
MOSBY'S

Medical, Nursing,
& Allied Health

3RD EDITION

DICTIONARY

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Medical, Nursing, and Allied Health

DICTIONARY

THIRD EDITION

ILLUSTRATED

Forty-four page full-color atlas of human anatomy

Managing Editor

Walter D. Glanze

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Kenneth N. Anderson

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Lois E. Anderson

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EDITOR'S FOREWORD

It would take many centuries just to read the medical literature published in a single year. The importance of having access at least to the *language* of this vast and vital field is obvious, and this access, in our fast-paced world, seems to be best provided in a single source that sorts what is immediately relevant from what is incidental to the needs of its users.

Mosby's Medical, Nursing, and Allied Health Dictionary offers this kind of relevant knowledge and does it reliably and in clear language. But reliability and clarity must be matched by recency: This thoroughly revised edition—besides including approximately 3000 new entries and many novel features—has been computerized for ongoing revision.

Many of the 3000 new entries and many of the changes in former entries are meant to appeal to both nursing and the allied health professions. The consultant board has been expanded to 64, representing not only diverse specialties but Canadian and international interests as well. New categories of entries were added: physical therapy, occupational therapy, and respiratory care. These entries were identified as significant additions to expand the usefulness of the dictionary for allied health professionals, as well as for nurses and physicians working with other health professionals. Thus, the title has been changed to reflect these changes in content. More metric equivalents are given. The defining syntax and terminology, clear as they were in the first two editions, were made even more accessible to more readers, and the choice of language takes increasingly into account that we live not in a "man's world" but in a human world. Word roots have been added to the principal entries, to aid in understanding complex medical terminology.

Illustrations and tables were added and updated throughout. The 44-page color atlas of human anatomy is again totally in four colors and presented in the front of the dictionary for easy access. The 342-page appendices comprise 21 major categories, including complete anatomy tables, normal laboratory values, drug names

and drug interactions, nutrition, health history, the Washington development guide, a unique table of communicable and infectious diseases, the DSM-III-R classification, a complete patient education section, a list of burn centers, directories of nursing associations in the United States and Canada, NANDA-approved nursing diagnoses, and other valuable reference matter. Appendices new to this edition include Spanish translations for commonly used vocabulary and the CDC Universal Blood and Body Fluid Precautions.

All the virtues of the first two editions have been retained. To name a few: Among the entries on diseases, drugs, and procedures, there are at least 1000 that have separate paragraphs with pragmatic and nursing-significant headings such as "methods," "adverse effects," "nursing considerations," and "outcome criteria." The patient's right to be informed of all procedures and their rationale is given due attention. Meanings within the same entry are clearly discriminated. The large amount and the nature of combining-form entries give the reader additional access to the meanings of defined terms and defining terms, as well as access to thousands of further terms that are not included in this dictionary and that, to a large extent, are not found in any other reference work. The many (10,000) cross-references from definition to definition are well chosen and contribute to the dictionary's encyclopedic dimensions. As with the first two editions, *Mosby's Medical, Nursing, and Allied Health Dictionary* continues to serve nursing and the allied health professions as the most comprehensive, authoritative, and up-to-date dictionary available.

It is impossible to acknowledge specifically all the contributions that many people have made to this project. But the editors are especially grateful for the guidance of N. Darlene Como, Senior Editor, and Laurie Sparks and Lin Dempsey, Developmental Editors, all of The C.V. Mosby Company.

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GUIDE TO THE DICTIONARY

A. ALPHABETIC ORDER

The entries are alphabetized in dictionary style, that is, letter by letter, disregarding spaces or hyphens between words:

analgesic	artificial lung
anal membrane	artificially acquired immunity
analog	artificial pacemaker

(Alphabetized in telephone-book style, that is, word by word, the order would be different: **anal membrane** / **analgesic** / **analog**; **artificial lung** / **artificial pacemaker** / **artificially acquired immunity**.)

The alphabetization is alphanumeric; that is, words and numbers form a single list, numbers being positioned as though they were spelled-out numerals: **Nilstat** / **90-90 traction** / **ninth nerve**. (An example of the few exceptions to this rule is the sequence **17-hydroxycorticosteroid** / **11-hydroxyetiocholanolone** / **5-hydroxyindoleacetic acid**, which can be found between the entries **hydroxochloroquine sulfate** and **hydroxyl**, not, as may be expected, **17-** . . . in letter "S," **11-** . . . in letter "E," and **5-** . . . in letter "F.")

Small subscript and superscript numbers are disregarded in alphabetizing: **No** / **N₂O** / **nobelium**

For the alphabetization of combining forms, see F below.

B. COMPOUND HEADWORDS

Compound headwords are given in their natural word order: **abdominal surgery**, not **surgery, abdominal**; **achondroplastic dwarf**, not **dwarf, achondroplastic**.

When appropriate, a reference is made elsewhere to the nonalphabetized element; the entry **dwarf**, for example, shows this indirect cross-reference: ". . . Kinds of dwarf include **achondroplastic dwarf**, . . ." (followed by 16 more terms ending in "dwarf").

There are few exceptions to this natural word order; nearly all of these concern formal classifications, for example: "**comfort, alteration in: pain**, a nursing diagnosis accepted by the Fourth National Conference on the Classification of Nursing Diagnoses . . ."

(NOTE: In this guide, the term "headword" is used to refer to any alphabetized and nonindented definiendum, be it a single-word term or a compound term.)

C. MULTIPLE DEFINITIONS

If a headword has more than one meaning, the meanings are numbered and are often accompanied by an indication of the field in which a sense applies: "**fractionation**, **1.** (in neurology) . . . **2.** (in chemistry) . . . **3.** (in bacteriology) . . . **4.** (in histology) . . . **5.** (in radiology) . . ."

Smaller differences in meaning are occasionally separated by semicolons: "**enervation**, **1.** the reduction or lack of nervous energy; weakness; lassitude, languor. **2.** removal of a complete nerve or of a section of nerve."

Words that are spelled alike but have entirely different meanings and origins are usually given as separate entries, with superscript numbers: "**aural**¹, of or pertaining to the ear or hearing . . ." followed by "**aural**², of or pertaining to an aura."

For reference entries that appear in the form of numbered senses, see the example of **hyperalimentation** at E below.

D. THE BOLDFACE ELEMENTS OF AN ENTRY

After the entry headword, which has large boldface type, the following elements may occur in boldface, in this order.

In large boldface:

■ **HEADWORD ABBREVIATIONS:** **central nervous system (CNS)**

A corresponding abbreviation entry is listed: "**CNS**, abbreviation for **central nervous system**." (For abbreviation entries, see F below.)

Occasionally the order is reversed: "**DDT (dichlorodiphenyltrichloroethane)**," with a corresponding reference entry: "**dichlorodiphenyltrichloroethane**. See **DDT**." (For reference entries, see E below.)

In smaller boldface (all others):

■ PLURAL OR SINGULAR FORMS that are not obvious. The first form shown is the more common except when plurals are of more or less equal frequency: “**carcinoma**, *pl.* **carcinomas**, **carcinomata**”; **cortex**, *pl.* **cortices**”; “**data**, *sing.* **datum**”

A reference entry is listed only when the terms are alphabetically separated; for example, there are several entries between **data** and “**datum**. See **data**.”

■ HIDDEN ENTRIES, that is, terms that can best be defined in the context of a more general entry. For example, the definition of the entry **equine encephalitis** continues as follows: “. . . **Eastern equine encephalitis (EEE)** is a severe form of the infection . . . **western equine encephalitis (WEE)**, which occurs . . . **Venezuelan equine encephalitis (VEE)**, which is common in . . .”

The corresponding reference entries are “**eastern equine encephalitis**. See **equine encephalitis**.”; “**western equine encephalitis**. See **equine** . . .”; and so forth. For further reference, from the abbreviations **EEE**, **WEE**, and **VEE**, see F below.

■ INDIRECT CROSS-REFERENCES to other defined entries, shown as part of the definition and usually introduced by “Kinds of”: “**dwarf**, . . . Kinds of dwarfs include **achondroplastic dwarf**, **Amsterdam dwarf**, . . . , and **thanatophoric dwarf**.”

The entry referred to may or may not show a reciprocal reference, depending on the information value.

■ SYNONYMOUS TERMS, preceded by “Also called,” “Also spelled,” or, for verbs and adjectives, “Also”: “**abducens nerve**, . . . Also called **sixth nerve**.”

A corresponding reference entry is usually given: “**sixth nerve**. See **abducens nerve**.”

Occasionally the synonymous term is accompanied by a usage label: “**abdomen**, . . . Also called (*informal*) **belly**.”

If a synonymous term applies to only one numbered sense, it precedes rather than follows the definition, to avoid ambiguity: “**algology**, **1.** the branch of medicine that is concerned with the study of pain. **2.** also called **phycology**, the branch of science that is concerned with algae.” (Whenever a synonymous term *follows* the last numbered sense, it applies to all senses of the entry.)

■ (DIRECT) CROSS-REFERENCES, preceded by “See also” or “Compare,” referring to another defined entry for additional information: “**abdominal aorta**, . . . See also **descending aorta**.”

The cross-reference may or may not be reciprocal.

Cross-references are also made to illustrations, to tables, to the color atlas, and to the appendixes.

For cross-references from an abbreviation entry (with “See”), see F below.

■ PARTS OF SPEECH related to the entry headword, shown as run-on entries that do not require a separate definition: “**abalienation**, . . . —**abalienate**, *v.*, **abalienated**, *adj.*”

E. REFERENCE ENTRIES

Reference entries are undefined entries referring to a defined entry. There, they usually correspond to the boldface terms for which reference entries are mentioned at D above.

However, many of the less frequently used synonymous terms are listed as a reference only; at the entry referred to, the reader’s attention is not drawn to them with “Also called.”

A reference entry may also refer to a defined entry for other reasons: A particular lightface term in the definition is occasionally referred to: “**motion sickness**, . . . air sickness . . .”—with the reference entry “**air sickness**: See **motion sickness**.” Or a reference is made to give additional access to a definition or to part of a definition: “**congenital condition**. See **congenital anomaly**.”—although the latter entry does not literally mention “congenital condition,” and is not a synonymous term.

Some reference entries appear in the form of a numbered sense of a defined entry: “**hyperalimentation**, **1.** overfeeding or the . . . in excess of the demands of the appetite. **2.** See **total parenteral nutrition**.” The latter entry says “Also called **hyperalimentation**.”

If two or more alphabetically adjacent terms refer to the same entry or entries, they are styled as one reference entry: “**coxa adducta**, **coxa flexa**. See **coxa vara**.”

A reference entry that would be derived from a boldface term in an immediately adjacent entry is not listed again as a headword; it becomes a “hidden reference entry”: “**acardius amorphus**, . . . Also called **acardius anceps**.” But **acardius anceps** is not listed again as a reference entry because it would immediately *follow* the entry, the next entry being **acariasis**. Likewise: “**acoustic neuroma**, . . . Also called **acoustic neurilemmoma**, **acoustic neurinoma**, **acoustic neurofibroma**.” But the three synonymous terms are not listed again as reference entries because they would immediately *precede* the entry, the entry ahead being **acoustic nerve**. Therefore:

If a term is not listed at the expected place, the reader might find it among the boldface terms of the immediately preceding or the immediately following entry.

F. OTHER KINDS OF ENTRIES

■ **ABBREVIATION ENTRIES:** Most abbreviation entries, including symbol entries, show the full form of the term in boldface: “**ABC**, abbreviation for **aspiration biopsy cytology**.” “**H**, symbol for **hydrogen**.” Implied reference is made to the entries **aspiration biopsy cytology** and **hydrogen** respectively.

Abbreviation entries for which there is no corresponding entry show the full form in italics: “**CBF**, abbreviation for *cerebral blood flow*.” “**f**, symbol for *respiratory frequency*.”

A combination of abbreviation entry and reference entry occurs when the abbreviation is that of a boldface or lightface term appearing under another headword. For example, the hidden entries at D above (in addition to the reference entries shown there), are also referred to in the following manner: “**EEE**, abbreviation for **eastern equine encephalitis**. See **equine encephalitis**.” An example with a lightface term: “**HLA-A**, abbreviation for *human leukocyte antigen A*. See **human leukocyte antigen**.” The latter entry says “. . . They are HLA-A, HLA-B, HLA-C . . .”

■ **COMBINING FORMS:** For a definition, see the entry **combining form**. The large amount and the nature of combining-form entries are an important feature of this dictionary. Through the combining forms the reader has additional access to the meanings of headwords and the words used in defining them. But the combining forms give also access to thousands of terms that are not included in this dictionary (and, to a large extent, are not found in any other reference work). For example, the combining-form entries **xylo-** and **-phage** (plus **-phagia**, **phago-**, and **-phagy**) may lead to the meaning of “xylophagous,” namely, “wood-eating.”

Combining-form headwords consisting of variants are alphabetized by the first variant only. For example, “**epi-**, **ep-**, a combining form meaning ‘on, upon’ . . .” is followed by **epiblast** (notwithstanding “**ep-**”). The other variant or variants are listed in their own alphabetical place as reference entries referring to the first variant: “**ep-**. See **epi-**.”

■ **ENTRIES WITH SPECIAL PARAGRAPHS:** Among the entries on diseases, drugs, and procedures, at least 1000 feature special paragraphs. These paragraphs are headed as follows.

For disease entries: “observations,” “intervention,” and “nursing considerations.”

For drug entries: “indications,” “contraindications,” and “adverse effects.”

For procedure entries: “method,” “nursing orders,” and “outcome criteria.”

G. FURTHER COMMENTS

■ **ETYMOLOGY** is shown for principal entries and in other instances where it contributes immediately to a better understanding of the meaning: “**lysergide**, . . . Also called **LSD** (an abbreviation of the original German name, *Lyserg-Säure-Diäthylamid*), **lysergic acid diethylamide**, (*slang*) **acid**.” “**hangnail**, . . . painful . . . (“Hang” is not related to the verb but is an old English word for pain.) . . .”

■ **EPONYMOUS TERMS THAT END IN “SYNDROME” OR “DISEASE”** are given with an apostrophe (and “s” where appropriate) if they are based on the name of one person: **Adie’s syndrome**; **Symmers’ disease**; **Treacher Collins’ syndrome** (the ophthalmologist Edward Treacher Collins). If they are based on the names of several people, they are given without apostrophe: **Bernard-Soulier syndrome**; **Brill-Symmers disease**.

■ **ABBREVIATIONS AND LABELS IN ITALIC TYPE:** The abbreviations are *pl.* (plural), *npl.* (noun plural), *sing.* (singular); *n.* (noun), *adj.* (adjective), *v.* (verb). The recurring labels are *slang*, *informal*, *nontechnical*, *obsolete*, *archaic*; *chiefly British*, *Canada*, *U.S.*

■ **DICTIONARY OF FIRST REFERENCE** for general spelling preferences is *Webster’s New Collegiate Dictionary*; thereafter: *Webster’s Third New International Dictionary*. End-of-line hyphenation of technical terms follows *The Medical & Health Sciences Word Book* (Houghton Mifflin).

H. PRONUNCIATION

■ **SYSTEM:** See the Pronunciation Key on p. xx. The pronunciation system of this dictionary is basically a system that most readers know from their use of popular English dictionaries, especially the major college or desk dictionaries. All symbols for English sounds are ordinary letters of the alphabet with few adaptations, and with the exception of the schwa, /ə/ (the neutral vowel).

■ **ACCENTS:** Pronunciation, given between slants, is shown with primary and secondary accents, and a raised dot shows that two vowels or, occasionally, two consonants, between the slants are pronounced separately:

anoopsia /an'ō-op'sē-ə/

ceccoileostomy /sē'kō-il'ē-os'təmē/

methemoglobin /met'hēmāglō'bin, met-hē'māglōbin/

Without the raised dot, the second /th/ in the last example would be pronounced as in "thin." (The pronunciation key lists the following paired consonant symbols as representing a single sound: /ch/, /ng/, /sh/, /th/, /th/, /zh/, and the foreign sounds /kh/ and /kh/—if no raised dot intervenes.)

■ **TRUNCATION:** Pronunciation may be given in truncated form, especially for alternative or derived words:

defibrillate /difī'brilāt, difīb'-/

bacteriophage /baktir'ē-əfāj', . . . —**bacteriophagy** /-of'əjē/, *n.*

In the last example, the reader is asked to make the commonsense assumption that the primary accent of the headword becomes a secondary accent in the run-on term:

/baktir'ē-of'əjē/.

■ **LOCATION:** Pronunciation may be given for any boldface term and may occur anywhere in an entry:

aura /ōr'ə/, 1. *pl.* **aurae** /ōr'ē/, a sensation . . . 2. *pl.* **auras**, an emanation of light . . .

micrometer, 1. /mīkrom'ətər/, an instrument used for . . . 2. /mī'krōmē'tər/, a unit of measurement . . .

Occasionally it is given for a lightface term:

b.i.d., (in prescriptions) abbreviation for *bis in die* /dē'ā/, a Latin phrase meaning . . .

boutonneuse fever . . . , an infectious disease . . . a tache noire /täshnô-är'/ or black spot . . .

■ **LETTERWORD VERSUS ACRONYM:** For definitions of these terms, see the entries **letterword** and **acronym** in this dictionary. If the pronunciation of an abbreviation is not given, the abbreviation is usually a letterword:

ABO blood groups [read /ā'bē'ō/, not /ā'bō/]

If the pronunciation is an acronym, this is indicated by pronunciation:

AWOL /ā'wōl/

Some abbreviations are used as both:

JAMA /jä'mä, jam'ə, jā'ä'em'ä'/

■ **FOREIGN SOUNDS:** Non-English sounds do not occur often in this dictionary. They are represented by the following symbols:

/œ/ as in (French) **feu** /fœ/, **Europe** /œröp'/; (German)

schön /shœn/, **Goethe** /gœ'tə/

/Y/ as in (French) **tu** /tY/, **déjà vu** /dāzhävY'/; (German) **grün** /grYn/, **Walküre** /vulkY'rə/

/kh/ as in (Scottish) **loch** /lokh/; (German) **Rorschach** /rôr'shokh/, **Bach** /bokh, bākh/

/kh/ as in (German) **ich** /ikh/, **Reich** /rīkh/ (or, approximated, as in English **fish**: /ish/, rīsh/)

/N/ This symbol does not represent a sound but indicates that the preceding vowel is a nasal, as in French **bon** /bôN/, **en face** /änfäs'/, or **international** /aNternäsyönäl'/.

/nyə/ Occurring at the end of French words, this symbol is not truly a separate syllable but an /n/ with a slight /y/ (similar to the sound in "onion") plus a near-silent /ə/, as in **Bois de Boulogne** /bōōlō'nyə/, **Malgaigne** /mālgā'nyə/.

Because this work is a subject dictionary rather than a language dictionary, certain foreign words and proper names are rendered by English approximations. Examples are **Müller** /mil'ər/ (which is closer to German than /mY'lər/), **Niemann** /nē'mon/ (which is closer than /nē'män/), **Friedreich** /frēd'rīsh/ (which is close enough for anyone not used to pronouncing /kh/), or **jamais vu**, for which three acceptable pronunciations are given: /zhämävY'/ (near-French) and the approximations /zhämävē'/ and /zhämävōō'/ (/vē'/ being much closer to French than /vōō'/). Depending on usage, a foreign word or name may be given with near-native pronunciation, with entirely assimilated English pronunciation (as **de Quervain's fracture** /də kərvānz'/), or with both (as **Dupuytren's contracture** /dYpY-itraNs', dēpē-itrantz'/ or **Klippel-Feil syndrome** /klipē'fel', klip'əlfīl'/).

At any rate, the English speaker should not hesitate to follow whatever is usage in his or her working or social environment.

Many of the numerous *Latin* terms in this dictionary are not given with pronunciation, mainly because there are different ways (all of them understood) in which Latin is pronounced by the English speaker and may be pronounced by speakers elsewhere. However, guidance is given in many cases, often to reflect common usage.

■ **LATIN AND GREEK PLURALS:** The spelling of Latin and Greek plurals is shown in most instances. However, when the plural formation is regular according to Latin

and Greek rules, the pronunciation is usually not included. Therefore, the following list shows the suggested pronunciation of selected plural endings that are frequently encountered in the field of medicine:

PLURAL ENDINGS	EXAMPLES
-a /-ə/	inoculum , <i>pl. inocula</i> /inok'yōōlə/
-ae /-ē/	vertebra , <i>pl. vertebrae</i> /vur'təbrē/
-ces /-sēz/	thorax , <i>pl. thoraces</i> /thôr'əsēz/
	apex , <i>pl. apices</i> /ā'pisēz/
-era /-ərə/	genus , <i>pl. genera</i> /jen'ərə/
-ges /-jēz/	meninx , <i>pl. meninges</i> /minin'jēz/
-i /-ī/	calculus , <i>pl. calculi</i> /kal'kyālī/
	coccus , <i>pl. cocci</i> /kok'sī/
-ia /-ē-ə/	criterion , <i>pl. criteria</i> /krītir'ē-ə/
-ides /-idēz/	epulis , <i>pl. epulides</i> /ipyōō'lidēz/
-ina /-ənə/	foramen , <i>pl. foramina</i> /fəram'ənə/
-ines /-ənēz/	lentigo , <i>pl. lentigines</i> /lentij'ənēz/
-omata /-ō'mətə/	hematoma , <i>pl. hematomata</i> /hē'mətō'mətə/
-ones /-ō'nēz/	comedo , <i>pl. comedones</i> /kom'ədō'nēz/
-ora /-ərə/	corpus , <i>pl. corpora</i> /kôr'pərə/
	femur , <i>pl. femora</i> /fem'ərə/
-ses /-sēz/	analysis , <i>pl. analyses</i> /ənal'əsēz/
-udes /-ōō'dēz/	incus , <i>pl. incudes</i> /inkōō'dēz/
-us /-ōōs/	ductus (/duk'təs/), <i>pl. ductus</i> /duk'tōōs/

NOTE: Notwithstanding the listing of Latin and Greek plurals in this dictionary, and notwithstanding the foregoing examples, in most instances it is acceptable or even preferable to pluralize Latin and Greek words according to the rules of English words. (For certain kinds of entries, both the English and the foreign plurals are given in this dictionary, usually showing the English form first, as, for example, in nearly all -oma nouns: **hematoma**, *pl. hematomas*, **hematomata**.)

W.D.G.

ETYMOLOGIES AND EPONYMS

The word roots, or etymologies, of the headwords in this dictionary are shown in square brackets following the pronunciations of the headwords. Meanings are given in the roman alphabet and represent the original connotation of the word from which the medical term is derived. In compound medical terms formed from two or more elements, a plus sign (+) is used to indicate an element has been translated in a previous headword, as in [L *acidus* + Gk *philein* to love]. A semicolon (;) is used to separate word elements having more than one origin, as in [L *abdomen*; Gk *skopein* to view]. Word fragments representing etymologic elements, such as prefixes, are separated from the rest of the word root by a comma (,), as in [Gk *a*, *basis* not step]. A comma is also used to separate the abbreviation for the language of origin and its translation when the English-language equivalent for the word is the same, as in the term **ala** [L, wing].

The following abbreviations are used to identify language sources:

Afr	African	L	Latin
Ar	Arabian	Malay	Malayan
AS	Anglo-Saxon	ME	Middle English
Dan	Danish	OE	Old English
D	Dutch	OFr	Old French
Fr	French	ONorse	Old Norse
Ger	German	Port	Portuguese
Gk	Greek	Scand	Scandinavian
Heb	Hebrew	Sp	Spanish
It	Italian	Turk	Turkish

Some other languages sources, such as Singhalese or Welsh, may be indicated without abbreviations.

Eponymous entries, in which the surname of an individual is incorporated in the headword, is also shown in square brackets with brief biographic details, as in **Alcock's canal** [Joseph Alcock, English surgeon, b. 1784]. When an eponym contains two or more surnames, a semicolon (;) is used to separate the identities of the individuals. Medical terms derived from other proper nouns, such as geographic sites, are presented in a similar manner, as **calabar swelling** [Calabar, a Nigerian seaport], or **ytterbium** (Yb) [Ytterby, Sweden].

K.N.A.