HEART PALPITATIONS

A MEDICAL DICTIONARY, BIBLIOGRAPHY,
AND ANNOTATED RESEARCH GUIDE TO
INTERNET REFERENCES



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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." 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 heart palpitations 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 heart palpitations, 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 heart palpitations, 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 heart palpitations. 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 heart palpitations, 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 heart palpitations.

The Editors

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

CHAPTER 1. STUDIES ON HEART PALPITATIONS

Overview

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

The Combined Health Information Database

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

• Dangerous Dieting

Source: Essence. 33(4):75-76, 164. August 2002.

Summary: This article reports on the dangers of fad diets and supplements for weight loss. Although they may be effective in the short term, fad diets and supplements do not keep weight off for the long term and may have associated health risks. Supplements that claim to induce weight loss by speeding up metabolism usually contain stimulants that can cause numbness and tingling in the extremities, dizziness, increased blood pressure, chest pain, and **heart palpitations**. Some supplements may also act as diuretics, which can effect fluid and electrolyte balance. Health risks of diet fads include vitamin and mineral deficiencies, weight cycling, and high intakes of foods that increase

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the risk of developing heart disease, stroke, and certain cancers. The article provides tips on losing weight safely.

Federally Funded Research on Heart Palpitations

The U.S. Government supports a variety of research studies relating to heart palpitations. 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 heart palpitations.

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 heart palpitations.

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.³ 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 heart palpitations, simply go to the PubMed Web site at http://www.ncbi.nlm.nih.gov/pubmed. Type "heart palpitations" (or synonyms) into the search box, and click "Go." The following is the type of output you can expect from PubMed for heart palpitations (hyperlinks lead to article summaries):

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 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.

Studies

• A woman with increasing weakness of the legs and irregular heartbeat who took her husband's medication.

Author(s): Wolf G, Stahl RA.

Source: Nephrology, Dialysis, Transplantation : Official Publication of the European Dialysis and Transplant Association - European Renal Association. 2002 September; 17(9): 1698-701.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=12198228

• Electrophysiologic effects of blocking and stimulating the opioid system in patients with unexplained heart palpitations.

Author(s): Markiewicz K, Kus W, Cholewa M, Bubinski R.

Source: Clin Cardiol. 1991 October; 14(10): 813-20.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=1659505

• Electrophysiological effects of blocking and stimulating the opioid system in patients with unexplained heart palpitations.

Author(s): Oldroyd KG.

Source: Clin Cardiol. 1992 November; 15(11): 872-3. No Abstract Available.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10969635

• Viracept and irregular heartbeat warning.

Author(s): Fornataro K, Jefferys R.

Source: Body Posit. 1999 October; 12(10): 10, 12.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11366874

CHAPTER 2. BOOKS ON HEART PALPITATIONS

Overview

This chapter provides bibliographic book references relating to heart palpitations. In addition to online booksellers such as **www.amazon.com** and **www.bn.com**, excellent sources for book titles on heart palpitations 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: Online Booksellers

Commercial Internet-based booksellers, such as Amazon.com and Barnes&Noble.com, offer summaries which have been supplied by each title's publisher. Some summaries also include customer reviews. Your local bookseller may have access to in-house and commercial databases that index all published books (e.g. Books in Print®). **IMPORTANT NOTE:** Online booksellers typically produce search results for medical and non-medical books. When searching for "heart palpitations" at online booksellers' Web sites, you may discover <u>non-medical books</u> that use the generic term "heart palpitations" (or a synonym) in their titles. The following is indicative of the results you might find when searching for "heart palpitations" (sorted alphabetically by title; follow the hyperlink to view more details at Amazon.com):

 Heart Palpitations by Gary S. Ross; ISBN: 1891875019; http://www.amazon.com/exec/obidos/ASIN/1891875019/icongroupinterna

Chapters on Heart Palpitations

In order to find chapters that specifically relate to heart palpitations, an excellent source of abstracts is the Combined Health Information Database. You will need to limit your search to book chapters and heart palpitations 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 "heart palpitations" (or synonyms) into the "For these words:" box.

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 Institute⁴:

- 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/

⁴ 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.⁵ 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:⁶

- 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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⁵ 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).

⁶ 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 Gateway⁷

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.⁸ To use the NLM Gateway, simply go to the search site at http://gateway.nlm.nih.gov/gw/Cmd. Type "heart palpitations" (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	844
Books / Periodicals / Audio Visual	5
Consumer Health	760
Meeting Abstracts	1
Other Collections	149
Total	1759

HSTAT⁹

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

⁷ Adapted from NLM: http://gateway.nlm.nih.gov/gw/Cmd?Overview.x.

⁸ 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).

⁹ Adapted from HSTAT: http://www.nlm.nih.gov/pubs/factsheets/hstat.html.

¹⁰ The HSTAT URL is http://hstat.nlm.nih.gov/.

¹¹ 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 Biologists12

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.¹³ 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.¹⁴ 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/.

 $^{^{12}\,}A dapted from \, {\bf http://www.ncbi.nlm.nih.gov/Coffeebreak/Archive/FAQ.html}.$

¹³ 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.

¹⁴ 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 heart palpitations 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 heart palpitations. 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 heart palpitations. 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 "heart palpitations":

Other guides

Arrhythmia

http://www.nlm.nih.gov/medlineplus/arrhythmia.html

Cardiomyopathy

http://www.nlm.nih.gov/medlineplus/cardiomyopathy.html

Congenital Heart Disease

http://www.nlm.nih.gov/medlineplus/congenitalheartdisease.html

Heart Attack

http://www.nlm.nih.gov/medlineplus/heartattack.html

Heart Diseases

http://www.nlm.nih.gov/medlineplus/heartdiseases.html

Heart Failure

http://www.nlm.nih.gov/medlineplus/heartfailure.html

Pacemakers and Implantable Defibrillators

http://www.nlm.nih.gov/medlineplus/pacemakersandimplantabledefibrillators.ht

Within the health topic page dedicated to heart palpitations, the following was listed:

General/Overviews

Arrhythmias

http://www.nlm.nih.gov/medlineplus/tutorials/arrhythmiasloader.html

Cardiac Arrhythmias

Source: American College of Cardiology

http://www.acc.org/media/patient/chd/cardiac%255Farrhythmias.htm

Sudden Cardiac Death

Source: North American Society of Pacing and Electrophysiology

http://www.naspe-

patients.org/patients/heart_disorders/cardiac_arrest/index.html

What Are Arrhythmias?

Source: American Heart Association

http://www.americanheart.org/presenter.jhtml?identifier=560

Diagnosis/Symptoms

Diagnosing Arrhythmias

Source: American Heart Association

http://www.americanheart.org/presenter.jhtml?identifier=3

Echocardiogram

Source: National Institutes of Health, Clinical Center

http://www.cc.nih.gov/ccc/patient_education/procdiag/echocardiogram.pdf

Electrophysiology Study (EPS)

Source: North American Society of Pacing and Electrophysiology

http://www.naspe-

patients.org/patients/heart_tests/electrophysiology_study.html

Patient Resources

Fainting (Syncope)

Source: North American Society of Pacing and Electrophysiology

http://www.naspe-patients.org/patients/signs_symptoms/fainting/index.html

Other Symptoms of Heart Rhythm Disorders

Source: North American Society of Pacing and Electrophysiology

http://www.naspe-patients.org/patients/signs_symptoms/other.html

Rapid Heartbeat (Tachycardia and Fibrillation)

Source: North American Society of Pacing and Electrophysiology

http://www.naspe-patients.org/patients/signs_symptoms/too_fast.html

Slow Heartbeat (Bradycardia)

Source: North American Society of Pacing and Electrophysiology

http://www.naspe-patients.org/patients/signs_symptoms/too_slow.html

Transesophageal Echocardiogram (TEE)

Source: National Institutes of Health, Clinical Center

http://www.cc.nih.gov/ccc/patient_education/procdiag/tee.pdf

Treatment

Arrthythmia Medications

Source: American Heart Association

http://www.americanheart.org/presenter.jhtml?identifier=18

Cardiac Ablation

Source: North American Society of Pacing and Electrophysiology

http://www.naspe-patients.org/patients/treatments/cardiac_ablation.html

Cardioversion

http://circ.ahajournals.org/cgi/reprint/106/22/e176.pdf

Catheter Ablation of Arrhythmias

http://circ.ahajournals.org/cgi/reprint/106/25/e203.pdf

Defibrillation

Source: American Heart Association

http://www.americanheart.org/presenter.jhtml?identifier=30

Implantable Cardioverter Defibrillators (ICDs)

Source: North American Society of Pacing and Electrophysiology

http://www.naspe-

patients.org/patients/treatments/cardiac_defibrillators/index.html

Management of Newly Detected Atrial Fibrillation: Recommendations from the American College of Physicians and the American Academy of Family Physicians

Source: American College of Physicians

http://www.annals.org/cgi/content/full/139/12/I-32

Nutrition

Caffeine, Diet and Heart Arrhythmias

Source: North American Society of Pacing and Electrophysiology http://www.naspe-patients.org/patients/substances/diet.html

New Guidelines Focus on Fish, Fish Oil, Omega-3 Fatty Acids

Source: American Heart Association

http://www.americanheart.org/presenter.jhtml?identifier=3006624

Specific Conditions/Aspects

Arrhythmias Originating in the Atria

Source: American Heart Association

http://www.americanheart.org/presenter.jhtml?identifier=10

Arrhythmias Originating in the Ventricles

Source: American Heart Association

http://www.americanheart.org/presenter.jhtml?identifier=11

Atrial Fibrillation

http://www.nlm.nih.gov/medlineplus/tutorials/atrialfibrillationloader.html

Atrial Fibrillation

Source: Mayo Foundation for Medical Education and Research

http://www.mayoclinic.com/invoke.cfm?id=DS00291

Bundle Branch Block

Source: American Heart Association

http://www.americanheart.org/presenter.jhtml?identifier=990

Heart Block

Source: American Heart Association

http://www.americanheart.org/presenter.jhtml?identifier=992

JAMA Patient Page: Atrial Fibrillation

Source: American Medical Association

http://www.medem.com/search/article_display.cfm?path=%5C%5CTANQUERAY%5CM_ContentItem&mstr=/M_ContentItem/ZZZIX1IGUJD.html&soc=JAMA/Archives&srch_typ=NAV_SERCH

Long Q-T Syndrome

Source: American Heart Association

http://www.americanheart.org/presenter.jhtml?identifier=993

Postural Tachycardia Syndrome

Source: National Institute of Neurological Disorders and Stroke

http://www.ninds.nih.gov/health_and_medical/disorders/postural_tachycardia_s yndrome.htm

Sick Sinus Syndrome

http://circ.ahajournals.org/cgi/reprint/108/20/e143.pdf

Substances That Can Cause Heart Rhythm Disorders

Source: North American Society of Pacing and Electrophysiology http://www.naspe-patients.org/patients/substances/index.html

Sudden Cardiac Death

Source: Congenital Heart Information Network

http://www.tchin.org/resource_room/c_art_21_.htm

Wolff-Parkinson-White Syndrome

Source: American Heart Association

http://www.americanheart.org/presenter.jhtml?identifier=4785

Patient Resources

Children

Checklist for Parents of Children with Arrhythmias

Source: American Heart Association

http://www.americanheart.org/presenter.jhtml?identifier=20

Children and Arrhythmia

Source: American Heart Association

http://www.americanheart.org/presenter.jhtml?identifier=2

Diagnosing Arrhythmias in Children

Source: American Heart Association

http://www.americanheart.org/presenter.jhtml?identifier=4

Treating Arrhythmias in Children

Source: American Heart Association

http://www.americanheart.org/presenter.jhtml?identifier=26

Types of Arrhythmia in Children

Source: American Heart Association

http://www.americanheart.org/presenter.jhtml?identifier=7

From the National Institutes of Health

Facts about Arrhythmias/Rhythm Disorders

Source: National Heart, Lung, and Blood Institute

http://www.nhlbi.nih.gov/health/public/heart/other/arrhyth.htm

Latest News

Anger, Hostility Linked to Rhythm Disorder in Men

Source: 03/01/2004, Reuters Health

http://www.nlm.nih.gov//www.nlm.nih.gov/medlineplus/news/fullstory_16336.html

Organizations

American Heart Association

http://www.americanheart.org/presenter.jhtml?identifier=1200000

National Heart, Lung, and Blood Institute

http://www.nhlbi.nih.gov/

North American Society of Pacing and Electrophysiology

http://www.naspe.org/

• Prevention/Screening

Am I at Risk?

Source: American Heart Association

http://www.americanheart.org/presenter.jhtml?identifier=562

Risk Factors & Prevention

Source: North American Society of Pacing and Electrophysiology http://www.naspe-patients.org/patients/risk_factors/index.html

Research

Atrial Fibrillation Hospitalizations Triple Since 1985, Will Continue Climb

Source: American Heart Association

http://www.americanheart.org/presenter.jhtml?identifier=3014151

Blacks Less Likely to Benefit from High-Tech Treatments for Rapid Heartbeat

Source: American Heart Association

http://www.americanheart.org/presenter.jhtml?identifier=3013010

Cardiac Imaging Can Be 'Gatekeeper' for Implantable Heart-Shocker

Source: American Heart Association

http://www.americanheart.org/presenter.jhtml?identifier=3015775

Fish Oils in Heart Cells Can Block Dangerous Heart Rhythms

Source: American Heart Association

http://www.americanheart.org/presenter.jhtml?identifier=3012101

Outcomes of Patients with Lone Atrial Flutter

Source: American College of Physicians

http://www.annals.org/cgi/content/full/140/4/I-55

Radiofrequency Treatment of Abnormal Heart Rhythm Can Damage the Vessels That Return Blood from the Lungs to the Heart

Source: American College of Physicians

http://www.annals.org/cgi/content/full/138/8/I-41

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

The Combined Health Information Database (CHID)

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

Anemia

Contact: National AIDS Treatment Information Project, Beth Israel Deaconess Medical Center, Beth Israel Hospital, 330 Brookline Ave Libby Bldg 317, Boston, MA, 02215, (617) 667-5520, http://www.natip.org.

Summary: This fact sheet, written for persons with the human immunodeficiency virus (HIV)/acquired immune deficiency syndrome (AIDS), presents information about anemia, condition in which there are a low number of red blood cells in the body. The symptoms of anemia include fatigue, dizziness, shortness of breath, **heart palpitations**,

and pale skin. Some of the causes of anemia (decreased red blood cell production by the bone marrow, blood loss from trauma originating from the digestive tract or uterus, and increased destruction of red blood cells) are explained in the context of HIV/AIDS. Anemia is diagnosed using a test called a complete blood count (CBC), which measures the level of hemoglobin and the concentration of red blood cells in the blood. An evaluation of the cause of anemia should include a review of all prescription, over-the counter, and complementary/alternative medications taken by HIV-positive individuals. Substance abuse, bleeding in the abdomen or uterus, microscopic examination of blood cells, bone marrow production, levels of iron, vitamin B12, and folic acid in the blood should also be evaluated. The optimal way to manage anemia is to identify and treat the cause.

The National Guideline Clearinghouse™

The National Guideline Clearinghouse™ offers hundreds of evidence-based clinical practice guidelines published in the United States and other countries. You can search this site located at http://www.guideline.gov/ by using the keyword "heart palpitations" (or synonyms). The following was recently posted:

 ACC/AHA guidelines for the evaluation and management of chronic heart failure in the adult: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines

Source: American College of Cardiology Foundation - Medical Specialty Society; 1995 November 1 (revised 2001 Dec); 56 pages

 $http://www.guideline.gov/summary/summary.aspx?doc_id=3114\&nbr=2340\&string=irregular+AND+heartbeat$

ACC/AHA/ESC guidelines for the management of patients with atrial fibrillation. A
report of the American College of Cardiology/American Heart Association Task Force
on Practice Guidelines and the European Society of Cardiology Committee for
Practice Guide

Source: American College of Cardiology Foundation - Medical Specialty Society; 2001 October; 70 pages

http://www.guideline.gov/summary/summary.aspx?doc_id=2968&nbr=2194&string=irregular+AND+heartbeat

 ACC/AHA/NASPE 2002 guideline update for implantation of cardiac pacemakers and antiarrhythmia devices: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines

Source: American College of Cardiology Foundation - Medical Specialty Society; 1998 April (revised 2002 Sep); 48 pages

http://www.guideline.gov/summary/summary.aspx?doc_id=3439&nbr=2665&string=irregular+AND+heartbeat

• ACR Appropriateness Criteria for acute pancreatitis

Source: American College of Radiology - Medical Specialty Society; 1998 (revised 2001); 5 pages

http://www.guideline.gov/summary/summary.aspx?doc_id=3257&nbr=2483&string=irregular+AND+heartbeat

Angina pectoris and coronary artery disease (CAD)

Source: Finnish Medical Society Duodecim - Professional Association; 2001 April 30 (revised 2003 October 5); Various pagings

http://www.guideline.gov/summary/summary.aspx?doc_id=4372&nbr=3294&string=heart+AND+palpitation

Chemotherapy and biotherapy: guidelines and recommendations for practice

Source: Oncology Nursing Society - Professional Association; 2001; 226 pages http://www.guideline.gov/summary/summary.aspx?doc_id=3209&nbr=2435&string=heart+AND+palpitations

• Clinical practice parameters for hemodynamic support of pediatric and neonatal patients in septic shock

Source: American College of Critical Care Medicine - Professional Association; 2002 June; 14 pages

http://www.guideline.gov/summary/summary.aspx?doc_id=3433&nbr=2659&string=irregular+AND+heartbeat

Congestive heart failure in adults

Source: Institute for Clinical Systems Improvement - Private Nonprofit Organization; 1997 October (revised 2002 Jan); 71 pages

http://www.guideline.gov/summary/summary.aspx?doc_id=3165&nbr=2391&string=heart+AND+palpitations

• Diagnosis of chest pain

Source: Institute for Clinical Systems Improvement - Private Nonprofit Organization; 1995 July (revised 2002 Oct); 50 pages

 $http://www.guideline.gov/summary/summary.aspx?doc_id=3674\&nbr=2900\&string=irregular+AND+heartbeat$

• Evidence base for management of acute exacerbations of chronic obstructive pulmonary disease

Source: American College of Chest Physicians - Medical Specialty Society; 2001 April 3; 5 pages

http://www.guideline.gov/summary/summary.aspx?doc_id=2762&nbr=1988&string=heart+AND+palpitations

Global initiative for asthma. Global strategy for asthma management and prevention

Source: National Heart, Lung, and Blood Institute (U.S.) - Federal Government Agency [U.S.]; 1995 January (revised 2002); 176 pages

http://www.guideline.gov/summary/summary.aspx?doc_id=3203&nbr=2429&string=heart+AND+palpitations

Guidelines for detection of thyroid dysfunction

Source: American Thyroid Association - Professional Association; 2000 June 12; 3 pages http://www.guideline.gov/summary/summary.aspx?doc_id=2361&nbr=1587&string=heart+AND+palpitations

• Guidelines for the interpretation of the neonatal electrocardiogram

Source: European Society of Cardiology - Medical Specialty Society; 2002 September; 16 pages

http://www.guideline.gov/summary/summary.aspx?doc_id=3425&nbr=2651&string=irregular+AND+heartbeat

• Guidelines on management (diagnosis and treatment) of syncope

Source: European Society of Cardiology - Medical Specialty Society; 2001 August; 51 pages

http://www.guideline.gov/summary/summary.aspx?doc_id=2974&nbr=2200&string=heart+AND+palpitations

• Heart Failure Society of America guidelines for management of patients with heart failure caused by left ventricular systolic dysfunction: pharmacological approaches

Source: Heart Failure Society of America, Inc - Disease Specific Society; 1999 December; 36 pages

http://www.guideline.gov/summary/summary.aspx?doc_id=2736&nbr=1962&string=heart+AND+palpitation

• Major depression, panic disorder and generalized anxiety disorder in adults in primary care

Source: Institute for Clinical Systems Improvement - Private Nonprofit Organization; 1996 January (revised 2002 May); 55 pages

http://www.guideline.gov/summary/summary.aspx?doc_id=3350&nbr=2576&string=heart+AND+palpitations

• Management of acute myocardial infarction in patients presenting with ST-segment elevation

Source: European Society of Cardiology - Medical Specialty Society; 1996 (revised 2003); 39 pages

http://www.guideline.gov/summary/summary.aspx?doc_id=3590&nbr=2816&string=irregular+AND+heartbeat

• Management of preterm labour

Source: Chapter of Obstetricians and Gynaecologists, Academy of Medicine (Singapore) - Medical Specialty Society; 2001 May; 28 pages

http://www.guideline.gov/summary/summary.aspx?doc_id=2889&nbr=2115&string=heart+AND+palpitations

Management of ulcerative colitis

Source: Society for Surgery of the Alimentary Tract, Inc - Medical Specialty Society; 2000 (revised 2001); 4 pages

http://www.guideline.gov/summary/summary.aspx?doc_id=2967&nbr=2193&string=irregular+AND+heartbeat

Recommendation for the management of stress and urge urinary incontinence in women

Source: University of Texas at Austin School of Nursing, Family Nurse Practitioner Program - Academic Institution; 2002 May; 13 pages

http://www.guideline.gov/summary/summary.aspx?doc_id=3227&nbr=2453&string=heart+AND+palpitations

SAGES guidelines for laparoscopic surgery during pregnancy

Source: Society of American Gastrointestinal Endoscopic Surgeons - Medical Specialty Society; 1996 February (revised 2000 Oct); 4 pages

http://www.guideline.gov/summary/summary.aspx?doc_id=3146&nbr=2372&string=irregular+AND+heartbeat

Specialty referral guidelines for cardiovascular evaluation and management

Source: American Healthways, Inc - Public For Profit Organization; 2002; 26 pages http://www.guideline.gov/summary/summary.aspx?doc_id=3168&nbr=2394&string=heart+AND+palpitations

Task Force on Sudden Cardiac Death of the European Society of Cardiology

Source: European Society of Cardiology - Medical Specialty Society; 2001 August; 77 pages

http://www.guideline.gov/summary/summary.aspx?doc_id=2977&nbr=2203&string=irregular+AND+heartbeat

• The management of priapism

Source: American Urological Association, Inc. - Medical Specialty Society; 2003; Various pagings

http://www.guideline.gov/summary/summary.aspx?doc_id=3741&nbr=2967&string=heart+AND+palpitations

Urinary incontinence

Source: American Medical Directors Association - Professional Association; 1996 (reviewed January 2001, 2002 and 2003); 16 pages

http://www.guideline.gov/summary/summary.aspx?doc_id=1812&nbr=1038&string=heart+AND+palpitations

VHA/DoD clinical practice guideline for the management of substance use disorders

Source: Department of Defense - Federal Government Agency [U.S.]; 2001 September; Various pagings

http://www.guideline.gov/summary/summary.aspx?doc_id=3169&nbr=2395&string=irregular+AND+heartbeat

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 heart palpitations. 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 heart palpitations. By consulting all of associations listed in this chapter, you will have nearly exhausted all sources for patient associations concerned with heart palpitations.

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 heart palpitations. 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 "heart palpitations" (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 "heart palpitations". 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 "heart palpitations" (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 "heart palpitations" (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.¹⁵

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

¹⁵ 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)¹⁶:

- **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.stmarysca.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/

¹⁶ Abstracted from http://www.nlm.nih.gov/medlineplus/libraries.html.

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

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

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

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

ONLINE GLOSSARIES

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

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

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

Online Dictionary Directories

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

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

HEART PALPITATIONS DICTIONARY

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

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

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

Ablation: The removal of an organ by surgery. [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]

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

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

Anxiety Disorders: Disorders in which anxiety (persistent feelings of apprehension, tension, or uneasiness) is the predominant disturbance. [NIH]

Aqueous: Having to do with water. [NIH]

Arrhythmia: Any variation from the normal rhythm or rate of the heart beat. [NIH]

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

Arteries: The vessels carrying blood away from the heart. [NIH] **Asymptomatic:** Having no signs or symptoms of disease. [NIH]

Atrial: Pertaining to an atrium. [EU]

Atrial Fibrillation: Disorder of cardiac rhythm characterized by rapid, irregular atrial impulses and ineffective atrial contractions. [NIH]

Atrium: A chamber; used in anatomical nomenclature to designate a chamber affording entrance to another structure or organ. Usually used alone to designate an atrium of the heart. [EU]

Autodigestion: Autolysis; a condition found in disease of the stomach: the stomach wall is digested by the gastric juice. [NIH]

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

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

Biliary Tract: The gallbladder and its ducts. [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]

Bladder: The organ that stores urine. [NIH]

Blood Glucose: Glucose in blood. [NIH]

Blood pressure: The pressure of blood against the walls of a blood vessel or heart chamber. Unless there is reference to another location, such as the pulmonary artery or one of the heart chambers, it refers to the pressure in the systemic arteries, as measured, for example, in the forearm. [NIH]

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

Bone Marrow: The soft tissue filling the cavities of bones. Bone marrow exists in two types, yellow and red. Yellow marrow is found in the large cavities of large bones and consists mostly of fat cells and a few primitive blood cells. Red marrow is a hematopoietic tissue and is the site of production of erythrocytes and granular leukocytes. Bone marrow is made up of a framework of connective tissue containing branching fibers with the frame being filled with marrow cells. [NIH]

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

Branch: Most commonly used for branches of nerves, but applied also to other structures. [NIH]

Bronchitis: Inflammation (swelling and reddening) of the bronchi. [NIH]

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

Cardiomyopathy: A general diagnostic term designating primary myocardial disease, often of obscure or unknown etiology. [EU]

Cardiovascular: Having to do with the heart and blood vessels. [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]

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

CHD: Coronary heart disease. A type of heart disease caused by narrowing of the coronary arteries that feed the heart, which needs a constant supply of oxygen and nutrients carried by the blood in the coronary arteries. When the coronary arteries become narrowed or clogged by fat and cholesterol deposits and cannot supply enough blood to the heart, CHD results. [NIH]

Chest Pain: Pressure, burning, or numbness in the chest. [NIH]

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

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

Chronic Obstructive Pulmonary Disease: Collective term for chronic bronchitis and emphysema. [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]

Colitis: Inflammation of the colon. [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]

Connective Tissue: Tissue that supports and binds other tissues. It consists of connective tissue cells embedded in a large amount of extracellular matrix. [NIH]

Connective Tissue: Tissue that supports and binds other tissues. It consists of connective tissue cells embedded in a large amount of extracellular matrix. [NIH]

Consciousness: Sense of awareness of self and of the environment. [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]

Databases, Bibliographic: Extensive collections, reputedly complete, of references and citations to books, articles, publications, etc., generally on a single subject or specialized subject area. Databases can operate through automated files, libraries, or computer disks. The concept should be differentiated from factual databases which is used for collections of data and facts apart from bibliographic references to them. [NIH]

Depersonalization: Alteration in the perception of the self so that the usual sense of one's own reality is lost, manifested in a sense of unreality or self-estrangement, in changes of body image, or in a feeling that one does not control his own actions and speech; seen in depersonalization disorder, schizophrenic disorders, and schizotypal personality disorder. Some do not draw a distinction between depersonalization and derealization, using depersonalization to include both. [EU]

Derealization: Is characterized by the loss of the sense of reality concerning one's surroundings. [NIH]

Diabetes Mellitus: A heterogeneous group of disorders that share glucose intolerance in common. [NIH]

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

Digestive tract: The organs through which food passes when food is eaten. These organs are the mouth, esophagus, stomach, small and large intestines, and rectum. [NIH]

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

Dizziness: An imprecise term which may refer to a sense of spatial disorientation, motion of the environment, or lightheadedness. [NIH]

Dyspnea: Difficult or labored breathing. [NIH]

Electrocardiogram: Measurement of electrical activity during heartbeats. [NIH]

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

Electrons: Stable elementary particles having the smallest known negative charge, present in all elements; also called negatrons. Positively charged electrons are called positrons. The

numbers, energies and arrangement of electrons around atomic nuclei determine the chemical identities of elements. Beams of electrons are called cathode rays or beta rays, the latter being a high-energy biproduct of nuclear decay. [NIH]

Emphysema: A pathological accumulation of air in tissues or organs. [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]

Enzymes: Biological molecules that possess catalytic activity. They may occur naturally or be synthetically created. Enzymes are usually proteins, however catalytic RNA and catalytic DNA molecules have also been identified. [NIH]

Erection: The condition of being made rigid and elevated; as erectile tissue when filled with blood. [EU]

Erythrocytes: Red blood cells. Mature erythrocytes are non-nucleated, biconcave disks containing hemoglobin whose function is to transport oxygen. [NIH]

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

Family Planning: Programs or services designed to assist the family in controlling reproduction by either improving or diminishing fertility. [NIH]

Fat: Total lipids including phospholipids. [NIH]

Fatigue: The state of weariness following a period of exertion, mental or physical, characterized by a decreased capacity for work and reduced efficiency to respond to stimuli. [NIH]

Fetus: The developing offspring from 7 to 8 weeks after conception until birth. [NIH]

Folate: A B-complex vitamin that is being studied as a cancer prevention agent. Also called folic acid. [NIH]

Folic Acid: N-(4-(((2-Amino-1,4-dihydro-4-oxo-6-pteridinyl)methyl)amino)benzoyl)-L-glutamic acid. A member of the vitamin B family that stimulates the hematopoietic system. It is present in the liver and kidney and is found in mushrooms, spinach, yeast, green leaves, and grasses. Folic acid is used in the treatment and prevention of folate deficiencies and megaloblastic anemia. [NIH]

Forearm: The part between the elbow and the wrist. [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]

Glucose: D-Glucose. A primary source of energy for living organisms. It is naturally occurring and is found in fruits and other parts of plants in its free state. It is used therapeutically in fluid and nutrient replacement. [NIH]

Glutamic Acid: A non-essential amino acid naturally occurring in the L-form. Glutamic acid (glutamate) is the most common excitatory neurotransmitter in 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]

Grafting: The operation of transfer of tissue from one site to another. [NIH]

Grasses: A large family, Gramineae, of narrow-leaved herbaceous monocots. Many grasses produce highly allergenic pollens and are hosts to cattle parasites and toxic fungi. [NIH]

Growth: The progressive development of a living being or part of an organism from its earliest stage to maturity. [NIH]

Heart failure: Loss of pumping ability by the heart, often accompanied by fatigue, breathlessness, and excess fluid accumulation in body tissues. [NIH]

Heartbeat: One complete contraction of the heart. [NIH]

Hemoglobin: One of the fractions of glycosylated hemoglobin A1c. Glycosylated hemoglobin is formed when linkages of glucose and related monosaccharides bind to hemoglobin A and its concentration represents the average blood glucose level over the previous several weeks. HbA1c levels are used as a measure of long-term control of plasma glucose (normal, 4 to 6 percent). In controlled diabetes mellitus, the concentration of glycosylated hemoglobin A is within the normal range, but in uncontrolled cases the level may be 3 to 4 times the normal conentration. Generally, complications are substantially lower among patients with Hb levels of 7 percent or less than in patients with HbA1c levels of 9 percent or more. [NIH]

Hemoglobin A: Normal adult human hemoglobin. The globin moiety consists of two alpha and two beta chains. [NIH]

Hemorrhage: Bleeding or escape of blood from a vessel. [NIH]

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]

Hydrogen: The first chemical element in the periodic table. It has the atomic symbol H, atomic number 1, and atomic weight 1. It exists, under normal conditions, as a colorless, odorless, tasteless, diatomic gas. Hydrogen ions are protons. Besides the common H1 isotope, hydrogen exists as the stable isotope deuterium and the unstable, radioactive isotope tritium. [NIH]

Id: The part of the personality structure which harbors the unconscious instinctive desires and strivings of the individual. [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]

Implantation: The insertion or grafting into the body of biological, living, inert, or radioactive material. [EU]

Incontinence: Inability to control the flow of urine from the bladder (urinary incontinence) or the escape of stool from the rectum (fecal incontinence). [NIH]

Indicative: That indicates; that points out more or less exactly; that reveals fairly clearly. [EU]

Infarction: A pathological process consisting of a sudden insufficient blood supply to an area, which results in necrosis of that area. It is usually caused by a thrombus, an embolus, or a vascular torsion. [NIH]

Infection: 1. Invasion and multiplication of microorganisms in body tissues, which may be clinically unapparent or result in local cellular injury due to competitive metabolism, toxins, intracellular replication, or antigen-antibody response. The infection may remain localized, subclinical, and temporary if the body's defensive mechanisms are effective. A local infection may persist and spread by extension to become an acute, subacute, or chronic clinical infection or disease state. A local infection may also become systemic when the microorganisms gain access to the lymphatic or vascular system. 2. An infectious disease.

[EU]

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]

Ions: An atom or group of atoms that have a positive or negative electric charge due to a gain (negative charge) or loss (positive charge) of one or more electrons. Atoms with a positive charge are known as cations; those with a negative charge are anions. [NIH]

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]

Leukocytes: White blood cells. These include granular leukocytes (basophils, eosinophils, and neutrophils) as well as non-granular leukocytes (lymphocytes and monocytes). [NIH]

Library Services: Services offered to the library user. They include reference and circulation. [NIH]

Ligaments: Shiny, flexible bands of fibrous tissue connecting together articular extremities of bones. They are pliant, tough, and inextensile. [NIH]

Linkages: The tendency of two or more genes in the same chromosome to remain together from one generation to the next more frequently than expected according to the law of independent assortment. [NIH]

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

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

Megaloblastic: A large abnormal red blood cell appearing in the blood in pernicious anaemia. [EU]

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]

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]

Mucus: The viscous secretion of mucous membranes. It contains mucin, white blood cells, water, inorganic salts, and exfoliated cells. [NIH]

Myocardial infarction: Gross necrosis of the myocardium as a result of interruption of the blood supply to the area; it is almost always caused by atherosclerosis of the coronary arteries, upon which coronary thrombosis is usually superimposed. [NIH]

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

Nausea: An unpleasant sensation in the stomach usually accompanied by the urge to vomit. Common causes are early pregnancy, sea and motion sickness, emotional stress, intense pain, food poisoning, and various enteroviruses. [NIH]

Necrosis: A pathological process caused by the progressive degradative action of enzymes that is generally associated with severe cellular trauma. It is characterized by mitochondrial swelling, nuclear flocculation, uncontrolled cell lysis, and ultimately cell death. [NIH]

Need: A state of tension or dissatisfaction felt by an individual that impels him to action toward a goal he believes will satisfy the impulse. [NIH]

Neonatal: Pertaining to the first four weeks after birth. [EU]

Pacemaker: An object or substance that influences the rate at which a certain phenomenon occurs; often used alone to indicate the natural cardiac pacemaker or an artificial cardiac pacemaker. In biochemistry, a substance whose rate of reaction sets the pace for a series of interrelated reactions. [EU]

Palpitation: A subjective sensation of an unduly rapid or irregular heart beat. [EU]

Pancreas: A mixed exocrine and endocrine gland situated transversely across the posterior abdominal wall in the epigastric and hypochondriac regions. The endocrine portion is comprised of the Islets of Langerhans, while the exocrine portion is a compound acinar gland that secretes digestive enzymes. [NIH]

Pancreatic: Having to do with the pancreas. [NIH]

Pancreatitis: Acute or chronic inflammation of the pancreas, which may be asymptomatic or symptomatic, and which is due to autodigestion of a pancreatic tissue by its own enzymes. It is caused most often by alcoholism or biliary tract disease; less commonly it may be associated with hyperlipaemia, hyperparathyroidism, abdominal trauma (accidental or operative injury), vasculitis, or uraemia. [EU]

Panic: A state of extreme acute, intense anxiety and unreasoning fear accompanied by disorganization of personality function. [NIH]

Panic Disorder: A type of anxiety disorder characterized by unexpected panic attacks that last minutes or, rarely, hours. Panic attacks begin with intense apprehension, fear or terror and, often, a feeling of impending doom. Symptoms experienced during a panic attack include dyspnea or sensations of being smothered; dizziness, loss of balance or faintness; choking sensations; palpitations or accelerated heart rate; shakiness; sweating; nausea or other form of abdominal distress; depersonalization or derealization; paresthesias; hot flashes or chills; chest discomfort or pain; fear of dying and fear of not being in control of oneself or going crazy. Agoraphobia may also develop. Similar to other anxiety disorders, it may be inherited as an autosomal dominant trait. [NIH]

Paresthesias: Abnormal touch sensations, such as burning or prickling, that occur without an outside stimulus. [NIH]

Pathologic: 1. Indicative of or caused by a morbid condition. 2. Pertaining to pathology (= branch of medicine that treats the essential nature of the disease, especially the structural and functional changes in tissues and organs of the body caused by the disease). [EU]

Patient Education: The teaching or training of patients concerning their own health needs. [NIH]

Penis: The external reproductive organ of males. It is composed of a mass of erectile tissue enclosed in three cylindrical fibrous compartments. Two of the three compartments, the corpus cavernosa, are placed side-by-side along the upper part of the organ. The third compartment below, the corpus spongiosum, houses the urethra. [NIH]

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

Plasma: The clear, yellowish, fluid part of the blood that carries the blood cells. The proteins that form blood clots are in plasma. [NIH]

Postural: Pertaining to posture or position. [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]

Priapism: Persistent abnormal erection of the penis, usually without sexual desire, and accompanied by pain and tenderness. It is seen in diseases and injuries of the spinal cord, and may be caused by vesical calculus and certain injuries to the penis. [EU]

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]

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]

Pulmonary: Relating to the lungs. [NIH]

Pulmonary Artery: The short wide vessel arising from the conus arteriosus of the right ventricle and conveying unaerated blood to the lungs. [NIH]

Radioactive: Giving off radiation. [NIH]

Rectum: The last 8 to 10 inches of the large intestine. [NIH]

Red blood cells: RBCs. Cells that carry oxygen to all parts of the body. Also called erythrocytes. [NIH]

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

Retinoids: Derivatives of vitamin A. Used clinically in the treatment of severe cystic acne, psoriasis, and other disorders of keratinization. Their possible use in the prophylaxis and treatment of cancer is being actively explored. [NIH]

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

Septic: Produced by or due to decomposition by microorganisms; putrefactive. [EU]

Shock: The general bodily disturbance following a severe injury; an emotional or moral upset occasioned by some disturbing or unexpected experience; disruption of the circulation, which can upset all body functions: sometimes referred to as circulatory shock. [NIH]

Soft tissue: Refers to muscle, fat, fibrous tissue, blood vessels, or other supporting tissue of the body. [NIH]

Spatial disorientation: Loss of orientation in space where person does not know which way is up. [NIH]

Specialist: In medicine, one who concentrates on 1 special branch of medical science. [NIH]

Spinal cord: The main trunk or bundle of nerves running down the spine through holes in the spinal bone (the vertebrae) from the brain to the level of the lower back. [NIH]

Stimulants: Any drug or agent which causes stimulation. [NIH]

Stomach: An organ of digestion situated in the left upper quadrant of the abdomen between the termination of the esophagus and the beginning of the duodenum. [NIH]

Stool: The waste matter discharged in a bowel movement; feces. [NIH]

Stress: Forcibly exerted influence; pressure. Any condition or situation that causes strain or tension. Stress may be either physical or psychologic, or both. [NIH]

Stroke: Sudden loss of function of part of the brain because of loss of blood flow. Stroke may

be caused by a clot (thrombosis) or rupture (hemorrhage) of a blood vessel to the brain. [NIH]

Symptomatic: Having to do with symptoms, which are signs of a condition or disease. [NIH]

Syncope: A temporary suspension of consciousness due to generalized cerebral schemia, a faint or swoon. [EU]

Systemic: Affecting the entire body. [NIH]

Systolic: Indicating the maximum arterial pressure during contraction of the left ventricle of the heart. [EU]

Tachycardia: Excessive rapidity in the action of the heart, usually with a heart rate above 100 beats per minute. [NIH]

Thorax: A part of the trunk between the neck and the abdomen; the chest. [NIH]

Thrombosis: The formation or presence of a blood clot inside a blood vessel. [NIH]

Thyroid: A gland located near the windpipe (trachea) that produces thyroid hormone, which helps regulate growth and metabolism. [NIH]

Tin: A trace element that is required in bone formation. It has the atomic symbol Sn, atomic number 50, and atomic weight 118.71. [NIH]

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

Toxic: Having to do with poison or something harmful to the body. Toxic substances usually cause unwanted side effects. [NIH]

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]

Trace element: Substance or element essential to plant or animal life, but present in extremely small amounts. [NIH]

Trachea: The cartilaginous and membranous tube descending from the larynx and branching into the right and left main bronchi. [NIH]

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

Trauma: Any injury, wound, or shock, must frequently physical or structural shock, producing a disturbance. [NIH]

Ulcerative colitis: Chronic inflammation of the colon that produces ulcers in its lining. This condition is marked by abdominal pain, cramps, and loose discharges of pus, blood, and mucus from the bowel. [NIH]

Unconscious: Experience which was once conscious, but was subsequently rejected, as the "personal unconscious". [NIH]

Uraemia: 1. An excess in the blood of urea, creatinine, and other nitrogenous end products of protein and amino acids metabolism; more correctly referred to as azotemia. 2. In current usage the entire constellation of signs and symptoms of chronic renal failure, including nausea, vomiting anorexia, a metallic taste in the mouth, a uraemic odour of the breath, pruritus, uraemic frost on the skin, neuromuscular disorders, pain and twitching in the muscles, hypertension, edema, mental confusion, and acid-base and electrolyte imbalances. [EU]

Urge urinary incontinence: Urinary leakage when the bladder contracts unexpectedly by itself. [NIH]

Urinary: Having to do with urine or the organs of the body that produce and get rid of

urine. [NIH]

Urine: Fluid containing water and waste products. Urine is made by the kidneys, stored in the bladder, and leaves the body through the urethra. [NIH]

Uterus: The small, hollow, pear-shaped organ in a woman's pelvis. This is the organ in which a fetus develops. Also called the womb. [NIH]

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]

Vasculitis: Inflammation of a blood vessel. [NIH]

Ventricle: One of the two pumping chambers of the heart. The right ventricle receives oxygen-poor blood from the right atrium and pumps it to the lungs through the pulmonary artery. The left ventricle receives oxygen-rich blood from the left atrium and pumps it to the body through the aorta. [NIH]

Ventricular: Pertaining to a ventricle. [EU]

Veterinary Medicine: The medical science concerned with the prevention, diagnosis, and treatment of diseases in animals. [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]

Vitamin A: A substance used in cancer prevention; it belongs to the family of drugs called retinoids. [NIH]

Windpipe: A rigid tube, 10 cm long, extending from the cricoid cartilage to the upper border of the fifth thoracic vertebra. [NIH]

Womb: A hollow, thick-walled, muscular organ in which the impregnated ovum is developed into a child. [NIH]

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