



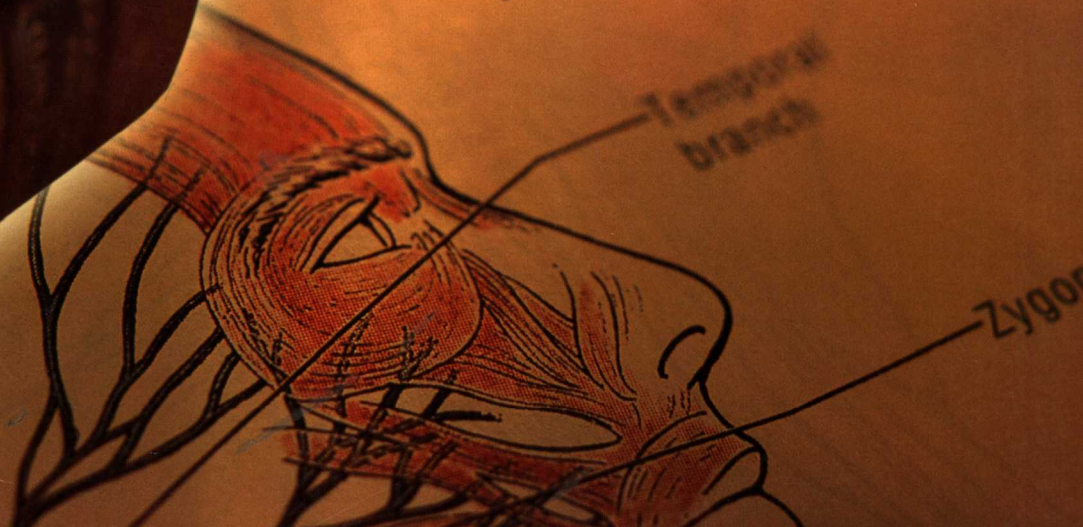
21世纪高等院校英语教材

# 大学医学英语教程

(第二册)

王熙瑞 陈建平 主编

## College English for Senior Medical Students



河南科学技术出版社



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## 内 容 提 要

本套教材共四册。本书是第二册,共10个单元。每个单元由词汇、课文、注释、词语学习、英语构词法、练习、医用缩略语和阅读8个部分组成。书中所有文章均选自英语原文,语言规范、文字生动、内容丰富、形式多样、精泛结合,注重读、写、译等语言运用能力的培养。

本书可供医学院校3~5年级本科生、硕士学位研究生、在职研究生作为英语教材使用或供医务工作者自修使用。

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# PREFACE

# 前言

为了适应我国高等教育新的发展形势,深化教学改革,提高教学质量,满足新时期国家和社会对人才培养的需要,教育部制定了《大学英语课程教学要求》,着重强调培养学生的英语综合应用能力,提倡在充分培养学生听说能力的同时,继续培养学生的阅读和翻译能力,能够读懂和翻译自己专业的文章。根据《大学英语课程教学要求》以及我们在使用本教材的过程中所发现的问题,我们在本教材重印时进行了修订。

本教材分四册,第一册衔接大学英语四级,内容为医学科普;第二、三册按人体系统排列,将基础医学与临床医学、疾病与健康相结合,供三、四年级学生使用;第四册为临床医学,供四、五年级学生使用。通过这套教材的学习,医学生不仅能掌握 4 000 ~ 5 000 个医学词汇,提高阅读专业书刊的能力,而且在会话、翻译和写作方面也将会有长足的进步。

根据新老结合,以新为主的选材原则,努力做到语言规范,题材多样,融知识性、教育性、趣味性、可读性为一体。编排原则是精泛结合,以精为主,配合会话、翻译、写作和必备的医学知识,并在书后附有练习答案,做到既是教科书,又是案头必备的参考资料。

全套教材由郑州大学、广东医学院、新乡医学院合作编写,王熙瑞教授为总主编。

本书为第二册,由广东医学院负责修订。王熙瑞、陈建平为主编。修订分工为:陈桂斌(第一单元)、郭绍波、刘永艳(第二单元)、廖芬(第三单元)、黄晓彬(第四单元)、张凌静(第五单元)、张璇(第六单元)、陈雨宇(第七单元)、杨劲松(第八单元)、尤其媛(第九单元)、黎亮(第十单元)。王熙瑞教授负责总体设计和审定工作。

第二册有 10 个单元,每个单元包括 8 个部分,其中 Idioms, Word Building 和 Medical Abbreviations 为参考部分,各校可视具体情况制定教学进度。

由于编者水平有限,经验不足,不妥之处在所难免,希望广大读者批评指正。

《大学医学英语教程》编委会

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## Unit One

### New Words and Expressions

**terminology** /ˌtɜːmi'nɒlədʒi/ *n.* terms used in a science or art 专用名词, 术语

**pertaining** /pəˈteɪnɪŋ/ *n.* having reference to; belonging to 关于, 属于

**ovary** /'əʊvəri/ *n.* either side of the two reproductive organs in which ova are produced in female animals 卵巢

**orthodox** /'ɔːθədɒks / *adj.* generally accepted or approved 公认的, 纯正的

**lobotomy** /ləʊ'bɒtəmi/ *n.* 叶切断术

**urology** /juə'rɒlədʒi/ *n.* 泌尿科学

**auriscope** /'ɔːrɪskəʊp/ *n.* 耳镜

**cornifacation** /ˌkɔːnɪfæ'keɪʃən/ *n.* 角(质)化

**pelvimeter** /pel'vɪmɪtə/ *n.* 骨盆测量器, 骨盆计

**ventrident** /'ventrɪdʌkt/ *n.* 引向腹侧

**prophylactic** /ˌprəfi'læktɪk/ *adj. & n.* 预防的; 预防药(剂)

**hypertrophic** /ˌhaɪpə'trɒfɪk/ *adj.* 肥大的

**ectopia** /ek'təʊpiə/ *n.* 异位

**periodontist** /ˌperiəu'dɒntɪst/ *n.* 牙周病学家

**esophagojejunostomy** /ɪˌsɒfəɡəʊˌdʒɪdʒjuː'nɒstəmi/ *n.* 食管空肠吻合术

**paracentesis** /ˌpærəsən'tiːsɪs/ *n.* (放液)穿刺术

**podagra** /pəu'dægrə/ *n.* (足)痛风

**lithotripsy** /'liθə'trɪpsi/ *n.* 碎石术

**ovoplasm** /'əʊvəplæzəm/ *n.* 卵质, 卵浆

**spermolytic** /spɜːməu'litɪk/ *adj.* 溶解精子的

**iritomy** /aɪ'rɪtəmi/ *n.* 虹膜切开术

**iridomalacia** /ɪrɪdəʊmə'leɪʃiə/ *n.* 虹膜软化

**megalocephaly** /ˌmegələʊ'sefəli/ *n.* 巨头

**ganglionectomy** /ˈgæŋgliəʊˈnektəmi/ *n.* 神经节切除术

**spermatocidal** /ˌspəːmətəʊˈsaɪdəl/ *adj.* 杀精的

**stearrhea** /stiəriə/ *n.* 脂肪痢; 皮脂溢

**steatolysis** /stiəˈtɒlɪsɪs/ *n.* 脂肪分解, 脂肪水解

**dacryocyst** /ˈdækriəˌsɪst/ *n.* 泪囊

**lacrimal** /lækriməl/ *adj.* 泪的

**glossal** /ˈɡlɒsəl/ *adj.* 舌的

**at the junction of** 在……交叉点, 接合点, 汇合处

**draw on** 吸收, 利用

## Text

### Basic Elements of Medical Words

The study of medical terminology is the study of the parts that make up medical words and the building of both a general vocabulary and a vocabulary for each of the body systems. Few linguistic concepts need be understood before you can analyze the terms themselves. Most medical words are made from a combination of the following elements: the part of the word that we shall call the BASE because it contains the most fundamental meaning of that word, prefixes and suffixes, and vowels that join all these parts.

#### The Base Form

The BASE of a medical word is that word structure that is capable of combining with another base or a suffix to form a medical word that has meaning. The word base is what is left after all added elements are removed. This reduced part of the word contains its most fundamental meaning. The examples in the table illustrate how words are reduced to their bases.

<i>Word</i>	<i>Separation of affixes</i>	<i>Base</i>	<i>Meaning</i>
epigraphic	epi/graph/ic	graph	writing
atrophy	a/troph/y	troph	nourishing
homogenous	hom/o/gen/ous	gen	producing
interjection	inter/jec/tion	jec	transcross

hysterical	hyster/ical	hyster	uterus
linguist	lingu/ist	lingu	language
ductile	duct/ile	duc(t)	leading
poetic	poet/ic	poe(t)	creating

Notice how the prefixes and suffixes alter the meaning of these bases. The base GRAPH has the meaning of WRITE. When we add a prefix and a suffix to the base, we change its original meaning.

EPI	GRAPH	IC
on	write	pertaining to

EPIGRAPHIC means “pertaining to the writing” (on buildings and monuments). In the medical word ELECTROENCEPHALOGRAPH we can recognize the word GRAPH as one of the bases that form the word. We can divide the word into its parts in the following manner.

ELECTR/O/EN/CEPHAL/O/GRAPH  
 electrical   in   head   write  
 impulses

In medical language electroencephalograph refers to an instrument that records the electrical impulses of the brain.

Let's analyze the other examples on our list and use the bases to make medical terms.

ATROPHY:	A/TROPH/Y	DYS/TROPH/Y
	not   ↓   condition of	poor   ↓   condition of
	nourish	nourish

Base:                      TROPH                      TROPH

Meaning: Both are medical terms. Atrophy refers to the physical deterioration due to a lack of nourishment. (Atrophy is most commonly used to refer to a decrease in tissue size resulting from a reduction of the number and/or size of cells). Dystrophy refers to a physical deterioration from poor or insufficient nourishment.

#### 4 Unit One

<b>HOMOGENOUS:</b>	<b>HOM/O/GEN/OUS</b>	<b>GAMET/O/GEN/E/SIS</b>
	same      ↓      pertaining to	reproductive cell      ↓      process
	produce	produce

**Base:**                                  **GEN**                                  **GAMET and GEN**

**Meaning:** Homogenous means producing something that is the same — that is, something uniform in its parts or structure. Gametogenesis refers to the process of producing male and female reproductive cells.

<b>INTERJECTION:</b>	<b>INTER/JEC/TION</b>	<b>IN/JEC/TION</b>
	between      ↓      act or process	into      ↓      act or process
	throw	throw

**Base:**                                  **JEC**                                  **JEC**

**Meaning:** Interjection refers to an exclamatory word in a sentence. An injection is the process of putting a liquid into the body by means of a hypodermic syringe.

<b>HYSTERICAL:</b>	<b>HYSTER/IC/AL</b>	<b>HYSTER/EC/TOM/Y</b>
	uterus pertaining to	uterus out cut process

**Base:**                                  **HYSTER**                                  **HYSTER**

**Meaning:** A person who is hysterical is one lacking emotion control. The ancient Greeks believed that hysteria was a disturbance of the uterus. Hysterectomy refers to the surgical procedure for removing the uterus.

<b>LINGUIST:</b>	<b>LINGU/IST</b>	<b>SUB/LINGU/AL</b>
	tongue      one who specializes in	
		under      ↓      pertaining to
		tongue

**Base:**                                  **LINGU**                                  **LINGU**

**Meaning:** A linguist is one who specializes in the science that deals with lan-

guage. Sublingual refers to the area under the tongue.

DUCTILE:	DUCT/ILE	OV/I/DUCT
	lead      capable of	egg      lead

Base:	DUC(T)	OV and DUC(T)
-------	--------	---------------

Meaning: What is ductile is capable of being led. An oviduct is a tube that leads the egg from the ovary to the uterus.

POEITC:	POET/IC	THROMB/O/POIE/SIS
	make      pertaining to	clots      make process

Base:	POE(T)	THROMB and POE(T)
-------	--------	-------------------

Meaning: The poet is one who makes or creates. Thrombopoiesis refers to the formation of blood clots.

### The Combining Vowel

When two bases are combined or a suffix is added to a base, if no vowel occurs at the junction of the two forms, a vowel called COMBINING VOWEL is added (Ex: THROMB/O/POIESIS; /O/is the combining vowel). Usually the combining vowel is O. The combining vowel O has been used so extensively that it has replaced other combining vowels (I, E, A) in many medical words. As a result, O is the most commonly occurring combining vowel. I is the second most common combining vowel. We call a base with a combining vowel a combining form. For example, HEMATO (HEMAT + O) and GASTRO (GASTR + O) are combining forms. Here are some examples of common English words that use O as a combining vowel. Using a dictionary, give their meanings by analyzing their parts.

GE/O/GRAPH/Y \_\_\_\_\_

METR/O/POLIS \_\_\_\_\_

ORTH/O/DOX \_\_\_\_\_

MON/O/TON/OUS \_\_\_\_\_

ANTH/O/LOG/Y \_\_\_\_\_

**Do the same for the Following Medical Terms.**

LOB/O/TOM/Y \_\_\_\_\_



OPT/O/METR/IST \_\_\_\_\_  
 UR/O/LOG/Y \_\_\_\_\_  
 HYDR/O/THERAP/Y \_\_\_\_\_  
 AUR/I/SCOP/E \_\_\_\_\_  
 CENT/I/GRAD/E \_\_\_\_\_  
 CORN/I/FACA/TION \_\_\_\_\_  
 MILL/I/METER \_\_\_\_\_  
 PELV/I/METER \_\_\_\_\_  
 VENTR/I/DUCT \_\_\_\_\_

Notice that in the last six medical terms I is used as the combining vowel.

### Prefixes And Suffixes

PREFIXES are placed before a word to alter the basic meaning of the word. SUFFIXES appear at the end of the word and, in a sense, function like prefixes. Suffixes, however, not only alter the meaning of a word, but they also determine the various word functions, such as part of speech or whether the word is singular or plural. We will deal with prefixes and suffixes in great detail in Passage 1 and passage 2 in Readings of this unit. For now let us look at how they affect the word base in general.

We have a word base CARDI, meaning heart. Notice how the addition of a prefix and a suffix alter the basic meaning.

PERI/CARDI/O/TOM/Y

around heart cut process

Translated, pericardiotomy means the process of making an incision into the pericardium, the sac that encloses the heart. Notice that when we translated the medical word into an English phrase, we translated the suffix first. In translating medical terms, we frequently begin with the suffix and then end with beginning of the term.

PERI/CARDI/O/TOM/Y

3 4 2 1

NEPHR/O/TOM/Y

NEPHR means kidney

3 2 1

NEPHR/O/PATH/Y

PATH means disease

3 2 1

but in                NEPHR/O/LITH                LITH means stone  
                              1                2

The term NPHROLITH has two base forms without any suffix.

In the medical terms given below divide each word into its parts, number the order of translating the parts, and translate the entire term. Use a dictionary for any unfamiliar terms.

   3                2                1  
 NEPHROGRAPHY    nephro/o/graph/y    process of recording the kidney (X-ray)  
 ANTIFUNGAL \_\_\_\_\_  
 PROPHYLACTIC \_\_\_\_\_  
 HYPERTROPHIC \_\_\_\_\_  
 INTRAVENOUS \_\_\_\_\_  
 ECTOPIA \_\_\_\_\_  
 PERIODONTIST \_\_\_\_\_  
 ESOPHAGOJEJUNOSTOMY \_\_\_\_\_

### Basic Patterns

Recognizing the elements of medical words and how these elements combine to form words will enable you to reduce a word correctly into its parts and also to form many new words. All medical terms begin with a BASE and build from it. Theoretically almost any number of elements can be added to the base.

**Pattern 1**      *Base*                      *Nothing added*

CARIES                decay

MENSES                menstrual cycle

**Pattern 2**      *Base + Combining vowel + Suffix*

THERM/O/METER      instrument to measure heat

*Base + Suffix*

HEPAT/ITIS                inflammation of the liver

**Pattern 3**      *Base + Combining vowel + Base*

TROPH/O/BLAST      a group of undifferentiated cells that  
    will channel nourishment to the fetus

*Base + Base*

SIAL/ADEN                a salivary gland

**Pattern 4**      *Base + Base + Suffix*

ENTER/ADEN/ITIS inflammation of intestinal glands

*Base + Combining vowel + Base + Suffix*

LABI/O/DENT/AL pertaining to the lips and teeth

With this pattern you can join a number of bases and combining vowels to a suffix.

OT/O/RHIN/O/LARYNG/O/LOG/IST one who specializes in the study and  
treatment of the ears, nose and throat

**Pattern 5** *Prefix + Base + Combining vowel + Suffix*

DYS/MEN/O/RHE/A painful menstruation

*Prefix + Base + Suffix*

EPI/GASTR/IC pertaining to the region over the pit  
of the stomach

**Pattern 6** *Prefix + Base + Combining vowel + Base + Suffix*

SUB/MICR/O/SCOP/IC pertaining to that which is too small  
to be seen under the microscope

**Pattern 7** *Prefix + Prefix + Base + Combining vowel + Suffix*

CONTRA/IN/DIC/A/TION that which indicates the inappropriate-  
ness of some form of treatment

*Prefix + Prefix + Base + Suffix*

SUB/PERI/OSTE/AL under the tissue that covers the bone

**Pattern 8** *Prefix + Suffix*

PARA/CENTESIS surgical puncture of a cavity in order to  
drain it

### Order of Combining Elements

The order in which you combine the various elements of medical terms is extremely important. If you change the order of the elements within a word, you will either create a form that is not used—and hence is meaningless—or you will make a different word. HEMOSTAT refers to something that checks or arrest the flow of blood. STATOHEM, if used, could mean stopping blood; however, it is not used. Here are two more examples.

PODAGRA means a painful seizure of the foot.

AGROPOD is an unused and thus meaningless form.

LITHOTRIPSY refers to the crushing of a stonelike deposit.

TRIPSOLITH like a agropod, is not used.

Notice how the following terms have different meanings simply because we have switched the order of the bases within the words.

BLASTOCYTE	an undifferentiated embryonic cell
CYTOBLAST	an obsolete word meaning the cell nucleus
PHAGOCYTE	a cell that destroys microorganisms or harmful cells
CYTOPHAGY	the destruction of cells by other cells

### Competing Forms

One characteristic of medical language is duplication. The use of both Greek and Latin as sources for word bases and the ease of word formation have resulted in a significant number of duplicate forms. We call these duplicates **COMPETING FORMS**. There are three types of competing forms: (a) those that have the same base but different combining vowels, (b) two forms of the same base, and (c) two bases—one Greek, one Latin — with the same meaning.

Duplicates from the same Greek or Latin base present no problem because they are easily recognizable. The examples below illustrate the first type of duplicate: forms that differ only in their combining vowel.

BRONCH/I/AL	BRONCH/O/PNEUMON/IA
OV/I/DUCT	OV/O/PLASM
SPERM/I/CIDE	SPERM/O/LY/TIC
PELV/I/METR/Y	PELV/O/SCOP/Y

The second type of duplicate, as we said, is the result of drawing from two forms of the same base. For example, in the words **HEMORRHAGE** and **HEMATOLOGY** the bases **HEM** and **HEMAT** (blood) are simply different forms of the same base. In the list below, each set of words contains competing bases of the second type. Using a dictionary, provide meanings of each term.

HEM/O/RRHAG/E _____	HEMAT/O/LOG/Y _____
IR/O/TOM/Y _____	IRID/O/MALAC/IA _____
MEGA/COCC/US _____	MEGAL/O/CEPHAL/Y _____
GANGLI/EC/TOM/Y _____	GANGLION/EC/TOM/Y _____
SPERM/I/CID/E _____	SPERMAT/O/CID/AL _____
STEAR/RHE/A _____	STEAT/O/LY/SIS _____

Because medical language draws on both Greek and Latin for its vocabulary, a number of medical terms have a Greek and Latin synonym. As a result, we have