

Medical English
An Integrated Course

医学英语

综合教程 (第三版)

主 编 蔡 郁 汪 媛



南京大学出版社

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第一版前言

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第一版前言

为了适应时代对医学人才培养的需求,我们根据多年的教学经验,将医学生的英语学习与他们的专业学习相结合,编写了本册医学英语教材。本书以提高医学生对英语的听、说、读、写、译的全面能力及自主学习能力的目的,将重点放在对医学英语的掌握和应用上。

全书 16 个单元。每个单元围绕一个与医学相关的主题,构成如下。

(1) 主课文——精选英美医学专业书籍及杂志的文章,体现医学专业知识的主要方面,包括① 医学基础知识(前部分内容,一般为大二医学生所学过的专业知识)。② 临床专业知识(后部分内容)。学习目的:准确理解文义,掌握医学英语词汇的发音、构成以及句子结构。

(2) 听力——复合式听写训练。学习目的:听懂专业性医学报告。

(3) 口语——选择医学报道性文章作为泛读材料,让学生读后做口头汇报和讨论。学习目的:模拟学术活动,提高口语表达能力。

(4) 快速阅读——精选现代医学评论文章或报道性文章,培养医学生迅速掌握信息的能力。

(5) 写——要求快速阅读后写出概述。既检测医学生快速阅读的质量,又培养其写作能力。

(6) 指导性翻译练习——① 英译汉:分析语法结构,提高汉语表达的准确性。

② 汉译英:医学文章摘要翻译讲解、常用句翻译。

(7) 词汇扩展——构词法学习。学习目的:为进一步自学夯实词汇基础。

• 教学提示:主课文、听力、口语部分作为课堂教学;阅读、翻译部分要求学生在课后自主完成。

感谢丁启鹏、朱同生两位教授审看本书并提出宝贵建议,感谢祖述宪教授、沙泉教授、黄晓辉教授在医学专业方面的指导,同时向本书所选文章的作者一并表示感谢!

编者水平所限,疏漏和不足在所难免,敬请同行专家批评指正。

第二版前言

在第一轮教学实践后,对500名学生进行问卷调查,学生对本教材给予了肯定。因此,我们根据集体备课、课堂教学以及学生访谈情况,对本教材做出以下修改。

(1) 更换了第一版的第五、六、七、八和十单元的五篇主课文,除少数课文外,主课文都选自原版医学教科书,难易程度符合教学要求。对主课文后的部分问题做了修改。

(2) 听力仍以精听为主,增加听记的内容。

以上两项内容的编写目的之一是帮助还没有通过大学英语六级考试的学生提高抓重点的能力以及听写能力。

(3) 重新修改和增加了翻译写作内容。各单元英译汉的内容均选自该单元的三篇主、副课文。

(4) 除个别单元外,构词法部分选择的词汇基本出自本单元,并力求循序渐进。

(5) 我们在再版书中增加了我国医学泰斗的照片及医学发展相关的世界名画,鼓励教师和学生自主阅读照片人物事迹,学习前辈们关爱生命、精益求精的医德医风,交流体会;看图叙述名画的内容,讨论医学发展的艰辛历程,以期帮助学生培养医学人文素养,加深其对先贤所言“医者乃生死所寄,责任重大,非仁爱之士,不可托也”的理解,使其树立为医学奋斗的精神,努力做合格的新时代的医务工作者。

编者

2012年6月

第三版说明

本教材自问世以来,经过五届学生的使用,边实践边修改,日臻完善。2011年本书入选安徽省十一五省级规划教材,2013年本书被纳入安徽省省级教学质量工程项目,并被评为安徽省十二五省级规划教材。为了满足广大医学生的学习需求,本次修订除更换了若干篇课文外,还在每个单元后面增加了药品说明书,有的附有药品标签和表格,旨在培养学生临床用药方面的技能和口语表达能力。本次修订我们还增加了主课文的译文,使得译文统一规范。通过几轮的教学实践,我们认为医学英语讲授绝非是简单的阅读和翻译,应该将主课文的讲解与医学写作有机结合,以课文为范本,引导学生了解医学语篇的衔接特点,指导学生模仿,提高其写作能力。为此,我们在每个单元前增加了授课重点参考内容,以提示的方式指导学生自学和教师备课。

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vascular ['væskjulə] *adj.* 血管的, 腺管的
 bronchial ['brʌŋkiəl] *adj.* 支气管的
 alveolar [əl'veɪlə] *adj.* (alveolus *n.*; alveoli *pl.*) 肺泡的
 aorta [ə'ɔ:tə] *n.* (*pl.* aortae/aortas) 主动脉
 intercostal [ɪntə'stɪkəl] *adj.* 肋间的
 ventricle ['ventrɪkl] *n.* 心室, 心室
 Thebesian [θi:'beɪʃn] veins 心脏小静脉(他日的动脉导管)
 duct [dʌkt] *n.* (pl. ducts) 导管, 分泌管
 sinus ['sɪnəs] *n.* (*pl.* sinuses) 窦
 periphery [pə'reɪəri] *n.* 周围, 周边
 alveolar [əl'veɪlə] *n.* 肺泡
 capillary [kə'pɪləri] *n.* 毛细血管
 system ['sɪstəm] *n.* 系统
 retroperitoneal [retro'pɪtɪ'nɪəl] space 腹膜后腔
 thoracic [θə'reɪk] *adj.* 胸部的, 胸部的
 vertebra ['vɜ:təbrə] *n.* 脊椎骨, 椎骨
 colonic [kə'lɒnɪk] *adj.* 结肠的
 cortex [kɒrtɪks] *n.* (*pl.* cortices [kɒrtɪsɪz]) of suprarenal 肾上腺
 medulla [mɪ'dju:lə] *n.* (*pl.* medullae or medullas [mɪ'dju:lɪz]) 髓质
 corticomedullary junction 皮质髓质交界
 apex [ə'peɪs] *n.* (*pl.* apices [ə'peɪsɪz]) 尖
 papilla [pe'pɪlə] *n.* (*pl.* papillae [pe'pɪli]) 乳头
 calyx [kəlɪks] *n.* (*pl.* calyces) 萼

Anatomy

Part I Text

New words and expressions

vascular ['væskjələ] *adj.* 血管的, 脉管的

bronchial ['brɒŋkiəl] *adj.* 支气管的

alveolar [æ'lviələ] *adj.* (alveolus *n.*, alveoli *pl.*) 小气泡

aorta [ei'ɔ:tə] *n.* (*pl.* aortae/aortas) 主动脉

intercostal [ɪntə(:)'kɒstl] *adj.* 肋间的

ventricle ['ventrɪkl] *n.* (脑, 心) 室

Thebesian [θi:'bi:ziən] veins 心最小静脉(特贝西乌斯氏静脉)

shunt [ʃʌnt] *v./n.* (使)分流/分流器

hilum ['hailəm] *n.* (*pl.* hila) 门

periphery [pə'rifəri] *n.* 外周, 周围

arteriole [ɑ:'tiəriəʊl] *n.* 小动脉

capillary [kə'pɪləri] *n.* 毛细血管

atrium ['eɪtriəm] *n.* 心房

retroperitoneal [ˌretʀəʊ'perɪtə'ni:əl] space 腹膜后隙

thoracic [θə:'ræsi:k] *adj.* 胸的, 胸廓的

vertebra ['vɜ:tɪbrə] *n.* 脊椎骨, 椎骨

coronal ['kɒrənəl] *adj.* 冠状的

cortex ['kɔ:tɛks] *n.* (*pl.* cortices ['kɔ:tɪsɪz] or cortexes) 皮质

medulla [me'dʌlə] *n.* (*pl.* medullas or medullae [me'dʌli:]) 髓质

corticomedullary junction 皮髓质结合

apex [ˈeɪpeks] *n.* (*pl.* apices [ˈeɪpɪsɪz]) 尖

papilla [pə'pɪlə] *n.* (*pl.* papillae [pə'pɪli:]) 乳突

calyx ['keɪlɪks] *n.* (*pl.* calyces) 盏

renal ['ri:nl] *adj.* 肾的

renal pelvis ['pelvis] 肾盂

ureter [ju'reitə] *n.* 输尿管

nephron ['nefrɒn] *n.* 肾单位

glomerulus [gləu'merjʊləs] *n.* (*pl.* glomeruli [gləu'merju:lai]) (肾)小球

glomerular [gləu'merjʊlə] *adj.* 肾小球的

parenchyma [pə'reŋkɪmə] *n.* 实质

arcuate ['ɑ:kju:t] artery ['ɑ:təri] 弓状动脉

afferent ['æfərənt] *adj.* 传入的

efferent ['efərənt] *adj.* 传出的

授课重点

1. 关系分句作状语

2. 形容词 + 介词短语 be responsible for, be associated with

常用的这类形容词(包括起形容词作用的成分):

be conscious of 意识到

be diagnostic of 可诊断为……

be predisposing to 易感染……

be refractory to ... 难于为……治愈

be susceptible to 易受感染的

be suggestive of 提示

be secondary to 继发

3. 难句学习: The nutritive blood flow to all but the alveolar structure comes from the bronchial circulation, ...

Structures of the Lung and the Kidney

The Blood Vessels of the Lung

The lung receives its blood supply from two vascular systems—the bronchial and pulmonary circulations. The nutritive blood flow to all but the alveolar structure comes from the bronchial circulation, which originates from the aorta and upper intercostal

arteries and receives about 1 per cent of the cardiac output. About one third of the venous effluent of the bronchial circulation drains into the systemic veins and back to the right ventricle. The remainder drains into the pulmonary veins and, along with the contribution from the Thebesian veins in the heart, represents a component of the 1 to 2 per cent right-to-left shunt found in normal subjects.

The pulmonary arterial system runs alongside the airways from the hila to the periphery. The arteries down to the level of the subsegmental airways (2-mm diameter) are thin-walled, predominantly elastic vessels. Beyond this, the arteries become muscularized until they reach diameters of $30\mu\text{m}$, at which point the muscular coat disappears. Most of the arterial pressure drop takes place in these small muscular arteries, which are responsible for the active control of blood flow distribution in the lung. The pulmonary arterioles empty into an extensive capillary network and drain into thin-walled pulmonary veins, which eventually join with the arteries and bronchi at the hilum and exit the lung to enter the left atrium.

Elements of Renal Structure

The human kidneys are anatomically positioned in the retroperitoneal space at level of the lower thoracic and upper lumbar vertebrae. Each adult kidney weighs approximately 150 gm and measures about 12 by 6 by 3 cm. A coronal section of the kidney reveals two distinct regions. The outer region, the cortex, is about 1 cm in thickness. The inner region is the medulla and is made up of several conical structures. The bases of these pyramidal structures are located at the corticomedullary junction, and the apices extend into the hilum of the kidney as the papillae. Each papilla is enclosed by a minor calyx; these calyces collectively communicate with major calyces, forming the renal pelvis. Urine that flows from the papillae is collected in the renal pelvis and passes to the bladder through the ureters.

Blood is delivered to each kidney from a main renal artery branching from the aorta. The main artery usually divides into two main segmental branches, which are further subdivided into lobar arteries supplying the upper, middle, and lower regions of the kidney. These vessels subdivide further as they enter the renal parenchyma and create interlobar arteries that course toward the renal cortex. These smaller arteries provide perpendicular branches, the arcuate arteries, at the corticomedullary junction. Interlobular arteries arising from the arcuates extend into the cortex. The glomerular capillaries receive blood through afferent arterioles that originate from

these terminal interlobular arteries.

Histologically, the kidney is composed of a basic structural unit known as the nephron. Each human kidney contains approximately 1 million nephrons. The nephron is composed of two major components: a filtering element composed of an enclosed capillary network (the glomerulus) and an attached tubule. The tubule contains several distinct anatomic and functional segments. (518 words)

—From *CECIL Essentials of Medicine* 3rd edition by Thomas E. Anderoli, J. Claude Bennett, Charles C.J. Carpenter, Fred Plum and Lloyd H. Smith, Jr.

Questions:

1. Where do the lungs get their blood supply?
2. Does the nutritive blood flow to the alveolar structures?
3. What is/are responsible for the active control of blood flow distribution in the lung?
4. Where do afferent arterioles come from?
5. What do the interlobular arteries provide at the corticomedullary junction?

Part II Listening

You are going to hear a passage, which will be read three times. Please listen to the passage and fill in the blanks with the words you've heard.

In general, two functional cell types are present in ① _____ tissue: those responsible for ② _____ and those responsible for mechanical ③ _____. Nodal cells are thought to be the ④ _____ formation in the sinus node and are ⑤ _____ adrenergic (肾上腺素的) and cholinergic [类胆碱(功)能的] nerve fibers.

Atrial and ⑥ _____ myocardial cells, the contractile cells of the heart, contain ⑦ _____ bundles termed myofibrils that traverse the length of the fiber. Myofibrils ⑧ _____ longitudinally repeating sarcomeres. Thick filaments (丝状体) composed of myosin constitute the A band, whereas thin filaments composed primarily of actin extend from the Z line through the I band into the A band, ⑨ _____