SKIN RASHES

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

JAMES N. PARKER, M.D.
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Acknowledgements

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

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FORWARD</strong></td>
<td>1</td>
</tr>
<tr>
<td><strong>CHAPTER 1. STUDIES ON SKIN RASHES</strong></td>
<td>3</td>
</tr>
<tr>
<td>Overview</td>
<td>3</td>
</tr>
<tr>
<td>The Combined Health Information Database</td>
<td>3</td>
</tr>
<tr>
<td>Federally Funded Research on Skin Rashes</td>
<td>5</td>
</tr>
<tr>
<td>The National Library of Medicine: PubMed</td>
<td>5</td>
</tr>
<tr>
<td><strong>CHAPTER 2. NUTRITION AND SKIN RASHES</strong></td>
<td>19</td>
</tr>
<tr>
<td>Overview</td>
<td>19</td>
</tr>
<tr>
<td>Finding Nutrition Studies on Skin Rashes</td>
<td>19</td>
</tr>
<tr>
<td>Federal Resources on Nutrition</td>
<td>20</td>
</tr>
<tr>
<td>Additional Web Resources</td>
<td>20</td>
</tr>
<tr>
<td><strong>CHAPTER 3. PATENTS ON SKIN RASHES</strong></td>
<td>23</td>
</tr>
<tr>
<td>Overview</td>
<td>23</td>
</tr>
<tr>
<td>Patents on Skin Rashes</td>
<td>23</td>
</tr>
<tr>
<td>Patent Applications on Skin Rashes</td>
<td>27</td>
</tr>
<tr>
<td>Keeping Current</td>
<td>28</td>
</tr>
<tr>
<td><strong>CHAPTER 4. BOOKS ON SKIN RASHES</strong></td>
<td>29</td>
</tr>
<tr>
<td>Overview</td>
<td>29</td>
</tr>
<tr>
<td>Book Summaries: Federal Agencies</td>
<td>29</td>
</tr>
<tr>
<td>Chapters on Skin Rashes</td>
<td>31</td>
</tr>
<tr>
<td><strong>CHAPTER 5. PERIODICALS AND NEWS ON SKIN RASHES</strong></td>
<td>33</td>
</tr>
<tr>
<td>Overview</td>
<td>33</td>
</tr>
<tr>
<td>News Services and Press Releases</td>
<td>33</td>
</tr>
<tr>
<td>Newsletter Articles</td>
<td>34</td>
</tr>
<tr>
<td>Academic Periodicals covering Skin Rashes</td>
<td>35</td>
</tr>
<tr>
<td><strong>CHAPTER 6. RESEARCHING MEDICATIONS</strong></td>
<td>37</td>
</tr>
<tr>
<td>Overview</td>
<td>37</td>
</tr>
<tr>
<td>U.S. Pharmacopeia</td>
<td>37</td>
</tr>
<tr>
<td>Commercial Databases</td>
<td>38</td>
</tr>
<tr>
<td><strong>APPENDIX A. PHYSICIAN RESOURCES</strong></td>
<td>41</td>
</tr>
<tr>
<td>Overview</td>
<td>41</td>
</tr>
<tr>
<td>NIH Guidelines</td>
<td>41</td>
</tr>
<tr>
<td>NIH Databases</td>
<td>43</td>
</tr>
<tr>
<td>Other Commercial Databases</td>
<td>45</td>
</tr>
<tr>
<td><strong>APPENDIX B. PATIENT RESOURCES</strong></td>
<td>47</td>
</tr>
<tr>
<td>Overview</td>
<td>47</td>
</tr>
<tr>
<td>Patient Guideline Sources</td>
<td>47</td>
</tr>
<tr>
<td>Finding Associations</td>
<td>56</td>
</tr>
<tr>
<td><strong>APPENDIX C. FINDING MEDICAL LIBRARIES</strong></td>
<td>59</td>
</tr>
<tr>
<td>Overview</td>
<td>59</td>
</tr>
<tr>
<td>Preparation</td>
<td>59</td>
</tr>
<tr>
<td>Finding a Local Medical Library</td>
<td>59</td>
</tr>
<tr>
<td>Medical Libraries in the U.S. and Canada</td>
<td>59</td>
</tr>
<tr>
<td><strong>ONLINE GLOSSARIES</strong></td>
<td>65</td>
</tr>
<tr>
<td>Online Dictionary Directories</td>
<td>65</td>
</tr>
<tr>
<td><strong>SKIN RASHES DICTIONARY</strong></td>
<td>66</td>
</tr>
<tr>
<td><strong>INDEX</strong></td>
<td>103</td>
</tr>
</tbody>
</table>
FORWARD

In March 2001, the National Institutes of Health issued the following warning: "The number of Web sites offering health-related resources grows every day. Many sites provide valuable information, while others may have information that is unreliable or misleading."1 Furthermore, because of the rapid increase in Internet-based information, many hours can be wasted searching, selecting, and printing. Since only the smallest fraction of information dealing with skin rashes 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 skin rashes, 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 skin rashes, 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 skin rashes. 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 skin rashes, 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 skin rashes.

The Editors

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

Overview

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

The Combined Health Information Database

The Combined Health Information Database summarizes studies across numerous federal agencies. To limit your investigation to research studies and skin rashes, 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 “skin rashes” (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:

- Systemic Vasculitis: Diagnostic Clues to This Confusing Array of Diseases
  Summary: This article on systemic vasculitis is one in a series of five articles on rheumatologic diseases. Systemic vasculitides are characterized by aberrant immune responses that result in inflammation and necrosis (death) of blood vessels. Systemic vasculitis can be difficult to recognize because of the many types of the disease and the conditions that can mimic it. However, early identification and initiation of treatment are important to avoid severe morbidity. In this article, the author describes the most common types of vasculitis according to current nomenclature based on the size of
Skin Rashes

affected vessels. The article also includes illustrations of the most common signs of the various types of vasculitis. Hallmarks of vasculitis include renal dysfunction, skin rashes (palpable purpura, necrotic ulcers), and neurologic involvement, especially footdrop and wristdrop. Malaise, arthralgia, and anemia are also common. Initial evaluation in patients in whom vasculitis is suspected should include a detailed history of drug exposures and risk factors for hepatitis B, hepatitis C, and HIV infection. Some clinical features, such as fever and renal disease, are common to both systemic lupus erythematosus (SLE) and systemic vasculitis. Types of vasculitis discussed include small vessel vasculitis, Wegener's granulomatosis, Churg Strauss syndrome, microscopic polyangitis, medium vessel vasculitis, polyarteritis nodosa, Kawasaki syndrome, large vessel vasculitis, temporal arteritis, Takayasu's arteritis, and vasculitis related to connective tissue disease. Prompt consultation of the primary care physician with a rheumatologist is generally warranted to assist in thorough diagnostic workup and initiation of therapy. In addition, careful monitoring is needed to manage secondary complications, such as hypertension and chronic renal failure. 5 figures. 25 references.

• Chronic Mucocutaneous Candidiasis


Summary: This journal article uses a case study to provide health professionals with information on chronic mucocutaneous candidiasis (CMC). The case involved a 30 year old woman who presented to an infectious disease clinic for evaluation of chronic oral yeast infections. The woman reported a history of yeast infections since birth. Intermittent treatment with oral ketoconazole beginning at age 9 initially controlled the infections, but they always recurred. Oral fluconazole had no effect on her symptoms. The patient's current medications included an oral contraceptive, norethindrom-ethinyl estradiol; rabeprazole; and itraconazole. Physical examination revealed a generally healthy appearing woman with inflammation of the vermilion border of the lips and marked angular cheilitis. Thrush and leukoplakia were found in the oral cavity. There was no evidence of skin rashes or nail changes. Laboratory test results were within normal limits. A fungal culture grew Candida albicans sensitive to amphotericin B but resistant to fluconazole, itraconazole, ketoconazole, and 5-flucytosine. The article discusses protective immunity to Candida and comments on the diagnosis and treatment of chronic mucocutaneous candidiasis (CMC). Diagnostic evaluation of patients with suspected CMC involves identifying Candida with culture and sensitivities and performing a complete blood count with differential, a human immunodeficiency virus antibody test, and serum immunoglobulin G, A, M, and E tests. Endocrine function tests are important to eliminate coexisting disease and establish a baseline for future tests. Current therapy for CMC involves long term use of antifungal agents such as ketoconazole, itraconazole, fluconazole, and amphotericin B. Treatment should be guided by in vitro susceptibility testing. All antifungal therapies do not address the underlying immune defect of CMC, so relapse usually occurs after treatment ends. Treatment with transfer factor focuses on correcting the actual immune defect. Thus, treatment with both antifungals and transfer factor may provide a more definitive treatment for CMC. 2 figures and 12 references.
Federally Funded Research on Skin Rashes

The U.S. Government supports a variety of research studies relating to skin rashes. These studies are tracked by the Office of Extramural Research at the National Institutes of Health. 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 skin rashes.

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 skin rashes.

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

- **A 42-year-old man with fever, skin rash, diarrhea and bloody stools.**
  Author(s): Liu TH, Wang AX.

- **A 44-year-old man with a pruritic skin rash.**
  Author(s): Bargout R, Malhotra A.

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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.
• A 73-year-old man with hyperglycemia, skin rashes, anemia and weight loss.
  Author(s): Henry JG, Xue N, Kinder BK, Inzucchi SE.

• A man with a mysterious hypogammaglobulinaemia and skin rash.
  Author(s): van Ginneken EE, van der Meer JW, Netten PM.

• A newborn with diffuse skin rashes and an occipital mass.
  Author(s): Hou JW.

• A pruritic skin rash followed by chronic diarrhea.
  Author(s): Archer TP, Burgun SJ, Frankel WL, Mazzaferri EL.

• A system for the diagnosis of common skin rashes.
  Author(s): Paver K, Krivanek J, Cains G.

• Acute fever and skin rash in a young woman.
  Author(s): Wilson M, Golledge C.

• Acute renal failure, hemolytic anemia and skin rash associated with captopril therapy.
  Author(s): Luderer JR, Schoolwerth AC, Sinicrope RA, Ballard JO, Lookingbill DP, Hayes AH Jr.

• Acute renal failure, skin rash, and eosinophilia associated with aztreonam.
  Author(s): Pazmino P.
• **Acute renal failure, skin rash, and eosinophilia associated with captopril therapy.**
  Author(s): Steinman TI, Silva P.

• **Allergic skin rash with lamotrigine and concomitant valproate therapy: evidence for an increased risk.**
  Author(s): Li LM, Russo M, O'Donoghue MF, Duncan JS, Sander JW.

• **An outbreak of skin rash by echovirus 25 in an infant home.**
  Author(s): Guidotti MB.

• **An unusual skin rash associated with a pancreatic polypeptide-producing tumor of the pancreas.**
  Author(s): Choksi UA, Sellin RV, Hickey RC, Samaan NA.

• **Association between gold induced skin rash and remission in patients with rheumatoid arthritis.**
  Author(s): Fremont-Smith P, Fremont-Smith K.

• **Association between gold induced skin rash and remission in patients with rheumatoid arthritis.**
  Author(s): Caspi D, Tishler M, Yaron M.

• **Autoimmune skin rashes associated with etanercept for rheumatoid arthritis.**
  Author(s): Brion PH, Mittal-Henkle A, Kalunian KC.
• **Autosomal dominant granulomatous arthritis, uveitis, skin rash, and synovial cysts.**
  Author(s): Pastores GM, Michels VV, Stickler GB, Su WP, Nelson AM, Bovenmyer DA.

• **Blau syndrome of granulomatous arthritis, iritis, and skin rash: a new family and review of the literature.**
  Author(s): Manouvrier-Hanu S, Puech B, Piete F, Boute-Benejean O, Desbonnet A, Duquesnoy B, Farriaux JP.

• **Bone marrow aplasia and severe skin rash after a single low dose of methotrexate.**
  Author(s): Copur S, Dahut W, Chu E, Allegra CJ.

• **Carbamazepine-induced skin rash in children with epilepsy.**
  Author(s): Konishi T, Naganuma Y, Hongo K, Murakami M, Yamatani M, Okada T.

• **Chronic arthritis preceded by skin rash.**
  Author(s): Paget S.

• **Chronic erythematous skin rash and thrush in a 16-month-old child.**
  Author(s): Burks AW, Williams LW, Steele RW.

• **Clinicopathological conference: an 11-year-old boy with recurrent infections, hypertension, skin rash, and nephritic syndrome.**
  Author(s): Tinaztepe K, Gucer S, Bakaloglu A.

• **COPD exacerbation associated with a skin rash.**
  Author(s): Marshall J, Altman D, Lauber M, Baylor P.
• Correlation between HHV-6 infection and skin rash after allogeneic bone marrow transplantation.

• Cross sensitivity of skin rashes with antiepileptic drugs.
  Author(s): Hyson C, Sadler M.

• Cystic fibrosis presenting as kwashiorkor with florid skin rash.
  Author(s): Phillips RJ, Crock CM, Dillon MJ, Clayton PT, Curran A, Harper JI.
  Source: Archives of Disease in Childhood. 1993 October; 69(4): 446-8.

• Desensitization for sulfasalazine skin rash.
  Author(s): Purdy BH, Philips DM, Summers RW.

• Desensitization for sulfasalazine-induced skin rash in a patient with ulcerative colitis.
  Author(s): Akahoshi K, Chijiwa Y, Kabemura T, Okabe H, Akamine Y, Nawata H.

• Desensitization to carbamazepine-induced skin rash.
  Author(s): Boyle N, Lawlor BA.

• Embolization of the hepatic falciorm artery to prevent supraumbilical skin rash during transcatheter arterial chemoembolization for hepatocellular carcinoma.
  Author(s): Ueno K, Miyazono N, Inoue H, Miyake S, Nishida H, Nakajo M.
• **Ethambutol-induced pulmonary infiltrates with fever and skin rash: a case report.**
  Author(s): Chien HP, Huang ST, Yu MC, Wu IH, Lin TP.

• **Factors influencing grape worker susceptibility to skin rashes.**
  Author(s): Winter CK, Kurtz PH.

• **Factors influencing the incidence of lamotrigine-related skin rash.**
  Author(s): Wong IC, Mawer GE, Sander JW.

• **Failure to thrive presenting with an unusual skin rash.**
  Author(s): Rosenblum JL, Schweitzer J, Kissane JM, Cooper TW.

• **Familial pellagra-like skin rash with neurological manifestations.**
  Author(s): Freundlich E, Statter M, Yatziv S.

• **Fatal skin rashes and myalgia in a leukaemic patient.**
  Author(s): Tse E, Lie A, Ng IO, Kwong YL.

• **Felty's syndrome treated with rhG-CSF associated with flare of arthritis and skin rash.**
  Author(s): McMullin MF, Finch MB.
• Fever, skin rash, jaundice and lymphadenopathy after trichloroethylene exposure: a case report.
  Author(s): Chittasobhaktra T, Wannanukul W, Wattanakrai P, Pramoolsinsap C, Sohonslitsuk A, Nitiyanant P.

• Generalized eczematous skin rash possibly due to HMG-CoA reductase inhibitors.
  Author(s): Krasovec M, Elsner P, Burg G.

• Genetic linkage of familial granulomatous inflammatory arthritis, skin rash, and uveitis to chromosome 16.

• Haematuria, transient proteinuria, serpiginous-border skin rash, and cardiomegaly in a 10-year-old girl. Diagnosis: Acute post-streptococcal glomerulonephritis associated with acute rheumatic pericarditis.
  Author(s): Lin WJ, Lo WT, Ou TY, Wang CC.

• Herpetic gingivostomatitis associated with a petechial skin rash.
  Author(s): Ros SP, Bebej PA, Silver JE.

• Hypersensitivity reaction to sulfasalazine: skin rash, fever, hepatitis and activated lymphocytes.
  Author(s): Leroux JL, Ghezail M, Chertok P, Blotman F.

• Immunohistology of the skin rash associated with acute HIV infection.
  Author(s): McMillan A, Bishop PE, Aw D, Peutherer JF.
• In vitro drug allergy detection system incorporating human liver microsomes in chlorazepate-induced skin rash: drug-specific proliferation associated with interleukin-5 secretion.
  Author(s): Sachs B, Erdmann S, Al-Masaoudi T, Merk HF.

• Laboratory differential diagnosis of vesicular skin rashes.
  Author(s): Macrae AD, Field AM, McDonald JR, Meurisse EV, Porter AA.

• Lamotrigine-related skin rashes in adults.
  Author(s): Huang CW, Tsai JJ, Lai ML.

• Late appearance of skin rash in Rocky Mountain spotted fever.
  Author(s): Cohen JI, Corson AP, Corey GR.

• Local skin rash after intraarticular methyl prednisolone acetate injection in a patient with rheumatoid arthritis.
  Author(s): Konttinen YT, Friman C, Tolvanen E, Reitamo S, Johansson E.

• Management of a widely disseminated skin rash.
  Author(s): Gallagher E.

• Marked atypical lymphocytosis and skin rash following sulfamethoxazole.
  Author(s): Agarwal BR, Sathe AS, Currimbhoy Z.

• Marked atypical lymphocytosis, hepatitis, and skin rash in sulfasalazine drug allergy.
  Author(s): Poland GA, Love KR.
• **Measles virus was present in the inner cell of the acrosyringium in the skin rash.**
  Author(s): Yanagihara M, Fujii T, Mochizuki T, Ishizaki H, Sata T.

• **Meningococcal meningitis with a benign skin rash.**
  Author(s): Rubenstein R, Esterly NB.

• **Methyldopa-induced skin rash.**
  Author(s): Gidseg G.

• **Mitigating acute skin rashes and nausea from lithium.**
  Author(s): Swartz CM, Holkesvick R.

• **Nickel contamination of gold salts: link with gold-induced skin rash.**
  Author(s): Choy EH, Gambling L, Best SL, Jenkins RE, Kondeatis E, Vaughan R, Black MM, Sadler PJ, Panayi GS.

• **Patient education. Viral skin rashes in children.**
  Author(s): Murtagh J.

• **Photo quiz. Skin rash in a patient with diabetes.**
  Author(s): Papaioannides D, Akritidis N.

• **Polyarthritis, mononeuritis multiplex and eczematous ulcerative skin rash in a patient with myelodysplastic syndrome and peripheral large granular lymphocytosis.**
  Author(s): Shiozawa S, Ogawa R, Morimoto I, Tanaka Y, Kanda N, Tatsumi E, Yamaguchi N, Fujita T.
• **Programmed instruction: skin rashes in infants and children.**
  Author(s): Cohen S.

• **Rapid detection of measles virus in skin rashes by immunoﬂuorescence.**
  Author(s): Olding-Stenkvist E, Bjorvatn B.

• **Ritodrine-induced skin rash.**
  Author(s): Yamada T, Okamoto Y, Kasamatsu H.

• **Saccharin-induced skin rashes.**
  Author(s): Birkbeck J.

• **Serum and blister fluid cytokines and complement proteins in a patient with Henoch Schonlein purpura associated with a bullous skin rash.**
  Author(s): Bansal AS, Dwivedi N, Adsett M.

• **Severe skin rash in two consecutive patients treated with 2-chlorodeoxyadenosine for hairy cell leukaemia at a single institution.**
  Author(s): Grey MR, Flanagan NG, Kelsey PR.

• **Sinemet skin rash.**
  Author(s): Goetz CG.

• **Skin rash after completion of therapy for leukemia in childhood.**
  Author(s): Shaw NJ, Eden OB.
- **Skin rash after triple vaccine.**
  Author(s): Denning DW, Peet L, Poole J.
  Source: Archives of Disease in Childhood. 1987 May; 62(5): 510-1.

- **Skin rash and anti-Ro/SS-A antibodies in an infant from a mother with silicone breast implants.**
  Author(s): Gedalia A, Cuellar ML, Espinoza LR.

- **Skin rash and hydralazine.**
  Author(s): Schapel GJ.

- **Skin rash and splinter hemorrhages from ganciclovir.**
  Author(s): Lorenzi S, D'Antuono A, Iorizzo M, Tosti A.

- **Skin rash associated with accidental addition of excess aluminium sulphate to the water supply.**
  Author(s): Tohani VK, McCann R, Fox M, Fulton R.

- **Skin rash associated with Candida guilliermondii.**
  Author(s): Booth LV, Collins AL, Lowes JA, Radford M.

- **Skin rash associated with Sinemet 25/100.**
  Author(s): Goetz CG.

- **Skin rash caused by carbamazepine.**
  Author(s): Hosoda N, Miura H, Takanashi S, Shirai H, Sunaoshi W, Abo K, Abo J.
• Skin rash following therapy with mitomycin C.
  Author(s): Ritch PS, Louie AC.

• Skin rash for 15 years.
  Author(s): Montelius S, Maasho K, Pratlong F, Lebbad M, Gregory L, Akuffo H.

• Skin rash from a tropical island.
  Author(s): Golledge CL.

• Skin rash in a jaundiced patient.
  Author(s): Akasheh M, Omari K, Madanat F.

• Skin rash in a renal transplant recipient.
  Author(s): Houston S, Lipp K, Cobian L, Sinnott JT.

• Skin rash in the hypogastric region during a regional chemotherapy for bladder carcinoma: CT and scintigraphic demonstration of a potential collateral pathway between the internal iliac and inferior epigastric arteries.
  Author(s): Fujimoto H, Naito H, Terauchi M.

• Skin rash, fever, and malaise in a young man.
  Author(s): Clark K, Eledrisi M, Verghes A.

• Skin rashes after triple vaccine.
  Author(s): Illingsworth R.
  Source: Archives of Disease in Childhood. 1987 September; 62(9): 979.
• Skin rashes and stomatitis due to parenteral treatment of rheumatoid arthritis with sodium aurothiomalate.
  Author(s): Svensson A, Theander J.

• Skin rashes associated with the administration of the 2-nitroimidazole, misonidazole.
  Author(s): Saunders MI, Dische S, Kogelnik HD, Sealy R, Lenox-Smith I.

• Skin rashes with penicillin therapy: current management.
  Author(s): Levine BB.

• Study of skin rashes after antibiotic use in young children.
  Author(s): Huang SW, Borum PR.

• Successful desensitization for azathioprine skin rash in a patient with severe Crohn's disease.
  Author(s): Lavaud F, Abdelli N, Thiefin G.

• Sulphasalazine in rheumatoid arthritis: desensitising the patient with a skin rash.
  Author(s): Farr M, Bacon PA.

• Sulphasalazine in rheumatoid arthritis: desensitising the patient with a skin rash.
  Author(s): Bax DE, Amos RS.

• Suppression of carbamazepine-induced skin rash with prednisone.
  Author(s): Vick NA.
- **Supraumbilical skin rash after chemoembolization for hepatocellular carcinoma.**
  Author(s): Hama Y, Iwasaki Y, Kusano S.

- **Test your knowledge. Patient with a skin rash.**
  Author(s): Tan E, Teixeira F.

- **The laboratory investigation of vesicular skin rashes.**
  Author(s): Bedson HS.

- **Two men with toxic shock syndrome presenting with targetoid and spotty skin rashes.**
  Author(s): Scheinfeld N, Pollack MJ, McNiff JM, Imaeda S, Sinha AA.

- **Unusual skin rash following withdrawal of oral 6-mercaptopurine in children with leukemia.**
  Author(s): Kirk JA, Rogers M, Menser MA, Bergin M, Dalla-Pozza L, Stevens MM.

- **Weight loss, skin rash, and cough following bone marrow transplantation for chronic myelogenous leukemia.**
  Author(s): Witherspoon RP, McGlave P, Campbell JB, Sigley T, Rolston KV.
CHAPTER 2. NUTRITION AND SKIN RASHES

Overview

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

Finding Nutrition Studies on Skin Rashes

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

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

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

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4 Adapted from http://ods.od.nih.gov. IBIDS is produced by the Office of Dietary Supplements (ODS) at the National Institutes of Health to assist the public, healthcare providers, educators, and researchers in locating credible, scientific information on dietary supplements. IBIDS was developed and will be maintained through an interagency partnership with the Food and Nutrition Information Center of the National Agricultural Library, U.S. Department of Agriculture.
The following information is typical of that found when using the “Full IBIDS Database” to search for “skin rashes” (or a synonym):

- **Association between gold induced skin rash and remission in patients with rheumatoid arthritis.**
  Author(s): Department of Rheumatology, Ichilov Hospital, Tel Aviv Medical Center, Israel.

- **Skin rashes and stomatitis due to parenteral treatment of rheumatoid arthritis with sodium aurothiomalate.**
  Author(s): Department of Dermatology, Central Hospital, Kristianstad, Sweden.

**Federal Resources on Nutrition**

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


- The United States Department of Agriculture’s Web site dedicated to nutrition information: [www.nutrition.gov](http://www.nutrition.gov)

- The Food and Drug Administration’s Web site for federal food safety information: [www.foodsafety.gov](http://www.foodsafety.gov)


- The Center for Food Safety and Applied Nutrition has an Internet site sponsored by the Food and Drug Administration and the Department of Health and Human Services: [http://vm.cfsan.fda.gov/](http://vm.cfsan.fda.gov/)


**Additional Web Resources**

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

- AOL: [http://search.aol.com/cat.adp?id=174&layer=&from=subcats](http://search.aol.com/cat.adp?id=174&layer=&from=subcats)

- Family Village: [http://www.familyvillage.wisc.edu/med_nutrition.html](http://www.familyvillage.wisc.edu/med_nutrition.html)

Healthnotes: http://www.healthnotes.com/
Yahoo.com: http://dir.yahoo.com/Health/Nutrition/
WebMD® Health: http://my.webmd.com/nutrition
WholeHealthMD.com: http://www.wholehealthmd.com/reflib/0,1529,00.html

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

- **Vitamins**
  - **Niacin**
    Source: WholeHealthMD.com, LLC.; www.wholehealthmd.com
    Hyperlink: http://www.wholehealthmd.com/refshelf/substances_view/0,1525,892,00.html
  - **Vitamin B3**
    Source: Healthnotes, Inc.; www.healthnotes.com

- **Minerals**
  - **Acetyl-l-carnitine**
    Source: Healthnotes, Inc.; www.healthnotes.com
  - **Selenium**
    Source: Healthnotes, Inc.; www.healthnotes.com
  - **Sulfur**
    Source: Integrative Medicine Communications; www.drkoop.com
  - **Zinc**
    Source: Healthnotes, Inc.; www.healthnotes.com

- **Food and Diet**
  - **Cinnamon**
    Alternative names: Cinnamomum zeylanicum
    Source: Healthnotes, Inc.; www.healthnotes.com
  - **Corn-free Diet**
    Source: Healthnotes, Inc.; www.healthnotes.com
  - **Dairy-free Diet**
    Source: Healthnotes, Inc.; www.healthnotes.com
Egg-free Diet
Source: Healthnotes, Inc.; www.healthnotes.com

Gluten-free Diet
Source: Healthnotes, Inc.; www.healthnotes.com

Mushrooms
Source: WholeHealthMD.com, LLC.; www.wholehealthmd.com
Hyperlink:
http://www.wholehealthmd.com/refshelf/substances_view/0,1525,10046,00.html

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

Soy-free Diet
Source: Healthnotes, Inc.; www.healthnotes.com

Wheat-free Diet
Source: Healthnotes, Inc.; www.healthnotes.com
CHAPTER 3. PATENTS ON SKIN RASHES

Overview

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

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

Patents on Skin Rashes

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

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example of the type of information that you can expect to obtain from a patent search on skin rashes:

- **Hot fomentations**
  Inventor(s): Mizushima; Noriyasu (Tokyo, JP)
  Assignee(s): Sanpo Chemical Co., Ltd. (tokyo, Jp)
  Patent Number: 6,475,535
  Date filed: November 19, 1999
  Abstract: A hot-type compress which does not form the skin rashes on the applied region thereof. The hot-type compress is constructed so that an applying face side composed of a sticky poultice plaster body formed on one side of a substrate sheet comprises the sticky poultice plaster body and powder or extract of ginger. A stable and good warmth-feeling stimulation is exerted on the skin without having any bad effect thereon by the ginger extract.
  Excerpt(s): The present invention relates to a hot-type compress used for applying to the affected part of a human body. There has been hitherto known a hot-type compress so constructed that a sticky poultice plaster body prepared by kneading extract of capsicum as a skin stimulating agent with a sticky cold-type poultice as a principal component is coated and formed on one side of a substrate sheet so that the capsicum extract may be contained uniformly in an applying layer of the coat layer of the plaster body. When this hot-type compress is applied to the affected part of a human body, it has been found that a warmth-feeling action is exerted and the temperature of the skin surface is increased by the skin stimulation of the capsicum. However, the conventional hot-type compress using the hot-type poultice containing the capsicum extract as a skin stimulating agent causes such inconveniences that a smarting pain feeling caused by the skin stimulating agent at the region applied to the affected part of the human body is too strong and later the applied region suffers from skin rashes, and so on. This cause is not unclear but it is presumed that capsaicin which is a component of the capsicum may be related thereto.

- **Method of making molecular chlorine dioxide**
  Inventor(s): Madray; George (4 Carteret Rd., Brunswick, GA 31525)
  Assignee(s): None Reported
  Patent Number: 6,231,830
  Date filed: March 4, 1999
  Abstract: A method for manufacturing molecular chlorine dioxide, by the addition of potassium iodide to a solution of alkali metal chlorite. The metal chlorite and the potassium iodide are kept separate, until the need for the generation of chlorine dioxide arises--to ensure long-shelf life. After initiation or activation of the chlorite anion to form chlorine dioxide, the beneficial properties of chlorine dioxide can be used, for different health and cosmetic purposes. Such uses include the treatment of herpes, dandruff, acne, skin rashes (e.g. poison ivy), ulcers, bed sores, warts, nail fungus, athletes foot, sun burn and gum disease; and as an antiseptic, disinfectant, and general deodorant form refrigerator sprays to oral mouthrinses.
Excerpt(s): The invention relates to a broad field, being as broad as are the properties of chlorine dioxide. For example, in the field of dentistry alone, it can be used as a biofilm control to prevent the buildup of plaque which is responsible for tooth decay, as a whitener maintenance, as an oral/periodontal irritant and as a breath fresher. Chlorine dioxide (ClO2) has many beneficial properties. Chlorine dioxide is an efficient oxidant. Because it readily reacts with substances (phenolics and sulfides) known to cause taste and odor problems, chlorine dioxide is a widely used treatment for drinking water. Chlorine dioxide has other beneficial properties resulting from its ability to maintain its oxidizing power and antimicrobial properties over a wide pH range. For example, chlorine dioxide is effective against viruses, bacteria, and protozoan cysts. Chlorine dioxide has been shown to be effective in controlling cryptosporidium (Peters, J.; Mazas, E.; Masschelein, W.; 1989, "Effect of Disinfection of Drinking water with Ozone or Chlorine Dioxide on Survival of Cryptosporidium parvum Oocyst". Appl. Environ. Microbiol., 55(6):1519-1522);(Korich, D.; Mead, J.; Madore, M.; Sinclair, N.; Sterling, C. 1990, "Effects of Ozone, Chlorine Dioxide, Chlorine and Monochloramine on Cryptosporidium parvum Oocyst Viability". Appl. Environ. Microbiol., 56:1423-1428.);(Finch, G.; Liyanage, L.; Belosivic, M. 1995, "Effect of Chlorine Dioxide on Cryptosporidium and Giardia. In InProc. 3rd International Symposium on Chlorine Dioxide Use in Drinking Water, Wastewater and Industrial Applications. CMA, USEPA, and AWWARF.) which causes severe gastrointestinal problems (and even death) in AIDS and immunocompromised individuals. In contrast, chlorine is not effective in treating water sources containing cryptosporidium. Other applications include its use as a bleaching agent, disinfectant, deodorant, and biofilm control. Even though it is not well understood, microbial cell walls and microbial membranes, being different from human cells, rupture when ClO2penetrates them at concentrations even below one part per million (PPM) which is equivalent to one milligram per liter (mg/L). Alteration of electrolytic permeability, and metabolic processes quickly follow, destroying the microbes of which no immunity results.


• **Pharmaceutical plasters**

Inventor(s): Hidaka; Osafumi (Akigawa, JP), Murakami; Satoshi (Tachikawa, JP)
Assignee(s): Teijin Limited (osaka, Jp)
Patent Number: 5,225,199
Date filed: December 24, 1991

Abstract: A plaster comprising the film layer which is composed of a film having 0.5 to 4.9.mu.m thickness, 8 to 85 g/mm strengths, respectively in the two directions intersecting substantially at right angle, 30 to 150% elongations, respectively in the two directions intersecting at right angle, and 1.0 to 5.0 ratio between the two direction elongations (wherein the smaller elongation is used as the denominator, when the ratios of the elongations in the 2 directions are different) and an adhesive layer (a) which contains a transdermally absorbable drug and is laminated on one surface of said film layer in 2 to 60.mu.m thickness enables transdermal absorption of a clinically effective amount of a drug with skin rashes reduced. Additionally, a backing sheet may be preferably provided, for example, the plaster made of said film layer (3) and said adhesive layer (a) (4) is press-bonded via an adhesive layer (b) (2) to a backing sheet (1) and a release film (5) to give a plaster of improved handleability.
Excerpt(s): The present invention relates to pharmaceutical plasters which can be used in treatment for a variety of diseases. As the administration routes of medicines, ointments or the like have been frequently used as a local administration in addition to conventional ones such as oral, injection or rectal administrations. Further in recent years, the technical development has made steady progress in transdermal application of systemically acting drugs and several kinds of drugs have come to be clinically used in practice. Since the transdermal administration of drugs enables them to avoid the first-pass effect which they would suffer in liver, if they were orally given, drug concentration in blood is far more stable than in the case of oral or injection administration, and many advantages also can be obtained, for example, longer effective time, easier removal of the drug by detaching the preparation in case of serious side-effects, and the like.


- **Releasable clothing with temperature sensor for bedridden patients**

  Inventor(s): Gainor; Michelle (1908 E. 19th St., Lot W-79, Lawrence, KS 66046), McKenzie; Melody (1908 E. 19th St., Lot W-79, Lawrence, KS 66046)

  Assignee(s): None Reported

  Patent Number: 5,802,611

  Date filed: November 18, 1997

  Abstract: The present invention relates to clothing specifically designed for incapacitated or bedridden patients. The clothing includes trousers, shorts, a shirt and an undergarment each having separable seams allowing the garments to be easily removed from a patient with minimal movement or manipulation of the patient's body. Each garment has an integrated moisture detection means which will emit an audible alarm upon sensing a predetermined amount of moisture. The clothing also has a temperature detecting means, for instantaneously providing the patient's body temperature, removably attached thereto. Preferably, each garment is constructed with a fabric like material that has been pretreated with an antibacterial, an anti-fungal or an antiviral agent in order to minimize bed sores, skin rashes and other skin irritations.

  Excerpt(s): The present invention relates to clothing designed for invalids, bedridden patients, those confined to wheelchairs and similarly handicapped people. The inventive device comprises segmented shirts, trousers, undergarments and similar items of clothing made from a fabric material pretreated with an anti-bacterial, an anti-fungal or an anti-viral agent. The garments are designed to be easily separated and removed from a patient without having to move the patient's limbs. Furthermore, the clothing has an integrated moisture alarm and a temperature detection means thereon. Quick release clothing designed for hospital patients and the like are generally known in the prior art. For example, U.S. Pat. No. 5,062,159 issued to Jakub relates to a patient's hospital gown comprising a wrap around lower portion secured with a waist drawstring and a series of releasable fasteners along the overlapped seam. Releasable fasteners are also provided on the front, shoulders and waist area. U.S. Pat. No. 5,222,258 issued to Mucci relates to a hospital garment such as a shirt or pants having openable seams on both limb portions and on the front portion.

Patent Applications on Skin Rashes

As of December 2000, U.S. patent applications are open to public viewing. Applications are patent requests which have yet to be granted. (The process to achieve a patent can take several years.) The following patent applications have been filed since December 2000 relating to skin rashes:

- **Allergen absorbent, blocking, and deactivating compositions and method**
  
  Inventor(s): Beall, Gary W.; (Ferguson, MO)
  
  Correspondence: Marshall, Gerstein & Borun; 6300 Sears Tower; 233 South Wacker; Chicago, IL; 60606-6357; US
  
  Patent Application Number: 20030012800
  
  Date filed: May 30, 2001
  
  Excerpt(s): An allergen and blocking sorbent for topical application to the skin comprising a surface-modified layered material, such as an intercalated clay, dispersed in a cosmetically acceptable solvent. The organic surface modifier is an organic molecule that contains a substantial dipole moment sufficient to bond, through ion-dipole interactions, with an exchangeable cation on the inner surface of adjacent clay platelets. Suitable organic surface modifiers include aldehydes, ketones, carboxylic acids, alcohols, phenols, ethers, catecols, lactams, lactones and pyrrolidones. The preferred layered material useful in this invention includes the entire family of smectite type clays. The composition is topically applied to the skin to absorb and/or adsorb (hereinafter "sorb" or "sorbent") via intercalation between spaced layers of the layered material, and block allergenic organic compounds from plants such as poison ivy, poison oak, and poison sumac, thus preventing skin rashes. This invention relates to an allergen sorbent and blocking composition and method for topical application to the skin to prevent or alleviate allergic skin reactions and associated skin itching of persons due to contact with poison ivy, poison oak or poison sumac. According to Kligman (AMA Archives of Dermatology, Vol. 77, February 1958, p. 149, et seq.) the first significant advance in Rhus biochemistry was made by Majima (Ber. Deutsch Chem. Ges. 40:4390, 1907 and 50:172, 1922), working with urushiol. Urushiol is a yellow oil extracted from the Japanese lac tree. Later, McNair (J. Am. Chem. Soc. 43:159, 1921), studied poison oak and concluded that the active principle (lobinol) was a catechol with an unsaturated side chain, whose position and structure were not identified. Hill and his collaborators (J. Am. Chem. Soc. 56:2736, 1934) later hydrogenated poison ivy urushiol. They obtained a product identical with Majima's hydrourushiol from Japanese lac. They therefore wrongly concluded that the antigenic compounds in the American and Japanese plants were identical.


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6 This has been a common practice outside the United States prior to December 2000.
• **Utilization of natural algae extracts for making a product intended to prevent and care for diseases of the skin**

Inventor(s): Gedouin, Jean; (Herminier, FR), Vallee, Romuald; (Saint-Malo, FR)

Correspondence: Laff, Whitesel & Saret, LTD.; Attorneys AT Law; 401 North Michigan Avenue; Chicago; IL; 60611; US

Patent Application Number: 20010008628

Date filed: January 4, 2001

Abstract: The present invention relates to the use of natural extracts of algae for the preparation of a product meant to prevent and to treat skin diseases. The invention also relates to natural extracts of algae meant to prevent and to treat these diseases. Said use of natural extracts of algae consists in using concentrated extracts of algae of the chlorella type. The invention especially applies to diseases such as skin rashes or allergic reactions to cosmetic compositions.

Excerpt(s): The present invention relates to the use of natural algae extracts for the preparation of a product meant to prevent and to treat skin diseases, such as skin rashes or allergic reactions to cosmetic compositions. The invention also relates to natural algae extracts meant to prevent and to treat skin diseases. The work of Susumu Tonegawa, Nobel Prize for Medicine in 1987, has shown the immunological function of certain cells of the epidermis, the Langerhans cells, with respect to localized aggressions in the epidermal layer of the skin. The Langerhans cells, that belong to a so-called lymphoid dendritic cell family, essentially are located in the middle layers of the epidermis. Despite their low density, their function is one of information and surveillance over the entire epidermis thanks, especially, to their dendritic nature and to their migratory capability. The Langerhans cells are capable both of ingesting (phagocytize ?) foreign bodies or allergens that have penetrated into the epidermis, and of transmitting antigens to special immunocompetent cells, the so-called T cells. The activation and protection produced by the Langerhans cells thus make it possible to stimulate the process of intrinsic defense of the epidermis.


**Keeping Current**

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

You can also use this procedure to view pending patent applications concerning skin rashes. Simply go back to [http://www.uspto.gov/patft/index.html](http://www.uspto.gov/patft/index.html). Select “Quick Search” under “Published Applications.” Then proceed with the steps listed above.
CHAPTER 4. BOOKS ON SKIN RASHES

Overview

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

Book Summaries: Federal Agencies

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

• Heartburn and What to Do About It

  Contact: Available from Avery Publishing Group. 120 Old Broadway, Garden City Park, NY 11040. (800) 548-5757 or (516) 741-2155. Fax (516) 742-1892. E-mail: info@averypublishing.com. PRICE: $10.95 plus shipping and handling. ISBN 0895297922.
  Summary: In this book, the authors tell readers how to banish heartburn and other digestive symptoms once and for all, using natural therapies that are gentle on one's system. The authors emphasize that a lack of balance in the digestive tract, caused by improper diet and the stresses of modern life, is at the root of most people's intestinal upsets, and they explain both the problem and the solution in clear, nontechnical language. In Part One, after surveying the scope of the nation's digestive difficulties, the authors review the most common digestion related disorders. They discuss ulcers and
the infection (Helicobacter pylori) that causes ulcers. The authors then look at disorders that can cause both common digestive symptoms, such as diarrhea, constipation, nausea, and gas, and symptoms that most readers may not associate with the digestive system, such as fatigue and skin rashes. In Part Two, the authors explain how to relieve and prevent digestive troubles through the use of proper diet, yogurt, and intestinal cleansers. Finally, the authors offer a detailed discussion of probiotics, the friendly bacteria that not only help protect the digestive tract from bad bacteria and assist in digestion itself, but also improve overall health. The authors conclude that restoring intestinal health first requires a change in diet, with a reduction in or elimination of highly processed, sugary, and fatty foods, and a corresponding increase in whole grains, fresh fruits and vegetables, limited amounts of organically raised meat, and cultured foods such as yogurt. These changes in diet must be supported by adequate exercise, rest, and stress reduction. The book concludes with a resource list, a suggested reading list, a list noting sources of products and services, endnotes, and a subject index. 250 references.

- Diabetes Problem Solver


Summary: This book is a reference guide that helps people who have diabetes identify and prevent the most common diabetes-related problems they encounter on a daily basis. The book is divided into two major sections. The first section consists of a series of flowcharts to help readers decide what they need to do about a particular condition or symptom. Flowcharts focus on arm and hand pain, back pain, blurry vision, chest pain, confusion, convulsions or seizures, difficulty breathing, dizziness, dry skin, eating disorders, emotional problems, emotional changes in women, feeling tired, fever, foot problems, headache, hyperglycemia, hypoglycemia, injection site problems, and intestinal problems. Other flowcharts deal with leg and foot pain, loss of consciousness, muscular weakness, nausea, numbness and tingling, pain or discomfort in women, palpitations, problems with the mouth, problems with blood glucose in women, sexual problems in men and women, skin discoloration, skin lesions, skin rashes and itchy skin, sleeping problems, stomach pain, sweating, swelling, thickening of the skin, urinary problems, vision problems, and vomiting. The second section provides more detailed information about many of the problems people who have diabetes face. Solutions are provided for monitoring and testing problems; hypoglycemia and hyperglycemia problems; insulin delivery and oral medication problems; circulation, neuropathy, kidney, vision, gastrointestinal, infection, foot, and skin problems; men's, women's, and children's problems; eating, exercise, and weight problems; lifestyle problems; coping problems; discrimination and insurance problems; and other medical problems. Each section provides the reader with information on the symptoms of the condition, who is at risk and what risk the particular condition poses for the reader, what the reader's immediate course of action should be, treatment in a medical setting, and how to prevent the condition from developing. The reader may use the book in two ways. If the reader knows he or she has a particular condition or wants more information, he or she can go straight to the second section and look up the condition. The reader may use the book as a guide to possible conditions that may be causing
symptoms by referring to the flowcharts in the first section. The book also includes a glossary, resources, and an index. 6 figures. 5 tables.

Chapters on Skin Rashes

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

- **Chapter 8-F: Musculoskeletal Signs and Symptoms: Periodic Syndromes**
  


  Summary: This chapter provides health professionals with information on the inheritance patterns, clinical and laboratory features, and treatment of disorders that present with episodic fever and arthritis. The hereditary periodic fever syndromes are a group of four genetic diseases featuring episodes of fever and serosal, synovial, or cutaneous inflammation. Familial Mediterranean fever (FMF) is an autosomal recessive autoinflammatory disease found most frequently in Jewish, Armenian, Arab, Turkish, and Italian populations. The magnitude of fever in FMF varies, and attacks resolve spontaneously within 1 to 3 days. Most patients have abdominal symptoms that vary from mild to severe. Arthralgia is common but nonspecific. Systemic amyloidosis is the most serious complication of FMF. Daily use of colchicine is the mainstay of treatment. Another recessively inherited autoinflammatory disorder is hyperimmunoglobulinemia D (HIDS) with period fever syndrome. People of northern European ancestry are most often affected. Febrile episodes last from 3 to 7 days. Clinical features include fever, abdominal pain, **skin rashes**, and arthralgia. Although there is no satisfactory treatment for HIDS, some people have benefitted from nonsteroidal antiinflammatory drugs, colchicine, corticosteroids, cyclosporine, or intravenous immunoglobulin. Another periodic fever syndrome, but one that is dominantly inherited, is tumor necrosis factor receptor associated syndrome (TRAPS). Inflammatory episodes of TRAPS are characterized by fever with abdominal pain, pleurisy, arthralgia, myalgia, and **skin rash**. Attacks of TRAPS are self limited, and the disorder is not life threatening unless systemic amyloidosis develops. Drug therapies include colchicine and corticosteroids. Another dominantly inherited periodic fever syndrome is Muckle-Wells syndrome (MWS). Most reported cases have been from northern Europe. Symptoms observed in some patients during acute episodes include conjunctivitis, episcleritis, and abdominal pain. Anecdotal evidence suggests that high colchicine and high dose corticosteroids may ameliorate MWS attacks, but it is not known whether these agents prevent the development of amyloidosis. In addition, there is a group of periodic arthritides of unknown etiology in which genetics has a less important role, including palindromic
rheumatism, intermittent hydraphrosis, and eosinophilic synovitis. 1 figure, 2 tables, and 20 references.
CHAPTER 5. PERIODICALS AND NEWS ON SKIN RASHES

Overview

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

News Services and Press Releases

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

PR Newswire

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

Reuters Health

The Reuters’ Medical News and Health eLine databases can be very useful in exploring news archives relating to skin rashes. While some of the listed articles are free to view, others are available for purchase for a nominal fee. To access this archive, go to [http://www.reutershealth.com/en/index.html](http://www.reutershealth.com/en/index.html) and search by “skin rashes” (or synonyms).

The NIH

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

**Business Wire**

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

**Market Wire**

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

**Search Engines**

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

**BBC**

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

**Newsletter Articles**

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


Contact: Bay Area Lupus Foundation, Inc., 3635 North First Street, Suite 206, San Jose, CA 95134. (408) 954-8600.

Summary: This newsletter article for health professionals describes some of the specific and nonspecific lesions associated with systemic lupus erythematosus (SLE). Specific skin rashes in lupus erythematosus include those that occur with acute cutaneous lupus erythematosus, subacute cutaneous lupus erythematosus, chronic cutaneous lupus erythematosus, lupus panniculitis, bullous lupus erythematosus, and neonatal lupus. Morphological features of nonspecific skin lesions include urticaria vasculitis that appears like hives, leukocytoclastic vasculitis that presents as palpable purpura characterized by red papules, thrombosis without vasculitis, and telogen effluvium. In addition, guidelines are provided for diagnosing and treating the rashes associated with SLE.

Academic Periodicals covering Skin Rashes

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

If you want complete details about the historical contents of a journal, you can also visit the following Web site: http://www.ncbi.nlm.nih.gov/entrez/jrbrowser.cgi. Here, type in the name of the journal or its abbreviation, and you will receive an index of published articles. At http://locatorplus.gov/, you can retrieve more indexing information on medical periodicals (e.g. the name of the publisher). Select the button “Search LOCATORplus.” Then type in the name of the journal and select the advanced search option “Journal Title Search.”
CHAPTER 6. RESEARCHING MEDICATIONS

Overview

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

U.S. Pharmacopeia

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

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

Below, we have compiled a list of medications associated with skin rashes. If you would like more information on a particular medication, the provided hyperlinks will direct you to ample documentation (e.g. typical dosage, side effects, drug-interaction risks, etc.). The
following drugs have been mentioned in the Pharmacopeia and other sources as being potentially applicable to skin rashes:

**Bleomycin**
- **Systemic - U.S. Brands:** Blenoxane

**Bronchodilators, Adrenergic**
- **Oral/Injection - U.S. Brands:** Adrenalin; Alupent; Ana-Guard; Brethine; Bricanyl; EpiPen Auto-Injector; EpiPen Jr. Auto-Injector; Isuprel; Proventil; Proventil Repetabs; Ventolin; Volmax

**Commercial Databases**

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

**Mosby’s Drug Consult™**

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

**PDRhealth**

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

**Other Web Sites**

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

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

Overview

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

NIH Guidelines

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

- 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 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 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/

7 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 Environmental Health Sciences (NIEMS); 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); various information directories available at http://www.ninr.nih.gov/publications.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


- 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. 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:

- **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](http://www.nlm.nih.gov/databases/databases_bioethics.html)


- **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](http://www.nlm.nih.gov/databases/databases_population.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](http://www.nlm.nih.gov/databases/alerts/clinical_alerts.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](http://www.nlm.nih.gov/databases/databases_medline.html)

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• Toxicology and Environmental Health Information (TOXNET): Databases covering toxicology and environmental health: http://sis.nlm.nih.gov/Tox/ToxMain.html


The NLM Gateway\textsuperscript{10}

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.\textsuperscript{11} To use the NLM Gateway, simply go to the search site at http://gateway.nlm.nih.gov/gw/Cmd. Type “skin rashes” (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.

<table>
<thead>
<tr>
<th>Category</th>
<th>Items Found</th>
</tr>
</thead>
<tbody>
<tr>
<td>Journal Articles</td>
<td>1244</td>
</tr>
<tr>
<td>Books / Periodicals / Audio Visual</td>
<td>9</td>
</tr>
<tr>
<td>Consumer Health</td>
<td>1011</td>
</tr>
<tr>
<td>Meeting Abstracts</td>
<td>60</td>
</tr>
<tr>
<td>Other Collections</td>
<td>264</td>
</tr>
<tr>
<td>Total</td>
<td>2588</td>
</tr>
</tbody>
</table>

HSTAT\textsuperscript{12}

HSTAT is a free, Web-based resource that provides access to full-text documents used in healthcare decision-making.\textsuperscript{13} 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.\textsuperscript{14} Simply search by “skin rashes” (or synonyms) at the following Web site: http://text.nlm.nih.gov.

\textsuperscript{10} Adapted from NLM: http://gateway.nlm.nih.gov/gw/Cmd?Overview.x.

\textsuperscript{11} The NLM Gateway is currently being developed by the Lister Hill National Center for Biomedical Communications (LHN CBC) at the National Library of Medicine (NLM) of the National Institutes of Health (NIH).

\textsuperscript{12} Adapted from HSTAT: http://www.nlm.nih.gov/pubs/factsheets/hstat.html.

\textsuperscript{13} The HSTAT URL is http://hstat.nlm.nih.gov/.

\textsuperscript{14} Other important documents in HSTAT include: the National Institutes of Health (NIH) Consensus Conference Reports and Technology Assessment Reports; the HIV/AIDS Treatment Information Service (ATIS) resource documents; the Substance Abuse and Mental Health Services Administration’s Center for Substance Abuse Treatment (SAMHSA/CSAT) Treatment Improvement Protocols (TIP) and Center for Substance Abuse Prevention (SAMHSA/CSAP) Prevention Enhancement Protocols System (PEPS); the Public Health Service (PHS) Preventive Services Task Force’s Guide to Clinical Preventive Services; the independent, nonfederal Task Force on Community Services’ Guide to Community Preventive Services; and the Health Technology Advisory Committee (HTAC) of the Minnesota Health Care Commission (MHCC) health technology evaluations.
Coffee Break: Tutorials for Biologists

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. 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. 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/.

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16 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.
17 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 skin rashes 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 skin rashes. 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 skin rashes. 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 “skin rashes”:
• Other guides
  
  **Acne**  

  **Dermatitis**  

  **Eczema**  

  **Impetigo**  

  **Skin Diseases**  

Within the health topic page dedicated to skin rashes, the following was listed:

• General/Overviews
  
  **Dermatitis/Eczema**  
  Source: Mayo Foundation for Medical Education and Research  
  http://www.mayoclinic.com/invoke.cfm?id=DS00339

• Diagnosis/Symptoms
  
  **Skin Rashes and Other Changes: Self-Care Flowcharts**  
  Source: American Academy of Family Physicians  
  http://familydoctor.org/545.xml

• Treatment
  
  **Itching for a Little Relief? New Therapies Proving Effective for Millions of Adults and Children with Eczema**  
  Source: American Academy of Dermatology  
  http://www.aad.org/PressReleases/itchingRelief.html

  **Poison Ivy: Treatment Options**  
  Source: Mayo Foundation for Medical Education and Research  
  http://www.mayoclinic.com/invoke.cfm?id=AN00539

• Specific Conditions/Aspects
  
  **Allergic Skin Conditions**  
  Source: American Academy of Allergy, Asthma, and Immunology  
  http://www.aaaai.org/patients/publicedmat/tips/allergicskinconditions.stm

  **Neurodermatitis**  
  Source: Mayo Foundation for Medical Education and Research  
  http://www.mayoclinic.com/invoke.cfm?id=AN00298

  **People Who Should NOT Get the Smallpox Vaccine (Unless They Are Exposed to Smallpox)**  
  Source: Centers for Disease Control and Prevention  
Perioral Dermatitis
Source: American Academy of Dermatology
http://www.aad.org/pamphlets/Perioral.html

Poison Ivy: Prevention and Treatment
Source: InteliHealth
http://www.intelihealth.com/IH/ihlIH?t=8214&p=%7Ebr%2CIHW%7C%7Est%2C2447%7C%7Er%2CWSIH%7C%7E%2C%2A%7C

Poisonous Plants: How to Recognize, Avoid and Destroy Them
Source: Mayo Foundation for Medical Education and Research
http://www.mayoclinic.com/invoke.cfm?id=FL00080

Pseudomonas Dermatitis / Folliculitis “Hot Tub Rash”
Source: National Center for Infectious Diseases, Division of Parasitic Diseases
http://www.cdc.gov/healthyswimming/derm.htm

Seborrheic Dermatitis: What It Is and How To Treat It
Source: American Academy of Family Physicians
http://familydoctor.org/157.xml

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

* Children

Atopic Eczema: Ditch the Itch!
Source: American Academy of Dermatology
http://www.aad.org/Kids/atopiceczema.html

Diaper Rash: Tips on Prevention and Treatment
Source: American Academy of Family Physicians
http://familydoctor.org/051.xml

Eczema/Atopic Dermatitis
Source: Nemours Foundation
http://kidshealth.org/parent/infections/skin/eczema_atopic_dermatitis.html

Pesky Poisonous Plants
Source: American Academy of Dermatology
http://www.aad.org/Kids/plants.html

* From the National Institutes of Health

Atopic Dermatitis
Source: National Institute of Arthritis and Musculoskeletal and Skin Diseases, National Institutes of Health

* Organizations

American Academy of Dermatology
http://www.aad.org/
National Institute of Arthritis and Musculoskeletal and Skin Diseases
http://www.niams.nih.gov/

- Pictures/Diagrams
  Atlas of the Body: The Skin
  Source: American Medical Association
  &sub_cat=98

- Research
  What’s Eating You? New Research Finds Link Between Diet and Contact Dermatitis
  Source: American Academy of Dermatology
  http://www.aad.org/PressReleases/eating.html

- Statistics
  FASTATS: Dermatological Conditions
  Source: National Center for Health Statistics
  http://www.cdc.gov/nchs/fastats/skin.htm

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 skin rashes. 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:

- Celiac Sprue
  Source: Camp Hill, PA: Chek-Med Systems, Inc. 199x. [2 p.]

  Contact: Available from Chek-Med Systems, Inc. 200 Grandview Avenue, Camp Hill, PA 17011-1706. (800) 451-5797 or (717) 761-1170. Fax (717) 761-0216. PRICE: $22.00 per pack of 50 brochures; 3 pack minimum.

  Summary: Celiac sprue (CS) is a disease of the lining of the small intestine. This genetic disorder is triggered when the lining of the intestine comes into contact with the grain protein called gluten; gluten is present in wheat and all wheat products, barley, rye, and to a lesser extent, oats. This patient education brochure describes celiac sprue (also
known as celiac disease, non tropical sprue, and gluten enteropathy or intolerance), its symptoms, diagnosis, and treatment with a gluten free diet. In children, CS may cause irritability, diarrhea, nausea, vomiting, and failure to thrive or grow. The same symptoms may occur in adults, along with abdominal pain, weight loss, anemia or low red blood cell count, mood changes, joint and muscle pain, fatigue, skin rashes, and menstrual irregularity. Some people have no symptoms at all. The diagnosis includes medical history, blood tests, and a small intestine biopsy (done by endoscopy). The treatment of CS is dietary and consists of complete avoidance of the gluten protein. Patients may find specialty stores to gluten free products, and may benefit from the help of a registered dietitian. Most patients have a good response to the elimination of gluten from the diet. Since CS is a disorder of the immune system, it is associated with other diseases that have similar links, including dermatitis herpetiformis, lupus erythematosus, diabetes occurring in childhood, and rheumatoid arthritis and other immune related disorders. Complications of CS can include malignancies (cancer) of the intestines, osteoporosis (a bone disease), failure to grow in height or weight, and vitamin and mineral deficiencies; these complications are usually preventable by following a strict gluten free diet. Although the need to avoid gluten protein is difficult at first, the response to dietary treatment is usually so good that patients have no problem staying on this eating program. The brochure concludes with the contact information for four resource organizations through which readers can obtain more information and support. 2 figures.

- Questions and Answers About Reactive Arthritis


Contact: Available from National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS) Information Clearinghouse. 1 AMS Circle, Bethesda, MD 20892-3675. (877) 226-4267 toll-free or (301) 495-4484. Fax (301) 718-6366. TTY (301) 565-2966. E-mail: NIAMSInfo@mail.nih.gov. Website: www.niams.nih.gov. PRICE: 1 to 25 copies free. Order Number: AR-253 QA (booklet), or AR-253L QA (large print fact sheet).

Summary: This booklet uses a question and answer format to provide people who have reactive arthritis with information about the causes, symptoms, diagnosis, and treatment of this form of arthritis, which occurs as a reaction to an infection elsewhere in the body. Reactive arthritis, or Reiter’s syndrome, usually begins 1 to 3 weeks after infection. Chlamydia trachomatis, the bacterium most often associated with reactive arthritis, is usually acquired through sexual contact. Infections in the digestive tract caused by Salmonella, Shigella, Yersinia, and Campylobacter may also trigger reactive arthritis. A genetic factor, human leukocyte antigen, increases the risk of developing reactive arthritis. Although reactive arthritis itself is not contagious, the bacteria that trigger it can be passed from person to person. Men aged 20 to 40 are most likely to develop reactive arthritis. Symptoms include inflammation of the urogenital tract, the joints, and the eyes. Mouth ulcers and skin rashes are less common symptoms. Diagnosis is based on clinical presentation, laboratory tests, and imaging studies. There is no cure for reactive arthritis, but some treatments relieve symptoms. Treatment options include nonsteroidal antiinflammatory drugs, corticosteroid injections, topical corticosteroids, antibiotics, immunosuppressive medicines, tumor necrosis factor inhibitors, and exercise. Most people with reactive arthritis recover fully within 2 to 6 months after the first symptoms appear. Researchers are investigating the causes and treatments for reactive arthritis. The booklet identifies sources of additional information and provides a glossary of medical terms.
• Myositis
Contact: Available from Arthritis Foundation. P.O. Box 7669, Atlanta, GA 30357-0669. (800) 283-7800. Website: www.arthritis.org. PRICE: Single copy free.
Summary: This brochure discusses myositis, a rare disease causing inflammation of the muscles and sometimes causing inflammation in other organs. Although the cause of myositis is unknown, one theory is that people with certain genetic backgrounds develop the disease after being exposed to various chemical agents, viruses, or stressful life events. Because myositis develops slowly, it can be hard to diagnose. Tests used to diagnose myositis include blood tests that measure creatine kinase, a muscle enzyme; electromyograms; MRIs; and muscle biopsies. Different forms of myositis include polymyositis (the most common), dermatomyositis, inclusion body myositis, juvenile myositis, and myositis accompanying other autoimmune diseases. Over time the disease can flare or go into remission. Symptoms include weakness in the hip and shoulder muscles, skin rashes, fatigue, fever, weight loss, pain, and shortness of breath. Treatment depends upon the severity and form of the disease and includes taking medications such as glucocorticoids and immunosuppressive drugs, exercising, resting, and undergoing physical therapy.

• Medications
Summary: This brochure discusses the principal drugs used in the primary management of systemic lupus erythematosus (SLE). Anti-inflammatory drugs are the most commonly used and help relieve inflammation that causes pain and discomfort. The two categories of anti-inflammatory drugs are non-steroidal anti-inflammatory drugs (NSAIDs) and corticosteroids. NSAIDs help relieve musculoskeletal symptoms but may cause abdominal pain, fever, skin rash, headache, or abnormal urine studies. Corticosteroids are used to suppress immune functions. Side effects include change in physical appearance, depression and mood swings, increased risk of infections, muscle weakness, cataracts, joint damage, and bone thinning. Anti-malarial drugs are used to manage symptoms of lupus including lupus arthritis, skin rashes, and mouth ulcers. Side effects of these medications include stomach pain, dyspepsia, rashes, muscle weakness, and changes in skin pigment. Immunosuppressive drugs are used to treat more serious manifestations of lupus such as lupus nephritis or neurologic disease or to treat individuals in which corticosteroids have failed. Because these drugs suppress the immune system and have possible toxicities, patients must be carefully monitored by having regular blood work. Treatments including hormone modifications, more selective immunosuppressive drugs, and biologic agents are currently being investigated in clinical trials.

• Women and AIDS : Basic Facts About AIDS and HIV
Summary: This brochure, written for female government employees, discusses the facts about the human immunodeficiency virus (HIV)/acquired immune deficiency
syndrome (AIDS). HIV is a virus that attacks the immune system, weakening over a period of time, leading to the development of AIDS. Individuals should keep fluids such as blood, semen, and vaginal fluids from open cuts or cracked skin. Other areas that should be kept clear of these fluids are listed. Whether in the work place or at home, individuals should use latex barriers such as gloves or condoms to keep the aforementioned fluids away from skin. The symptoms of HIV-infection include a low-grade fever, fatigue, weight loss not resulting from dieting, skin rashes, and night sweats. Women specifically may experience a series of yeast infections that never seem to clear up even with treatment. HIV is relatively difficult to transmit in the workplace, unless there are situations in which individuals are exposed to blood or other infectious body fluids. Women who are pregnant can help to prevent the spread of HIV to their infants by taking a virus-reducing medicine. Parents are encouraged to discuss sexuality and HIV/AIDS with their children and adolescents to help them to prevent HIV. Women who are caregivers to HIV-positive individuals are instructed to observe the body fluid safety precautions and seek support and free time from this stressful task.

- **Systemic Lupus Erythematosus**


  Contact: Available from American College of Rheumatology. Website: www.rheumatology.org.

  Summary: This fact sheet discusses systemic lupus erythematosus (SLE), a chronic autoimmune disorder. Symptoms are varied but may include skin rashes, mouth and nose sores, arthritis, nervous system disorders, and kidney inflammation. Diagnosis is based on lab studies, particularly the antinuclear antibody test. Although SLE is chronic, it goes through active and inactive phases. Treatment includes NSAIDs and corticosteroids for inflammation, antimalarials such as hydroxychloroquine for reducing SLE activity, and immunosuppressive drugs such as azathioprine and cyclophosphamide for more severe SLE.

- **Polyarteritis Nodosa**


  Summary: This fact sheet for people with polyarteritis nodosa discusses the affected population, causes, symptoms, and treatment of this chronic inflammatory vascular disease, which occurs most frequently in middle age and in men is strongly suspected of having an underlying autoimmune component. The disease causes an inflammation of the arteries that results in narrowing of the vessels. Although the exact cause of polyarteritis is unknown, a bacterial or viral infection may be involved, and allergic reactions and vaccines have been linked to the disorder. Symptoms include joint and muscle pain, fever, weight loss, fatigue, high blood pressure, skin rashes, and gastrointestinal problems. Treatment consists of controlling the inflammatory process by suppressing the immune system. Prednisone is usually used, although cyclophosphamide and nonsteroidal anti-inflammatory drugs may be prescribed as well. The fact sheet also explains what autoimmunity is, lists other common autoimmune diseases, and outlines the activities of the American Autoimmune Related Diseases Association. 1 reference.
• **Lupus Guide Patient Information Handouts: Antimalarials**


Contact: Available from National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS) Information Clearinghouse. 1 AMS Circle, Bethesda, MD 20892-3675. (877) 226-4267 or (301) 495-4484. Fax (301) 718-6366. TTY (301) 565-2966. E-mail: NAMSIC@mail.nih.gov. Website: www.niams.nih.gov. PRICE: Available only as part of a package of patient information sheets; single copy of package free. Order Number: AR-205.

Summary: This fact sheet provides people who have systemic lupus erythematosus (SLE) and the patient care team with information about antimalarials, which are used to manage less serious forms of SLE and to treat discoid lupus erythematosus. They are used to control lupus arthritis, **skin rashes**, mouth ulcers, and other symptoms such as fatigue and fever. However, weeks or months of using these drugs are needed before the patient notices any change in symptoms. The fact sheet provides space to record personal instructions for taking antimalarials, presents possible side effects and precautions, and offers a warning about taking antimalarials.

• **Nonsteroidal Anti-Inflammatory Drugs (NSAIDS)**


Contact: Available from Lupus Foundation of America, Inc. 1300 Piccard Drive, Suite 200, Rockville, MD 20850-4303. (800) 558-0121 or (301) 670-9292. Website: www.lupus.org/lupus. PRICE: Available as part of a package of 21 different lupus-related brochures for $3.95 plus shipping and handling.

Summary: This pamphlet for people with lupus discusses the use of nonsteroidal anti-inflammatory drugs (NSAIDs) to treat the pain and inflammation that commonly occur in patients with systemic lupus erythematosus. It identifies the types of NSAIDs, including aspirin and other salicylates, and explains the mechanism of action and use of NSAIDs. The pamphlet describes the common side effects of NSAID therapy, including stomach upset, headache, drowsiness, easy bruising, high blood pressure, and fluid retention. It highlights the uncommon side effects of NSAIDs, including abnormal liver tests, asthma, severe headache with neck stiffness, and **skin rashes**. The pamphlet also provides information on the Lupus Foundation of America.

Healthfinder™

Healthfinder™ is sponsored by the U.S. Department of Health and Human Services and offers links to hundreds of other sites that contain healthcare information. This Web site is located at [http://www.healthfinder.gov](http://www.healthfinder.gov). Again, keyword searches can be used to find guidelines. The following was recently found in this database:
• **Preventing Allergic Reactions to Natural Rubber Latex in the Workplace**
  
  Summary: WARNING! Workers exposed to latex gloves and other products containing natural rubber latex may develop allergic reactions such as skin rashes; hives; nasal, eye, or sinus symptoms; asthma; and

  Source: National Institute for Occupational Safety and Health, Centers for Disease Control and Prevention

  http://www.healthfinder.gov/scripts/recordpass.asp?RecordType=0&RecordID=1043

• **Self-Care Flow Charts: Skin Rashes and Other Changes**
  
  Summary: An online chart of self-care suggestions for common skin rashes and skin changes. These include contact dermatitis, seborrhea, cradle cap, hives, insect bites, and cellulitis.

  Source: American Academy of Family Physicians

  http://www.healthfinder.gov/scripts/recordpass.asp?RecordType=0&RecordID=4800

**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 skin rashes. 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](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](http://search.aol.com/cat.adp?id=168&layer=&from=subcats)

• Family Village: [http://www.familyvillage.wisc.edu/specific.htm](http://www.familyvillage.wisc.edu/specific.htm)

• Google: [http://directory.google.com/Top/Health/Conditions_and_Diseases/](http://directory.google.com/Top/Health/Conditions_and_Diseases/)

• Med Help International: [http://www.medhelp.org/HealthTopics/A.html](http://www.medhelp.org/HealthTopics/A.html)

• Open Directory Project: [http://dmoz.org/Health/Conditions_and_Diseases/](http://dmoz.org/Health/Conditions_and_Diseases/)

• Yahoo.com: [http://dir.yahoo.com/Health/Diseases_and_Conditions/](http://dir.yahoo.com/Health/Diseases_and_Conditions/)

• WebMD® Health: [http://my.webmd.com/health_topics](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 skin rashes. By consulting all of associations listed in this chapter, you will have nearly exhausted all sources for patient associations concerned with skin rashes.

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 skin rashes. 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 “skin rashes” (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 “skin rashes”. 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 “skin rashes” (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 “skin rashes” (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.18

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

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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)\textsuperscript{19}:

- **Alabama**: Health InfoNet of Jefferson County (Jefferson County Library Cooperative, Lister Hill Library of the Health Sciences), [http://www.uab.edu/infonet/](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](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](http://www.humboldt1.com/~kkhic/index.html)

- **California**: Community Health Library of Los Gatos, [http://www.healthlib.org/orgresources.html](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](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/](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](http://sfghdean.ucsf.edu/barnett/PERC/default.asp)

- **California**: Redwood Health Library (Petaluma Health Care District), [http://www.phcd.org/crdwldlib.html](http://www.phcd.org/crdwldlib.html)

- **California**: Los Gatos PlaneTree Health Library, [http://planetreesanjose.org/](http://planetreesanjose.org/)

- **California**: Sutter Resource Library (Sutter Hospitals Foundation, Sacramento), [http://suttermedicalcenter.org/library/](http://suttermedicalcenter.org/library/)

- **California**: Health Sciences Libraries (University of California, Davis), [http://www.lib.ucdavis.edu/healthsci/](http://www.lib.ucdavis.edu/healthsci/)

- **California**: ValleyCare Health Library & Ryan Comer Cancer Resource Center (ValleyCare Health System, Pleasanton), [http://gaelnet.stmarys-ca.edu/other.libs/gbal/east/vchl.html](http://gaelnet.stmarys-ca.edu/other.libs/gbal/east/vchl.html)

- **California**: Washington Community Health Resource Library (Fremont), [http://www.healthlibrary.org/](http://www.healthlibrary.org/)


- **Connecticut**: Hartford Hospital Health Science Libraries (Hartford Hospital), [http://www.harthosp.org/library/](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/department/hnet/](http://library.uchc.edu/department/hnet/)

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• **Connecticut**: Waterbury Hospital Health Center Library (Waterbury Hospital, Waterbury), [http://www.waterburyhospital.com/library/consumer.shtml](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_pmrivealth_info.cfm](http://www.christianacare.org/health_guide/health_guide_pmrivealth_info.cfm)

• **Delaware**: Lewis B. Flinn Library (Delaware Academy of Medicine, Wilmington), [http://www.delamed.org/chls.html](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](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](http://www.mccg.org/hrc/hrchome.asp)

• **Hawaii**: Hawaii Medical Library: Consumer Health Information Service (Hawaii Medical Library, Honolulu), [http://hml.org/CHIS/](http://hml.org/CHIS/)

• **Idaho**: DeArmond Consumer Health Library (Kootenai Medical Center, Coeur d’Alene), [http://www.nicon.org/DeArmond/index.htm](http://www.nicon.org/DeArmond/index.htm)

• **Illinois**: Health Learning Center of Northwestern Memorial Hospital (Chicago), [http://www.nnmh.org/health_info/hlc.html](http://www.nnmh.org/health_info/hlc.html)

• **Illinois**: Medical Library (OSF Saint Francis Medical Center, Peoria), [http://www.osfsaintfrancis.org/general/library/](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](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/](http://www.mc.uky.edu/PatientEd/)

• **Louisiana**: Alton Ochsner Medical Foundation Library (Alton Ochsner Medical Foundation, New Orleans), [http://www.ochsner.org/library/](http://www.ochsner.org/library/)

• **Louisiana**: Louisiana State University Health Sciences Center Medical Library-Shreveport, [http://lib-sh.lsuhs.sc.edu/](http://lib-sh.lsuhs.sc.edu/)

• **Maine**: Franklin Memorial Hospital Medical Library (Franklin Memorial Hospital, Farmington), [http://www.fchn.org/fmh/lib.htm](http://www.fchn.org/fmh/lib.htm)

• **Maine**: Gerrish-True Health Sciences Library (Central Maine Medical Center, Lewiston), [http://www.cmmmc.org/library/library.html](http://www.cmmmc.org/library/library.html)

• **Maine**: Hadley Parrot Health Science Library (Eastern Maine Healthcare, Bangor), [http://www.emh.org/hll/hpl/guide.htm](http://www.emh.org/hll/hpl/guide.htm)

• **Maine**: Maine Medical Center Library (Maine Medical Center, Portland), [http://www.mmc.org/library/](http://www.mmc.org/library/)

• **Maine**: Parkview Hospital (Brunswick), [http://www.parkviewhospital.org/](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](http://www.smmc.org/services/service.php3?choice=10)

• **Maine**: Stephens Memorial Hospital’s Health Information Library (Western Maine Health, Norway), [http://www.wmhc.org/Library/](http://www.wmhc.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, Worcester),
  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 Resource 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.htmlld/conshealth.htmlld/
• **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.collyphil.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](http://www.rcrh.org/Services/Library/Default.asp)

• **Texas:** Houston HealthWays (Houston Academy of Medicine-Texas Medical Center Library), [http://hhw.library.tmc.edu/](http://hhw.library.tmc.edu/)

• **Washington:** Community Health Library (Kittitas Valley Community Hospital), [http://www.kvch.com/](http://www.kvch.com/)

• **Washington:** Southwest Washington Medical Center Library (Southwest Washington Medical Center, Vancouver), [http://www.swmedicalcenter.com/body.cfm?id=72](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:

- 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

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/hlth/publications/medical/diction.htm#Medical
- 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
SKIN RASHES DICTIONARY

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

**6-Mercaptopurine:** An antimetabolite antineoplastic agent with immunosuppressant properties. It interferes with nucleic acid synthesis by inhibiting purine metabolism and is used, usually in combination with other drugs, in the treatment of or in remission maintenance programs for leukemia. [NIH]

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

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

**Aberrant:** Wandering or deviating from the usual or normal course. [EU]

**Acne:** A disorder of the skin marked by inflammation of oil glands and hair glands. [NIH]

**Acrylonitrile:** A highly poisonous compound used widely in the manufacture of plastics, adhesives and synthetic rubber. [NIH]

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

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

**Adhesions:** Pathological processes consisting of the union of the opposing surfaces of a wound. [NIH]

**Adipose Tissue:** Connective tissue composed of fat cells lodged in the meshes of areolar tissue. [NIH]

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

**Adrenal Glands:** Paired glands situated in the retroperitoneal tissues at the superior pole of each kidney. [NIH]

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

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

**Agar:** A complex sulfated polymer of galactose units, extracted from Gelidium cartilagineum, Gracilaria confervoides, and related red algae. It is used as a gel in the preparation of solid culture media for microorganisms, as a bulk laxative, in making emulsions, and as a supporting medium for immunodiffusion and immunoelectrophoresis. [NIH]
Aldehydes: Organic compounds containing a carbonyl group in the form -CHO. [NIH]

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

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

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

Allergen: An antigenic substance capable of producing immediate-type hypersensitivity (allergy). [EU]

Allogeneic: Taken from different individuals of the same species. [NIH]

Allogeneic bone marrow transplantation: A procedure in which a person receives stem cells, the cells from which all blood cells develop, from a compatible, though not genetically identical, donor. [NIH]

Alopecia: Absence of hair from areas where it is normally present. [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]

Amber: A yellowish fossil resin, the gum of several species of coniferous trees, found in the alluvial deposits of northeastern Germany. It is used in molecular biology in the analysis of organic matter fossilized in amber. [NIH]

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

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

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

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

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

Anaphylatoxins: The family of peptides C3a, C4a, C5a, and C5a des-arginine produced in the serum during complement activation. They produce smooth muscle contraction, mast cell histamine release, affect platelet aggregation, and act as mediators of the local inflammatory process. The order of anaphylatoxin activity from strongest to weakest is C5a, C3a, C4a, and C5a des-arginine. The latter is the so-called "classical" anaphylatoxin but shows no spasmogenic activity though it contains some chemotactic ability. [NIH]

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

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

**Anesthesia:** A state characterized by loss of feeling or sensation. This depression of nerve function is usually the result of pharmacologic action and is induced to allow performance of surgery or other painful procedures. [NIH]

**Antiallergic:** Counteracting allergy or allergic conditions. [EU]

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

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

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

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

**Anticoagulant:** A drug that helps prevent blood clots from forming. Also called a blood thinner. [NIH]

**Anticonvulsant:** An agent that prevents or relieves convulsions. [EU]

**Antiepileptic:** An agent that combats epilepsy. [EU]

**Antifungal:** Destructive to fungi, or suppressing their reproduction or growth; effective against fungal infections. [EU]

**Antifungal Agents:** Substances that destroy fungi by suppressing their ability to grow or reproduce. They differ from fungicides, industrial because they defend against fungi present in human or animal tissues. [NIH]

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

**Antigen-Antibody Complex:** The complex formed by the binding of antigen and antibody molecules. The deposition of large antigen-antibody complexes leading to tissue damage causes immune complex diseases. [NIH]

**Antigen-presenting cell:** APC. A cell that shows antigen on its surface to other cells of the immune system. This is an important part of an immune response. [NIH]

**Antihypertensive:** An agent that reduces high blood pressure. [EU]

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

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

**Antimetabolite:** A chemical that is very similar to one required in a normal biochemical reaction in cells. Antimetabolites can stop or slow down the reaction. [NIH]
Antimicrobial: Killing microorganisms, or suppressing their multiplication or growth. [EU]
Antineoplastic: Inhibiting or preventing the development of neoplasms, checking the maturation and proliferation of malignant cells. [EU]
Antipyretic: An agent that relieves or reduces fever. Called also antifebrile, antithermic and febrifuge. [EU]
Antiseptic: A substance that inhibits the growth and development of microorganisms without necessarily killing them. [EU]
Antiviral: Destroying viruses or suppressing their replication. [EU]
Anus: The opening of the rectum to the outside of the body. [NIH]
Aplasia: Lack of development of an organ or tissue, or of the cellular products from an organ or tissue. [EU]
Aqueous: Having to do with water. [NIH]
Aromatic: Having a spicy odour. [EU]
Arterial: Pertaining to an artery or to the arteries. [EU]
Arteries: The vessels carrying blood away from the heart. [NIH]
Arterioles: The smallest divisions of the arteries located between the muscular arteries and the capillaries. [NIH]
Arteritis: Inflammation of an artery. [NIH]
Arthralgia: Pain in the joint. [NIH]
Aspergillosis: Infections with fungi of the genus Aspergillus. [NIH]
Aspirin: A drug that reduces pain, fever, inflammation, and blood clotting. Aspirin belongs to the family of drugs called nonsteroidal anti-inflammatory agents. It is also being studied in cancer prevention. [NIH]
Astringent: Causing contraction, usually locally after topical application. [EU]
Atopic: Pertaining to an atopen or to atopy; allergic. [EU]
Atypical: Irregular; not conformable to the type; in microbiology, applied specifically to strains of unusual type. [EU]
Autoantibodies: Antibodies that react with self-antigens (autoantigens) of the organism that produced them. [NIH]
Autoimmune disease: A condition in which the body recognizes its own tissues as foreign and directs an immune response against them. [NIH]
Autoimmunity: Process whereby the immune system reacts against the body's own tissues. Autoimmunity may produce or be caused by autoimmune diseases. [NIH]
Aztreonam: A monocyclic beta-lactam antibiotic originally isolated from Chromobacterium violaceum. It is resistant to beta-lactamases and is used in gram-negative infections, especially of the meninges, bladder, and kidneys. It may cause a superinfection with gram-positive organisms. [NIH]
Back Pain: Acute or chronic pain located in the posterior regions of the trunk, including the thoracic, lumbar, sacral, or adjacent regions. [NIH]
Bacteria: Unicellular prokaryotic microorganisms which generally possess rigid cell walls, multiply by cell division, and exhibit three principal forms: round or coccal, rodlike or bacillary, and spiral or spirochetal. [NIH]
Bacteriophage: A virus whose host is a bacterial cell; A virus that exclusively infects bacteria. It generally has a protein coat surrounding the genome (DNA or RNA). One of the
coliphages most extensively studied is the lambda phage, which is also one of the most important. [NIH]

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

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

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

**Beta-Lactamases:** Enzymes found in many bacteria which catalyze the hydrolysis of the amide bond in the beta-lactam ring. Well known antibiotics destroyed by these enzymes are penicillins and cephalosporins. EC 3.5.2.6. [NIH]

**Bewilderment:** Impairment or loss of will power. [NIH]

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

**Bile Pigments:** Pigments that give a characteristic color to bile including: bilirubin, biliverdine, and bilicyanin. [NIH]

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

**Blastomycosis:** A fungal infection that may appear in two forms: 1) a primary lesion characterized by the formation of a small cutaneous nodule and small nodules along the lymphatics that may heal within several months; and 2) chronic granulomatous lesions characterized by thick crusts, warty growths, and unusual vascularity and infection in the middle or upper lobes of the lung. [NIH]

**Blister:** Visible accumulations of fluid within or beneath the epidermis. [NIH]

**Blood Cell Count:** A count of the number of leukocytes and erythrocytes per unit volume in a sample of venous blood. A complete blood count (CBC) also includes measurement of the hemoglobin, hematocrit, and erythrocyte indices. [NIH]

**Blood Glucose:** Glucose in blood. [NIH]

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

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

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

**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]

**Bone Marrow Transplantation**: The transference of bone marrow from one human or animal to another. [NIH]

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

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

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

**Breakdown**: A physical, metal, or nervous collapse. [NIH]

**Breast Implants**: Implants used to reconstruct and/or cosmetically enhance the female breast. They have an outer shell or envelope of silicone elastomer and are filled with either saline or silicone gel. The outer shell may be either smooth or textured. [NIH]

**Buccal**: Pertaining to or directed toward the cheek. In dental anatomy, used to refer to the buccal surface of a tooth. [EU]

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

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

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

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

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

**Capsaicin**: Cytotoxic alkaloid from various species of Capsicum (pepper, paprika), of the Solanaceae. [NIH]

**Capsicum**: A genus of Solanaceous shrubs that yield capsaicin. Several varieties have sweet or pungent edible fruits that are used as vegetables when fresh and spices when the pods are dried. [NIH]

**Captopril**: A potent and specific inhibitor of peptidyl-dipeptidase A. It blocks the conversion of angiotensin I to angiotensin II, a vasoconstrictor and important regulator of arterial blood pressure. Captopril acts to suppress the renin-angiotensin system and inhibits pressure responses to exogenous angiotensin. [NIH]

**Carbamazepine**: An anticonvulsant used to control grand mal and psychomotor or focal seizures. Its mode of action is not fully understood, but some of its actions resemble those of
phenytoin; although there is little chemical resemblance between the two compounds, their three-dimensional structure is similar. [NIH]

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

**Carboxy**: Cannabinoid. [NIH]

**Carboxylic Acids**: Organic compounds containing the carboxy group (-COOH). This group of compounds includes amino acids and fatty acids. Carboxylic acids can be saturated, unsaturated, or aromatic. [NIH]

**Carcinogenic**: Producing carcinoma. [EU]

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

**Cardiomegaly**: Hypertrophy or enlargement of the heart. [NIH]

**Cardiotoxicity**: Toxicity that affects the heart. [NIH]

**Carnitine**: Constituent of striated muscle and liver. It is used therapeutically to stimulate gastric and pancreatic secretions and in the treatment of hyperlipoproteinemas. [NIH]

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

**Cataracts**: In medicine, an opacity of the crystalline lens of the eye obstructing partially or totally its transmission of light. [NIH]

**Catechol**: A chemical originally isolated from a type of mimosa tree. Catechol is used as an astringent, an antiseptic, and in photography, electroplating, and making other chemicals. It can also be man-made. [NIH]

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

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

**Cell Division**: The fission of a cell. [NIH]

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

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

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

**Central Nervous System Infections**: Pathogenic infections of the brain, spinal cord, and meninges. DNA virus infections; RNA virus infections; bacterial infections; mycoplasma infections; Spirochaetales infections; fungal infections; protozoan infections; helminthiasis; and prion diseases may involve the central nervous system as a primary or secondary process. [NIH]

**Cerebral**: Of or pertaining of the cerebrum or the brain. [EU]
Character: In current usage, approximately equivalent to personality. The sum of the relatively fixed personality traits and habitual modes of response of an individual. [NIH]

Cheilitis: Inflammation of the lips. It is of various etiologies and degrees of pathology. [NIH]

Chemoembolization: A procedure in which the blood supply to the tumor is blocked surgically or mechanically, and anticancer drugs are administered directly into the tumor. This permits a higher concentration of drug to be in contact with the tumor for a longer period of time. [NIH]

Chemotactic Factors: Chemical substances that attract or repel cells or organisms. The concept denotes especially those factors released as a result of tissue injury, invasion, or immunologic activity, that attract leukocytes, macrophages, or other cells to the site of infection or insult. [NIH]

Chemotherapy: Treatment with anticancer drugs. [NIH]

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

Chlorella: Nonmotile unicellular green algae potentially valuable as a source of high-grade protein and B-complex vitamins. [NIH]

Chlorine: A greenish-yellow, diatomic gas that is a member of the halogen family of elements. It has the atomic symbol Cl, atomic number 17, and atomic weight 70.906. It is a powerful irritant that can cause fatal pulmonary edema. Chlorine is used in manufacturing, as a reagent in synthetic chemistry, for water purification, and in the production of chlorinated lime, which is used in fabric bleaching. [NIH]

Chlorophyll: Porphyrin derivatives containing magnesium that act to convert light energy in photosynthetic organisms. [NIH]

Chromosome: Part of a cell that contains genetic information. Except for sperm and eggs, all human cells contain 46 chromosomes. [NIH]

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

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

Chronic granulocytic leukemia: A slowly progressing disease in which too many white blood cells are made in the bone marrow. Also called chronic myelogenous leukemia or chronic myeloid leukemia. [NIH]

Chronic myelogenous leukemia: CML. A slowly progressing disease in which too many white blood cells are made in the bone marrow. Also called chronic myeloid leukemia or chronic granulocytic leukemia. [NIH]

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

Claviceps: A genus of ascomycetous fungi, family Clavicipitaceae, order Hypocreales, parasitic on various grasses. The sclerotia contain several toxic alkaloids. Claviceps purpurea on rye causes ergotism. [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]

Colchicine: A major alkaloid from Colchicum autumnale L. and found also in other Colchicum species. Its primary therapeutic use is in the treatment of gout, but it has been
used also in the therapy of familial Mediterranean fever (periodic disease). [NIH]

**Colitis:** Inflammation of the colon. [NIH]

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

**Complete remission:** The disappearance of all signs of cancer. Also called a complete response. [NIH]

**Compress:** A plug used to occlude an orifice in the control of bleeding, or to mop up secretions; an absorbent pad. [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]

**Conception:** The onset of pregnancy, marked by implantation of the blastocyst; the formation of a viable zygote. [EU]

**Concomitant:** Accompanying; accessory; joined with another. [EU]

**Condoms:** A sheath that is worn over the penis during sexual behavior in order to prevent pregnancy or spread of sexually transmitted disease. [NIH]

**Confusion:** A mental state characterized by bewilderment, emotional disturbance, lack of clear thinking, and perceptual disorientation. [NIH]

**Conjunctiva:** The mucous membrane that lines the inner surface of the eyelids and the anterior part of the sclera. [NIH]

**Conjunctivitis:** Inflammation of the conjunctiva, generally consisting of conjunctival hyperaemia associated with a discharge. [EU]

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

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

**Connective Tissue Cells:** A group of cells that includes fibroblasts, cartilage cells, adipocytes, smooth muscle cells, and bone cells. [NIH]

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

**Constipation:** Infrequent or difficult evacuation of feces. [NIH]

**Consultation:** A deliberation between two or more physicians concerning the diagnosis and the proper method of treatment in a case. [NIH]

**Contact dermatitis:** Inflammation of the skin with varying degrees of erythema, edema and vesiculation resulting from cutaneous contact with a foreign substance or other exposure. [NIH]

**Contamination:** The soiling or pollution by inferior material, as by the introduction of organisms into a wound, or sewage into a stream. [EU]

**Contraceptive:** An agent that diminishes the likelihood of or prevents conception. [EU]

**Contraindications:** Any factor or sign that it is unwise to pursue a certain kind of action or treatment, e.g. giving a general anesthetic to a person with pneumonia. [NIH]

**Convulsions:** A general term referring to sudden and often violent motor activity of cerebral or brainstem origin. Convulsions may also occur in the absence of an electrical cerebral discharge (e.g., in response to hypotension). [NIH]

**Cor:** The muscular organ that maintains the circulation of the blood. c. adiposum a heart that has undergone fatty degeneration or that has an accumulation of fat around it; called also fat or fatty, heart. c. arteriosum the left side of the heart, so called because it contains oxygenated (arterial) blood. c. biloculare a congenital anomaly characterized by failure of formation of the atrial and ventricular septums, the heart having only two chambers, a single atrium and a single ventricle, and a common atrioventricular valve. c. bovinum (L. 'ox heart') a greatly enlarged heart due to a hypertrophied left ventricle; called also c. taurinum and bucardia. c. dextrum (L. 'right heart') the right atrium and ventricle. c. hirsutum, c. villosum. c. mobile (obs.) an abnormally movable heart. c. pendulum a heart so movable that it seems to be hanging by the great blood vessels. c. pseudotrilocular batriatum a congenital cardiac anomaly in which the heart functions as a three-chambered heart because of tricuspid atresia, the right ventricle being extremely small or rudimentary and the right atrium greatly dilated. Blood passes from the right to the left atrium and thence disease due to pulmonary hypertension secondary to disease of the lung, or its blood vessels, with hypertrophy of the right ventricle. [EU]

**Cornea:** The transparent part of the eye that covers the iris and the pupil and allows light to enter the inside. [NIH]

**Corneum:** The superficial layer of the epidermis containing keratinized cells. [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]

**Cortical:** Pertaining to or of the nature of a cortex or bark. [EU]

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

Cortisone: A natural steroid hormone produced in the adrenal gland. It can also be made in the laboratory. Cortisone reduces swelling and can suppress immune responses. [NIH]

Cranial: Pertaining to the cranium, or to the anterior (in animals) or superior (in humans) end of the body. [EU]

Craniocebral Trauma: Traumatic injuries involving the cranium and intracranial structures (i.e., brain; cranial nerves; meninges; and other structures). Injuries may be classified by whether or not the skull is penetrated (i.e., penetrating vs. nonpenetrating) or whether there is an associated hemorrhage. [NIH]

Creatine: An amino acid that occurs in vertebrate tissues and in urine. In muscle tissue, creatine generally occurs as phosphocreatine. Creatine is excreted as creatinine in the urine. [NIH]

Creatine Kinase: A transferase that catalyzes formation of phosphocreatine from ATP + creatine. The reaction stores ATP energy as phosphocreatine. Three cytoplasmic isoenzymes have been identified in human tissues: MM from skeletal muscle, MB from myocardial tissue, and BB from nervous tissue as well as a mitochondrial isoenzyme. Macro-creatine kinase refers to creatine kinase complexed with other serum proteins. EC 2.7.3.2. [NIH]

Creatinine: A compound that is excreted from the body in urine. Creatinine levels are measured to monitor kidney function. [NIH]

Cryptosporidium: A genus of coccidian parasites of the family Cryptosporidiidae, found in the intestinal epithelium of many vertebrates including humans. [NIH]

Curative: Tending to overcome disease and promote recovery. [EU]

Cutaneous: Having to do with the skin. [NIH]

Cyclophosphamide: Precursor of an alkylating nitrogen mustard antineoplastic and immunosuppressive agent that must be activated in the liver to form the active aldoephosphamide. It is used in the treatment of lymphomas, leukemias, etc. Its side effect, alopecia, has been made use of in defleecing sheep. Cyclophosphamide may also cause sterility, birth defects, mutations, and cancer. [NIH]

Cyclosporine: A drug used to help reduce the risk of rejection of organ and bone marrow transplants by the body. It is also used in clinical trials to make cancer cells more sensitive to anticancer drugs. [NIH]

Cyst: A sac or capsule filled with fluid. [NIH]

Cytokines: Non-antibody proteins secreted by inflammatory leukocytes and some non-leukocytic cells, that act as intercellular mediators. They differ from classical hormones in that they are produced by a number of tissue or cell types rather than by specialized glands. They generally act locally in a paracrine or autocrine rather than endocrine manner. [NIH]

Cytomegalovirus: A genus of the family Herpesviridae, subfamily Betaherpesvirinae, infecting the salivary glands, liver, spleen, lungs, eyes, and other organs, in which they produce characteristically enlarged cells with intranuclear inclusions. Infection with Cytomegalovirus is also seen as an opportunistic infection in AIDS. [NIH]

Cytomegalovirus Infections: Infection with Cytomegalovirus, characterized by enlarged cells bearing intranuclear inclusions. Infection may be in almost any organ, but the salivary
glands are the most common site in children, as are the lungs in adults. [NIH]

**Cytosine**: A pyrimidine base that is a fundamental unit of nucleic acids. [NIH]

**Cytotoxic**: Cell-killing. [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]

**Degenerative**: Undergoing degeneration: tending to degenerate; having the character of or involving degeneration; causing or tending to cause degeneration. [EU]

**Dendrites**: Extensions of the nerve cell body. They are short and branched and receive stimuli from other neurons. [NIH]

**Dendritic**: 1. Branched like a tree. 2. Pertaining to or possessing dendrites. [EU]

**Dendritic cell**: A special type of antigen-presenting cell (APC) that activates T lymphocytes. [NIH]

**Density**: The logarithm to the base 10 of the opacity of an exposed and processed film. [NIH]

**Depressive Disorder**: An affective disorder manifested by either a dysphoric mood or loss of interest or pleasure in usual activities. The mood disturbance is prominent and relatively persistent. [NIH]

**Dermatitis**: Any inflammation of the skin. [NIH]

**Dermatitis Herpetiformis**: Rare, chronic, papulo-vesicular disease characterized by an intensely pruritic eruption consisting of various combinations of symmetrical, erythematous, papular, vesicular, or bullous lesions. The disease is strongly associated with the presence of HLA-B8 and HLA-DR3 antigens. A variety of different autoantibodies has been detected in small numbers in patients with dermatitis herpetiformis. [NIH]

**Desensitization**: The prevention or reduction of immediate hypersensitivity reactions by administration of graded doses of allergen; called also hyposensitization and immunotherapy. [EU]

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

**Diaphragm**: The musculofibrous partition that separates the thoracic cavity from the abdominal cavity. Contraction of the diaphragm increases the volume of the thoracic cavity aiding inspiration. [NIH]

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

**Diastolic**: Of or pertaining to the diastole. [EU]

**Dietitian**: An expert in nutrition who helps people plan what and how much food to eat. [NIH]

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

**Digestive system**: The organs that take in food and turn it into products that the body can use to stay healthy. Waste products the body cannot use leave the body through bowel movements. The digestive system includes the salivary glands, mouth, esophagus, stomach, liver, pancreas, gallbladder, small and large intestines, and rectum. [NIH]

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

**Dihydrotestosterone**: Anabolic agent. [NIH]

**Diploid**: Having two sets of chromosomes. [NIH]
**Direct**: 1. Straight; in a straight line. 2. Performed immediately and without the intervention of subsidiary means. [EU]

**Discoid**: Shaped like a disk. [EU]

**Discrimination**: The act of qualitative and/or quantitative differentiation between two or more stimuli. [NIH]

**Disinfectant**: An agent that disinfects; applied particularly to agents used on inanimate objects. [EU]

**Disorientation**: The loss of proper bearings, or a state of mental confusion as to time, place, or identity. [EU]

**Distal**: Remote; farther from any point of reference; opposed to proximal. In dentistry, used to designate a position on the dental arch farther from the median line of the jaw. [EU]

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

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

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

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

**Dura mater**: The outermost, toughest, and most fibrous of the three membranes (meninges) covering the brain and spinal cord; called also pachymeninx. [EU]

**Dyspepsia**: Impaired digestion, especially after eating. [NIH]

**Dyspnea**: Difficult or labored breathing. [NIH]

**Eating Disorders**: A group of disorders characterized by physiological and psychological disturbances in appetite or food intake. [NIH]

**Eczema**: A pruritic papulovesicular dermatitis occurring as a reaction to many endogenous and exogenous agents (Dorland, 27th ed). [NIH]

**Edema**: Excessive amount of watery fluid accumulated in the intercellular spaces, most commonly present in subcutaneous tissue. [NIH]

**Effector**: It is often an enzyme that converts an inactive precursor molecule into an active second messenger. [NIH]

**Effusion**: The escape of fluid into a part or tissue, as an exudation or a transudation. [EU]

**Ejaculation**: The release of semen through the penis during orgasm. [NIH]

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

**Electroplating**: Coating with a metal or alloy by electrolysis. [NIH]

**Emollient**: Softening or soothing; called also malactic. [EU]

**Endocarditis**: Exudative and proliferative inflammatory alterations of the endocardium, characterized by the presence of vegetations on the surface of the endocardium or in the endocardium itself, and most commonly involving a heart valve, but sometimes affecting the inner lining of the cardiac chambers or the endocardium elsewhere. It may occur as a primary disorder or as a complication of or in association with another disease. [EU]

**Endoscopy**: Endoscopic examination, therapy or surgery performed on interior parts of the body. [NIH]
Endotoxin: Toxin from cell walls of bacteria. [NIH]
End-stage renal: Total chronic kidney failure. When the kidneys fail, the body retains fluid and harmful wastes build up. A person with ESRD needs treatment to replace the work of the failed kidneys. [NIH]
Environmental Health: The science of controlling or modifying those conditions, influences, or forces surrounding man which relate to promoting, establishing, and maintaining health. [NIH]
Enzymatic: Phase where enzyme cuts the precursor protein. [NIH]
Enzyme: A protein that speeds up chemical reactions in the body. [NIH]
Eosinophil: A polymorphonuclear leucocyte with large eosinophilic granules in its cytoplasm, which plays a role in hypersensitivity reactions. [NIH]
Eosinophilia: Abnormal increase in eosinophils in the blood, tissues or organs. [NIH]
Eosinophilic: A condition found primarily in grinding workers caused by a reaction of the pulmonary tissue, in particular the eosinophilic cells, to dust that has entered the lung. [NIH]
Epidermal: Pertaining to or resembling epidermis. Called also epidermic or epidermoid. [EU]
Epidermis: Nonvascular layer of the skin. It is made up, from within outward, of five layers: 1) basal layer (stratum basale epidermidis); 2) spinous layer (stratum spinosum epidermidis); 3) granular layer (stratum granulosum epidermidis); 4) clear layer (stratum lucidum epidermidis); and 5) horny layer (stratum corneum epidermidis). [NIH]
Epigastric: Having to do with the upper middle area of the abdomen. [NIH]
Epigastric Arteries: Inferior and external epigastric arteries arise from external iliac; superficial from femoral; superior from internal thoracic. They supply the abdominal muscles, diaphragm, iliac region, and groin. The inferior epigastric artery is used in coronary artery bypass grafting and myocardial revascularization. [NIH]
Episcleritis: Inflammation of the episclera and/or the outer layers of the sclera itself. [NIH]
Epithelial: Refers to the cells that line the internal and external surfaces of the body. [NIH]
Epithelium: One or more layers of epithelial cells, supported by the basal lamina, which covers the inner or outer surfaces of the body. [NIH]
Ergot: Cataract due to ergot poisoning caused by eating of rye cereals contaminated by a fungus. [NIH]
Erythema: Redness of the skin produced by congestion of the capillaries. This condition may result from a variety of causes. [NIH]
Erythrocyte Indices: Quantification of size and cell hemoglobin content or concentration of the erythrocyte, usually derived from erythrocyte count, blood hemoglobin concentration, and hematocrit. Includes the mean cell volume (MCV), mean cell hemoglobin (MCH), and mean cell hemoglobin concentration (MCHC). Use also for cell diameter and thickness. [NIH]
Erythrocytes: Red blood cells. Mature erythrocytes are non-nucleated, biconcave disks containing hemoglobin whose function is to transport oxygen. [NIH]
Esophagus: The muscular tube through which food passes from the throat to the stomach. [NIH]
Estrogen: One of the two female sex hormones. [NIH]
Ethinyl Estradiol: A semisynthetic estrogen with high oral estrogenic potency. It is often used as the estrogenic component in oral contraceptives. [NIH]
Evacuation: An emptying, as of the bowels. [EU]
Exocrine: Secreting outwardly, via a duct. [EU]
Skin Rashes

**Exogenous:** Developed or originating outside the organism, as exogenous disease. [EU]

**Extracellular:** Outside a cell or cells. [EU]

**Extracellular Matrix:** A meshwork-like substance found within the extracellular space and in association with the basement membrane of the cell surface. It promotes cellular proliferation and provides a supporting structure to which cells or cell lysates in culture dishes adhere. [NIH]

**Exudate:** Material, such as fluid, cells, or cellular debris, which has escaped from blood vessels and has been deposited in tissues or on tissue surfaces, usually as a result of inflammation. An exudate, in contrast to a transudate, is characterized by a high content of protein, cells, or solid materials derived from cells. [EU]

**Failure to Thrive:** A condition in which an infant or child's weight gain and growth are far below usual levels for age. [NIH]

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

**Fat:** Total lipids including phospholipids. [NIH]

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

**Fatty acids:** A major component of fats that are used by the body for energy and tissue development. [NIH]

**Febrile:** Pertaining to or characterized by fever. [EU]

**Feces:** The excrement discharged from the intestines, consisting of bacteria, cells exfoliated from the intestines, secretions, chiefly of the liver, and a small amount of food residue. [EU]

**Femoral:** Pertaining to the femur, or to the thigh. [EU]

**Fibrin:** A protein derived from fibrinogen in the presence of thrombin, which forms part of the blood clot. [NIH]

**Fibrosis:** Any pathological condition where fibrous connective tissue invades any organ, usually as a consequence of inflammation or other injury. [NIH]

**Flatus:** Gas passed through the rectum. [NIH]

**Fluconazole:** Triazole antifungal agent that is used to treat oropharyngeal candidiasis and cryptococcal meningitis in AIDS. [NIH]

**Flucytosine:** A fluorinated cytosine analog that is used as an antifungal agent. [NIH]

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

**Fungi:** A kingdom of eukaryotic, heterotrophic organisms that live as saprobes or parasites, including mushrooms, yeasts, smuts, molds, etc. They reproduce either sexually or asexually, and have life cycles that range from simple to complex. Filamentous fungi refer to those that grow as multicellular colonies (mushrooms and molds). [NIH]

**Fungicides, Industrial:** Chemicals that kill or inhibit the growth of fungi in agricultural applications, on wood, plastics, or other materials, in swimming pools, etc. [NIH]

**Fungus:** A general term used to denote a group of eukaryotic protists, including mushrooms, yeasts, rusts, moulds, smuts, etc., which are characterized by the absence of chlorophyll and by the presence of a rigid cell wall composed of chitin, mannans, and sometimes cellulose. They are usually of simple morphological form or show some reversible cellular specialization, such as the formation of pseudoparenchymatous tissue in the fruiting body of a mushroom. The dimorphic fungi grow, according to environmental
conditions, as moulds or yeasts. [EU]

**Gallbladder:** The pear-shaped organ that sits below the liver. Bile is concentrated and stored in the gallbladder. [NIH]

**Ganciclovir:** Acyclovir analog that is a potent inhibitor of the Herpesvirus family including cytomegalovirus. Ganciclovir is used to treat complications from AIDS-associated cytomegalovirus infections. [NIH]

**Ganglia:** Clusters of multipolar neurons surrounded by a capsule of loosely organized connective tissue located outside the central nervous system. [NIH]

**Gas:** Air that comes from normal breakdown of food. The gases are passed out of the body through the rectum (flatus) or the mouth (burp). [NIH]

**Gastric:** Having to do with the stomach. [NIH]

**Gastrin:** A hormone released after eating. Gastrin causes the stomach to produce more acid. [NIH]

**Gastrointestinal:** Refers to the stomach and intestines. [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]

**Genetics:** The biological science that deals with the phenomena and mechanisms of heredity. [NIH]

**Genital:** Pertaining to the genitalia. [EU]

**Genitourinary:** Pertaining to the genital and urinary organs; urogenital; urinosexual. [EU]

**Ginger:** Deciduous plant rich in volatile oil (oils, volatile). It is used as a flavoring agent and has many other uses both internally and topically. [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]

**Glomerular:** Pertaining to or of the nature of a glomerulus, especially a renal glomerulus. [EU]

**Glomeruli:** Plural of glomerulus. [NIH]

**Glomerulonephritis:** Glomerular disease characterized by an inflammatory reaction, with leukocyte infiltration and cellular proliferation of the glomeruli, or that appears to be the result of immune glomerular injury. [NIH]

**Glucocorticoid:** A compound that belongs to the family of compounds called corticosteroids (steroids). Glucocorticoids affect metabolism and have anti-inflammatory and immunosuppressive effects. They may be naturally produced (hormones) or synthetic (drugs). [NIH]

**Gluconeogenesis:** The process by which glucose is formed from a non-carbohydrate source. [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]

**Gluten:** The protein of wheat and other grains which gives to the dough its tough elastic character. [EU]

**Glycogen:** A sugar stored in the liver and muscles. It releases glucose into the blood when cells need it for energy. Glycogen is the chief source of stored fuel in the body. [NIH]
Glycoprotein: A protein that has sugar molecules attached to it. [NIH]

Gout: Hereditary metabolic disorder characterized by recurrent acute arthritis, hyperuricemia and deposition of sodium urate in and around the joints, sometimes with formation of uric acid calculi. [NIH]

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

Grade: The grade of a tumor depends on how abnormal the cancer cells look under a microscope and how quickly the tumor is likely to grow and spread. Grading systems are different for each type of cancer. [NIH]

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

Gram-negative: Losing the stain or decolorized by alcohol in Gram’s method of staining, a primary characteristic of bacteria having a cell wall composed of a thin layer of peptidoglycan covered by an outer membrane of lipoprotein and lipopolysaccharide. [EU]

Gram-positive: Retaining the stain or resisting decolorization by alcohol in Gram’s method of staining, a primary characteristic of bacteria whose cell wall is composed of a thick layer of peptidoglycan with attached teichoic acids. [EU]

Groin: The external junctural region between the lower part of the abdomen and the thigh. [NIH]

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

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

Headache: Pain in the cranial region that may occur as an isolated and benign symptom or as a manifestation of a wide variety of conditions including subarachnoid hemorrhage; cranioencebral trauma; central nervous system infections; intracranial hypertension; and other disorders. In general, recurrent headaches that are not associated with a primary disease process are referred to as headache disorders (e.g., migraine). [NIH]

Headache Disorders: Common conditions characterized by persistent or recurrent headaches. Headache syndrome classification systems may be based on etiology (e.g., vascular headache, post-traumatic headaches, etc.), temporal pattern (e.g., cluster headache, paroxysmal hemicrania, etc.), and precipitating factors (e.g., cough headache). [NIH]

Heartburn: Substernal pain or burning sensation, usually associated with regurgitation of gastric juice into the esophagus. [NIH]

Hematocrit: Measurement of the volume of packed red cells in a blood specimen by centrifugation. The procedure is performed using a tube with graduated markings or with automated blood cell counters. It is used as an indicator of erythrocyte status in disease. For example, anemia shows a low hematocrit, polycythemia, high values. [NIH]

Hematopoiesis: The development and formation of various types of blood cells. [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 concentration. Generally, complications are substantially lower among patients with Hb levels of 7 percent or less than in patients with HbA1c levels of 9 percent or more. [NIH]
**Hemolytic:** A disease that affects the blood and blood vessels. It destroys red blood cells, cells that cause the blood to clot, and the lining of blood vessels. HUS is often caused by the Escherichia coli bacterium in contaminated food. People with HUS may develop acute renal failure. [NIH]

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

**Hepatic:** Refers to the liver. [NIH]

**Hepatitis:** Inflammation of the liver and liver disease involving degenerative or necrotic alterations of hepatocytes. [NIH]

**Hepatitis A:** Hepatitis caused by hepatovirus. It can be transmitted through fecal contamination of food or water. [NIH]

**Hepatocellular:** Pertaining to or affecting liver cells. [EU]

**Hepatocellular carcinoma:** A type of adenocarcinoma, the most common type of liver tumor. [NIH]

**Hepatocytes:** The main structural component of the liver. They are specialized epithelial cells that are organized into interconnected plates called lobules. [NIH]

**Hepatovirus:** A genus of Picornaviridae causing infectious hepatitis naturally in humans and experimentally in other primates. It is transmitted through fecal contamination of food or water. [NIH]

**Hereditary:** Of, relating to, or denoting factors that can be transmitted genetically from one generation to another. [NIH]

**Heredity:** 1. The genetic transmission of a particular quality or trait from parent to offspring. 2. The genetic constitution of an individual. [EU]

**Herpes:** Any inflammatory skin disease caused by a herpesvirus and characterized by the formation of clusters of small vesicles. When used alone, the term may refer to herpes simplex or to herpes zoster. [EU]

**Herpes Zoster:** Acute vesicular inflammation. [NIH]

**Hormonal:** Pertaining to or of the nature of a hormone. [EU]

**Hormone:** A substance in the body that regulates certain organs. Hormones such as gastrin help in breaking down food. Some hormones come from cells in the stomach and small intestine. [NIH]

**Horny layer:** The superficial layer of the epidermis containing keratinized cells. [NIH]

**Host:** Any animal that receives a transplanted graft. [NIH]

**Hybrid:** Cross fertilization between two varieties or, more usually, two species of vines, see also crossing. [NIH]

**Hydralazine:** A direct-acting vasodilator that is used as an antihypertensive agent. [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 H\(^1\) isotope, hydrogen exists as the stable isotope deuterium and the unstable, radioactive isotope tritium. [NIH]

**Hyperaemia:** An excess of blood in a part; engorgement. [EU]

**Hyperbilirubinemia:** Pathologic process consisting of an abnormal increase in the amount of bilirubin in the circulating blood, which may result in jaundice. [NIH]

**Hyperglycemia:** Abnormally high blood sugar. [NIH]
**Hypersensitivity:** Altered reactivity to an antigen, which can result in pathologic reactions upon subsequent exposure to that particular antigen. [NIH]

**Hypertension:** Persistently high arterial blood pressure. Currently accepted threshold levels are 140 mm Hg systolic and 90 mm Hg diastolic pressure. [NIH]

**Hypoglycemia:** Abnormally low blood sugar [NIH]

**Hypotension:** Abnormally low blood pressure. [NIH]

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

**Immune function:** Production and action of cells that fight disease or infection. [NIH]

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

**Immune system:** The organs, cells, and molecules responsible for the recognition and disposal of foreign (“non-self”) material which enters the body. [NIH]

**Immunity:** Nonsusceptibility to the invasive or pathogenic effects of foreign microorganisms or to the toxic effect of antigenic substances. [NIH]

**Immunocompromised:** Having a weakened immune system caused by certain diseases or treatments. [NIH]

**Immunodeficiency:** The decreased ability of the body to fight infection and disease. [NIH]

**Immunoglobulin:** A protein that acts as an antibody. [NIH]

**Immunosuppressant:** An agent capable of suppressing immune responses. [EU]

**Immunosuppressive:** Describes the ability to lower immune system responses. [NIH]

**Immunotherapy:** Manipulation of the host’s immune system in treatment of disease. It includes both active and passive immunization as well as immunosuppressive therapy to prevent graft rejection. [NIH]

**Impairment:** In the context of health experience, an impairment is any loss or abnormality of psychological, physiological, or anatomical structure or function. [NIH]

**Impetigo:** A common superficial bacterial infection caused by staphylococcus aureus or group A beta-hemolytic streptococci. Characteristics include pustular lesions that rupture and discharge a thin, amber-colored fluid that dries and forms a crust. This condition is commonly located on the face, especially about the mouth and nose. [NIH]

**In vitro:** In the laboratory (outside the body). The opposite of in vivo (in the body). [NIH]

**In vivo:** In the body. The opposite of in vitro (outside the body or in the laboratory). [NIH]

**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]

**Infiltration:** The diffusion or accumulation in a tissue or cells of substances not normal to it
or in amounts of the normal. Also, the material so accumulated. [EU]

**Inflammation**: A pathological process characterized by injury or destruction of tissues caused by a variety of cytologic and chemical reactions. It is usually manifested by typical signs of pain, heat, redness, swelling, and loss of function. [NIH]

**Ingestion**: Taking into the body by mouth [NIH]

**Inhalation**: The drawing of air or other substances into the lungs. [EU]

**Initiation**: Mutation induced by a chemical reactive substance causing cell changes; being a step in a carcinogenic process. [NIH]

**Inorganic**: Pertaining to substances not of organic origin. [EU]

**Insulin**: A protein hormone secreted by beta cells of the pancreas. Insulin plays a major role in the regulation of glucose metabolism, generally promoting the cellular utilization of glucose. It is also an important regulator of protein and lipid metabolism. Insulin is used as a drug to control insulin-dependent diabetes mellitus. [NIH]

**Insulin-dependent diabetes mellitus**: A disease characterized by high levels of blood glucose resulting from defects in insulin secretion, insulin action, or both. Autoimmune, genetic, and environmental factors are involved in the development of type I diabetes. [NIH]

**Interleukin-5**: Factor promoting eosinophil differentiation and activation in hematopoiesis. It also triggers activated B-cells for a terminal differentiation into Ig-secreting cells. [NIH]

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

**Internal Medicine**: A medical specialty concerned with the diagnosis and treatment of diseases of the internal organ systems of adults. [NIH]

**Interstitial**: Pertaining to or situated between parts or in the interspaces of a tissue. [EU]

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

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

**Intoxication**: Poisoning, the state of being poisoned. [EU]

**Intracellular**: Inside a cell. [NIH]

**Intramuscular**: IM. Within or into muscle. [NIH]

**Intravenous**: IV. Into a vein. [NIH]

**Intrinsic**: Situated entirely within or pertaining exclusively to a part. [EU]

**Invasive**: 1. Having the quality of invasiveness. 2. Involving puncture or incision of the skin or insertion of an instrument or foreign material into the body; said of diagnostic techniques. [EU]

**Iris**: The most anterior portion of the uveal layer, separating the anterior chamber from the posterior. It consists of two layers - the stroma and the pigmented epithelium. Color of the iris depends on the amount of melanin in the stroma on reflection from the pigmented epithelium. [NIH]

**Iritis**: Inflammation of the iris characterized by circumcorneal injection, aqueous flare, keratotic precipitates, and constricted and sluggish pupil along with discoloration of the iris. [NIH]

**Isoenzyme**: Different forms of an enzyme, usually occurring in different tissues. The isoenzymes of a particular enzyme catalyze the same reaction but they differ in some of their properties. [NIH]

**Itraconazole**: An antifungal agent that has been used in the treatment of histoplasmosis, blastomycosis, cryptococcal meningitis, and aspergillosis. [NIH]
**Jaundice:** A clinical manifestation of hyperbilirubinemia, consisting of deposition of bile pigments in the skin, resulting in a yellowish staining of the skin and mucous membranes. [NIH]

**Joint:** The point of contact between elements of an animal skeleton with the parts that surround and support it. [NIH]

**Joint Capsule:** The sac enclosing a joint. It is composed of an outer fibrous articular capsule and an inner synovial membrane. [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]

**Ketoconazole:** Broad spectrum antifungal agent used for long periods at high doses, especially in immunosuppressed patients. [NIH]

**Labile:** 1. Gliding; moving from point to point over the surface; unstable; fluctuating. 2. Chemically unstable. [EU]

**Large Intestine:** The part of the intestine that goes from the cecum to the rectum. The large intestine absorbs water from stool and changes it from a liquid to a solid form. The large intestine is 5 feet long and includes the appendix, cecum, colon, and rectum. Also called colon. [NIH]

**Lens:** The transparent, double convex (outward curve on both sides) structure suspended between the aqueous and vitreous; helps to focus light on the retina. [NIH]

**Lesion:** An area of abnormal tissue change. [NIH]

**Leucocyte:** All the white cells of the blood and their precursors (myeloid cell series, lymphoid cell series) but commonly used to indicate granulocytes exclusive of lymphocytes. [NIH]

**Leukaemia:** An acute or chronic disease of unknown cause in man and other warm-blooded animals that involves the blood-forming organs, is characterized by an abnormal increase in the number of leucocytes in the tissues of the body with or without a corresponding increase of those in the circulating blood, and is classified according of the type leucocyte most prominently involved. [EU]

**Leukemia:** Cancer of blood-forming tissue. [NIH]

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

**Leukoplakia:** A white patch that may develop on mucous membranes such as the cheek, gums, or tongue and may become cancerous. [NIH]

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

**Linkage:** 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]

**Lipid:** Fat. [NIH]

**Lithium:** An element in the alkali metals family. It has the atomic symbol Li, atomic number 3, and atomic weight 6.94. Salts of lithium are used in treating manic-depressive disorders. [NIH]

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

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

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

**Lumbar:** Pertaining to the loins, the part of the back between the thorax and the pelvis. [EU]

**Lupus:** A form of cutaneous tuberculosis. It is seen predominantly in women and typically involves the nasal, buccal, and conjunctival mucosa. [NIH]

**Lupus Nephritis:** Glomerulonephritis associated with systemic lupus erythematosus. It is classified into four histologic types: mesangial, focal, diffuse, and membranous. [NIH]

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

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

**Lymphadenopathy:** Disease or swelling of the lymph nodes. [NIH]

**Lymphatic:** The tissues and organs, including the bone marrow, spleen, thymus, and lymph nodes, that produce and store cells that fight infection and disease. [NIH]

**Lymphatic system:** The tissues and organs that produce, store, and carry white blood cells that fight infection and other diseases. This system includes the bone marrow, spleen, thymus, lymph nodes and a network of thin tubes that carry lymph and white blood cells. These tubes branch, like blood vessels, into all the tissues of the body. [NIH]

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

**Lymphocytosis:** Excess of normal lymphocytes in the blood or in any effusion. [NIH]

**Lymphoid:** Referring to lymphocytes, a type of white blood cell. Also refers to tissue in which lymphocytes develop. [NIH]

**Malabsorption:** Impaired intestinal absorption of nutrients. [EU]

**Malaise:** A vague feeling of bodily discomfort. [EU]

**Manic:** Affected with mania. [EU]

**Man-made:** Ionizing radiation emitted by artificial or concentrated natural, radioactive material or resulting from the operation of high voltage apparatus, such as X-ray apparatus or particle accelerators, of nuclear reactors, or from nuclear explosions. [NIH]

**Mannans:** Polysaccharides consisting of mannose units. [NIH]

**Measles Virus:** The type species of morbillivirus and the cause of the highly infectious human disease measles, which affects mostly children. [NIH]

**Meat:** The edible portions of any animal used for food including domestic mammals (the major ones being cattle, swine, and sheep) along with poultry, fish, shellfish, and game. [NIH]

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

**Membrane:** A very thin layer of tissue that covers a surface. [NIH]

**Meninges:** The three membranes that cover and protect the brain and spinal cord. [NIH]

**Meningitis:** Inflammation of the meninges. When it affects the dura mater, the disease is termed pachymeningitis; when the arachnoid and pia mater are involved, it is called leptomeningitis, or meningitis proper. [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]

**Microbiology:** The study of microorganisms such as fungi, bacteria, algae, archaea, and viruses. [NIH]

**Microorganism:** An organism that can be seen only through a microscope. Microorganisms include bacteria, protozoa, algae, and fungi. Although viruses are not considered living organisms, they are sometimes classified as microorganisms. [NIH]

**Milligram:** A measure of weight. A milligram is approximately 450,000-times smaller than a pound and 28,000-times smaller than an ounce. [NIH]

**Mineralocorticoids:** A group of corticosteroids primarily associated with the regulation of water and electrolyte balance. This is accomplished through the effect on ion transport in renal tubules, resulting in retention of sodium and loss of potassium. Mineralocorticoid secretion is itself regulated by plasma volume, serum potassium, and angiotensin II. [NIH]

**Misonidazole:** A nitroimidazole that sensitizes normally radio-resistant hypoxic cells to radiation. It may also be directly cytotoxic to hypoxic cells and has been proposed as an antineoplastic. [NIH]

**Mitochondrial Swelling:** Increase in volume of mitochondria due to an influx of fluid; it occurs in hypotonic solutions due to osmotic pressure and in isotonic solutions as a result of altered permeability of the membranes of respiring mitochondria. [NIH]

**Mitomycin:** An antineoplastic antibiotic produced by Streptomyces caespitosus. It acts as a bi- or trifunctional alkylating agent causing cross-linking of DNA and inhibition of DNA synthesis. [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]

**Mononuclear:** A cell with one nucleus. [NIH]

**Morbillivirus:** A genus of the family Paramyxoviridae (subfamily Paramyxovirinae) where all the virions have hemagglutinin but not neuraminidase activity. All members produce both cytoplasmic and intranuclear inclusion bodies. MEASLES VIRUS is the type species. [NIH]

**Morphological:** Relating to the configuration or the structure of live organs. [NIH]

**Motion Sickness:** Sickness caused by motion, as sea sickness, train sickness, car sickness, and air sickness. [NIH]

**Motor Activity:** The physical activity of an organism as a behavioral phenomenon. [NIH]

**Mouth Ulcer:** A localized necrotic lesion of the skin or a mucous surface. [NIH]

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

**Mucosa:** A mucous membrane, or tunica mucosa. [EU]

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

**Myalgia:** Pain in a muscle or muscles. [EU]

**Myelodysplastic syndrome:** Disease in which the bone marrow does not function normally. Also called preleukemia or smoldering leukemia. [NIH]

**Myelogenous:** Produced by, or originating in, the bone marrow. [NIH]
**Myocardium:** The muscle tissue of the heart composed of striated, involuntary muscle known as cardiac muscle. [NIH]

**Myositis:** Inflammation of a voluntary muscle. [EU]

**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]

**Nerve:** A cordlike structure of nervous tissue that connects parts of the nervous system with other tissues of the body and conveys nervous impulses to, or away from, these tissues. [NIH]

**Nervous System:** The entire nerve apparatus composed of the brain, spinal cord, nerves and ganglia. [NIH]

**Neurologic:** Having to do with nerves or the nervous system. [NIH]

**Neuropathy:** A problem in any part of the nervous system except the brain and spinal cord. Neuropathies can be caused by infection, toxic substances, or disease. [NIH]

**Nitrogen:** An element with the atomic symbol N, atomic number 7, and atomic weight 14. Nitrogen exists as a diatomic gas and makes up about 78% of the earth's atmosphere by volume. It is a constituent of proteins and nucleic acids and found in all living cells. [NIH]

**Nuclear:** A test of the structure, blood flow, and function of the kidneys. The doctor injects a mildly radioactive solution into an arm vein and uses x-rays to monitor its progress through the kidneys. [NIH]

**Nucleic acid:** Either of two types of macromolecule (DNA or RNA) formed by polymerization of nucleotides. Nucleic acids are found in all living cells and contain the information (genetic code) for the transfer of genetic information from one generation to the next. [NIH]

**Ointments:** Semisolid preparations used topically for protective emollient effects or as a vehicle for local administration of medications. Ointment bases are various mixtures of fats, waxes, animal and plant oils and solid and liquid hydrocarbons. [NIH]

**Opacity:** Degree of density (area most dense taken for reading). [NIH]

**Osteoporosis:** Reduction of bone mass without alteration in the composition of bone, leading to fractures. Primary osteoporosis can be of two major types: postmenopausal osteoporosis and age-related (or senile) osteoporosis. [NIH]

**Pachymeningitis:** Inflammation of the dura mater of the brain, the spinal cord or the optic nerve. [NIH]

**Palate:** The structure that forms the roof of the mouth. It consists of the anterior hard palate and the posterior soft palate. [NIH]

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

**Pancreatic Polypeptide:** A 36-amino acid polypeptide with physiological regulatory functions. It is secreted by pancreatic tissue. Plasma pancreatic polypeptide increases after ingestion of food, with age, and in disease states. A lack of pancreatic polypeptide in the islets of Langerhans has been associated with the obese syndrome in rats and mice. [NIH]

**Panniculitis:** General term for inflammation of adipose tissue, usually of the skin, characterized by reddened subcutaneous nodules. [NIH]

**Parenteral:** Not through the alimentary canal but rather by injection through some other route, as subcutaneous, intramuscular, intraorbital, intracapsular, intraspinal, intrasternal, intravenous, etc. [EU]

**Partial remission:** The shrinking, but not complete disappearance, of a tumor in response to therapy. Also called partial response. [NIH]

**Patch:** A piece of material used to cover or protect a wound, an injured part, etc.: a patch over the eye. [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 Care Team:** Care of patients by a multidisciplinary team usually organized under the leadership of a physician; each member of the team has specific responsibilities and the whole team contributes to the care of the patient. [NIH]

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

**Penicillin:** An antibiotic drug used to treat infection. [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]

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

**Pericarditis:** Inflammation of the pericardium. [EU]

**Pericardium:** The fibroserous sac surrounding the heart and the roots of the great vessels. [NIH]

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

**Physical Therapy:** The restoration of function and the prevention of disability following disease or injury with the use of light, heat, cold, water, electricity, ultrasound, and exercise. [NIH]

**Physiologic:** Having to do with the functions of the body. When used in the phrase "physiologic age," it refers to an age assigned by general health, as opposed to calendar age. [NIH]

**Pigment:** A substance that gives color to tissue. Pigments are responsible for the color of skin, eyes, and hair. [NIH]

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

**Plants:** Multicellular, eukaryotic life forms of the kingdom Plantae. They are characterized by a mainly photosynthetic mode of nutrition; essentially unlimited growth at localized regions of cell divisions (meristems); cellulose within cells providing rigidity; the absence of
organs of locomotion; absence of nervous and sensory systems; and an alteration of haploid and diploid generations. [NIH]

**Plaque:** A clear zone in a bacterial culture grown on an agar plate caused by localized destruction of bacterial cells by a bacteriophage. The concentration of infective virus in a fluid can be estimated by applying the fluid to a culture and counting the number of. [NIH]

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

**Plasma cells:** A type of white blood cell that produces antibodies. [NIH]

**Platelets:** A type of blood cell that helps prevent bleeding by causing blood clots to form. Also called thrombocytes. [NIH]

**Pleura:** The thin serous membrane enveloping the lungs and lining the thoracic cavity. [NIH]

**Pleurisy:** Inflammation of the pleura, with exudation into its cavity and upon its surface. It may occur as either an acute or a chronic process. In acute pleurisy the pleura becomes reddened, then covered with an exudate of lymph, fibrin, and cellular elements (the dry stage); the disease may progress to the second stage, in which a copious exudation of serum occurs (stage of liquid effusion). The inflamed surfaces of the pleura tend to become united by adhesions, which are usually permanent. The symptoms are a stitch in the side, a chill, followed by fever and a dry cough. As effusion occurs there is an onset of dyspnea and a diminution of pain. The patient lies on the affected side. [EU]

**Poisoning:** A condition or physical state produced by the ingestion, injection or inhalation of, or exposure to a deleterious agent. [NIH]

**Polyarteritis Nodosa:** A form of necrotizing vasculitis involving small- and medium-sized arteries. The signs and symptoms result from infarction and scarring of the affected organ system. [NIH]

**Polypeptide:** A peptide which on hydrolysis yields more than two amino acids; called tripeptides, tetrapeptides, etc. according to the number of amino acids contained. [EU]

**Polysaccharide:** A type of carbohydrate. It contains sugar molecules that are linked together chemically. [NIH]

**Posterior:** Situated in back of, or in the back part of, or affecting the back or dorsal surface of the body. In lower animals, it refers to the caudal end of the body. [EU]

**Postmenopausal:** Refers to the time after menopause. Menopause is the time in a woman's life when menstrual periods stop permanently; also called "change of life." [NIH]

**Potassium:** An element that is in the alkali group of metals. It has an atomic symbol K, atomic number 19, and atomic weight 39.10. It is the chief cation in the intracellular fluid of muscle and other cells. Potassium ion is a strong electrolyte and it plays a significant role in the regulation of fluid volume and maintenance of the water-electrolyte balance. [NIH]

**Poultice:** That made by mixing mustard and flour with water. [NIH]

**Practice Guidelines:** Directions or principles presenting current or future rules of policy for the health care practitioner to assist him in patient care decisions regarding diagnosis, therapy, or related clinical circumstances. The guidelines may be developed by government agencies at any level, institutions, professional societies, governing boards, or by the convening of expert panels. The guidelines form a basis for the evaluation of all aspects of health care and delivery. [NIH]

**Prednisolone:** A glucocorticoid with the general properties of the corticosteroids. It is the drug of choice for all conditions in which routine systemic corticosteroid therapy is indicated, except adrenal deficiency states. [NIH]
Prednisone: A synthetic anti-inflammatory glucocorticoid derived from cortisone. It is biologically inert and converted to prednisolone in the liver. [NIH]

Preleukemia: Conditions in which the abnormalities in the peripheral blood or bone marrow represent the early manifestations of acute leukemia, but in which the changes are not of sufficient magnitude or specificity to permit a diagnosis of acute leukemia by the usual clinical criteria. [NIH]

Progressive: Advancing; going forward; going from bad to worse; increasing in scope or severity. [EU]

Prophylaxis: An attempt to prevent disease. [NIH]

Prostaglandin: Any of a group of components derived from unsaturated 20-carbon fatty acids, primarily arachidonic acid, via the cyclooxygenase pathway that are extremely potent mediators of a diverse group of physiologic processes. The abbreviation for prostaglandin is PG; specific compounds are designated by adding one of the letters A through I to indicate the type of substituents found on the hydrocarbon skeleton and a subscript (1, 2 or 3) to indicate the number of double bonds in the hydrocarbon skeleton e.g., PGE2. The predominant naturally occurring prostaglandins all have two double bonds and are synthesized from arachidonic acid (5,8,11,14-eicosatetraenoic acid) by the pathway shown in the illustration. The 1 series and 3 series are produced by the same pathway with fatty acids having one fewer double bond (8,11,14-eicosatrienoic acid or one more double bond (5,8,11,14,17-eicosapentaenoic acid) than arachidonic acid. The subscript a or ß indicates the configuration at C-9 (a denotes a substituent below the plane of the ring, ß, above the plane). The naturally occurring PGF’s have the a configuration, e.g., PGF2a. All of the prostaglandins act by binding to specific cell-surface receptors causing an increase in the level of the intracellular second messenger cyclic AMP (and in some cases cyclic GMP also). The effect produced by the cyclic AMP increase depends on the specific cell type. In some cases there is also a positive feedback effect. Increased cyclic AMP increases prostaglandin synthesis leading to further increases in cyclic AMP. [EU]

Protein C: A vitamin-K dependent zymogen present in the blood, which, upon activation by thrombin and thrombomodulin exerts anticoagulant properties by inactivating factors Va and VIIIa at the rate-limiting steps of thrombin formation. [NIH]

Protein S: The vitamin K-dependent cofactor of activated protein C. Together with protein C, it inhibits the action of factors VIIIa and Va. A deficiency in protein S can lead to recurrent venous and arterial thrombosis. [NIH]

Proteins: Polymers of amino acids linked by peptide bonds. The specific sequence of amino acids determines the shape and function of the protein. [NIH]

Proteinuria: The presence of protein in the urine, indicating that the kidneys are not working properly. [NIH]

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

Pruritic: Pertaining to or characterized by pruritus. [EU]

Pruritus: An intense itching sensation that produces the urge to rub or scratch the skin to obtain relief. [NIH]

Psychic: Pertaining to the psyche or to the mind; mental. [EU]

Psychomotor: Pertaining to motor effects of cerebral or psychic activity. [EU]

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]

Pulmonary Edema: An accumulation of an excessive amount of watery fluid in the lungs, may be caused by acute exposure to dangerous concentrations of irritant gasses. [NIH]

Pupil: The aperture in the iris through which light passes. [NIH]

Purpura: Purplish or brownish red discoloration, easily visible through the epidermis, caused by hemorrhage into the tissues. [NIH]

Pustular: Pertaining to or of the nature of a pustule; consisting of pustules (= a visible collection of pus within or beneath the epidermis). [EU]

Radiation: Emission or propagation of electromagnetic energy (waves/rays), or the waves/rays themselves; a stream of electromagnetic particles (electrons, neutrons, protons, alpha particles) or a mixture of these. The most common source is the sun. [NIH]

Reagent: A substance employed to produce a chemical reaction so as to detect, measure, produce, etc., other substances. [EU]

Receptor: A molecule inside or on the surface of a cell that binds to a specific substance and causes a specific physiologic effect in the cell. [NIH]

Rectal: By or having to do with the rectum. The rectum is the last 8 to 10 inches of the large intestine and ends at the anus. [NIH]

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

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

Reductase: Enzyme converting testosterone to dihydrotestosterone. [NIH]

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

Regional chemotherapy: Treatment with anticancer drugs that is directed to a specific area. [NIH]

Regurgitation: A backward flowing, as the casting up of undigested food, or the backward flowing of blood into the heart, or between the chambers of the heart when a valve is incompetent. [EU]

Relapse: The return of signs and symptoms of cancer after a period of improvement. [NIH]

Remission: A decrease in or disappearance of signs and symptoms of cancer. In partial remission, some, but not all, signs and symptoms of cancer have disappeared. In complete remission, all signs and symptoms of cancer have disappeared, although there still may be cancer in the body. [NIH]

Renal failure: Progressive renal insufficiency and uremia, due to irreversible and progressive renal glomerular tubular or interstitial disease. [NIH]

Renin: An enzyme which is secreted by the kidney and is formed from prorenin in plasma and kidney. The enzyme cleaves the Leu-Leu bond in angiotensinogen to generate angiotensin I. EC 3.4.23.15. (Formerly EC 3.4.99.19). [NIH]

Renin-Angiotensin System: A system consisting of renin, angiotensin-converting enzyme, and angiotensin II. Renin, an enzyme produced in the kidney, acts on angiotensinogen, an alpha-2 globulin produced by the liver, forming angiotensin I. The converting enzyme contained in the lung acts on angiotensin I in the plasma converting it to angiotensin II, the most powerful directly pressor substance known. It causes contraction of the arteriolar smooth muscle and has other indirect actions mediated through the adrenal cortex. [NIH]
Restoration: Broad term applied to any inlay, crown, bridge or complete denture which restores or replaces loss of teeth or oral tissues. [NIH]

Retina: The ten-layered nervous tissue membrane of the eye. It is continuous with the optic nerve and receives images of external objects and transmits visual impulses to the brain. Its outer surface is in contact with the choroid and the inner surface with the vitreous body. The outer-most layer is pigmented, whereas the inner nine layers are transparent. [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]

Rheumatism: A group of disorders marked by inflammation or pain in the connective tissue structures of the body. These structures include bone, cartilage, and fat. [NIH]

Rheumatoid: Resembling rheumatism. [EU]

Rheumatoid arthritis: A form of arthritis, the cause of which is unknown, although infection, hypersensitivity, hormone imbalance and psychologic stress have been suggested as possible causes. [NIH]

Rheumatology: A subspecialty of internal medicine concerned with the study of inflammatory or degenerative processes and metabolic derangement of connective tissue structures which pertain to a variety of musculoskeletal disorders, such as arthritis. [NIH]

Rigidity: Stiffness or inflexibility, chiefly that which is abnormal or morbid; rigor. [EU]

Risk factor: A habit, trait, condition, or genetic alteration that increases a person's chance of developing a disease. [NIH]

Rod: A reception for vision, located in the retina. [NIH]

Rubber: A high-molecular-weight polymeric elastomer derived from the milk juice (latex) of Hevea brasiliensis and other trees. It is a substance that can be stretched at room temperature to at least twice its original length and after releasing the stress, retract rapidly, and recover its original dimensions fully. Synthetic rubber is made from many different chemicals, including styrene, acrylonitrile, ethylene, propylene, and isoprene. [NIH]

Rye: A hardy grain crop, Secale cereale, grown in northern climates. It is the most frequent host to ergot (claviceps), the toxic fungus. Its hybrid with wheat is triticale, another grain. [NIH]

Salicylate: Non-steroidal anti-inflammatory drugs. [NIH]

Salicylic: A tuberculosis drug. [NIH]

Salicylic Acids: Derivatives and salts of salicylic acid. [NIH]

Saline: A solution of salt and water. [NIH]

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

Salivary glands: Glands in the mouth that produce saliva. [NIH]

Schizoid: Having qualities resembling those found in greater degree in schizophrenics; a person of schizoid personality. [NIH]

Schizophrenia: A mental disorder characterized by a special type of disintegration of the personality. [NIH]

Schizotypal Personality Disorder: A personality disorder in which there are oddities of thought (magical thinking, paranoid ideation, suspiciousness), perception (illusions, depersonalization), speech (digressive, vague, overelaborate), and behavior (inappropriate affect in social interactions, frequently social isolation) that are not severe enough to characterize schizophrenia. [NIH]
**Sclera:** The tough white outer coat of the eyeball, covering approximately the posterior five-sixths of its surface, and continuous anteriorly with the cornea and posteriorly with the external sheath of the optic nerve. [EU]

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

**Seborrhea:** Hypersecretion of sebum with excessive oily secretion from the sweat glands. [NIH]

**Sebum:** The oily substance secreted by sebaceous glands. It is composed of keratin, fat, and cellular debris. [NIH]

**Secretion:** 1. The process of elaborating a specific product as a result of the activity of a gland; this activity may range from separating a specific substance of the blood to the elaboration of a new chemical substance. 2. Any substance produced by secretion. [EU]

**Seizures:** Clinical or subclinical disturbances of cortical function due to a sudden, abnormal, excessive, and disorganized discharge of brain cells. Clinical manifestations include abnormal motor, sensory and psychic phenomena. Recurrent seizures are usually referred to as epilepsy or "seizure disorder." [NIH]

**Semen:** The thick, yellowish-white, viscid fluid secretion of male reproductive organs discharged upon ejaculation. In addition to reproductive organ secretions, it contains spermatozoa and their nutrient plasma. [NIH]

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

**Senile:** Relating or belonging to old age; characteristic of old age; resulting from infirmity of old age. [NIH]

**Sensor:** A device designed to respond to physical stimuli such as temperature, light, magnetism or movement and transmit resulting impulses for interpretation, recording, movement, or operating control. [NIH]

**Serum:** The clear liquid part of the blood that remains after blood cells and clotting proteins have been removed. [NIH]

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

**Side effect:** A consequence other than the one(s) for which an agent or measure is used, as the adverse effects produced by a drug, especially on a tissue or organ system other than the one sought to be benefited by its administration. [EU]

**Signs and Symptoms:** Clinical manifestations that can be either objective when observed by a physician, or subjective when perceived by the patient. [NIH]

**Skeletal:** Having to do with the skeleton (boney part of the body). [NIH]

**Skeleton:** The framework that supports the soft tissues of vertebrate animals and protects many of their internal organs. The skeletons of vertebrates are made of bone and/or cartilage. [NIH]

**Skull:** The skeleton of the head including the bones of the face and the bones enclosing the brain. [NIH]

**Small intestine:** The part of the digestive tract that is located between the stomach and the large intestine. [NIH]

**Smallpox:** A generalized virus infection with a vesicular rash. [NIH]

**Smoldering leukemia:** Disease in which the bone marrow does not function normally. Also called preleukemia or myelodysplastic syndrome. [NIH]
Sodium: An element that is a member of the alkali group of metals. It has the atomic symbol Na, atomic number 11, and atomic weight 23. With a valence of 1, it has a strong affinity for oxygen and other nonmetallic elements. Sodium provides the chief cation of the extracellular body fluids. Its salts are the most widely used in medicine. (From Dorland, 27th ed) Physiologically the sodium ion plays a major role in blood pressure regulation, maintenance of fluid volume, and electrolyte balance. [NIH]

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

Solvent: 1. Dissolving; effecting a solution. 2. A liquid that dissolves or that is capable of dissolving; the component of a solution that is present in greater amount. [EU]

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]

Species: A taxonomic category subordinate to a genus (or subgenus) and superior to a subspecies or variety, composed of individuals possessing common characters distinguishing them from other categories of individuals of the same taxonomic level. In taxonomic nomenclature, species are designated by the genus name followed by a Latin or Latinized adjective or noun. [EU]

Spectrum: A charted band of wavelengths of electromagnetic vibrations obtained by refraction and diffraction. By extension, a measurable range of activity, such as the range of bacteria affected by an antibiotic (antibacterials) or the complete range of manifestations of a disease. [EU]

Sperm: The fecundating fluid of the male. [NIH]

Spermatozoa: Mature male germ cells that develop in the seminiferous tubules of the testes. Each consists of a head, a body, and a tail that provides propulsion. The head consists mainly of chromatin. [NIH]

Spices: The dried seeds, bark, root, stems, buds, leaves, or fruit of aromatic plants used to season food. [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]

Spinous: Like a spine or thorn in shape; having spines. [NIH]

Spleen: An organ that is part of the lymphatic system. The spleen produces lymphocytes, filters the blood, stores blood cells, and destroys old blood cells. It is located on the left side of the abdomen near the stomach. [NIH]

Sprue: A non febrile tropical disease of uncertain origin. [NIH]

Staphylococcus: A genus of gram-positive, facultatively anaerobic, coccoid bacteria. Its organisms occur singly, in pairs, and in tetrads and characteristically divide in more than one plane to form irregular clusters. Natural populations of Staphylococcus are membranes of warm-blooded animals. Some species are opportunistic pathogens of humans and animals. [NIH]

Staphylococcus aureus: Potentially pathogenic bacteria found in nasal membranes, skin, hair follicles, and perineum of warm-blooded animals. They may cause a wide range of infections and intoxications. [NIH]

Stem Cells: Relatively undifferentiated cells of the same lineage (family type) that retain the ability to divide and cycle throughout postnatal life to provide cells that can become specialized and take the place of those that die or are lost. [NIH]
**Sterility:** 1. The inability to produce offspring, i.e., the inability to conceive (female s.) or to induce conception (male s.). 2. The state of being aseptic, or free from microorganisms. [EU]

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

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

**Stomatitis:** Inflammation of the oral mucosa, due to local or systemic factors which may involve the buccal and labial mucosa, palate, tongue, floor of the mouth, and the gingivae. [EU]

**Streptococcal:** Caused by infection due to any species of streptococcus. [NIH]

**Streptococci:** A genus of spherical Gram-positive bacteria occurring in chains or pairs. They are widely distributed in nature, being important pathogens but often found as normal commensals in the mouth, skin, and intestine of humans and other animals. [NIH]

**Streptococcus:** A genus of gram-positive, coccoid bacteria whose organisms occur in pairs or chains. No endospores are produced. Many species exist as commensals or parasites on man or animals with some being highly pathogenic. A few species are saprophytes and occur in the natural environment. [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]

**Styrene:** A colorless, toxic liquid with a strong aromatic odor. It is used to make rubbers, polymers and copolymers, and polystyrene plastics. [NIH]

**Subacute:** Somewhat acute; between acute and chronic. [EU]

**Subarachnoid:** Situated or occurring between the arachnoid and the pia mater. [EU]

**Subclinical:** Without clinical manifestations; said of the early stage(s) of an infection or other disease or abnormality before symptoms and signs become apparent or detectable by clinical examination or laboratory tests, or of a very mild form of an infection or other disease or abnormality. [EU]

**Subcutaneous:** Beneath the skin. [NIH]

**Substance P:** An eleven-amino acid neurotransmitter that appears in both the central and peripheral nervous systems. It is involved in transmission of pain, causes rapid contractions of the gastrointestinal smooth muscle, and modulates inflammatory and immune responses. [NIH]

**Substrate:** A substance upon which an enzyme acts. [EU]

**Sulfides:** Chemical groups containing the covalent sulfur bonds -S-. The sulfur atom can be bound to inorganic or organic moieties. [NIH]

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

**Superinfection:** A frequent complication of drug therapy for microbial infection. It may result from opportunistic colonization following immunosuppression by the primary pathogen and can be influenced by the time interval between infections, microbial physiology, or host resistance. Experimental challenge and in vitro models are sometimes used in virulence and infectivity studies. [NIH]

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

**Suppurative:** Consisting of, containing, associated with, or identified by the formation of pus. [NIH]
Sweat: The fluid excreted by the sweat glands. It consists of water containing sodium chloride, phosphate, urea, ammonia, and other waste products. [NIH]

Sweat Glands: Sweat-producing structures that are embedded in the dermis. Each gland consists of a single tube, a coiled body, and a superficial duct. [NIH]

Synovial: Of pertaining to, or secreting synovia. [EU]

Synovial Cyst: A nodular, tumorlike lesion in or about a tendon sheath or joint capsule, especially of the hands, wrists, or feet. It is not a true cyst as it lacks an epithelial wall, and it does not communicate with the underlying synovial space. The lesion represents a focal accumulation of mucin in the dermis of the dorsal aspect of the distal phalanges or, less often, other portions of the extremities. [NIH]

Synovial Membrane: The inner membrane of a joint capsule surrounding a freely movable joint. It is loosely attached to the external fibrous capsule and secretes synovial fluid. [NIH]

Synovitis: Inflammation of a synovial membrane. It is usually painful, particularly on motion, and is characterized by a fluctuating swelling due to effusion within a synovial sac. Synovitis is qualified as fibrinous, gonorrhoeal, hyperplastic, lipomatous, metritic, puerperal, rheumatic, scarlatinal, syphilitic, tuberculous, urethral, etc. [EU]

Systemic: Affecting the entire body. [NIH]

Systemic lupus erythematosus: SLE. A chronic inflammatory connective tissue disease marked by skin rashes, joint pain and swelling, inflammation of the kidneys, inflammation of the fibrous tissue surrounding the heart (i.e., the pericardium), as well as other problems. Not all affected individuals display all of these problems. May be referred to as lupus. [NIH]

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

Temporal: One of the two irregular bones forming part of the lateral surfaces and base of the skull, and containing the organs of hearing. [NIH]

Testosterone: A hormone that promotes the development and maintenance of male sex characteristics. [NIH]

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

Thoracic: Having to do with the chest. [NIH]

Threshold: For a specified sensory modality (e.g., light, sound, vibration), the lowest level (absolute threshold) or smallest difference (difference threshold, difference limen) or intensity of the stimulus discernible in prescribed conditions of stimulation. [NIH]

Thrombin: An enzyme formed from prothrombin that converts fibrinogen to fibrin. (Dorland, 27th ed) EC 3.4.21.5. [NIH]

Thrombocytes: Blood cells that help prevent bleeding by causing blood clots to form. Also called platelets. [NIH]

Thrombomodulin: A cell surface glycoprotein of endothelial cells that binds thrombin and serves as a cofactor in the activation of protein C and its regulation of blood coagulation. [NIH]

Thrombosis: The formation or presence of a blood clot inside a blood vessel. [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]
Topical: On the surface of the body. [NIH]

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

Toxicity: The quality of being poisonous, especially the degree of virulence of a toxic microbe or of a poison. [EU]

Toxicology: The science concerned with the detection, chemical composition, and pharmacologic action of toxic substances or poisons and the treatment and prevention of toxic manifestations. [NIH]

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

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

Transdermal: Entering through the dermis, or skin, as in administration of a drug applied to the skin in ointment or patch form. [EU]

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

Transfer Factor: Factor derived from leukocyte lysates of immune donors which can transfer both local and systemic cellular immunity to nonimmune recipients. [NIH]

Transplantation: Transference of a tissue or organ, alive or dead, within an individual, between individuals of the same species, or between individuals of different species. [NIH]

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

Trees: Woody, usually tall, perennial higher plants (Angiosperms, Gymnosperms, and some Pterophyta) having usually a main stem and numerous branches. [NIH]

Trichloroethylene: A highly volatile inhalation anesthetic used mainly in short surgical procedures where light anesthesia with good analgesia is required. It is also used as an industrial solvent. Prolonged exposure to high concentrations of the vapor can lead to cardiotoxicity and neurological impairment. [NIH]

Tropical Sprue: A condition of unknown cause. Abnormalities in the lining of the small intestine prevent the body from absorbing food normally. [NIH]

Tuberculosis: Any of the infectious diseases of man and other animals caused by species of Mycobacterium. [NIH]

Tumor Necrosis Factor: Serum glycoprotein produced by activated macrophages and other mammalian mononuclear leukocytes which has necrotizing activity against tumor cell lines and increases ability to reject tumor transplants. It mimics the action of endotoxin but differs from it. It has a molecular weight of less than 70,000 kDa. [NIH]

Ulcer: A localized necrotic lesion of the skin or a mucous surface. [NIH]

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

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

Uremia: The illness associated with the buildup of urea in the blood because the kidneys are not working effectively. Symptoms include nausea, vomiting, loss of appetite, weakness, and mental confusion. [NIH]
Skin Rashes

**Urethra:** The tube through which urine leaves the body. It empties urine from the bladder. [NIH]

**Urinary:** Having to do with urine or the organs of the body that produce and get rid of urine. [NIH]

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

**Urogenital:** Pertaining to the urinary and genital apparatus; genitourinary. [EU]

**Urticaria:** A vascular reaction of the skin characterized by erythema and wheal formation due to localized increase of vascular permeability. The causative mechanism may be allergy, infection, or stress. [NIH]

**Uvea:** The middle coat of the eyeball, consisting of the choroid in the back of the eye and the ciliary body and iris in the front of the eye. [NIH]

**Uveitis:** An inflammation of part or all of the uvea, the middle (vascular) tunic of the eye, and commonly involving the other tunics (the sclera and cornea, and the retina). [EU]

**Vaccination:** Administration of vaccines to stimulate the host's immune response. This includes any preparation intended for active immunological prophylaxis. [NIH]

**Vaccine:** A substance or group of substances meant to cause the immune system to respond to a tumor or to microorganisms, such as bacteria or viruses. [NIH]

**Vagina:** The muscular canal extending from the uterus to the exterior of the body. Also called the birth canal. [NIH]

**Vaginal:** Of or having to do with the vagina, the birth canal. [NIH]

**Vaginitis:** Inflammation of the vagina characterized by pain and a purulent discharge. [NIH]

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

**Vasculitis:** Inflammation of a blood vessel. [NIH]

**Vasodilator:** An agent that widens blood vessels. [NIH]

**Vein:** Vessel-carrying blood from various parts of the body to the heart. [NIH]

**Venous:** Of or pertaining to the veins. [EU]

**Venous blood:** Blood that has given up its oxygen to the tissues and carries carbon dioxide back for gas exchange. [NIH]

**Venules:** The minute vessels that collect blood from the capillary plexuses and join together to form veins. [NIH]

**Vesicular:** 1. Composed of or relating to small, saclike bodies. 2. Pertaining to or made up of vesicles on the skin. [EU]

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

**Villous:** Of a surface, covered with villi. [NIH]

**Viral:** Pertaining to, caused by, or of the nature of virus. [EU]

**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]

**Vitro:** Descriptive of an event or enzyme reaction under experimental investigation occurring outside a living organism. Parts of an organism or microorganism are used
together with artificial substrates and/or conditions. [NIH]

**Warts:** Benign epidermal proliferations or tumors; some are viral in origin. [NIH]

**Weight Gain:** Increase in body weight over existing weight. [NIH]

**Wheelchairs:** Chairs mounted on wheels and designed to be propelled by the occupant. [NIH]

**White blood cell:** A type of cell in the immune system that helps the body fight infection and disease. White blood cells include lymphocytes, granulocytes, macrophages, and others. [NIH]

**Withdrawal:** 1. A pathological retreat from interpersonal contact and social involvement, as may occur in schizophrenia, depression, or schizoid avoidant and schizotypal personality disorders. 2. (DSM III-R) A substance-specific organic brain syndrome that follows the cessation of use or reduction in intake of a psychoactive substance that had been regularly used to induce a state of intoxication. [EU]

**Yeasts:** A general term for single-celled rounded fungi that reproduce by budding. Brewers' and bakers' yeasts are Saccharomyces cerevisiae; therapeutic dried yeast is dried yeast. [NIH]

**Zymogen:** Inactive form of an enzyme which can then be converted to the active form, usually by excision of a polypeptide, e.g. trypsinogen is the zymogen of trypsin. [NIH]
INDEX

6
6-Mercaptopurine, 18, 66

A
Abdominal, 31, 51, 52, 66, 77, 79, 99
Abdominal Pain, 31, 51, 52, 66, 99
Aberrant, 3, 66
Acne, 24, 48, 66, 94
Acrylonitrile, 66, 94
Acute renal, 6, 7, 66, 83
Adenocarcinoma, 66, 83
Adhesions, 66, 91
Adipose Tissue, 66, 90
Adrenal Cortex, 66, 75, 93
Adrenal Glands, 66, 67
Adverse Effect, 66, 95
Affinity, 66, 96
Agar, 66, 91
Aldehydes, 27, 67
Algorithms, 67, 70
Alimentary, 67, 90
Alkaloid, 67, 71, 73
Allergen, 27, 67, 77
Allogeneic, 9, 67
Allogeneic bone marrow transplantation, 9, 67
Alopecia, 67, 76
Alternative medicine, 34, 67
Amber, 67, 84
Amino Acid Sequence, 67, 68
Amino Acids, 67, 72, 90, 91, 92, 97
Amyloidosis, 31, 67
Analogic, 67
Analgesic, 67, 80, 81
Anaphylatoxins, 67, 74
Androgens, 66, 67, 76
Anemia, 4, 6, 51, 68, 82
Anesthesia, 68, 99
Antiallergic, 68, 76
Antibacterial, 26, 68, 96
Antibiotic, 17, 68, 69, 88, 90, 96
Antibodies, 15, 68, 69, 87, 91
Antibody, 4, 53, 66, 68, 74, 76, 84
Anticoagulant, 68, 92
Anticonvulsant, 68, 71
Antiepileptic, 9, 68
Antifungal, 4, 68, 80, 85, 86
Antifungal Agents, 4, 68
Antigen, 51, 66, 68, 74, 77, 84
Antigen-Antibody Complex, 68, 74
Antigen-presenting cell, 68, 77
Antihypertensive, 68, 83
Anti-inflammatory, 52, 53, 55, 70, 68, 69, 76, 81, 92, 94
Anti-Inflammatory Agents, 68, 69, 76
Antimetabolite, 66, 68
Antimicrobial, 25, 69
Antineoplastic, 66, 69, 76, 88
Antipyretic, 69
Antiseptic, 24, 69, 72
Antiviral, 26, 69
Anus, 69, 71, 93
Aplasia, 8, 69
Aqueous, 69, 70, 85, 86
Aromatic, 69, 72, 96, 97
Arterial, 9, 69, 71, 75, 84, 92, 98
Arteries, 53, 69, 70, 75, 79, 88, 91
Arterioles, 69, 70
Arteritis, 4, 69
Arthralgia, 4, 31, 69
Aspergillosis, 69, 85
Aspirin, 54, 69
Astringent, 69, 72
Atopic, 49, 69
Atypical, 12, 69
Autoantibodies, 69, 77
Autoimmune disease, 52, 53, 69
Autoimmunity, 53, 69
Aztreonam, 6, 69
B
Back Pain, 30, 69
Bacteria, 25, 30, 51, 68, 69, 70, 79, 80, 82, 88, 96, 97, 100
Bacteriophage, 69, 91
Bacterium, 51, 70, 83
Base, 70, 77, 86, 98
Benign, 13, 70, 82, 101
Beta-Lactamases, 69, 70
Bewilderment, 70, 74
Bile, 70, 81, 86
Bile Pigments, 70, 86
Biopsy, 51, 70
Biotechnology, 5, 34, 43, 70
Bladder, 16, 69, 70, 100
Blastomycosis, 70, 85
Blister, 14, 70
Blood Cell Count, 51, 70, 82
<table>
<thead>
<tr>
<th>Term</th>
<th>Page Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cytomegalovirus, 76, 81</td>
<td></td>
</tr>
<tr>
<td>Cytomegalovirus Infections, 76, 81</td>
<td></td>
</tr>
<tr>
<td>Cytosine, 77, 80</td>
<td></td>
</tr>
<tr>
<td>Cytotoxic, 71, 77, 88</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td></td>
</tr>
<tr>
<td>Databases, Bibliographic, 43, 77</td>
<td></td>
</tr>
<tr>
<td>Degenerative, 77, 83, 94</td>
<td></td>
</tr>
<tr>
<td>Dendrites, 77</td>
<td></td>
</tr>
<tr>
<td>Dendritic, 28, 77</td>
<td></td>
</tr>
<tr>
<td>Dendritic cell, 28, 77</td>
<td></td>
</tr>
<tr>
<td>Density, 28, 77, 89</td>
<td></td>
</tr>
<tr>
<td>Depressive Disorder, 77, 86</td>
<td></td>
</tr>
<tr>
<td>Dermatitis, 48, 49, 50, 51, 77, 78</td>
<td></td>
</tr>
<tr>
<td>Dermatitis Herpetiformis, 51, 77</td>
<td></td>
</tr>
<tr>
<td>Desensitization, 9, 17, 77</td>
<td></td>
</tr>
<tr>
<td>Diagnostic procedure, 23, 34, 77</td>
<td></td>
</tr>
<tr>
<td>Diaphragm, 77, 79</td>
<td></td>
</tr>
<tr>
<td>Diarrhea, 5, 6, 30, 51, 77</td>
<td></td>
</tr>
<tr>
<td>Diastolic, 77, 84</td>
<td></td>
</tr>
<tr>
<td>Dietitian, 51, 77</td>
<td></td>
</tr>
<tr>
<td>Digestion, 29, 67, 70, 71, 77, 78, 85, 86, 97</td>
<td></td>
</tr>
<tr>
<td>Digestive system, 30, 77</td>
<td></td>
</tr>
<tr>
<td>Digestive tract, 29, 51, 77, 95</td>
<td></td>
</tr>
<tr>
<td>Dihydrotestosterone, 77, 93</td>
<td></td>
</tr>
<tr>
<td>Diploid, 77, 91</td>
<td></td>
</tr>
<tr>
<td>Direct, iii, 37, 78, 83, 93</td>
<td></td>
</tr>
<tr>
<td>Discoid, 54, 78</td>
<td></td>
</tr>
<tr>
<td>Discrimination, 30, 78</td>
<td></td>
</tr>
<tr>
<td>Disinfectant, 24, 25, 78</td>
<td></td>
</tr>
<tr>
<td>Disorientation, 74, 78</td>
<td></td>
</tr>
<tr>
<td>Distal, 78, 98</td>
<td></td>
</tr>
<tr>
<td>Dizziness, 30, 78</td>
<td></td>
</tr>
<tr>
<td>Dorsal, 78, 91, 98</td>
<td></td>
</tr>
<tr>
<td>Drug Interactions, 38, 78</td>
<td></td>
</tr>
<tr>
<td>Duodenum, 70, 78, 97</td>
<td></td>
</tr>
<tr>
<td>Dura mater, 78, 87, 89</td>
<td></td>
</tr>
<tr>
<td>Dyspepsia, 52, 78</td>
<td></td>
</tr>
<tr>
<td>Dyspnea, 78, 91</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td></td>
</tr>
<tr>
<td>Eating Disorders, 30, 78</td>
<td></td>
</tr>
<tr>
<td>Eczema, 48, 49, 78</td>
<td></td>
</tr>
<tr>
<td>Edema, 75, 78</td>
<td></td>
</tr>
<tr>
<td>Effector, 74, 78</td>
<td></td>
</tr>
<tr>
<td>Effusion, 78, 87, 91, 98</td>
<td></td>
</tr>
<tr>
<td>Ejaculation, 78, 95</td>
<td></td>
</tr>
<tr>
<td>Electrolyte, 76, 78, 88, 91, 96</td>
<td></td>
</tr>
<tr>
<td>Electroplating, 72, 78</td>
<td></td>
</tr>
<tr>
<td>Emollient, 78, 89</td>
<td></td>
</tr>
<tr>
<td>Endocarditis, 71, 78</td>
<td></td>
</tr>
<tr>
<td>Endoscopy, 51, 78</td>
<td></td>
</tr>
<tr>
<td>Endotoxin, 79, 99</td>
<td></td>
</tr>
<tr>
<td>End-stage renal, 73, 79</td>
<td></td>
</tr>
<tr>
<td>Environmental Health, 42, 44, 79</td>
<td></td>
</tr>
<tr>
<td>Enzymatic, 71, 74, 79</td>
<td></td>
</tr>
<tr>
<td>Enzyme, 52, 78, 79, 85, 92, 93, 97, 98, 100, 101</td>
<td></td>
</tr>
<tr>
<td>Eosinophil, 79, 85</td>
<td></td>
</tr>
<tr>
<td>Eosinophilia, 6, 7, 79</td>
<td></td>
</tr>
<tr>
<td>Eosinophilic, 32, 79</td>
<td></td>
</tr>
<tr>
<td>Epidermal, 28, 79, 101</td>
<td></td>
</tr>
<tr>
<td>Epidermis, 28, 70, 75, 79, 83, 93</td>
<td></td>
</tr>
<tr>
<td>Epigastric, 16, 79, 89</td>
<td></td>
</tr>
<tr>
<td>Epigastric Arteries, 16, 79</td>
<td></td>
</tr>
<tr>
<td>Episcleritis, 31, 79</td>
<td></td>
</tr>
<tr>
<td>Epithelial, 66, 79, 83, 98</td>
<td></td>
</tr>
<tr>
<td>Epithelium, 76, 79, 85</td>
<td></td>
</tr>
<tr>
<td>Ergot, 79, 94</td>
<td></td>
</tr>
<tr>
<td>Erythema, 75, 79, 100</td>
<td></td>
</tr>
<tr>
<td>Erythrocyte Indices, 70, 79</td>
<td></td>
</tr>
<tr>
<td>Erythrocytes, 68, 70, 71, 79, 93</td>
<td></td>
</tr>
<tr>
<td>Esophagus, 77, 79, 82, 97</td>
<td></td>
</tr>
<tr>
<td>Estrogen, 79</td>
<td></td>
</tr>
<tr>
<td>Ethinyl Estradiol, 4, 79</td>
<td></td>
</tr>
<tr>
<td>Evacuation, 75, 79</td>
<td></td>
</tr>
<tr>
<td>Exocrine, 79, 89</td>
<td></td>
</tr>
<tr>
<td>Exogenous, 71, 78, 80</td>
<td></td>
</tr>
<tr>
<td>Extracellular, 74, 75, 80, 96</td>
<td></td>
</tr>
<tr>
<td>Extracellular Matrix, 74, 75, 80</td>
<td></td>
</tr>
<tr>
<td>Exudate, 80, 91</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td></td>
</tr>
<tr>
<td>Failure to Thrive, 51, 80</td>
<td></td>
</tr>
<tr>
<td>Family Planning, 43, 80</td>
<td></td>
</tr>
<tr>
<td>Fat, 66, 71, 75, 80, 86, 94, 95, 96</td>
<td></td>
</tr>
<tr>
<td>Fatigue, 30, 51, 52, 53, 54, 80</td>
<td></td>
</tr>
<tr>
<td>Fatty acids, 72, 80, 92</td>
<td></td>
</tr>
<tr>
<td>Febrile, 31, 80, 96</td>
<td></td>
</tr>
<tr>
<td>Feces, 75, 80</td>
<td></td>
</tr>
<tr>
<td>Femoral, 79, 80</td>
<td></td>
</tr>
<tr>
<td>Fibrin, 80, 91, 98</td>
<td></td>
</tr>
<tr>
<td>Fibrosis, 9, 80</td>
<td></td>
</tr>
<tr>
<td>Flatus, 80, 81</td>
<td></td>
</tr>
<tr>
<td>Fluconazole, 4, 80</td>
<td></td>
</tr>
<tr>
<td>Flucytosine, 4, 80</td>
<td></td>
</tr>
<tr>
<td>Forearm, 70, 80</td>
<td></td>
</tr>
<tr>
<td>Fungi, 68, 69, 73, 80, 88, 101</td>
<td></td>
</tr>
<tr>
<td>Fungicides, Industrial, 68, 80</td>
<td></td>
</tr>
<tr>
<td>Fungus, 24, 71, 79, 80, 94</td>
<td></td>
</tr>
<tr>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Gallbladder, 66, 77, 81</td>
<td></td>
</tr>
<tr>
<td>Ganciclovir, 15, 81</td>
<td></td>
</tr>
<tr>
<td>Ganglia, 81, 89</td>
<td></td>
</tr>
<tr>
<td>Gas, 30, 73, 80, 81, 83, 89, 100</td>
<td></td>
</tr>
<tr>
<td>Gastric, 72, 81, 82</td>
<td></td>
</tr>
<tr>
<td>Gastrin, 81, 83</td>
<td></td>
</tr>
</tbody>
</table>
Skin Rashes
Jaundice, 11, 83, 86
Joint, 51, 52, 53, 69, 86, 98
Joint Capsule, 86, 98
Kb, 42, 86
Ketoconazole, 4, 86
Labile, 74, 86
Large Intestine, 77, 85, 86, 93, 95
Lens, 72, 86
Lesion, 70, 86, 88, 98, 99
Leucocyte, 79, 86
Leukaemia, 14, 86
Leukemia, 14, 18, 66, 73, 86, 92
Leukocytes, 70, 71, 73, 76, 86, 99
Leukoplakia, 4, 86
Library Services, 62, 86
Linkage, 11, 86
Lipid, 85, 86
Lithium, 13, 86
Liver, 12, 26, 54, 66, 67, 70, 72, 76, 77, 80, 81, 83, 86, 88, 92, 93
Localized, 28, 67, 84, 86, 88, 90, 91, 99, 100
Locomotion, 86, 91
Lumbar, 69, 87
Lupus, 35, 51, 52, 53, 54, 87, 98
Lupus Nephritis, 52, 87
Lymph, 11, 87, 91
Lymph node, 87
Lymphadenopathy, 11, 87
Lymphatic, 84, 87, 96
Lymphatic system, 87, 96
Lymphocyte, 68, 87
Lymphocytosis, 12, 13, 87
Lymphoid, 28, 68, 86, 87
Malabsorption, 72, 87
Malaise, 4, 16, 87
Manic, 86, 87
Man-made, 72, 87
Mannans, 80, 87
Measles Virus, 14, 87
Meat, 30, 87
MEDLINE, 43, 87
Membrane, 74, 80, 82, 87, 88, 91, 94, 98
Meninges, 69, 72, 76, 78, 87
Meningitis, 13, 80, 85, 87
MI, 17, 53, 65, 87
Microbiology, 69, 88
Microorganism, 88, 100
Milligram, 25, 88
Mineralocorticoids, 66, 76, 88
Misonidazole, 17, 88
Mitochondrial Swelling, 88, 89
Mitomycin, 16, 88
Molecular, 24, 43, 45, 67, 70, 74, 88, 94, 99
Molecule, 27, 68, 70, 74, 78, 88, 93
Mononuclear, 88, 99
Morbillivirus, 87, 88
Morphological, 35, 80, 88
Motion Sickness, 88, 89
Motor Activity, 75, 88
Mouth Ulcer, 52, 54, 88
Mucocutaneous, 4, 88
Mucosa, 72, 87, 88, 97
Mucus, 88, 99
Myalgia, 10, 31, 88
Myelodysplastic syndrome, 13, 88, 95
Myelogenous, 88
Myocardium, 87, 89
Myositis, 52, 89
Nausea, 13, 30, 51, 89, 99
Necrosis, 3, 84, 87, 89
Need, 3, 24, 29, 30, 31, 34, 51, 56, 73, 81, 89
Neonatal, 35, 89
Nerve, 68, 77, 89, 94, 95
Nervous System, 53, 72, 89, 97
Neurologic, 4, 52, 89
Neuropathy, 30, 89
Nitrogen, 67, 68, 76, 89
Nuclear, 87, 89
Nucleic acid, 66, 77, 89
Ointments, 26, 89
Opacity, 72, 77, 89
Osteoporosis, 51, 89
Pachymeningitis, 87, 89
Palliative, 89, 98
Pancreas, 7, 66, 77, 85, 89, 90
Pancreatic, 7, 72, 90
Pancreatic Polypeptide, 7, 90
Panniculitis, 35, 90
Panniculitis, 35, 90
Parenteral, 17, 20, 90
Partial remission, 90, 93
Patch, 86, 90, 99
Pathologic, 70, 71, 75, 83, 84, 90
Patient Care Team, 54, 90
Patient Education, 50, 60, 62, 65, 90
Penicillin, 17, 90
Penis, 74, 78, 90
Skin Rashes

Peptide, 90, 91, 92
Pericarditis, 11, 90
Pericardium, 90, 98
Pharmacologic, 68, 90, 99
Physical Therapy, 52, 90
Physiologic, 90, 92, 93
Pigment, 52, 90
Pituitary Gland, 75, 90
Plants, 27, 49, 67, 81, 90, 96, 99
Plaque, 25, 91
Plasma, 68, 82, 88, 90, 91, 93, 95
Plasma cells, 68, 91
Platelets, 27, 91, 98
Pleura, 91
Pleurisy, 31, 91
Poisoning, 79, 85, 89, 91
Polyarteritis Nodosa, 4, 53, 91
Polypeptide, 67, 90, 91, 101
Polysaccharide, 68, 72, 91
Posterior, 69, 78, 85, 89, 91, 95
Postmenopausal, 89, 91
Potassium, 24, 88, 91
Poultice, 24, 91
Practice Guidelines, 44, 91
Prednisolone, 12, 91, 92
Prednisone, 17, 53, 92
Preleukemia, 88, 92, 95
Progressive, 73, 82, 89, 92, 93
Prophylaxis, 92, 94, 100
Prostaglandin, 92
Protein C, 50, 67, 69, 92
Protein S, 70, 92
Proteins, 14, 67, 68, 74, 76, 88, 89, 90, 91, 92, 95, 99
Proteinuria, 11, 92
Proteolytic, 74, 92
Pruritic, 5, 6, 77, 78, 92
Pruritus, 92
Psychic, 92, 95
Psychomotor, 71, 92
Public Policy, 43, 92
Pulmonary, 10, 70, 73, 75, 79, 93
Pulmonary Artery, 70, 93
Pulmonary Edema, 73, 93
Pupil, 75, 85, 93
Purpura, 4, 14, 35, 93
Pustular, 84, 93
Rectum, 69, 71, 77, 80, 81, 86, 93
Red blood cells, 79, 83, 93
Reductase, 11, 93
Refer, 1, 71, 74, 78, 80, 83, 86, 93
Regional chemotherapy, 16, 93
Regurgitation, 82, 93
Relapse, 4, 93
Remission, 7, 20, 52, 66, 93
Renal failure, 93
Renin, 71, 93
Renin-Angiotensin System, 71, 93
Restoration, 90, 94
Retina, 86, 94, 100
Retinoids, 94, 100
Rheumatism, 12, 32, 94
Rheumatoid, 7, 12, 17, 20, 51, 94
Rheumatoid arthritis, 7, 12, 17, 20, 51, 94
Rheumatology, 10, 13, 20, 53, 94
Rigidity, 90, 94
Risk factor, 4, 94
Rod, 70, 94
Rubber, 55, 66, 94
Rye, 50, 73, 79, 94
Salicylate, 94
Salicylic, 94
Salicylic Acids, 94
Saline, 71, 94
Salivary, 76, 77, 94
Salivary glands, 76, 77, 94
Schizoid, 94, 101
Schizophrenia, 94, 101
Schizotypal Personality Disorder, 94, 101
Sclera, 74, 79, 95, 100
Screening, 73, 95
Seborrhea, 55, 95
Sebum, 95
Secretion, 12, 76, 85, 88, 95
Seizures, 30, 71, 95
Semen, 53, 78, 95
Semisynthetic, 79, 95
Senile, 89, 95
Sensor, 26, 95
Serum, 4, 14, 67, 74, 76, 88, 91, 95, 99
Shock, 18, 95, 99
Side effect, 37, 52, 54, 66, 76, 95, 99
Signs and Symptoms, 31, 91, 93, 95
Skeletal, 68, 76, 95
Skeleton, 86, 92, 95
Skull, 76, 95, 98
Small intestine, 50, 78, 83, 85, 95, 99
Smallpox, 48, 95
Smoldering leukemia, 88, 95
Sodium, 17, 20, 82, 88, 96, 98
Soft tissue, 70, 95, 96
Solvent, 27, 96, 99
Spatial disorientation, 78, 96
Specialist, 56, 96
Species, 67, 71, 73, 83, 87, 88, 96, 97, 99
Spectrum, 86, 96
Sperm, 67, 73, 96
Spermatozoa, 95, 96
Spices, 71, 96
Spinal cord, 72, 78, 87, 89, 96
Spinous, 79, 96
Spleen, 67, 76, 87, 96
Sprue, 50, 96
Staphylococcus, 84, 96
Staphylococcus aureus, 84, 96
Stem Cells, 67, 96
Sterility, 76, 97
Steroids, 75, 81, 97
Stomach, 30, 52, 54, 66, 77, 79, 81, 83, 89, 95, 96, 97
Stomatitis, 17, 20, 97
Streptococcal, 11, 97
Streptococci, 84, 97
Streptococcus, 97
Stress, 30, 89, 94, 97, 100
Styrene, 94, 97
Subacute, 35, 84, 97
Subarachnoid, 82, 97
Subclinical, 84, 95, 97
Subcutaneous, 72, 78, 90, 97
Substance P, 95, 97
Substrate, 24, 97
Sulfides, 25, 97
Sulfur, 21, 97
Superinfection, 69, 97
Suppression, 17, 76, 97
Suppurative, 72, 97
Sweat, 95, 98
Sweat Glands, 95, 98
Synovial, 8, 31, 86, 98
Synovial Cyst, 8, 98
Synovial Membrane, 86, 98
Synovitis, 32, 98
Systemic lupus erythematosus, 4, 35, 52, 53, 54, 87, 98
Systolic, 84, 98
Testosterone, 93, 98
Therapeutics, 38, 98
Thoracic, 69, 77, 79, 91, 98
Threshold, 84, 98
Thrombin, 80, 92, 98
Thrombocytes, 91, 98
Thrombomodulin, 92, 98
Thrombosis, 35, 92, 98
Tin, 30, 98
Tissue, 66, 68, 69, 70, 71, 73, 74, 76, 78, 79, 80, 82, 84, 85, 86, 87, 89, 90, 94, 95, 96, 98, 99
Topical, 27, 51, 69, 99
Toxic, iv, 18, 73, 84, 89, 94, 97, 99
Toxicity, 72, 78, 99
Toxicology, 10, 44, 99
Toxins, 68, 84, 99
Trace element, 98, 99
Transdermal, 25, 26, 99
Transfection, 70, 99
Transfer Factor, 4, 99
Transplantation, 73, 99
Trauma, 89, 99
Trees, 67, 94, 99
Trichloroethylene, 11, 99
Tropical Sprue, 51, 99
Tuberculosis, 87, 94, 99
Tumor Necrosis Factor, 31, 51, 99
U
Ulcer, 72, 99
Ulcerative colitis, 9, 99
Unconscious, 84, 99
Uremia, 93, 99
Urethra, 90, 100
Urinary, 30, 81, 100
Urine, 52, 70, 76, 92, 100
Urogenital, 51, 81, 100
Urticaria, 35, 100
Uvea, 100
Uveitis, 8, 11, 100
V
Vaccination, 48, 100
Vaccine, 15, 16, 48, 100
Vagina, 71, 100
Vaginal, 53, 100
Vaginitis, 71, 100
Vascular, 53, 82, 84, 100
Vasculitis, 3, 35, 91, 100
Vasodilator, 83, 100
Vein, 85, 89, 100
Venous, 70, 92, 100
Venous blood, 70, 100
Venules, 70, 100
Vesicular, 12, 18, 77, 83, 95, 100
Veterinary Medicine, 43, 100
Villous, 72, 100
Viral, 13, 26, 53, 100, 101
Virus, 4, 13, 52, 69, 72, 91, 95, 100
Vitamin A, 51, 100
Vitro, 100

W
Warts, 24, 101
Weight Gain, 80, 101
Wheelchairs, 26, 101
White blood cell, 68, 73, 86, 87, 88, 91, 101
Withdrawal, 18, 101

Y
Yeast, 71, 80, 101

Z
Zymogen, 92, 101