

Introduction and History

- The National Library of Medicine™ (NLM™) has been indexing the biomedical literature, since 1879, to help provide health professionals access to information necessary for research, health care, and education.
- Beginning in the 1960s, NLM's computer-based Medical Literature Analysis and Retrieval System (MEDLARS®) has allowed rapid access to a vast store of references to biomedical information.
- MEDLARS is still used for preparing bibliographic printed publications, such as, *Index Medicus*®, the monthly subject/author guide to biomedical literature.

MEDLINE® is the National Library of Medicine's premier bibliographic database containing citations and author abstracts from approximately 4,600 biomedical journals published in the United States and in other countries.

- MEDLINE currently contains approximately 12 million references dating back to 1966.
- New material is added Tuesday through Saturday.
- Coverage is worldwide, but most records (86%) are from English-language sources or have English abstracts.
- Approximately 76% of the citations are included with the published abstract.
- The scope of MEDLINE includes such diverse topics as microbiology, delivery of health care, nutrition, pharmacology and environmental health. The categories covered in MEDLINE include everything from anatomy, organisms, diseases, psychiatry, psychology to the physical sciences.

MEDLINE – Basic Bibliographic Citation

One MEDLINE citation represents one journal article and is composed of fields that provide specific information (Title, Author, Language, etc.) about the journal article. The following information is generally provided:

- Title of the journal article
- Names of the Authors
- Abstract published with the article
- Controlled Vocabulary search terms (MeSH headings)
- Journal Source Information
- First Author Affiliation
- Language in which the article was published
- Publication Type (description of the type of article, e.g., Review, Letter, etc.)

A sample MEDLINE citation from PubMed follows.

PubMed MEDLINE citation:

J Clin Oncol 2000 Jun;18(11):2316-26

[Related Articles, Links](#)[Full text article at
www.jco.org](#)**Psychiatric side effects of interferon therapy: prevalence, proposed mechanisms, and future directions.****Trask PC, Esper P, Riba M, Redman B.**

Behavioral Medicine Program, Department of Internal Medicine, and Department of Psychiatry, University of Michigan, Ann Arbor 48108, USA. pctrask@umich.edu

The increasing use of interferon (IFN) in treating a variety of disorders including, malignant melanoma and hepatitis C, has resulted in the identification and increasing concern about the psychiatric side effects that can result from treatment. These effects can occur either shortly after beginning IFN therapy or later as a result of continued treatment. Studies have reported the incidence of later side effects, which include symptoms of depression, anxiety, and occasional suicidal ideation, to be from 0% to 70%. Case studies have demonstrated that pharmacologic interventions are beneficial in reducing iatrogenic psychiatric symptoms while allowing patients to maintain IFN therapy. The present article provides an overview of the psychiatric effects of IFN therapy, the proposed mechanisms of these side effects, and case studies that provide mechanistic support. In addition, limitations of the current literature are provided with suggestions for treating physicians and a discussion of possible future research directions.

Publication Types:

- Review
- Review, Tutorial

MeSH Terms:

- Human
- Interferons/adverse effects*
- Mental Disorders/etiology*
- Mental Disorders/drug therapy
- Psychiatric Status Rating Scales
- Time Factors

Substances:

- Interferons

PMID: 10829053 [PubMed - indexed for MEDLINE]

Free MEDLINE Searching

- Introduced on June 26, 1997.
- Available through the NLM Web Site: <http://www.nlm.nih.gov>
- From NLM Web site, click on the [MEDLINE/PubMed](#) link on the right.

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Medical libraries through out the United States are joined together in a network. The purpose of the National Network of Libraries of Medicine (NN/LM®) is to provide health science practitioners, investigators, educators, and administrators in the United States with timely, convenient access to biomedical and health care information resources.

- The network is administered by the National Library of Medicine.
- It consists of eight Regional Medical Libraries (major institutions under contract to NLM), and some 4,500 Primary Access Libraries (primarily at hospitals).
- The Regional Medical Libraries administer and coordinate services in the network's eight geographical regions.



NN/LM Web site: <http://nmlm.gov>

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DOCLINE® is the computerized interlibrary loan system that is the foundation for Loansome Doc.



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NLM Technical Bulletin

- A bi-monthly newsletter published for NLM online searchers.
- The *NLM Technical Bulletin* keeps searchers apprised of:
 - changes and enhancements to NLM retrieval systems
 - changes to MeSH vocabulary
 - tips for searching
- The *Technical Bulletin* is published electronically on the NLM Web site. The URL is:

<http://www.nlm.nih.gov/pubs/techbull/tb.html>



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Technical Bulletin

ISSN 0146-3055
Contents not copyrighted, freely reproducible.

The *NLM Technical Bulletin* is created by the
MEDLARS Management Section, NLM.

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Current Issue
Back Issues
Index

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Page last updated: 25 November 2003

Consumer Information

- On October 22, 1998 NLM launched a consumer health home page called **MEDLINEplus**[®]
- Designed to direct consumers to resources containing information that will assist in researching their health questions.
- The pages are designed for education use only and are not intended to replace advice from a health professional.
- These pages provide a carefully selected list of resources, not a comprehensive catalog.

Click on the **MEDLINEplus** image on the right-hand side of the NLM home page:



The screenshot shows the MEDLINEplus Health Information website. At the top, there is a purple header with the text "MEDLINEplus[®] Health Information" and "A service of the U.S. NATIONAL LIBRARY OF MEDICINE and the NATIONAL INSTITUTES OF HEALTH". Below the header is a search bar and navigation links: "About | Site Map | FAQs | Contact Us" and a yellow "español" button. The main content area is divided into several sections:

- Health Topics:** Start here with over 600 topics on conditions, diseases and wellness.
- Drug Information:** About your prescription and over-the-counter medicines.
- Medical Encyclopedia:** Includes pictures and diagrams.
- Dictionary:** Spellings and definitions of medical words.
- News:** Health News from the past 30 days.
- Directories:** Find doctors, dentists and hospitals.
- Other Resources:** Local libraries, health organizations, international sites and more.

Other sections include:

- Current Health News:**
 - [Vaccination Rates Still Vary by Race/Ethnicity](#)
 - [Sleep on It Is Good Advice to Improve Memory](#)
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- Interactive Tutorials:** Over 165 slideshows with sound and pictures.
- ClinicalTrials.gov:** Studies for new drugs and treatments.
- NIHSeniorHealth:** Health information for older adults.

At the bottom right, there are links for "What's new on MEDLINEplus?" with a "Sign up now!" button and an envelope icon, and "Add MEDLINEplus to your site" with a "Take a tour of the site" link.

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Medical Subject Headings (MeSH® Vocabulary)

What is MeSH?

- Acronym for **Medical Subject Headings**
- Used for indexing journal articles for *Index Medicus*, MEDLINE and also used for cataloging books and audiovisuals
- Used by searchers
- Revised annually
- Gives uniformity and consistency to the indexing of the biomedical literature and is a distinctive feature of MEDLINE.
- Similar to key words on other systems
- Arranged in a hierarchical manner called the MeSH Tree Structure

MeSH Vocabulary includes four types of terms:

- Headings
- Subheadings
- Supplementary Concept Records
- Publication Types

MeSH headings represent concepts found in the biomedical literature.

Examples of MeSH Headings:

- Body Weight
- Kidney
- Dental Cavity Preparation
- Self Medication
- RadioactiveWaste
- Brain Edema

MeSH Tree Structure

- MeSH vocabulary is organized by 15 main branches:
 - A. Anatomy
 - B. Organisms
 - C. Diseases
 - D. Chemical and Drugs
 - E. Analytical, Diagnostic and Therapeutic Techniques and Equipment
 - F. Psychiatry and Psychology
 - G. Biological Sciences
 - H. Physical Sciences
 - I. Anthropology, Education, Sociology and Social Phenomena
 - J. Technology and Food and Beverages
 - K. Humanities
 - L. Information Science
 - M. Persons
 - N. Health Care
 - Z. Geographic Locations

- Each Descriptor has a tree number that positions the term in the hierarchy.

Eye [A01.456.505.420]
 Eyebrows [A01.456.505.420.338]
 Eyelids [A01.456.505.420.504]
 Eyelashes [A01.456.505.420.504.421]

- Some terms have multiple tree numbers because they appear in more than one place in the hierarchy.
- By having narrower terms indented under broader terms, a search of a broad term can automatically include the narrower terms. This is known as an EXPLODE.

MeSH Descriptor Data

This example is taken from NLM's MeSH Browser.

1.	MeSH Heading	Cell Count
	Tree Number	E05.200.500.195
2.	Tree Number	G04.335.130
3.	Annotation	usually NIM; not for micro-organisms
4.	Scope Note	The number of CELLS of a specific kind, usually measured per unit volume or area of sample.
	Entry Term	Cell Density
	Entry Term	Cell Number
	See Also	Blood Cell Count
	See Also	Sperm Count
	Allowable Qualifiers	CL EC ES HI IS MT SN ST TD UT VE
	Previous Indexing	Cytology (1966-1968)
	Online Note	use CELL COUNT to search CELL NUMBER 1978-79
	History Note	73(69); CELL NUMBER was heading 1978-79
	Unique ID	D002452

LEGEND

1. The *MeSH Heading*, also called the “descriptor,” is displayed at the top of the record.
2. The number(s) beneath the MeSH heading is the *Tree Number(s)* and indicates the location of the MeSH heading in the tree structure.
3. The *Annotation* provides a brief informative note for the guidance of the indexer and searcher.
4. The *Scope Note* offers an explanation or definition of the concept.

	MeSH Heading	Cell Count
	Tree Number	E05.200.500.195
	Tree Number	G04.335.130
	Annotation	usually NIM; not for micro-organisms
	Scope Note	The number of CELLS of a specific kind, usually measured per unit volume or area of sample.
5.	Entry Term	Cell Density
	Entry Term	Cell Number
6.	See Also	Blood Cell Count
	See Also	Sperm Count
7.	Allowable Qualifiers	CL EC ES HI IS MT SN ST TD UT VE
8.	Previous Indexing	Cytology (1966-1968)
9.	Online Note	use CELL COUNT to search CELL NUMBER 1978-79
10.	History Note	73(69); CELL NUMBER was heading 1978-79
	Unique ID	D002452

5. *Entry terms* are often synonyms for the term, or terms or concepts that would be indexed with this term.
6. *See Also* – additional heading(s) suggested for consideration in selecting search terms.
7. *Allowable Qualifiers* are the subheadings that can be used with this concept. Displayed with 2-letter abbreviations which link to the record for that subheading.
8. *Previous Indexing* – Terms that were used alone or in combination with other terms to index this concept in the past.
9. The *Online Note* provides information for online searchers.
10. The *History Note* gives brief information regarding the year the MeSH heading was introduced and any changes over the years. If no date is given, the heading was introduced as a MeSH heading before 1965.

Indexing with MeSH Headings

- NLM's MEDLINE indexers examine articles and assign the most specific MeSH heading(s) appropriate to describe the main concepts discussed.
- When there is no single specific MeSH heading for a concept, the indexer will use the closest, more general MeSH heading available.
- The indexer will assign as many MeSH headings as appropriate to cover the topics of the article (generally 5 to 15).
- The MeSH terms that reflect the major points of the article are marked with an asterisk (*) by indexers.
- Information the indexer provides includes:
 - topic of article
 - age group of population studied
 - human vs. animal studies
 - male vs. female studies
 - type of article (e.g., review article)

Article Title:

American College of Preventive Medicine Practice Policy Statement. Screening for elevated blood lead levels in children.

Abstract:

Based on a review of the current literature and recommendations, the American College of Preventive Medicine presents a practice policy statement on screening for elevated blood lead levels in children.

Publication Types:

Guideline
Practice Guideline
Review
Review, Tutorial

MeSH Terms:

Child
Child, Preschool
Female
Guidelines*
Human
Lead/blood
Lead Poisoning/prevention & control*
Male
Mass Screening/standards*
Physician's Practice Patterns
Policy Making
Preventive Medicine/standards*
Societies, Medical
United States

Substances:

Lead

Subheadings

- Subheadings further describe a particular aspect of a MeSH heading.
- Examples: diagnosis, metabolism, adverse effects. The entire list of subheadings are provided on the next page.
- A record for each subheading can be found in the MeSH Browser.

Subheading	adverse effects
Record Type	Q
Entry Version	ADV EFF
Abbreviation	AE
Scope Note	Used with drugs, chemicals, or biological agents in accepted dosage - or with physical agents or manufactured products in normal usage - when intended for diagnostic, therapeutic, prophylactic, or anesthetic purposes. It is used also for adverse effects or complications of diagnostic, therapeutic, prophylactic, anesthetic, surgical, or other procedures, but excludes contraindications for which "contraindications" is used.
Grateful Med Note	combine with specific drugs, substances, or procedures; + for subheading group
Annotation	subhead only, includes "injurious effects", "undesirable effects", "side effects" in normal use; for complications following various procedures; see also / poisoning & / toxicity ; see MeSH scope note in Introduction; indexing policy. Manual 19.8.3 ; DF: /adv eff or /AE
Online Note	search policy. Online Manual; use: main heading/AE or AE (SH) or SUBS APPLY AE
History Note	66; used with Category D, E & H 1966-69; D, E, H & J 1970-74; D, E, F4, H & J 1975-81; D, E, F4, G3, H & J 1982-87; D, E, F4, H, J, & SMOKING 1988; D, E, F4, H, J, & 1982-87; D, E, F4, H, J & SMOKING 1988; D, E, F4, H, J & SMOKING+ 1989; D, E & J 1990 forward
Entry Term	injurious effects
Entry Term	side effects
Entry Term	undesirable effects
Date of Entry	19731227
Revision Date	19940708
Date Established	19660101
Unique ID	Q000009

Subheading Groupings

- Related subheadings have been grouped (see page MeSH Vocabulary - 9).
- Not all subheadings have been placed in these groupings – some do not logically fit.

SUBHEADINGS

Abnormalities	AB	Isolation & Purification	IP
Administration & Dosage	AD	Legislation & Jurisprudence	LJ
Adverse Effects	AE	Manpower	MA
Agonists	AG	Metabolism	ME
Analogs & Derivatives	AA	Methods	MY
Analysis	AN	Microbiology	MI
Anatomy & Histology	AH	Mortality	MO
Antagonists & Inhibitors	AI	Nursing	NU
Biosynthesis	BI	Organization & Administration	OG
Blood	BL	Parasitology	PS
Blood Supply	BS	Pathogenicity	PY
Cerebrospinal Fluid	CF	Pathology	PA
Chemical Synthesis	CS	Pharmacokinetics	PK
Chemically Induced	CI	Pharmacology	PD
Chemistry	CH	Physiology	PH
Classification	CL	Physiopathology	PP
Complications	VO	Poisoning	PO
Congenital	CN	Prevention & Control	PC
Contraindications	CT	Psychology	PX
Cytology	CY	Radiation Effects	RE
Deficiency	DF	Radiography	RA
Diagnosis	DI	Radionuclide Imaging	RI
Diagnostic Use	DU	Radiotherapy	RT
Diet Therapy	DH	Rehabilitation	RH
Drug Effects	DE	Secondary	SC
Drug Therapy	DT	Secretion	SE
Economics	EC	Standards	ST
Education	ED	Statistics & Numerical Data	SN
Embryology	EM	Supply & Distribution	SD
Enzymology	EN	Surgery	SU
Epidemiology	EP	Therapeutic Use	TU
Ethics	ES	Therapy	TH
Ethnology	EH	Toxicity	TO
Etiology	ET	Transmission	TM
Genetics	GE	Transplantation	TR
Growth & Development	GD	Trends	TD
History	HI	Ultrasonography	US
Immunology	IM	Ultrastructure	UL
Injuries	IN	Urine	UR
Innervation	IR	Utilization	UT
Instrumentation	IS	Veterinary	VE
		Virology	VI

Families of Subheading Explosions

adverse effects

poisoning
toxicity

analysis

blood
cerebrospinal fluid
isolation & purification
urine

anatomy & histology

blood supply
cytology
 pathology
 ultrastructure
embryology
 abnormalities
innervation

chemistry

agonists
analogs & derivatives
antagonists & inhibitors
chemical synthesis

complications

secondary

cytology

pathology
ultrastructure

diagnosis

pathology
radiography
radionuclide imaging
ultrasonography

embryology

abnormalities

epidemiology

ethnology
mortality

etiology

chemically induced
complications
 secondary
congenital
embryology
genetics
immunology
microbiology
 virology
parasitology
transmission

metabolism

biosynthesis
blood
cerebrospinal fluid
deficiency
enzymology
pharmacokinetics
urine

microbiology

virology

organization & admin

economics
legislation & jurisprudence
manpower
standards
supply & distribution
trends
utilization

pharmacology

administration & dosage
adverse effects
 poisoning
 toxicity
agonists
antagonists & inhibitors
contraindications
diagnostic use
pharmacokinetics

physiology

genetics
growth & development
immunology
metabolism
 biosynthesis
 blood
 cerebrospinal fluid
 deficiency
 enzymology
 pharmacokinetics
 urine
physiopathology
secretion

statistics & numer data

epidemiology
 ethnology
 mortality
supply & distribution
utilization

surgery

transplantation

therapeutic use

administration & dosage
adverse effects
contraindications
poisoning

therapy

diet therapy
drug therapy
nursing
prevention & control
radiotherapy
rehabilitation
surgery
 transplantation

Pharmacologic Action Terms

Every drug and chemical MeSH heading has been assigned one or more headings that describe its pharmacological action (PA).

- Beginning in 1996, indexers add the appropriate pharmacological action MeSH heading as well as the specific chemical MeSH heading to a citation when the action of the chemical is being discussed in the article.

Example:

Here are the pharmacological actions established for the MeSH Heading, Aspirin:

MeSH Heading	Aspirin
Pharmacological Action	Anti-Inflammatory Agents, Non-Steroidal
Pharmacological Action	Cyclooxygenase Inhibitors
Pharmacological Action	Fibrinolytic Agents
Pharmacological Action	Platelet Aggregation Inhibitors

- A citation to an article that discusses **aspirin used as an anti-inflammatory agent** will be assigned:

Aspirin
Anti-Inflammatory Agents, Non-Steroidal

- A citation to an article that discusses **aspirin used to inhibit blood clotting** will be assigned:

Aspirin
Platelet Aggregation Inhibitors

Pharmacological Action Term List for **Caustics**:

Caustics	
Chemical	Record Type
Lye	Descriptor
Podophyllin	Descriptor
Potassium Dichromate	Descriptor
Sodium Hydroxide	Descriptor
Trichloroacetic Acid	Descriptor

Other Types of MeSH Vocabulary

Supplementary Concepts

- Over 100,000 terms in a separate chemical thesaurus.
- Display in RN field on MEDLINE record.

CAS Registry Number/EC Number

- Unique 5- to 9-digit number in hyphenated format representing either the Chemical Abstracts number or the E.C. number from the Enzyme Nomenclature.
- Displays in RN Field on MEDLINE record with Supplementary Concept term.
- May display as zero (0), generally for terms for a group or class of compounds.

Examples (as seen in MEDLINE):

RN – 68373-14-8 (Sulbactam)

RN – 69-53-4 (Ampicillin)

Age Group MeSH Headings

These are MeSH headings which indicate the age of human subjects discussed in the article:

Infant, Newborn	Birth to 1 month
Infant	1 to 23 months
Child, Preschool	2 to 5 years
Child	6 to 12 years
Adolescent	13 to 18 years
Adult	19 to 44 years
Middle aged	45 to 64 years
Aged	65+

Publication Types

- Publication Types describe the type of material being indexed.
- The most common type is Journal Article. Other Publication Types include:

Clinical Trial	Retraction of Publication
Comment	Review
Practice Guideline	Twin Study
Retracted Publication	

- Publication Types, along with definitions, appears in the introductory pages of the *Annotated MeSH*, and can also be found in NLM's MeSH Browser.

NLM MeSH Browser

- Allows you to look through the MeSH vocabulary to see if there is a MeSH term for a particular concept.

Where is it?

- The MeSH browser is introduced on this page of NLM's site:

<http://www.nlm.nih.gov/mesh/meshhome.html>

- The link to the current MeSH browser (**<http://www.nlm.nih.gov/mesh/Mbrowser.html>**) is provided.
- A fuller description of this tool may be found at:

<http://www.nlm.nih.gov/mesh/mbinfo.html>

What can I search?

- The Browser allows you to search the 4 types of MeSH records:
 1. MeSH Headings (Descriptors)
 2. Supplementary Concept Records (formerly known as Supplementary Chemical Records)
 3. Qualifiers (subheadings) terms
 4. Publication Types

How do I browse?

- The initial MeSH Browser screen, shown on the next page, provides two ways of finding the MeSH term for a concept.
 1. You can work down (navigate) from the top of the tree.
 2. Enter a term or root to be searched.

Navigate from the top of the tree

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MeSH Browser:
The files are updated every week on Sunday.
[Browse 2002 MeSH](#)

Enter term or the beginning of any root fragments: or

Search for these record types:

- Main Headings
- Qualifiers
- Supplementary Concepts
- All of the Above
- Search as MeSH Unique ID
- Search as text words in Annotation & Scope Note

Search in these fields of chemicals:

- Heading Mapped To (HM) (Supplementary List)
- Indexing Information (II) (Supplementary List)
- Pharmacological Action (PA)
- CAS Registry/EC Number (RN)
- Related CAS Registry Number (RR)

*Let's start by using the **Navigate** button.*

The first level shows the fifteen broad categories in MeSH.

When you click on the plus sign to the left of a term, you will open that category and see the concepts grouped here (see below).

MeSH Tree Structures - 2003

[Return to Entry Page](#)

1. Anatomy [A]
2. Organisms [B]
3. Diseases [C]
4. Chemicals and Drugs [D]
5. Analytical, Diagnostic and Therapeutic Techniques and Equipment [E]
6. Psychiatry and Psychology [F]
7. Biological Sciences [G]
8. Physical Sciences [H]
9. Anthropology, Education, Sociology and Social Phenomena [I]
10. Technology and Food and Beverages [J]
11. Humanities [K]
12. Information Science [L]
13. Persons [M]
14. Health Care [N]
15. Geographic Locations [Z]

Beginning at this level you can select a term and see detailed information about that concept, or continue down, or branch out.

1. Anatomy [A]
2. Organisms [B]
 - o [Invertebrates \[B01\]](#)
 - o [Vertebrates \[B02\]](#)
 - o [Bacteria \[B03\]](#)
 - o [Viruses \[B04\]](#)
 - o [Algae and Fungi \[B05\]](#)
 - o [Plants \[B06\]](#)
 - o [Archaea \[B07\]](#)
3. Diseases [C]
4. Chemicals and Drugs [D]

If you click on a term you will go to a page that shows the position(s) of the hierarchy in which the term is placed.

At the top of this screen you can find information about the term.

MeSH Heading	Helicobacter pylori
Tree Number	B03.440.500.550
Tree Number	B03.660.150.280.550
Tree Number	B03.825.400.550
Annotation	infection: coord IM with HELICOBACTER INFECTIONS (IM)
Scope Note	A spiral bacterium active as a human gastric pathogen. It is a gram-negative, urease-positive, curved or slightly spiral organism initially isolated in 1982 from patients with lesions of gastritis or peptic ulcers in Western Australia. Helicobacter pylori was originally classified in the genus CAMPYLOBACTER , but RNA sequencing, cellular fatty acid profiles, growth patterns, and other taxonomic characteristics indicate that the micro-organism should be included in the genus HELICOBACTER . It has been officially transferred to Helicobacter gen. nov. (see Int J Syst Bacteriol 1989 Oct;39(4):297-405).
Entry Term	Campylobacter pylori
Allowable Qualifiers	CH CL CY DE EN GD GE IM IP ME PH PY RE UL VI
Previous Indexing	Campylobacter (1984-1990)
History Note	91
Unique ID	D016480

MeSH Tree Structures

[Bacteria \[B03\]](#)

[Gram-Negative Bacteria \[B03.440\]](#)

[Helicobacter \[B03.440.500\]](#)

[Helicobacter heilmannii \[B03.440.500.274\]](#)

▶ [Helicobacter pylori \[B03.440.500.550\]](#)

[Bacteria \[B03\]](#)

[Proteobacteria \[B03.660\]](#)

[epsilon Proteobacteria \[B03.660.150\]](#)

[Helicobacter \[B03.660.150.280\]](#)

[Helicobacter heilmannii \[B03.660.150.280.274\]](#)

▶ [Helicobacter pylori \[B03.660.150.280.550\]](#)

[Bacteria \[B03\]](#)

[Spiral and Curved Bacteria \[B03.825\]](#)

[Helicobacter \[B03.825.400\]](#)

[Helicobacter heilmannii \[B03.825.400.274\]](#)

▶ [Helicobacter pylori \[B03.825.400.550\]](#)

The data in a **MeSH Descriptor Record** may include:

- The MeSH Heading used for the concept.
- The Record Type: D for Main (MeSH) Headings.
- Tree Number: The place holder(s) in the numbered hierarchy.
- Annotation: guidelines for indexers and searchers.
- Scope Note: An explanation or definition of this concept to help in understanding its usage as an index term.
- Entry term: synonyms or concepts included by this term.
- See Also: related terms that may be of interest.
- Allowable Qualifiers: Subheadings that may be used in combination with this term. Links to subheading record for more information.
- Entry combination: conversion rules for Descriptors and Qualifiers.
- Previous Indexing: Terms that may have been used to index this concept in the years prior to the year that this term was introduced.
- History Note: The year this concept was introduced into MeSH. Includes historical changes over time.
- Unique ID: A unique number assigned for internal use. MeSH Heading UIs start with the letter D (for Descriptor), e.g., D001419.

Supplemental Concept Record

Name of Substance	cordycepin
Record Type	C
Registry Number	73-03-0
Entry Term	3'-deoxyadenosine
Heading Mapped to	*Deoxyadenosines
Previous Indexing	*DEOXYADENOSINE (75-89)
Source	J Biol Chem 1988;263(33):17590
Thesaurus ID	Merck, 9th ed #2502
Pharm. Action	Antifungal Agents
Pharm. Action	Antineoplastic Agents
Pharm. Action	Mutagens
Frequency	75
Date of Entry	19890801
Revision Date	20001213
Unique ID	C058120

See next page for details.

The data in a **Supplemental Concept record** may include:

- Name of substance: For example: quindoxin.
- Record Type: C for Supplemental Concepts.
- Registry Number: For example: 2423-66-7.
- CAS Type 1 Name: The systematic name of a chemical which defines its structure, e.g., quinoxaline, 1,4-dioxide.
- Related Number: A unique number assigned to chemicals by the Chemical Abstract Service, or a code for enzymes assigned by the Commission on Biological Nomenclature. Related number: registry Numbers for salts and/or stereoisomers as well as it's relation to the "parent" chemical.
- Entry Term: Synonyms that can be used for searching this concept.
- Heading Mapped to: The Descriptor used for indexing this chemical in MEDLINE.
- Pharm. Action: An action of a drug or chemical as reported in the literature, e.g., MUTAGENS; ANTIBIOTICS.
- Indexing Information: Other MeSH terms that an indexer should consider using.
- Previous Indexing: MeSH terms used before the current descriptor became available, and also terms removed from the HM field over time.
- Source: Citations to articles in which the chemical has been identified, e.g., Contact Dermatitis 194):256;1975.
- Thesaurus ID: An authoritative reference where the chemical is listed, e.g., USAN 1980, p.276.
- Frequency: The number of times the chemical has been identified in MEDLINE journals.
- Note: Additional information.
- Date of Entry: The date (YYMMDD) the record was added to the system.
- Revision Date: The date (YYMMDD) of the last major revision to this record.
- Unique ID, beginning with "C" for Supplementary Chemical Concept, e.g., C003282.

MeSH Qualifier (subheading) record

Subheading	therapy
Record Type	Q
Entry Version	THER.
Abbreviation	TH
Scope Note	Used with diseases for therapeutic interventions except drug therapy, diet therapy, radiotherapy, and surgery, for which specific subheadings exist. The concept is also used for articles and books dealing with multiple therapies.
Grateful Med Note	consider Surgery (sh), Drug Therapy (sh), Radiotherapy (sh), or + for subheading group
Annotation	subhead only, for general or unspecified therapy & multiple therapies; for tissue therapy & therapy with biological products; not for drug therapy (= /drug therapy), nor for diet therapy (= / diet therapy), nor for surgical therapy (= / surgery), nor for radiotherapy (= / radiotherapy), nor for rehabilitative therapy (= / rehabilitation); indexing policy: Manual 19.8.72 ; DF: /ther or /TH
Online Note	search policy: Online Manual; use: main heading/TH or TH (SH) or SUBS APPLY TH
History Note	66; used with Category C & F 1966-74; C & F3 1975-87; C, F3 & SMOKING 1988; C, F3 & SMOKING+ 1989; C & F3 1990 forward
Entry Term	disease management
Entry Term	treatment
Date of Entry	19731227
Revision Date	19940708
Date Established	19660101
Unique ID	Q000628

The data in a **MeSH Qualifier (subheading) record** includes:

- Subheading: The name of the qualifier, e.g., therapy.
- Record Type: Q for qualifiers.
- Entry Version: A form used by indexers, e.g., THER.
- Abbreviation: A short form for this term, e.g., TH. Can be used by searchers.
- Scope Note: Instructions to the indexers and catalogers about the use of this term.
- Annotation: Description of what the use of this term implies. Includes when not to use the term.
- Online Note: information helpful for searchers.
- History Note: The year, e.g., 66; the subheading was introduced along with changes over time.
- Entry Term: Synonyms for use.
- Date of Entry: The date (YYMMDD) the record was added to the system.
- Revision Date: The date (YYMMDD) of the last major revision to this record.
- Date Established: The date (YYMMDD) the qualifier was established.
- Unique ID: A unique number assigned for internal use. Qualifier UIs start with the letter Q, e.g., Q000728.



Use the **[Return to Entry Page](#)** link to go back to the Browser's home screen.

Enter a specific term

Enter
term
here.

Choose a
record type
OR use the
default,
"All of the
Above."

Click on one
of these
buttons to
begin
browsing.

MeSH Browser:
The files are updated every week on Sunday.
[Browse 2002 MeSH](#)

Enter term or the beginning of any root fragments: or

Search for these record types:

Main Headings
 Qualifiers
 Supplementary Concepts
 All of the Above
 Search as MeSH Unique ID
 Search as text words in Annotation & Scope Note

Search in these fields of chemicals:

Heading Mapped To (HM) (Supplementary List)
 Indexing Information (II) (Supplementary List)
 Pharmacological Action (PA)
 CAS Registry/EC Number (RN)
 Related CAS Registry Number (RR)

Find Buttons

Find Exact Term button

- Enter “adrenal cortex” and click on the Find Exact Term button.

Enter term
here.

Click the
**Find Exact
Term** button.

MeSH Browser:
The files are updated every week on Sunday.
[Browse 2002 MeSH](#)

Enter term or the beginning of any root fragments: or

Search for these record types:

Main Headings
 Qualifiers
 Supplementary Concepts
 All of the Above
 Search as MeSH Unique ID
 Search as text words in Annotation & Scope Note

Search in these fields of chemicals:

Heading Mapped To (HM) (Supplementary List)
 Indexing Information (II) (Supplementary List)
 Pharmacological Action (PA)
 CAS Registry/EC Number (RN)
 Related CAS Registry Number (RR)

The MeSH Browser will look for an exact match with a MeSH term.

MeSH Heading	Adrenal Cortex
Tree Number	A06.407.071.140
Annotation	PITUITARY-ADRENAL SYSTEM is available; also available are the 3 zonae of the cortex: ZONA GLOMERULOSA (outer), ZONA FASCICULATA (middle) & ZONA RETICULARIS (inner)
Scope Note	The outer layer of the adrenal gland. It secretes mineralocorticoids, androgens, and glucocorticoids.
Entry Term	Adrenal Cortex Effects
Allowable Qualifiers	AB AH BS CH CY DE EM EN GD IM IN IR ME MI PA PH PP PS RA RE RI SE SU TR UL US VI
Previous Indexing	Adrenal Glands (1966-1974)
Online Note	search ADRENAL GLANDS 1966-74
History Note	78(75)63-67, was see under ADRENAL GLANDS 1968-77
Unique ID	D000302

MeSH Tree Structures

[Endocrine System \[A06\]](#)

[Endocrine Glands \[A06.407\]](#)

[Adrenal Glands \[A06.407.071\]](#)

▶ [Adrenal Cortex \[A06.407.071.140\]](#)

[Zona Fasciculata \[A06.407.071.140.950\]](#)

[Zona Glomerulosa \[A06.407.071.140.960\]](#)

[Zona Reticularis \[A06.407.071.140.970\]](#)

[Adrenal Medulla \[A06.407.071.265\]](#)

Find Terms with ALL Fragments button

- Enter “adrenal cortex” and click on the **Find Terms with ALL Fragments** button.

Enter term here.

Click the Find Terms with ALL Fragments button.

Enter term or the beginning of any root fragments:	or	Navigate from tree top
<input type="text" value="adrenal cortex"/>		
Search for these record types:	<input type="radio"/> Search in these fields of chemicals:	
<input type="radio"/> Main Headings <input type="radio"/> Qualifiers <input type="radio"/> Supplementary Concepts <input checked="" type="radio"/> All of the Above <input type="radio"/> Search as MeSH Unique ID <input type="radio"/> Search as text words in Annotation & Scope Note	<input type="checkbox"/> Heading Mapped To (HM) (Supplementary I <input type="checkbox"/> Indexing Information (II) (Supplementary List <input type="checkbox"/> Pharmacological Action (PA) <input type="checkbox"/> CAS Registry/EC Number (RN) <input type="checkbox"/> Related CAS Registry Number (RR)	
<input type="button" value="Find Exact Term"/>	<input type="button" value="Find Terms with ALL Fragments"/>	<input type="button" value="Find Terms with ANY Fragm"/>

The Browser will show you terms that contain *all* the words or word-fragments you entered:

<p>Please select a term from list:</p> <p>Adrenal Cortex</p> <p>Adrenal Cortex Effects</p> <p>Adrenal Cortex Diseases</p> <p>Adrenal Cortex Function Tests</p> <p>Adrenal Cortex Hormones</p> <p>Adrenal Cortex Neoplasms</p> <p>Cancer of Adrenal Cortex</p> <p>Adrenal Cortex Cancer</p> <p>Cancer of the Adrenal Cortex</p> <p>Neoplasms, Adrenal Cortex</p>

Find Terms with ANY Fragment button

- Enter “adrenal cortex” and click on **Find Terms with ANY Fragment** button:

Enter term or the beginning of any root fragments: or

Enter term here.

Search for these record types:

- Main Headings
- Qualifiers
- Supplementary Concepts
- All of the Above
- Search as MeSH Unique ID
- Search as text words in Annotation & Scope Note

Search in these fields of chemicals:

- Heading Mapped To (HM) (Supplementary List)
- Indexing Information (II) (Supplementary List)
- Pharmacological Action (PA)
- CAS Registry/EC Number (RN)
- Related CAS Registry Number (RR)

Click the **Find Terms with ANY Fragments** button.

Here is a partial list of the terms retrieved using the **Find Terms with ANY Fragment** button.

Please select a term from list:

- [Adenoma, Adrenal Cortical](#)
- [Adrenal Cortex](#)
- [Adrenal Cortex Effects](#)
- [Adrenal Cortex Diseases](#)
- [Adrenal Cortex Function Tests](#)
- [Adrenal Cortex Hormones](#)
- [Adrenal Cortex Neoplasms](#)
- [Cancer of Adrenal Cortex](#)
- [Adrenal Cortex Cancer](#)
- [Cancer of the Adrenal Cortex](#)
- [Neoplasms, Adrenal Cortex](#)
- [Adrenal Gland Diseases](#)
- [Adrenal Gland Hyperfunction](#)
- [Adrenal Gland Hypofunction](#)
- [Adrenal Gland Neoplasms](#)
- [Adrenal Cancer](#)
- [Adrenal Gland Cancer](#)
- [Cancer of the Adrenal Gland](#)

Practice Exercises

1. Use the MeSH Browser to find the answers to these questions:
 - a. Can you use the term “Hypertension” to describe high pressure in the eye? What phrase of the Annotation explains this?
 - b. How far back can you search with the MeSH term, “Recombinant DNA?”
 - c. What ages are included by the term, “Child, Preschool?”
 - d. What is the preferred MeSH term for “drooling?”

2. Pretend you are a MeSH Indexer. Use the MeSH Browser and select MeSH terms that address these titles of articles listed below. When possible include an appropriate subheading (see list of subheadings on page 16).
 - a. Causes of Adult-Onset Diabetes
 - b. Management of Breast Cancer
 - c. The nursing care of Hemophiliacs
 - d. Treating Depression with Prozac

 - d. Brain Toxicity from Zinc

Suggested Answers:

1. Use the MeSH Browser to find the answers to these questions:
 - a. Can you use the term “Hypertension” to describe high pressure in the eye? What phrase of the Annotation explains this?

No. “not for intracranial or intraocular pressure”

- b. How far back can you search with the MeSH term, “Recombinant DNA?”

1977

- c. What ages are included by the term, “Child, Preschool?”

A child between the ages of 2 and 5.

- d. What is the preferred MeSH term for “drooling?”

Sialorrhea

2. Pretend you are a MeSH Indexer. Use the MeSH Browser and select MeSH terms that address these titles of articles listed below. When possible include an appropriate subheading (see list of subheadings p. 16).

- a. Causes of Adult-Onset Diabetes
Diabetes Mellitus, Type II/etiology
 - b. Management of Breast Cancer
Breast Neoplasms/therapy
 - c. The nursing care of Hemophiliacs
Hemophilia A/nursing
 - d. Treating Depression with Prozac
Depression/drug therapy
Fluoxetine/therapeutic use
 - e. Brain Toxicity from Zinc
Brain/drug effects
Zinc/toxicity