



21世纪高等院校英语教材

# 新世纪

# 大学医学英语教程

(下册)

王兰英 王玉安 主编

College English  
for  
Senior Medical Students

河南科学技术出版社



21世纪高等院校英语教材 (10) 自然科学与医学

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·郑州·

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责任编辑: 刘 欣

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# PREFACE

# 前言

为了全面落实教育部新颁布的《大学英语课程教学要求》，提高医学生和医务工作者书面及口头交流医学信息的能力，我们编写了这套《新世纪大学医学英语教程》。

本套教材在编写过程中注重突出时代性和实用性。选材反映了最新的医学科技进展，体现现代医学理念，兼顾了读、写、译、说诸方面的能力培养。教材还特别注意与大学英语基础阶段教学要求的衔接，有利于巩固语言基础知识，扩大医学词汇，提高语言综合应用能力。

教材编排原则是以课文为主，对阅读、写作、翻译、会话等语言应用能力进行综合训练。教材分为上、下册。上册为基础医学，下册为临床医学。每单元课文(Text)部分为理论介绍，阅读(Reading)部分为相关疾病介绍。通过该教材的学习，学生既可以强化语言知识，又有助于巩固和拓展医学知识。每单元的练习设计内容丰富，由阅读理解、医学词汇和高级词汇练习、写作、翻译和口语练习等几个板块构成，有助于学生综合语言能力的提高。

本套教材可以结合学校的教学安排以及学生的实际情况组织教学，教师可以根据学时数选择性使用，并安排部分内容让学生自学。

全套教材由新乡医学院和广州医学院协作编写，王兰英教授为主编，负责总体设计，提供素材和审校工作。

下册编写分工为：辛铜川(第一单元)，陈伟平(第二单元)，雍文明、蔺江红(第三单元)，任如意(第五单元)，王兰英、惠彩霞(第四单元)，张瑞君(第六、七单元)，平文江(第八单元)，李法智(第九单元)，张会勤(第十单元)。路勇敢参加了附录的编写和部分审校工作，张帆、刘真真负责部分文字输入工作，广州医学院的辛铜川教授参与了本册材料组织工作。

由于时间仓促，编者水平有限，不妥之处在所难免，希望广大读者批评指正。

教材编写委员会

2007年1月

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# Unit One

## Text

### Introduction to Disease

The human body is a masterpiece of art. The more one understands the functioning of the body, the greater appreciation one has for it. Even in disease, the body is quite remarkable in attempting to right what is wrong and **compensate** for it. Changes constantly occur within the body, and yet a steady state called homeostasis is generally maintained. A significant disturbance in the homeostasis of the body triggers a variety of responses that often produce disease signs and symptoms. Athletes, for example, develop abnormally high red blood cell counts due to their increased need for oxygen. This is a natural compensatory mechanism to circulate more hemoglobin, but it is a disease symptom in polycythemia.

**2** An organ will often enlarge, hypertrophy, when it is required to do extra work. The heart enlarges with prolonged high blood pressure as it must continue to pump blood against great resistance. Heart muscle also hypertrophies when the valves are defective because valves that are either too narrow or too wide require extra pumping action. If one kidney fails the other enlarges to meet the needs of the body and compensate for the defective one. When blood flow to the kidneys is inadequate, the kidneys help raise the blood pressure by means of a hormonal secretion. If, however, an organ or body part is not used, it will



atrophy or, that is, decrease in size or function.

**3** Blood plays several roles in maintaining homeostasis. When tissue is **traumatized**, injured, or becomes infected, blood flow increases to the damaged site. This is vital because the blood carries cells that are specialized to remove

harmful substances and cellular debris. Other cells in the blood produce 25 antibodies against invading organisms that cause disease.

**4** Disease is the unhealthy state of a body part, a physiologic system, or the body as a whole; there is a disordered structure or function. Disease often begins at the cellular level. An abnormal gene, acquired through one's heredity or **mutated**, or altered, by an environmental factor can start the disease process. 30 Cancer, for example, begins with uncontrolled growth of cells when the genetic information is affected, often by a virus. New research techniques are making it possible to link certain diseases with abnormal gene findings. A disease may be a structural **anomaly**, such as a congenital heart defect, a functional condition in which there is no organic change, such as hypertension or high blood pressure, 35 or trauma. The abnormal tissue or function is referred to as lesion. A lesion may be a wound, injury, or pathologic condition.

**5** An important aspect of any disease is its etiology, or cause. Many familiar diseases are caused by infectious agents. The common cold and flu are viral infections, but abscesses and strep throat are caused by bacteria; fungi and 40 parasites are infectious agents that cause athlete's foot and worm diseases, respectively. The source or cause of an illness or abnormal condition, together with its development, is its pathogenesis.

**6** Pathology is the branch of medicine that studies the characteristics, causes, and effects of disease. The cellular pathologist studies cellular or microscopic 45 changes; the clinical pathologist utilizes laboratory tests and methods to make a diagnosis. A pathologist may specialize in **autopsies** or surgical findings.

**7** Many diseases are due to heredity; they are transmitted by a defective gene. **Hemophilia**, sickle cell anemia, and color blindness are examples of genetic diseases. Congenital birth defects, mental or physical, may be due to a 50 developmental error resulting from a maternal infection such as **rubella** or German measles during pregnancy, the use of certain drugs, or the mother's excessive consumption of alcohol. Some congenital birth defects result from an accident at the time of delivery such as an interference with oxygen supply.

**8** Environmental factors are the cause of many diseases. Skin cancer, for 55 example, can result from excessive exposure to the ultraviolet light rays of the sun, especially in fair-skinned people. The development of leukemia is an

occupational hazard for radiologists and the development of cancer is linked to **asbestos** exposure. Many chemicals found in industrial wastes have been found to cause disease. 60

**9** Malnutrition causes many diseases that are not always due to the unavailability of food, but rather the inability of the person to use it, which will be explained later. Signs of nutritional deficiency diseases frequently accompany chronic alcoholism.

**10** Stress adversely affects the entire body, it reduces the ability of the immune system to counteract disease. Stress causes several diseases of the gastrointestinal system such as peptic ulcers and ulcerative colitis. It also aggravates respiratory ailments — asthma, for example — and other allergic conditions. If the cause of a disease is not known, it is said to be **idiopathic**. 65

**11** Another important aspect of disease is the way it manifests itself: its signs and symptoms. Signs are objective evidence of disease observed on physical examination, such as abnormal pulse or respiratory rate, fever, and **pallor**, or abnormal paleness, whereas symptoms are indication of disease perceived by the patient, such as pain, dizziness, and itching. An attempt will be made throughout this book to relate the signs and symptoms of a disease to the specific malfunctioning of the ailment. For example, why does the anemic person feel weak, fatigued, and short of breath? How does a hyperactive thyroid cause weight loss, nervousness, and excessive sweating? Why are the ankles swollen in certain heart conditions? 75

**12** Certain signs and symptoms occur concurrently in some diseases and the combination of symptoms is referred to as a syndrome. **Mongolism**, or Down's syndrome, is an example of a disease with **concurrent** signs; the most prominent are mental **retardation**, an enlarged, **protruding** tongue, and a characteristic appearance of the eyes. 80

**13** Diagnosis, the determination of the nature of a disease, is based on many factors, including the signs, symptoms, and, often, laboratory results. Laboratory tests include such familiar procedures as urinalysis, blood chemistry, electrocardiography, and radiography. New diagnostic-imaging techniques such as computerized tomography (CT scan), radiology, ultrasound, and nuclear medicine provide a visualization never before possible. Diagnostic procedures 85 90

used in determining various diseases are discussed for each system. A physician also derives information for making a diagnosis from a physical examination, from interviewing the patient or a family member, and from a medical history of the patient and family. The physician, having made a diagnosis, may state the possible prognosis of the disease, or the predicted course, and outcome of the 95 disease.

**14** The treatment considered most effective is prescribed and may include medication, surgery, radiation therapy, or possibly psychological counseling. A patient may be advised to change habits of life-style such as overeating, smoking, alcohol abuse, or to avoid a stressful situation if possible. 100

**15** The course of a disease varies; it may have a sudden onset and short term, in which case it is an acute disease. A disease may begin **insidiously** and be long-lived, or chronic. The term *chronic* is derived from the Greek word *chronos* for time. Diseases that will end in death are called **terminal**. The signs and symptoms of a chronic disease at times subside, during a period known as 105 remission. They may recur in all their severity in a period of exacerbation. Certain diseases, leukemia and ulcerative colitis, for example, are characterized by periods of remission and exacerbation. A relapse at times occurs when a disease returns weeks or months after its apparent **cessation**.

**16** Complications frequently occur, meaning that a disease develops in a 110 patient already suffering from another disease. Patients confined to bed with a serious fracture frequently develop pneumonia as a complication of the inactivity. Infection of the **testes** may be a complication of mumps, particularly after puberty. Anemia generally accompanies leukemia, cancer, and chronic kidney disease. Bacterial infection frequently follows certain predisposing 115 factors such as kidney stones, heart defects, and an enlarged prostate gland.

**17** The **aftermath** of a particular disease is called the **sequela**, a sequel. The permanent damage to the heart after rheumatic fever is an example of a sequela, as is the **paralysis** of **polio**. The sterility resulting from severe inflammation of the **fallopian tubes** is also a sequela. 120

**18** Diseases can be classified in many ways. For instance, they can be considered according to the general mechanisms of disease and in the physiologic systems in which they are a factor. General health problems include

allergies, malnutrition, obesity, and alcoholism.

**19** An understanding of disease, its cause, the way it affects the body, effective treatments, and its possible prognosis should enable the health professional to **alleviate** suffering, anxiety, and fear in those who are ill.

**20** The body attempts to maintain homeostasis in the midst of ever-changing conditions. It senses a deficiency in the working of an organ and tries to compensate for it. The response to a significant disturbance in the body's homeostasis can resemble the sign of disease.

**21** Disease is an unhealthy state of a body part, a system, or the body as a whole. It may result from a structural anomaly, a functional condition, or trauma. Many factors can cause disease: infectious agents, heredity, environmental conditions, malnutrition, and stress. The cause of a disease is sometimes unknown. Etiology is the cause of a disease. Pathology is the branch of medicine that studies the etiology, characteristics, and effects of disease, in other words, its pathogenesis.

**22** Disease manifests itself by signs and symptoms, objective and subjective indications of its presence. In some diseases a certain combination of signs and symptoms occur as in Down's syndrome.

**23** Diagnoses of disease are based on many factors, signs and symptoms, laboratory tests, physical examination, and patient and family histories. The most suitable treatment is then prescribed. The disease may be acute or chronic; signs of a chronic disease frequently subside or exacerbate. Understanding the various aspects of disease enables the health professional to serve those who are ill in a comprehensive manner.

## New Words and Phrases

**compensate** /'kɒmpənsɪt/ *v.*

**traumatized** /'trɔ:mətaɪzd/ *adj.*

**mutate** /mju:'teɪt/ *v.*

**anomaly** /ə'nɒməli/ *n.*

make up for 偿还, 补偿; 代偿

so shocked by sth. that you are unable to forget it 使受外伤的, 使受精神创伤的

undergo a genetic change (使)变异, (使)突变

irregularity, deviation from rule 畸形

<b>autopsy</b> /'ɔ:təpsi/ <i>n.</i>	尸体解剖, 验尸
<b>hemophilia</b> /hi:mə'filiə/ <i>n.</i>	血友病
<b>rubella</b> /ru:'belə/ <i>n.</i>	mild contagious viral disease, German measles 风疹
<b>asbestos</b> /æz'bestɔs/ <i>n.</i>	fibrous mineral which does not burn 石棉
<b>idiopathic</b> /idiə'pæθik/ <i>adj.</i>	referring to idiopathy 自发的, 原发性的
<b>pallor</b> /'pælə/ <i>n.</i>	paleness, pallidness 苍白, 灰白
<b>mongolism</b> /'mɒŋgəlizəm/ <i>n.</i>	also Down's syndrome 先天愚型
<b>concurrent</b> /kən'kʌrənt/ <i>adj.</i>	existing or happening at the same time 并发的, 一致的
<b>retardation</b> /ri:tə:'deɪʃən/ <i>n.</i>	delaying the development of sth. 延迟
<b>protrude</b> /prə'tru:d/ <i>v.</i>	to stick out from somewhere (protruding eyes) 突出
<b>insidiously</b> /in'sidiəsli/ <i>adv.</i>	(of a disease) without being noticed 隐袭地
<b>cessation</b> /sə'seɪʃən/ <i>n.</i>	a pause or stop 停止; 断绝
<b>testis</b> /'testis/ <i>n.</i>	睾丸
<b>aftermath</b> /'ɑ:ftəmæθ/ <i>n.</i>	result, consequence 结果, 后果
<b>sequela</b> /si'kwɪ:lə/ <i>n.</i>	morbid condition or symptom following a disease 后遗症, 遗患
<b>paralysis</b> /pə'rælisɪs/ <i>n.</i>	incapacity to move or feel, due to damage to nervous system 瘫痪, 麻痹
<b>polio</b> /'pəuliəu/ <i>n.</i>	脊髓灰质炎
<b>fallopian tube</b> /fə'ləupiən tju:b/ <i>n.</i>	one of the two tubes in a female through which eggs move to the uterus 输卵管
<b>alleviate</b> /ə'li:vieɪt/ <i>v.</i>	ease, lessen; make light 使(痛苦等)易于忍受, 减轻

## Notes

- CT:** Computerized (Axial) Tomography 计算机(轴向)体层扫描
- Down's Syndrome:** trisomy 21, a congenital defect, due to existence of an extra third chromosome at number 21; in which the patient has slanting eyes, a wide face, speech difficulties and is usually mentally retarded to some extent 唐氏综合征, 一种遗传

传性疾病, 染色体 21 核型为三体, 患儿表现为斜视、面宽、说话困难, 常有一定程度的智力发育障碍。

## Word Study

### counsel

**n.** advice, suggestions 劝告, 建议

e.g. Listen to the counsel of your elders. 听从长辈的劝告吧!

**v.** (1) give professional advice to (sb. with a problem) 向(某人)提供专业建议

e.g. She is a psychiatrist who counsels alcoholics. 她是对酗酒者提供咨询的精神科医生。

(2) advise 劝告, 建议

e.g. He counseled them to give up the plan. 他建议他们放弃这项计划。

### remission

**n.** (1) shortening of a prison sentence because of good behavior 刑期减免, 减刑

e.g. The prisoner got a remission of six months. 这个囚犯获减刑 6 个月。

(2) lessening or weakening (of pain, disease, etc.) (病痛等的) 缓解, 减轻

e.g. Patients treated with radium have achieved complete remission. 经镭治疗的病人病情得到完全缓解。

### aggravate

**v.** (1) make (a disease, a situation, an offense, etc.) worse or more serious 使(疾病, 情况, 罪过等)恶化, 加重

e.g. He aggravated his condition by leaving hospital too soon. 他因过早出院使病情恶化。

(2) irritate sb., annoy 激怒, 惹恼

e.g. He aggravates her just by looking at her. 他看了看她就把她惹恼了。

### subside

**v.** (1) sink to a lower or to the normal level 下降至较低或正常水平

e.g. The floodwaters gradually subsided. 洪水逐渐退去。

(2) (of buildings, etc.) sink lower into the ground (建筑物等)下陷

e.g. Weak foundations caused the house to subside. 由于地基不牢, 这所房子下陷了。

(3) become less violent, active, intense, etc. 减弱, 减轻, 平息

e.g. The storm began to subside. 风暴渐渐平息了。

I took an aspirin and the pain gradually subsided. 我服了阿司匹林, 疼痛逐渐减轻了。

## Word Building

Combining Form	Meaning	Terminology	Chinese Meaning
a-, an-	no, not	anomaly	异常, 反常
		anemia	贫血
		asymptomatic	无症状的
contra-	against, opposite	contraceptive	避孕药
		contrastimulant	抗兴奋药
		contrainsular	抑胰岛分泌的
hemi-	half	hemiatrophy	偏侧萎缩
		hemiepilepsy	偏身癫痫
		hemihypertrophy	偏身肥大
con-	with, together	concurrent	同时发生的
		congenital	先天性的
		connatal	同生的, 同源的
radio-	radiation	radiography	X 线摄影术
		radiologist	放射学家
		radiopaque	不透 X 线的
multi-	many, much	multidisciplinary	多学科的
		multicellular	多细胞的
		multicuspid	多尖的
dys-	bad, difficult	dyspnea	呼吸困难
		dysthyroidism	甲状腺功能障碍
		dyssomnia	睡眠障碍
angi/o-	vessel	angiology	血管学
		angiography	血管造影 (术)
		angioblast	成血管细胞
lympho-	lymph	lymphaden	淋巴结
		lymphocyte	淋巴细胞
		lymphoblast	成淋巴细胞

bio-	living	biolysis	生物分解作用
		bionics	仿生学
		biopsy	活组织检查
tox/o-	poison	toxemia	毒血症
		toxicide	解毒药
		toxicology	毒理学
mis-	wrong, bad	misdiagnosis	误诊
		miscarriage	流产, 失败
		misidentification	误诊
anti-	against	antibody	抗体
		antigen	抗原
		antibiotic	抗生素

## Letter Writing (书信格式)

书信分两类: 商业书信与私人书信。后者虽然书写较容易, 但仍有一些须遵循的基本规则。

### 1. 信封

(1) 英文书信一般不将寄信人的姓名与地址写在信封的背面。大多英国人打开信之后即将信封弃掉, 因而, 如要收信人回信, 应将寄信人的详细住址写在信内。

(2) 收信人若为男性, 正确的称谓是“某某先生”, 如“J. 平特 (J. Pinter) 先生”。若收信人是一位资深的外科医生, 如叫罗伯特·特纳 (Robert Turner), 则可据此写明为“罗伯特·特纳先生, 皇家外科医师学会会员”。如收信人有其他学衔, 亦应写明。如“彼得·卡明斯博士 (Peter Cummings), 皇家外科医师学会, 麻醉师分会会员和“托马斯·沃克先生, 皇家妇产科学会会员”。

(3) 收信人如有文职、军职或学术方面的荣誉称号, 亦应按前列顺序书写于姓名之后。

(4) 写给某学院、公司、饭店或报社等机关的业务信件, 亦应写明寄给该机关的某个人, 事实上应寄给某学院的院长、某公司的秘书或经理、某饭店的经理或接待员、某报纸的编辑等。

(5) 写给已婚女子或某人遗孀的信, 除非她另有其他头衔, 通常称“某某太太”。

(6) 写给未婚女子的信, 通常称“某某小姐”。

(7) 女士 (Ms) 一词用于婚姻状态不明的女性。有些女子喜用此称呼。

(8) 收信人住址按下列次序写在收信人姓名之后。

门牌号和街名, 写在同一行

城镇或乡村名与邮政编码, 写在同一行

郡

国家(如果信由国外邮寄)

举例: Dr John Turner MB CHB DPM

36 Pilkington Avenue

Wakefield WF2 9DC

West Yorkshire, England

由上例可见,现代书信中姓名、地址部分一般略去标点符号。用打字机打印的信封,行首不留空格。

## 2. 书信

(1) 发信人详细地址写在信纸的右上方,按习惯此处不写发信人的姓名。医院等单位,常用印好地址的信笺,其地址或印在右上方或印在中间上方。

(2) 日期书于地址的下方,顺序为:日、月、年(如 23 March 2003)。私人书信可用阿拉伯数字表示,如上述日期可写作 23.3.2003。

(3) 商业书信中,收信人姓名、地址写在信纸左上方。

(4) 给一位不相识的人写信,开头称呼应为亲爱的先生(Dear Sir),当给女士写信时(如给医院的护理主任写信时)称亲爱的夫人(Dear Madam)。

(5) 如与收信人曾见过面或有一段时间通过信,信首称谓用姓氏,例如:亲爱的特纳博士(Dear Dr. Turner)。

(6) 给朋友写信,信首称谓为“亲爱的”,加名如“亲爱的约翰”,“亲爱的玛丽”;给比较亲近的朋友写信,常用“我的亲爱的伊丽莎白”。

(7) 如果信首写“亲爱的先生或夫人”,信的结尾应写“Yours faithfully”(你的忠实的)。

(8) 在半业务性通信中如信首用“亲爱的斯蒂尔小姐”或其他的名字,结尾应写 Yours sincerely(你的真诚的)。

(9) “With best wishes”, “With kindest regards,”或“Yours”,通常用于写给朋友信的结尾。

(10) “I remain your humble servant” 和“Yours respectfully” 已不再使用,英文信中也不再使用这些词藻华丽溢于言表的语言。商务书信须简洁明了。

(11) 在谈及一个新的主题或事情的一个方面须分段书写时,为了段落分明,段落的首行要留空或让行距大一些。

(12) 注意在您的签名下要以印刷体打印您的名字,因为手写的外国人姓名很难辨认。