocara: A genus of ascarid nematodes commonly parasitic in the intestines of cats and dogs. [NIH]

Toxocariasis: Infection by round worms of the genus Toxocara, usually found in wild and domesticated cats and dogs and foxes, except for the larvae, which may produce visceral and ocular larva migrans in man. [NIH]

Transfection: The uptake of naked or purified DNA into cells, usually eukaryotic. It is analogous to bacterial transformation. [NIH]

Trench Fever: An intermittent fever characterized by intervals of chills, fever, and splenomegaly each of which may last as long as 40 hours. It is caused by Bartonella quintana and transmitted by the human louse. [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]

Vaccines: Suspensions of killed or attenuated microorganisms (bacteria, viruses, fungi, protozoa, or rickettsiae), antigenic proteins derived from them, or synthetic constructs, administered for the prevention, amelioration, or treatment of infectious and other diseases. [NIH]

Vascular: Pertaining to blood vessels or indicative of a copious blood supply. [EU]

Vector: Plasmid or other self-replicating DNA molecule that transfers DNA between cells in nature or in recombinant DNA technology. [NIH]

Venom: That produced by the poison glands of the mouth and injected by the fangs of poisonous snakes. [NIH]

Veterinary Medicine: The medical science concerned with the prevention, diagnosis, and

treatment of diseases in animals. [NIH]

Virulence: The degree of pathogenicity within a group or species of microorganisms or viruses as indicated by case fatality rates and/or the ability of the organism to invade the tissues of the host. [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]

Vivo: Outside of or removed from the body of a living organism. [NIH]

Wasps: Any of numerous winged hymenopterous insects of social as well as solitary habits and having formidable stings. [NIH]

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