晨风策划

新世纪专业英语系列教材

New Century Subject-oriented English

中国人民大学 编著

总主编

张勇先 康成翠

# 医学英语教程

# English for Medicine

主编 王小丽

编者 史 艺 唐启明

附赠 MP3

西安交通大学出版社

XI'AN JIAOTONG UNIVERSITY PRESS

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## 内容提要

本书共有十个章节，分别涉及人体的十大系统——神经系统、心血管系统、内分泌系统、呼吸系统、消化系统、血液系统、免疫系统、泌尿系统、运动系统和生殖系统。各个系统中主要选取最常见的两种疾病分别作为各章的课文及补充读物；也有个别地方代之以一些人体关键器官的功能和构造。各篇课文主要涵盖所学疾病的概论、症状、病因、治疗及预防等主要内容。练习的编排兼顾医学知识的巩固拓展和英语听、说、读、写、译五大技能的训练要求。

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# 新世纪专业英语系列教材
# 编 委 会

# 总序 Preface

“新世纪专业英语系列教材”自2003年出版以来在全国高校使用了6年，受到国内专家学者及广大教师和学生的好评，其中《工商管理英语教材》被列入教育部“普通高等教育‘十一五’国家级规划教材”。

为更好地推进专业英语教学，强化使用效果，编者们遵循教育部《大学英语课程教学要求》(以下简称《课程要求》)，结合实际使用中的反馈意见，经过近2年认真仔细地调整与策划，对第1版进行了修订与补充，并在原有基础上增补了6个品种，推出“新世纪专业英语系列教材”(第2版)(总计13种)。

## 一、编写与修订依据

为适应我国高等教育发展的新形势，满足新时期国家和社会对人才培养的需要，教育部高教司于2007年7月颁布了《课程要求》。

《课程要求》中规定的大学英语阶段的英语教学要求分3个层次，即一般要求、较高要求和更高要求，并规定：“各高等学校应根据本校实际情况确定教学目标，并创造条件，使那些英语起点水平较高、学有余力的学生能够达到较高要求或更高要求”。《课程要求》对听、说、读、写、译均有明确的规定：

**听力要求**：“能听懂涉及专业知识的学术报告、专题讲座等，并能理解其中阐述的事实或包含的较为抽象的概念。”

**口语要求**：“能在学术会议或专业交流中较为自如地表达自己的观点和看法，……”

**阅读要求**：“能较为顺利地阅读所学专业的英语文献和资料。”

**写作要求**：“能撰写专业文章摘要，能写简短的专业报告和论文。”

**翻译要求**：“能借助词典翻译所学专业的文献资料和英语国家报刊上有一定难度的科普、文化、评论等文章，……”

“新世纪专业英语系列教材”(第2版)在设计和编写上贯彻《课程要求》对大学英语的“更高要求”的教学目标及大学英语参考词汇等方面所做的界定和

描述，并在此基础上，结合英语教学理论与实际教学要求，进行了修改与增补。

## 二、修订与增补内容

1. 将原系列中的《国际贸易英语教程》、《工商管理英语教程》、《新闻英语教程》、《旅游英语教程》、《法律英语教程》5个品种的上、下册合为1册，将《财金英语教程》按照专业拆分为《金融英语教程》和《会计英语教程》。

2. 新增《电子商务英语教程》、《人力资源管理英语教程》、《物流管理英语教程》、《市场营销英语教程》、《管理英语教程》和《医学英语教程》，从而更加方便学生与教师的学习与使用。

## 三、编写原则与特点

本系列教材充分贯彻《课程要求》的基本精神，在内容编排方面，除精心编选课文外，还创新性地设置听、说、读、写、译练习，更加强化了学生英语综合能力的培养。其突出特点如下：

1. **课文选材新颖**：课文中绝大部分文章是2000年以后发表的，具有很强的时代感。

2. **课文语言地道**：课文绝大部分取材于国外著名专家的原版著作，语言地道，具有很高的权威性与可读性。

3. **内容覆盖全面**：内容涉猎面广，具有很丰富的知识性。以工商管理为例，全书包括从工商管理十大原理，如企业经理的作用、策划、计划及组织等，到企业招聘面试，均有涉及。

4. **课文难度适中**：课文深入浅出，避免晦涩艰深，对学生完成从基础到专业的过渡具有很大的帮助。

5. **练习类型多样**：练习融听、说、读、写、译于一体，难易兼顾，符合我国新世纪的最新教学理念，对教师教学具有很强的可操作性。

6. **辅助功能齐备**：教材的附录部分提供了练习答案、参考译文、总词汇表及听力原文，使学生学习及教师教学更加方便与灵活。每册教材均配有由外籍语言专家朗读的Mp3听力光盘1张。

## 四、编写队伍

本系列教材均由专业英语教师与大学英语教师共同编写，课文译文由英语过硬的专业教师负责审定。

总主编由曾在国内出版了大量颇受欢迎的教材、专著及词典等的中国人民大学外语学院张勇先教授与康成翠副教授担任。各分册主编与编者绝大部分为中国人民大学外语学院与商学院等骨干教师。其中《金融英语教程》与《会计英语教程》由韦娜(美国教育学博士)主编;《国际贸易英语教程》由许葵花(语言学博士)主编;《旅游英语教程》由王晓彤(语言学在读博士)主编;《工商管理英语教程》、《物流管理英语教程》和《市场营销英语教程》由张初愚(英国工商管理硕士)主编;《法律英语教程》由赵雁丽(语言学与法学双硕士)主编;《新闻英语教程》由白松(语言学硕士)主编;《电子商务英语教程》由唐启明(语言学硕士)主编;《人力资源管理英语教程》由王珠英(语言学硕士)主编;《管理英语教程》由郭继荣(语言学博士)主编;《医学英语教程》由王小丽(语言学硕士)主编。

此外,还特邀了北京外国语大学、中国社科院、西安交通大学、北京联合大学等单位的著名教授、专家与学者加盟。

本系列教材虽经编者们尽心推敲、仔细查阅,纰漏与差错在所难免,恳请各界专家、学者及热心的读者不吝赐教。

编者

2010 年 3 月

# 前言 Foreword

随着我国对外交往和学术交流的不断深入，社会对专业技术人员的外语水平要求也越来越高。本教程集听说读写译为一体，锁定人体各大系统的常见病和高发病，紧跟时代，关注热点，力图将医学基本知识的普及与英语学习完美地结合起来。

本教程的特色之一是材料的选取和章节的安排。医学属于严肃的自然科学范畴，其选材务必要科学、规范、专业、全面、系统。基于此考虑，对教材的主要部分即阅读部分，选取与每个人身体健康休戚相关的、人体各大系统最常见的疾病分别作为该章节的主课文，将其他常见的或者跟此系统相关的热点疾病作为副课文。在章节次序安排上打破传统的医学教科书上各个系统疾病的排列顺序，而代之以发病率的高低，如把严重威胁人类健康、发病率极高、以脑中风最为常见的神经系统疾病作为教材的第一章，以冠心病为首的心血管系统疾病作为第二章等。

本教程的另一特色是每单元课后练习的编排。基于对英语听说读写译五大技能的训练要求，每章练习的第一部分是课文概要练习，通过完形填空的形式巩固本章所学医学知识要点；第二部分为词汇练习，包含两个分练习，一个是医学词汇的构成与拓展练习，另一个是非医学词汇或短语的巩固练习；第三部分为翻译练习，兼顾医学口译和医学知识的延伸；第四部分为听力练习，以练习的形式掌握常用的真实地道的医患口语；第五部分为写作练习，涵盖医学写作的各个方面如患者转诊介绍信、医生进修推荐信、病例报告、病历书写及医学论文摘要等。这些练习除了是对所学知识的巩固，更是对相关医学英语知识的拓展和深化。

本教程旨在为医科学生和医务人员提供一本地道实用的医学英语听说读写综合教材，也力图引起非医学专业学生对医学英语的学习兴趣，甚至为一般人员在国外就医时能够提供指导及参考。

书中难免出现疏漏和差错，恳请专家和读者提出批评及改进意见。

编者

2010 年 2 月

# 目录 Contents

# Unit 1

# The Neurological System

## Text Stroke

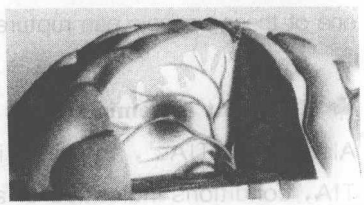
### 1. About Stroke

Stroke is the No. 3 cause of death in the world, behind diseases of the heart and cancer. Stroke is a type of cardiovascular disease. It affects the arteries leading to and within the brain. A stroke occurs when a blood vessel that carries oxygen and nutrients to the brain is either blocked by a clot or bursts. When that happens, part of the brain cannot get the blood(and oxygen)it needs, so it starts to die.

### 2. Types of Stroke

If we consider an isolated blood vessel, blood flow to the brain tissue can be hampered in two ways:

- the vessel clogs within(ischemic stroke)
- the vessel ruptures, causing blood to leak into the brain(hemorrhagic stroke)



**Ischemic**

Ischemic stroke accounts for about 83 percent of all cases. Ischemic strokes occur as a result of an obstruction within a blood vessel supplying blood to the brain. The underlying condition for this type of obstruction is the development of fatty deposits

lining the vessel walls. This condition is called atherosclerosis. These fatty deposits can cause two types of obstruction:

*Cerebral thrombosis* refers to a thrombus(blood clot)that develops at the clogged part of the vessel.

*Cerebral embolism* refers generally to a blood clot that forms at another location in the circulatory system, usually the heart and large arteries of the upper chest and neck. A portion of the blood clot breaks loose, enters the bloodstream and travels through the brain's blood vessels until it reaches vessels too small to let it pass. A second important cause of embolism is an irregular heartbeat, known as atrial fibrillation(AF)[1]. It creates conditions where clots can form in the heart, dislodge and travel to the brain.

### Hemorrhagic

Hemorrhagic stroke accounts for about 17 percent of stroke cases.

It results from a weakened vessel that ruptures and bleeds into the surrounding brain. The blood accumulates and compresses the surrounding brain tissue. The two types of hemorrhagic strokes are intracerebral hemorrhage or subarachnoid hemorrhage.

Hemorrhagic stroke occurs when a weakened blood vessel ruptures. Two types of weakened blood vessels usually cause hemorrhagic stroke: aneurysms and arteriovenous malformations(AVMs)[2].

An *aneurysm* is a ballooning of a weakened region of a blood vessel. If left untreated, the aneurysm continues to weaken until it ruptures and bleeds into the brain.

An *arteriovenous malformation*(AVM)is a cluster of abnormally formed blood vessels. Any one of these vessels can rupture, also causing bleeding into the brain.

### Transient ischemic attacks

Also called TIAs[3], transient ischemic attacks are minor or warning strokes. In a TIA, conditions indicative of an ischemic stroke are present and the typical stroke warning signs develop. However, the obstruction(blood clot)occurs for a short time and tends to resolve itself through normal mechanisms.

Even though the symptoms[4] disappear after a short time, TIAs are strong indicators of a possible major stroke. Steps should be taken immediately to prevent a stroke.

## 3. Diagnosis

**Tests**

When someone has shown symptoms of a stroke or a TIA (transient ischemic attack), a doctor will gather information and make a diagnosis. He or she will review the events that have occurred and will:

- get a medical history
- do a physical and neurological examination
- have certain laboratory(blood)tests done
- get a CT scan of the patient
- study the results of other diagnostic tests that might be needed

CT

**Types of diagnostic tests**

Diagnostic tests examine how the brain looks, works and gets its blood supply. They can outline the injured brain area. Most of them are safe and painless.

Diagnostic tests fall into three categories.

- Imaging tests give a picture of the brain similar to X-rays.
- Electrical tests record the electrical impulses of the brain.
- Blood flow tests show any problem that may cause changes in blood flow to the brain.

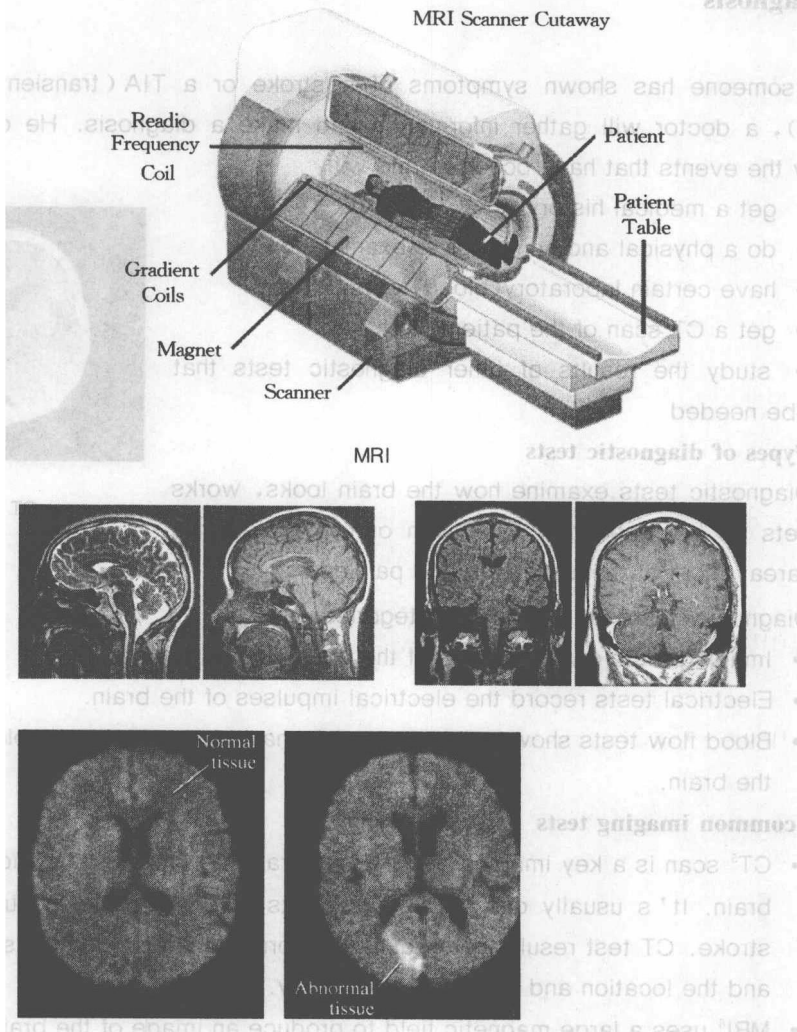
**Some common imaging tests**

- CT[5] scan is a key imaging test. It uses radiation to create a picture of the brain. It's usually one of the first tests given to patients suspected of stroke. CT test results give valuable information about the cause of stroke and the location and extent of brain injury.
- MRI[6] uses a large magnetic field to produce an image of the brain. Like the CT scan, it shows the location and extent of brain injury. The image produced by MRI is sharper and more detailed than a CT scan so it's often used to diagnose small, deep injuries.

**Electrical activity test**

Two basic tests, EEG[7] and Evoked Response, show the brain's electrical activity.

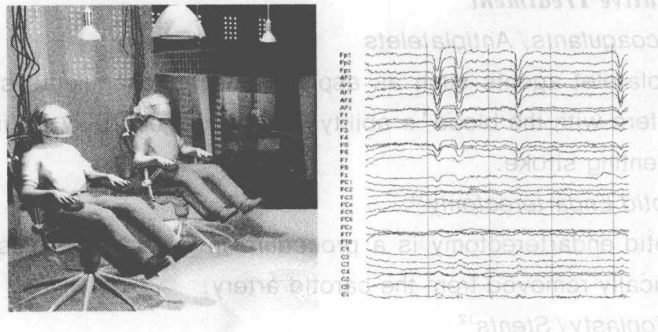
- In an EEG, small metal discs(electrodes)are placed on a person's scalp to pick up electrical impulses. These electrical signals are printed out as brain waves.




- An Evoked Response test measures how the brain handles different sensory information. Electrodes record electrical impulses related to hearing, body sensation or vision.

**Blood flow test**

Several blood flow tests exist; most use ultrasound technology. A probe is placed over the suspect artery—especially arteries in the neck or at the base of the skull—and the amount of blood flow is determined.



EEG

Examples of blood flow tests are: B-mode imaging, Doppler testing and duplex scanning. These tests give detailed information about the condition of arteries.

Another blood flow test is a medical procedure called angiography (arteriography or arteriogram). In this, special dyes are injected into the blood vessels and an X-ray is taken.

Angiography gives a picture of the blood flow through the vessels. This allows the size and location of blockages to be evaluated. This test can be especially valuable in diagnosing aneurysms and malformed blood vessels and providing information before surgery.

## 4. Acute and Preventive Treatments

Because their mechanisms are different, the treatments for the types of stroke are different:

- Ischemic stroke is treated by removing obstruction and restoring blood flow to the brain.
- In hemorrhagic stroke, doctors introduce an obstruction to prevent rupture and bleeding of aneurysms and arteriovenous malformations.

**Ischemic Stroke**

***Acute Treatment***

- *Clot-busters*[8], *e.g.*, *tPA*
- The most promising treatment for ischemic stroke is the FDA[9] approved clot-busting drug tPA, which must be administered within a three-hour window[10] from the onset of symptoms to work best. Generally, only 3 to 5 percent of those who suffer a stroke reach the hospital in time to be considered for this treatment.

***Preventative Treatment***

- *Anticoagulants / Antiplatelets*

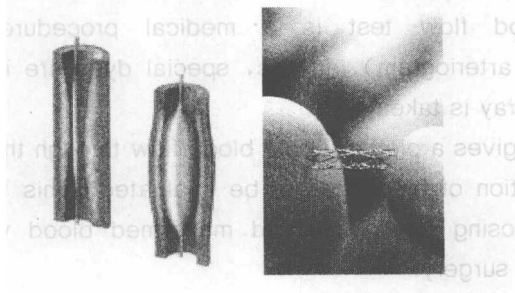
  Antiplatelet agents such as aspirin, and anticoagulants such as warfarin interfere with the blood's ability to clot and can play an important role in preventing stroke.

- *Carotid Endarterectomy*[11]

  Carotid endarterectomy is a procedure in which blood vessel blockage is surgically removed from the carotid artery.

- *Angioplasty / Stents*[12]

  Doctors sometimes use balloon angioplasty and implantable steel screens called stents to treat cardiovascular disease in which mechanical devices are used to remedy fatty buildup clogging the vessel.



**Hemorrhagic Stroke**

- *Surgical Intervention*

  For hemorrhagic stroke, surgical treatment is often recommended to either place a metal clip at the base, called the neck, of the aneurysm or to remove the abnormal vessels comprising an Arteriovenous Malformation (AVM).

- *Endovascular Procedures, e.g., "coils"*

  Endovascular procedures are less invasive and involve the use of a catheter introduced through a major artery in the leg or arm, guided to the aneurysm or AVM where it deposits a mechanical agent, such as a coil, to prevent rupture.

## 5. Effects of Stroke

The brain is an extremely complex organ that controls various body functions. If

a stroke occurs and blood flow can't reach the region that controls a particular body function, that part of the body won't work as it should.

If the stroke occurs toward the back of the brain, for instance, it's likely that some disability involving vision will result. The effects of a stroke depend primarily on the location of the obstruction and the extent of brain tissue affected.

**Right Brain**

The effects of a stroke depend on several? factors including the location of the obstruction and how much brain tissue is affected.? However, because one side of the brain controls the opposite side of the body, a stroke affecting one side will result in neurological complications on the side of the body if affects. For example, if the stroke occurs in the brain's right side, the left side of the body(and the right side of the face)will be affected, which could produce any or all of the following:

- Paralysis on the left side of the body
- Vision problems
- Quick, inquisitive behavioral style
- Memory loss

**Left Brain**

If the stroke occurs in the left side of the brain, the right side of the body(and the left side of the face)will be affected, producing some or all of the following:

- Paralysis on the right side of the body
- Speech/language problems
- Slow, cautious behavioral style
- Memory loss

## 6. Impact of Stroke

About 795,000 Americans each year suffer a new or recurrent stroke. That means, on average, a stroke occurs every 40 seconds. Stroke kills more than 143,000 people a year. That's about 1 of every 17 deaths. It's the No. 3 cause of death? behind diseases of the heart and cancer. On average, every 3 to 4? minutes someone dies of stroke. Of every 5 deaths from stroke, 2? occur in? men and 3? in women. The 2005 stroke death rates per 100,000 population for specific groups were? 44.7 for white males, 44.0 for white females, 70.5 for black males and? 60.7 for black females. Americans will pay about $68.9 billion in 2009 for stroke-related medical costs and disability.