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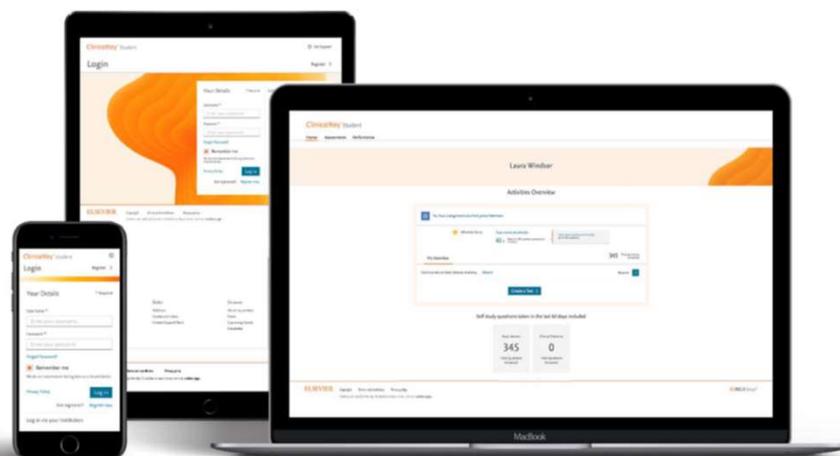




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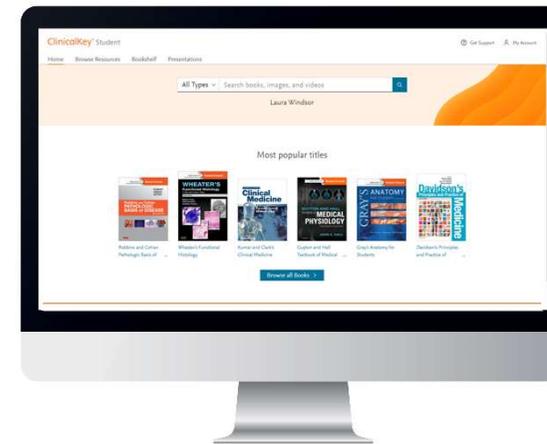
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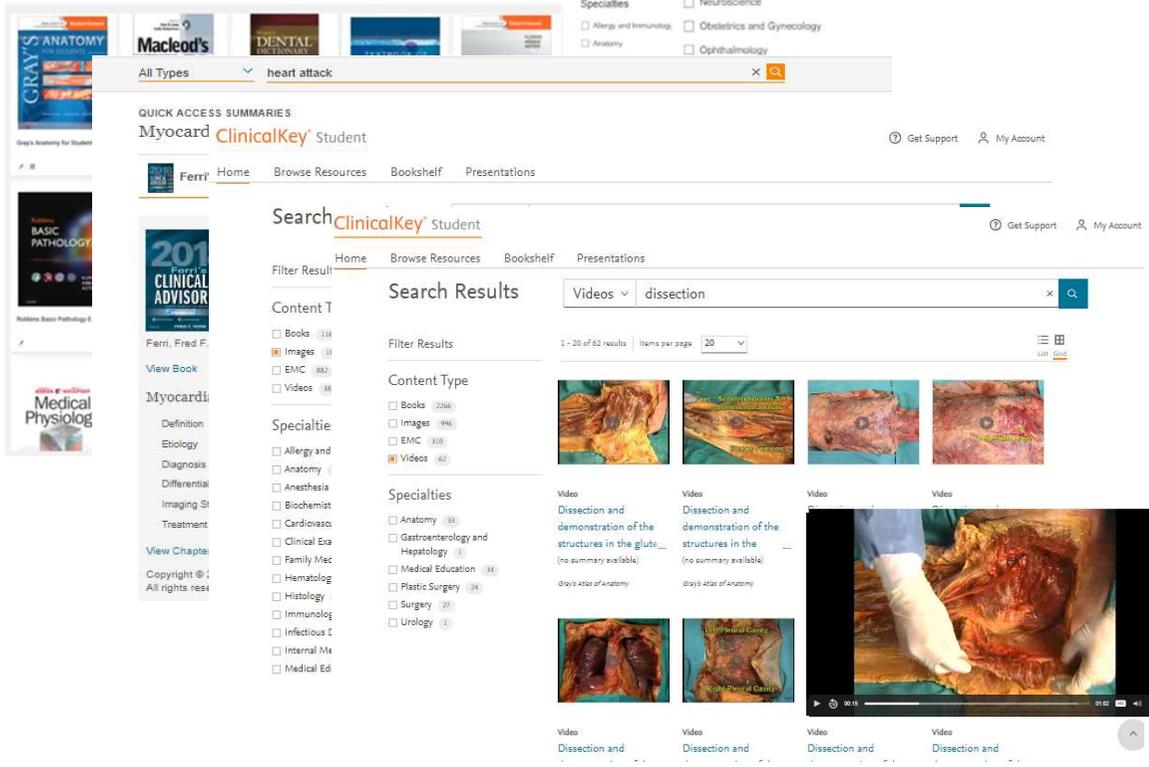


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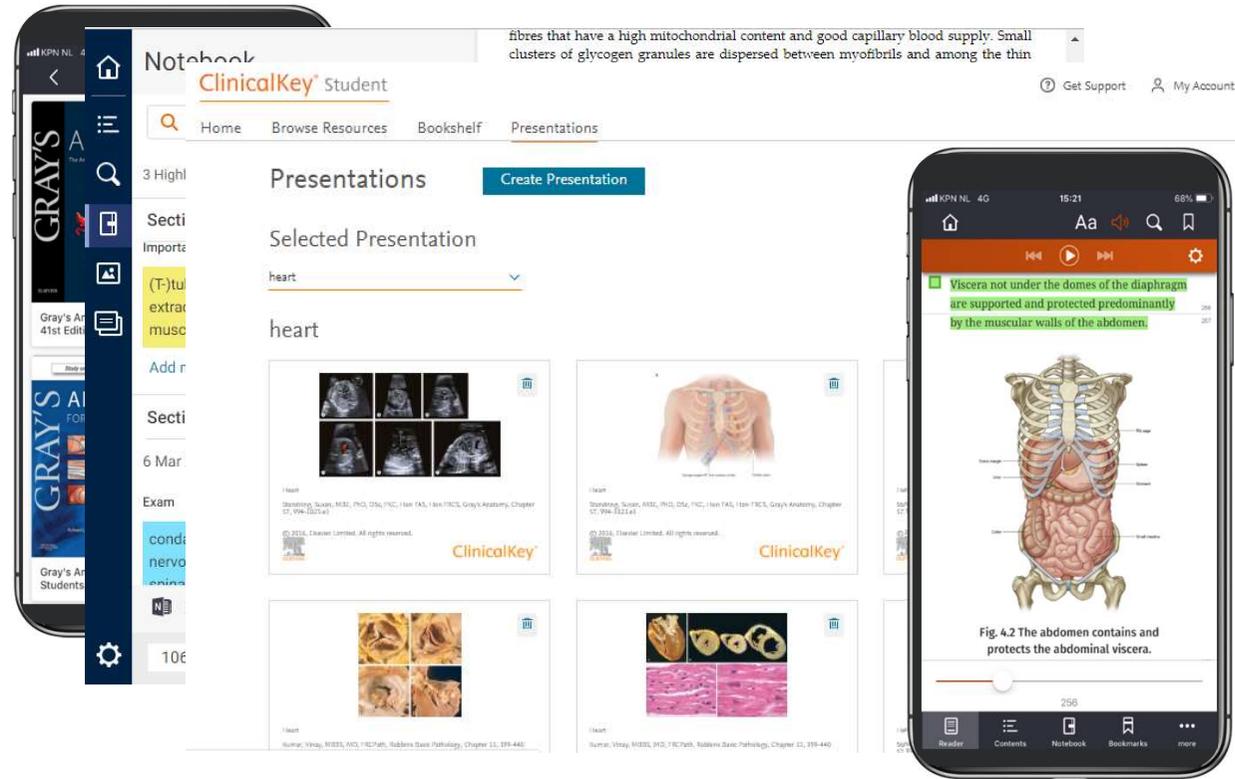
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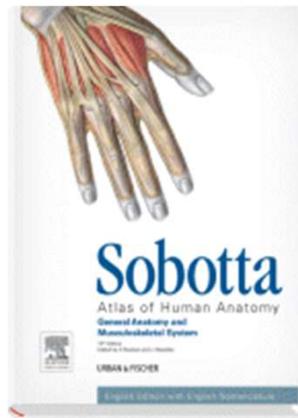
# ClinicalKey Student – 首页

网址：www.clinicalkey.com/student

The screenshot shows the ClinicalKey Student homepage. At the top left is the logo "ClinicalKey® Student". Below it is a navigation menu with links: Home, Assignments, Performance, Browse Resources (marked with a red circle '2'), Bookshelf, and Presentations. A search bar is located below the navigation menu, containing the text "Search books, images, and videos" (with a red circle '1' over the '1' in 'Search') and a magnifying glass icon. A dropdown menu is open under "All Types", listing "All Types", "Books", "Images", and "Videos". Below the search bar, the name "Zhu Li" is displayed. Underneath, the text "Activities Overview" is visible. At the bottom of the page, a notification box with a calendar icon states "You have 0 assignments due."



# Sobotta Atlas of Human Anatomy



## Sobotta解剖对于心脏瓣膜的描述

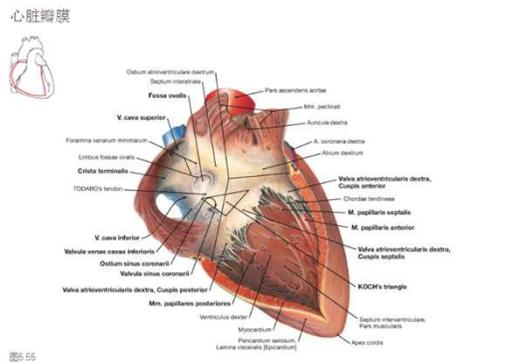


图55

右房室瓣，Valva atrioventricularis dextra: 瓣膜观。  
右心房和右心室由三尖瓣 (Valva atrioventricularis dextra) 分开。它由三个尖瓣组成，这些尖瓣通过腱索 (Chordae tendineae) 连接到三个乳头肌 (前、后和隔肌)。通过在心脏收缩期间向乳头肌的主动收缩，可以防止尖瓣倒回心房。

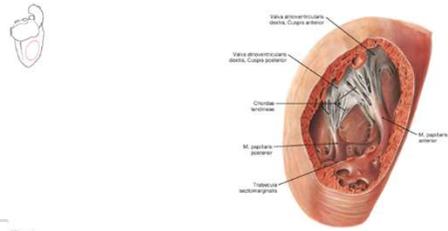


图56

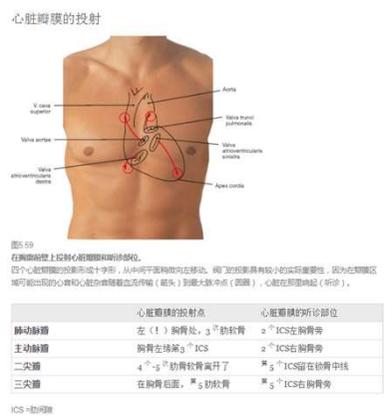


图59  
在胸部前壁上投影心脏瓣膜和听诊部位。  
四个心脏瓣膜的投影形成十字形，从中间于胸骨前向主移动。瓣膜的投影具有较小的实际重要性，因为在胸部区域可能出现心脏和心脏瓣膜的位置偏移 (移位) 以及听诊部位 (位置)。心脏在胸部转动 (呼吸)。

心脏瓣膜的投影点	心脏瓣膜的听诊部位	
肺动脉瓣	在 (1) 胸骨处，3 <sup>rd</sup> 肋软骨	a <sup>o</sup> ICS在胸骨旁
主动脉瓣	胸骨左缘第3 <sup>rd</sup> ICS	a <sup>o</sup> ICS在胸骨旁
二尖瓣	4 <sup>th</sup> -5 <sup>th</sup> 肋软骨软骨离开了	M <sup>o</sup> 5 <sup>th</sup> ICS在胸骨中线
三尖瓣	在胸骨右缘，M <sup>o</sup> 5 <sup>th</sup> 肋软骨	M <sup>o</sup> 5 <sup>th</sup> ICS在胸骨旁

ICS=肋间隙

右房室瓣的乳头肌，Valva atrioventricularis dextra: 背视图。  
右心室从隔肌向上打开，显示三个乳头肌中的两个 (乳头肌)。该腱索 (Chordae tendineae) 将M. papillaris anterior与三尖瓣 (Valva atrioventricularis dextra) 的瓣尖 (Cusps) 和瓣尖 (Cusps) 的瓣尖肌连接。

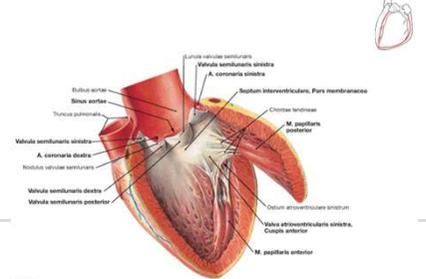


图57

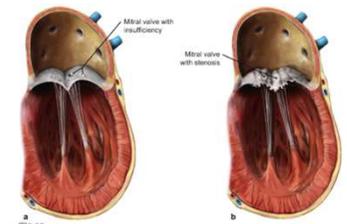


图60  
使用二尖瓣的瓣子的心脏瓣膜的结构变化。一个二尖瓣即不会，b 二尖瓣狭窄。[L266]  
除了心脏瓣膜的先天性狭窄 (其他认为是心脏缺陷 (vita) ) 之外，伴随不足或狭窄的心脏瓣膜的其他缺陷或畸形可以由病理过程引起。

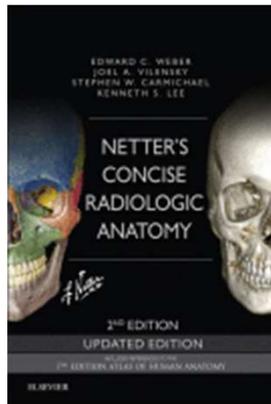
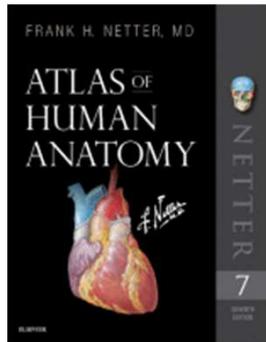
当用听诊器 (听诊) 听到心脏的声音时，人们会听到心脏发出的不同声音，这是心脏的作用：

- 在第一心脏的声音是在收缩的由尖点的心室收缩和反冲开始创建。
- 在第二心脏声音是在心脏舒张由半月瓣的关闭开始产生。

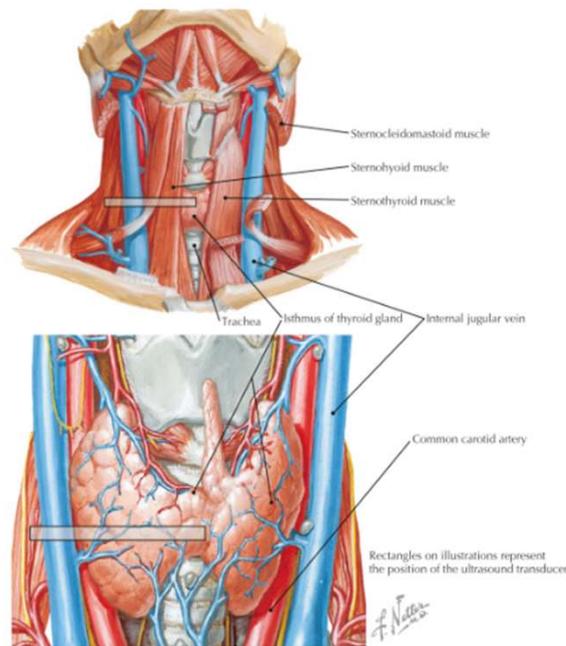
然而，心脏杂音并不存在于健康人群中，而是由于瓣膜功能失常引起的。瓣膜狭窄 (狭窄) 以及闭合不足 (失败) 均可引起杂音。杂音的定时及其定位给出了各个瓣膜故障的信息。

阀门的各个听诊点的声音最大。如果在心脏收缩期间 (即在第一和第二心音之间)，在尖点瓣膜上方发生杂音，这意味着存在故障，因为在此阶段应关闭阀门。如果在尖点上方的舒张期可以听到杂音，这表明由于瓣膜应在填充阶段打开，因此狭窄。使用半月瓣阀门正好相反。狭窄可以是先天的或后天的 (风湿性疾病，细菌性心内膜炎)。如果瓣膜尖点的乳头肌受损，通常会获得失败并且也可能由心腔病变引起。

# Netter系列解剖图谱



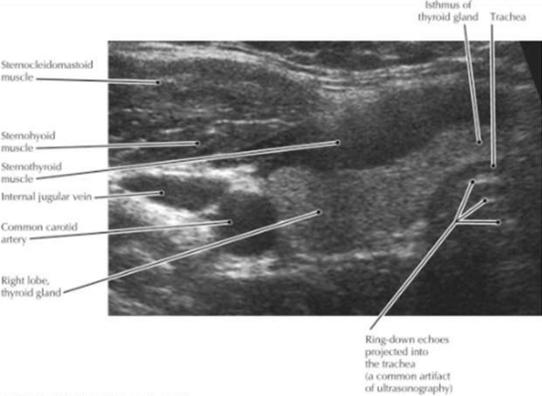
## 甲状腺



甲状腺峡部的前视图  
(人体解剖学图集, 第7版, 第35,87页)

**临床说明**

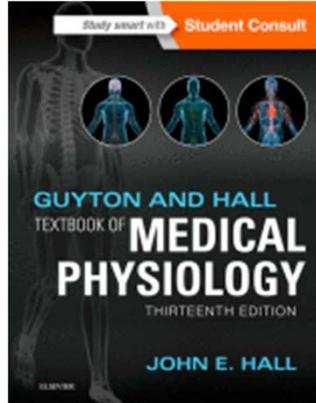
超声 (US) 是检查甲状腺形态异常的主要成像方式。由于颈总动脉和甲状腺之间的密切关系, 颈动脉超声检查常常发现未预料到的偶发性甲状腺结节。评估可疑癌症的甲状腺结节的标准程序是美国引导的细针穿刺。放射性核素扫描和放射性碘摄取测量以及血清化学测试用于评估甲状腺功能。



在甲状腺峡部水平的轴向美国

- 大约一半的人都有甲状腺的金字塔叶, 可能通过结缔组织到达舌骨。
- 在甲状腺美国扫描中偶尔会看到正常的甲状旁腺, 这是甲状腺后缘的一个小的低回声结节, 但这通常不明显。甲状旁腺的数量和大小变化很大。
- 薄壁颈内静脉的瓶状取决于腔内压力, 可能随患者的水合状态和心脏状态 (右心压升高而扩张) 而变化, 并且可以观察到随呼吸变化。

# 生理学



2016 BMA Awards: Highly Commended, Basic & Clinical Sciences

"第13版的盖顿和霍尔医学生理学教科书延续了这一畅销书作为世界上最重要的医学生理学教科书的悠久传统。与其他关于这一主题的教科书不同，这本清晰而全面的指南具有一致的，单一作者的声音，并专注于与临床和临床前学生最相关的内容。详细而清晰的文字补充了教学插图，总结了生理学和病理生理学的关键概念。" -Doody's Review Service

书名  
通过细胞膜运输物质  
Hall, John E., PhD  
Guyton和Hall医学生理学教科书, 第4章, 47-69



图4-1列出了细胞外液和细胞内液中重要电解质和其他物质的近似浓度。注意，细胞外液含有大量的Na<sup>+</sup>，但只含有少量的K<sup>+</sup>。细胞内液的情况恰恰相反。此外，细胞外液含有大量Cl<sup>-</sup>离子，而细胞内液含有少量Cl<sup>-</sup>离子。但是，Ca<sup>2+</sup>和Mg<sup>2+</sup>的浓度在细胞内液中的浓度明显大于细胞外液。这些差异对细胞的寿命至关重要。本章的目的是解释细胞膜的运输机制如何产生差异。

EXTRACELLULAR FLUID	INTRACELLULAR FLUID
Na <sup>+</sup> 142 mEq/L	10 mEq/L
K <sup>+</sup> 4 mEq/L	140 mEq/L
Ca <sup>2+</sup> 2.4 mg/dL	10,000 mEq/L
Mg <sup>2+</sup> 1.2 mEq/L	50 mEq/L
Cl <sup>-</sup> 103 mEq/L	4 mEq/L
HCO <sub>3</sub> <sup>-</sup> 26 mEq/L	10 mEq/L
Phosphates 4 mEq/L	75 mEq/L
SO <sub>4</sub> <sup>2-</sup> 1 mEq/L	2 mEq/L
Glucose 80 mg/dL	1 to 20 mg/dL
Amino acids 30 mg/dL	200 mg/dL
Cholesterol	2 to 95 g/dL
Phospholipids	
Neutral fat	
PO <sub>2</sub> 35 mm Hg	20 mm Hg
PCO <sub>2</sub> 40 mm Hg	50 mm Hg
pH 7.4	7.0
Proteins 2 g/dL (6 mg/dL)	10 g/dL (40 mg/dL)

图4-1 细胞外和细胞内液化学成分。问号表明细胞内液的确切值未知。红线表示细胞膜。

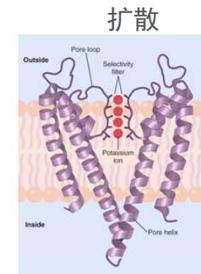


图4-4 钾通道的结构。该通道由四个亚基组成（位置如图中两个），每个亚基具有两个跨膜螺旋，由孔环和选择性过滤器组成。钾离子通过过滤器，并沿选择性过滤器中的孔道移动。钾离子与选择性过滤器中的羧基结合的水分子，允许脱水的水分子通过孔。

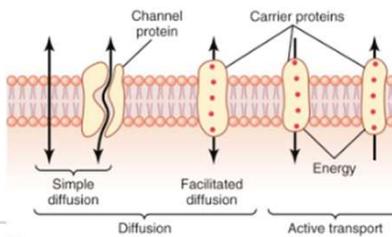


图4-2 通过细胞膜的运输途径和运输的基本机制。

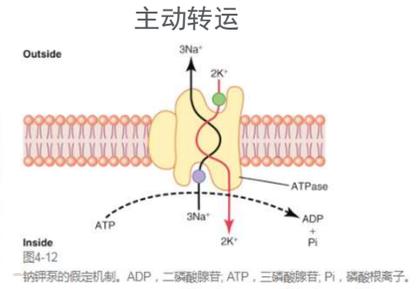
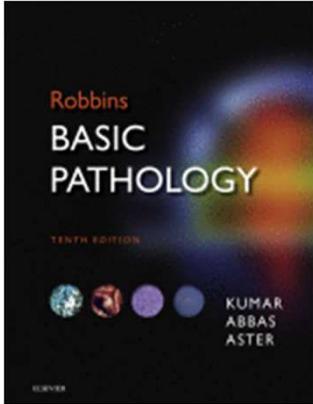


图4-12 Na<sup>+</sup>/K<sup>+</sup>泵的假定机制。ADP，二磷酸腺苷；ATP，三磷酸腺苷；Pi，磷酸根离子。

# 病理学



Doody's Score: 100, 5 Stars!

"Beautifully produced, masterfully written and edited, critically reshaped and updated for the 21st century, it remains the book of choice for most pathology professors. I see it as an American classic, but also as a modern textbook for new generations of medical students. Highly recommended." Reviewed by Ivan Damjanov, MD (University of Kansas Medical Center)

## 动脉粥样硬化

### 动脉粥样硬化

动脉粥样硬化的特征在于内膜损伤称为 **动脉粥样化** (或 **动脉粥样硬化** 或 **动脉粥样硬化斑块**)，其撞击在血管腔并可破裂引起突然闭塞。它是冠状动脉，脑血管疾病和外周血管疾病的发病机制的基础，并且在西方世界导致更多的发病率和死亡率（大约一半的死亡）比任何其他疾病。动脉粥样硬化斑块是由纤维状盖帽覆盖的软脆（粗糙）脂质核心（主要是胆固醇和胆固醇酯，坏死碎片）组成的凸起病变（图10.7）。随着它们的扩大，动脉粥样硬化斑块可能会机械阻塞血管腔，导致狭窄。然而，更令人担忧的是，动脉粥样硬化斑块也易于破裂，这可能导致血栓形成和血管突然闭塞。内膜损伤的厚度也足以阻止下面的介质的灌注，其可能由于局部缺血和随后的炎症引起的ECM的变化而减弱。这两个因素共同削弱了媒体，为动脉瘤的形成奠定了基础。

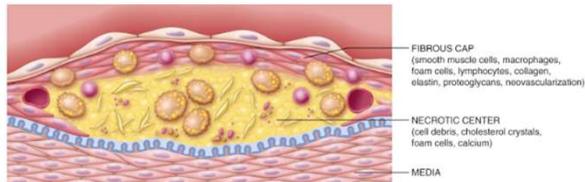
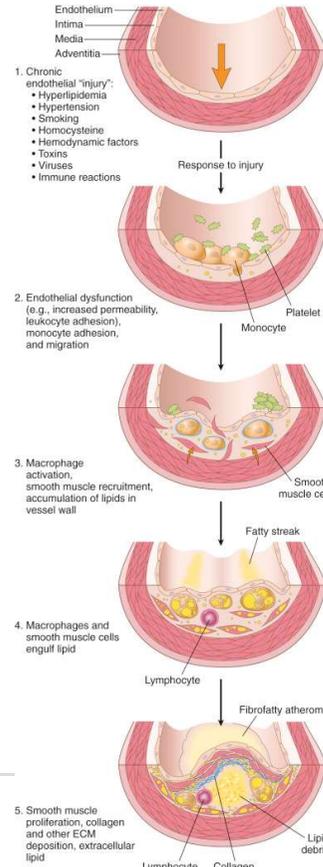


图10.7 动脉粥样硬化斑块的基本结构。



**动脉粥样硬化斑块。** 这些病变的关键特征是内皮增厚和脂质沉积（见图10.7）。Atheromatous斑块是白色到黄色的凸起病变；它们的直径范围为0.3到4.5厘米，但可以聚集成更大的质量。累积在溃疡斑块上的血栓呈红褐色（图10.12）。

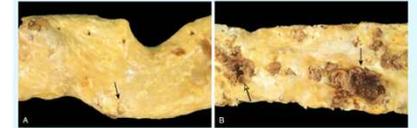


图10.12 动脉粥样硬化斑块。(A)具有轻度动脉粥样硬化的主动脉由纤维斑块组成，一个用箭头表示。(B)主动脉粥样有严重的弥漫性复杂病变，包括溃疡性斑块（空心箭头），和上面有血栓的病变（虚线箭头）。

动脉粥样硬化斑块是薄片状的，通常仅涉及任何给定动脉壁的一部分；因此，在横截面上，病变看起来是“偏心的”（图10.13A）。动脉粥样硬化病变的局灶性可能与血流动力学的变幻莫测有关。局部流动扰动，例如分支点处的湍流，使血管壁的某些部分特别容易形成斑块。

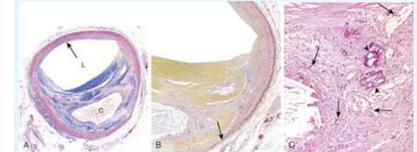
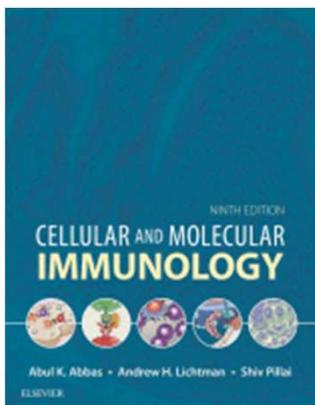


图10.13 动脉粥样硬化斑块，冠状动脉。(A)显示纤维帽的弹性纤维(F)和中央坏死(主要是脂质)核心(C)胶原(蓝色)用Masson三色染色。透明(L)这种偏心病变使中膜狭窄，使血管壁的一部分不能收缩(箭头)。(B)A+型冠状动脉的中等动脉病变，对弹性蓝染色(蓝色)；内层弹性纤维层被破坏，动脉介层在最先进的斑块(箭头)下变薄。(C)纤维帽和核心交界处的低功率视图，显示存在的炎症细胞、钙化(箭头)，和侧血管形成(小箭头)。

严重程度依次降低，动脉粥样硬化涉及肾下腹主动脉，冠状动脉，pop动脉，颈内动脉和 Willis环的血管。即使在同一患者中，动脉粥样硬化在腹主动脉中通常比在脑动脉中更严重。上肢的血管通常不受影响，肠系膜和肾动脉也是如此，除了它们的开口。重要的是要注意，在一个血管位置的动脉粥样硬化的严重程度不一定预测其在另一个血管位置的严重程度（例

# 免疫学



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## 抗肿瘤T细胞的过继性细胞疗法

过继性细胞免疫疗法是将具有抗肿瘤反应性的培养的免疫细胞转移到携带肿瘤的宿主中。免疫细胞来自癌症患者的血液或实体肿瘤，然后在体外以各种方式进行治疗，以扩大其数量并增强其抗肿瘤活性，然后再输回患者体内。

## 嵌合抗原受体T细胞疗法

使用表达嵌合抗原受体 (CAR) 的T细胞的过继治疗已经证明在一些恶性肿瘤中是成功的，并且这种方法正在用于其他肿瘤的试验。CAR是基因工程受体，具有肿瘤抗原特异性结合位点，由重组免疫球蛋白 (Ig) 可变基因和含有TCR和共刺激受体信号域的细胞质尾部编码 (图18.11)。使用具有肿瘤抗原特异性结合位点的Ig作为识别受体的原因，即使它必须在T细胞中起作用，这是因为这避免了TCR的MHC限制问题，因此相同的CAR构建体可以用于任何患者。Ig结合位点附着于基因工程细胞质尾部，其含有通常在T细胞活化中起关键作用的信号传导结构域。到目前为止，在不同中心开发的CAR中已经使用了几种信号构建体的变体，但它们都含有TCR链ITAM基序和共刺激受体如CD28或4-1BB (TNF受体家族成员) 的细胞质单一基序。

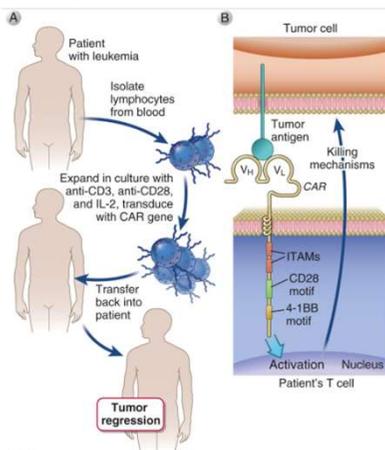


图18.11 嵌合抗原受体T细胞疗法。从患者血液分离的A. T细胞通过在IL-2、抗CD3和抗CD28中培养而扩增，经遗传修饰以表达重组嵌合抗原受体 (CAR)，并将红色转移回患者体内。B. CAR由特异于肿瘤抗原的细胞外Ig单链可变片段和激活T细胞的细胞质信号传导结构域组成。例如TCR复合物链ITAM和共刺激受体如CD28和4-1BB的细胞质结构域中的基序，促进强大的T细胞活化。CAR-T细胞疗法已成功治疗某些白血病和淋巴瘤。

在目前的方案中，分离专利的外周血T细胞，用抗CD3和/或抗CD28刺激以扩增所有T细胞，并用编码CAR的逆转录病毒或慢病毒载体转染。然后将扩增的表达CAR的T细胞过继回患者体内。响应于CAR对肿瘤抗原的识别，转移的T细胞在患者中经历进一步的强烈增殖。TCR对这些T细胞 (仍然存在) 的特异性与杀死肿瘤细胞的目标无关，因为所有转染的细胞都可以被结合CAR基因编码的抗原结合位点的肿瘤抗原激活。通过直接细胞毒性和细胞因子介导的机制实现肿瘤杀伤。患有B细胞恶性肿瘤的患者，包括慢性淋巴细胞白血病和急性淋巴细胞白血病，已经用表达CAR的T细胞非常有效地治疗，CD19是在肿瘤细胞上也表达的B细胞标记物。正常B细胞以及肿瘤B细胞被杀死，但是患者可以补充合并的免疫球蛋白以弥补B细胞的缺乏。因为在成人骨髓和骨髓组织中发现的长寿抗体生成浆细胞不表达CD19并且未被杀死，它们在用CD19特异性CAR-T细胞治疗的成年患者中继续提供抗体介导的免疫。记忆CAR-T细胞可能在治疗的患者中持续至少数月，因此可以维持对肿瘤复发的监测。

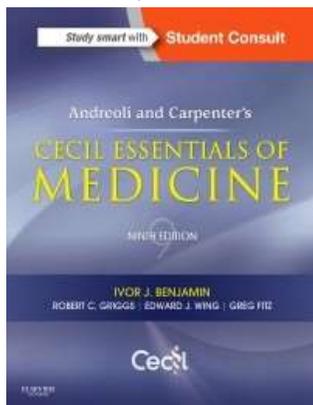
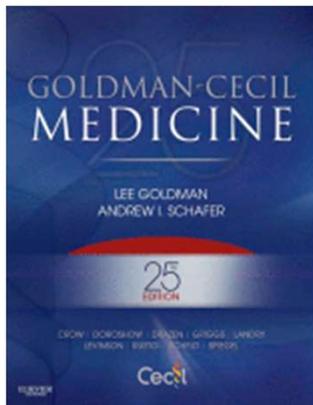
为了成功扩大CAR-T细胞疗法的使用，仍然需要克服一些重大障碍。

- 一个问题是在将T细胞过继转移到具有高肿瘤负荷的患者后不久经常发生的危险的不良反应。在这些患者中，由于T细胞分泌的细胞因子，在发生强烈的全身性炎症反应的同时，许多T细胞被激活，称为细胞因子释放综合征。已经使用抗IL-6受体抗体成功治疗了一些发生该反应的患者。其他患者因CAR-T细胞输注后因脑水肿而死亡的原因不明，中枢神经系统长期受损的风险仍然是一个问题，尤其是脑龄未完全发育的儿童。
- 如果肿瘤没有完全根除，幸存的细胞可能会失去CAR靶向的抗原，并且肿瘤可能复发。这是癌症克隆进化的另一个例子。使该问题最小化的一种方法是将两种特异于两种肿瘤抗原的CAR引入T细胞并将这些细胞转移到患者体内。使用这种方法试验正在进行中。
- 在一些患者中，转移的CAR-T细胞似乎随着时间的推移变得无反应，并且最初控制的肿瘤再次出现。这些患者的CAR-T细胞表达功能障碍的标记物 (所谓的衰竭，见第11章)，包括高水平的PD-1。该观察结果导致使用基因编辑方法在转移前消除CAR-T细胞中的PD-1基因的探索性研究。为了避免由PD-1阴性T细胞诱导的自身免疫的风险，一个想法是从CAR-T细胞中消除内源性TCR。这将产生仅具有引入的肿瘤特异性抗原受体及其信号传导结构域的T细胞，并且还缺乏重要的检查点机制。

到目前为止，CAR-T细胞疗法仅成功对抗血癌，可能是因为注射的T细胞可以随时进入循环肿瘤细胞。这种方法正在开发用于其他恶性肿瘤，例如多发性骨髓瘤，脑肿瘤和一些癌症。为了成功治疗实体瘤，必须找到使注射的T细胞进入肿瘤组织部位的方法，到目前为止这还不可行。此外，有必要设计对癌细胞特异的CAR-T细胞，并且不会杀死许多正常细胞。一种方法是鉴定通常仅在肿瘤细胞上一起表达的抗原对，并使用必须识别两种抗原才能被激活的双特异性CAR-T细胞。



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书章  
阻塞性肺病  
Jankowich, 马修D ;  
安德烈奥利和医学的术匠的丝丝精华, 16, 207-221

### 介绍

阻塞性肺病是一组导致呼吸困难肺部疾病, 其特征在于呼吸气流测量的呼气气流受限的阻塞模式。这些疾病包括慢性阻塞性肺病 (COPD), 哮喘, 囊性纤维化 (CF), 支气管扩张和细支气管炎。在某些情况下, 这些疾病在临床上重叠 (图16-1), 除了存在呼气气流受限外, 还有一些共同的功能。这些特征可包括喘息和痰产生的症状, 慢性气道中心炎症, 导致气道重塑的气道结构变化的存在, 以及暂时恶化的临床状态的偶发期, 称为恶化。然而, 气道炎症改变和重塑的原因, 位置 and 模式, 以及治疗, 预后和自然病史通常显著不同, 使得这些疾病的临床区别很重要。

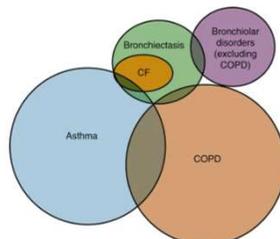
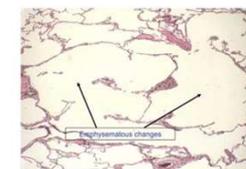


图16-1 阻塞性肺病的分类。尽管大多数慢性阻塞性肺病 (COPD) 患者的气道疾病较小, 但细支气管炎与COPD并不重叠。CF, 囊性纤维化。

COPD 的特征通常在于异常的气道炎症和响应于吸入刺激物 (通常是香烟烟雾) 的肺结构异常; 这导致不可逆或不完全可逆的气流限制, 并且通常是随时间推移的。哮喘通过特征性平滑肌高反应性和可逆性气流受限, 通过其可变的临床过程以及其与特征性的频繁关联而区别于COPD。这些疾病在

### COPD肺气肿

肺气肿被定义为末梢细支气管远端空气间隔的永久性扩大 (E-图16-1)。这是由于在没有明显纤维化的情况下肺实质的破坏引起的。这些变化导致异常的肺泡, 气体交换能力有限。基于薄的肺部切片, 肺气肿可分为小叶中心性和小叶 (E-图16-2和16-3)。在小叶中心性肺气肿中, 小叶的近端部分 (呼吸性细支气管) 受到影响; 这是与吸烟有关的肺气肿中观察到的最常见的组织学特征。Panlobular肺气肿见于 $\alpha_1$ -抗胰蛋白酶缺乏症。



E-Figure 16-1 肺气肿, 远端气道扩大。  
(Charles Kuhn博士提供。)



E-Figure 16-2 小叶中心性肺气肿包圍正常肺。  
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Fig. 5.27 Projection of the heart contour onto the ventral thoracic wall. The heart is displaced to the left side and thus does not lie in the centre of the chest cavity. The right margin of the heart projects from the third to sixth costal cartil...

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We discussed passive and active length-tension diagrams for skeletal muscle in conjunction with Figure 9-9 C and D. We obtain a passive length-tension diagram by holding a piece of resting skeletal or cardiac muscle at several predefined lengths ...

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从第22章：心脏作为一个泵

我们结合图9-9 C和D讨论了骨骼肌的被动和主动长度 - 张力图。我们通过将一块静止的骨骼肌或心肌保持在几个预定长度来获得被动长度 - 张力图...

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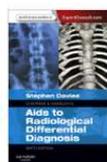
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- Radiology 26
- Allergy and Immunology 30
- Anatomy 1850
- Anesthesia 81
- Biochemistry 141
- Cardiovascular 1243
- Cell Biology/Molecular Biology 41
- Chemistry/Clinical Chemistry 5
- Clinical Diagnostics/



Book

Chapman & Nakielný's Aids to Radiological Differential Diagnosis © 2014

### Most relevant section: Situs and cardiac malpositions

from **Chapter 14: Paediatrics: Situs and cardiac malpositions**

Situs solitus – normal. All structures are concordant. Situs inversus – cardiac apex, aortic arch and stomach are on the right; visceral organs are on the opposite side to normal. Slight increase in the incidence of congenital heart disease. Prese...

Matching results in chapter. [View 3 more sections](#) ▼



Book

Chapman & Nakielný's Aids to Radiological Differential Diagnosis © 2014

### Most relevant section: Cardiac calcification

from **Chapter 5: Cardiovascular system: Cardiac calcification**

(no summary available)

## Situs和心脏错位

评估心尖, 主动脉弓, 左右主支气管, 胃泡, 肝和脾的位置。

1. **Situs solitus** - 正常。所有结构都是一致的。
2. **Situs inversus** - 心尖, 主动脉弓和胃位于右侧; 内脏器官与正常相反。先天性心脏病的发病率略有增加。存在于50%的原发性纤毛运动障碍患者中(该组合称为Kartagener综合征)。
3. **伴有右位心的坐骨神经** - 右心脏心尖, 左侧有胃泡。胚胎心脏旋转失败导致~90%的病例与先天性心脏病有关, 通常是紫绀(校正TGA, VSD和肺动脉狭窄)。弯刀综合征是右心电图, 右肺发育不全和部分异常肺静脉引流进入下腔静脉。
4. **腹股沟反转的左旋** - 先天性心脏病发病率100%。
5. **Situs与双侧“右侧”模糊不清: 脾脏综合征** - 缺乏脾脏, 双侧三叶似。心尖左, 右或中线。复杂心脏异常+小肠旋转不良。
6. **Situs与双侧“左侧”模糊不清: 多发性脾综合征** - 双侧双肺, 缺乏静脉和半边静脉。心内异常, 但不如双侧“右侧”复杂。

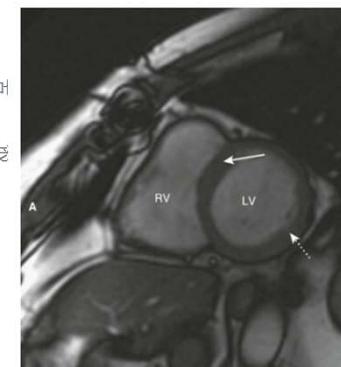


FIGURE 4-19

Cardiac MRI, short axis view.

This is a standard view of the heart using MRI called the *short axis* view anterior to the left ventricle (LV), separated by the interventricular septum.

# 心脏-临床检查

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---

All Types heart x Q

Filter Results 1 - 20 of 262 results Items per page 20

Content Type

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- Forensic/Legal (18)
- Gastroenterology and Hepatology (35)
- General Nursing (32)
- Genetics (56)
- Hematology (9)
- Histology (245)

**Book**

 **4** Clinical Examination Essentials © 2016

Most relevant section: T&O'C examination hint box from Chapter 4: The heart and cardiovascular system

Use of the term 'opening snap' implies the diagnosis of mitral stenosis—only use the term if you have made that diagnosis (classical signs include a loud S<sub>1</sub> and a low-pitched rumbling diastolic murmur over the mitral area). Murmurs of the heart. T...

Matching results in chapter. [View 63 more sections](#)

The heart and cardiovascular system

The heart and cardiovascular system: The cardiovascular examination OSCE

The heart and cardiovascular system: Auscultation

The heart and cardiovascular system: Palpation

The heart and cardiovascular system: JVP rises on inspiration

The heart and cardiovascular system: What to ask the patient with palpitations

The heart and cardiovascular system: The cardiovascular system

The heart and cardiovascular system: T&O'C examination hint box

The heart and cardiovascular system: Risk factors for atherosclerotic cardiac disease

The heart and cardiovascular system: Jugular venous pressure

The heart and cardiovascular system: Left ventricular failure

The heart and cardiovascular system: What to ask the patient with chest pain

The heart and cardiovascular system: Splitting (see Fig 4.14)

The heart and cardiovascular system: Chest pain

The heart and cardiovascular system: Alterations in intensity

The heart and cardiovascular system: General appearance

The heart and cardiovascular system: How to examine the patient with chest pain

The heart and cardiovascular system: The legs

The heart and cardiovascular system: Inspection

The heart and cardiovascular system: Syncope and dizziness

[View More](#)

 **Image**



书  
临床检查基础 © 2016  
最相关的部分: T&O'C考试提示框  
来自 第4章: 心脏和心血管系统

术语“开口突然”的使用意味着二尖瓣狭窄的诊断 - 如果你已做出诊断, 则使用该术语 (经典体征包括在二尖瓣区域上的大声S<sub>1</sub>和低音调的舒张期低音杂音)。心脏的杂音。的...

在章节中匹配结果: [查看63个部分](#)

- 心脏和心血管系统
  - 心脏和心血管系统: 心血管检查 OSCE
  - 心脏和心血管系统: 听诊
  - 心脏和心血管系统: 触诊
  - 心脏和心血管系统: JVP的灵感来源于此
  - 心脏和心血管系统: 心悸患者要问什么
  - 心脏和心血管系统: 心血管系统
  - 心脏和心血管系统: T&O'C检查提示框
  - 心脏和心血管系统: 动脉粥样硬化性心脏病的危险因素
  - 心脏和心血管系统: 颈静脉压
  - 心脏和心血管系统: 左心室衰竭
  - 心脏和心血管系统: 患者胸痛的问题
  - 心脏和心血管系统: 分裂 (见图 4.14)
  - 心脏和心血管系统: 胸痛
  - 心脏和心血管系统: 强度的改变
  - 心脏和心血管系统: 一般外观
  - 心脏和心血管系统: 如何检查胸痛患者
  - 心脏和心血管系统: 腿部
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# 心脏-内科

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## Specialties

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- Allergy and Immunology 30
- Anatomy 1850
- Anesthesia 81
- Biochemistry 141
- Cardiovascular 1243
- Cell Biology/Molecular Biology 41
- Chemistry/Clinical Chemistry 5
- Clinical Diagnostics/Diagnosis 32
- Clinical Examination 531
- Communication 6

any new...

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**Book**  
Kumar and Clark's Clinical Medicine © 2017  
Most relevant section: Pathophysiology of coronary atherosclerosis  
from Chapter 23: Cardiovascular disease

Coronary atherosclerosis is a complex inflammatory process characterized by the accumulation of lipid, macrophages and smooth muscle cells in intimal plaques in the large and medium-sized epicardial coronary arteries. The vascular endothelium play...

Matching results in chapter. View 86 more sections

- Cardiovascular disease: Heart size
- Cardiovascular disease: Starling's law of the heart
- Cardiovascular disease: Anatomy, Physiology and Embryology of the Heart
- Cardiovascular disease: Coronary intervention
- Cardiovascular disease: Cardiac vectors
- Cardiovascular disease: Intravascular (coronary) ultrasound
- Cardiovascular disease: Long-term management of cardiac tachyarrhythmias
- Cardiovascular disease: Cardiac investigations
- Cardiovascular disease
- Cardiovascular disease: Changes in myocardial gene expression
- Cardiovascular disease: Palpitations
- Cardiovascular disease: Electrocardiography
- Cardiovascular disease: Myocardial remodelling in heart failure
- Cardiovascular disease: Permanent pacing
- Cardiovascular disease: Implantable cardioverter-defibrillator
- Cardiovascular disease: Venous return (preload)
- Cardiovascular disease: Nerve supply of the myocardium
- Cardiovascular disease: Exercise electrocardiography
- Cardiovascular disease: Vascular
- Cardiovascular disease: Character

View More

Book



**书**  
Kumar and Clark's Clinical Medicine © 2017  
最相关的部分: 冠状动脉粥样硬化的病理生理学  
来自 第23章: 心血管疾病

冠状动脉粥样硬化是一种复杂的炎症过程，其特征在于大、中型心外膜冠状动脉中的内膜斑块中的脂质，巨噬细胞和平滑肌细胞的积累。血管内皮起作用.....

在章节中匹配结果: 查看86个其他部分

- 心血管疾病: 心脏大小
- 心血管疾病: 棕鸟的心脏定律
- 心血管疾病: 心脏的解剖学, 生理学和胚胎学
- 心血管疾病: 冠状动脉介入治疗
- 心血管疾病: 心脏病媒介
- 心血管疾病: 血管内(冠状动脉)超声
- 心血管疾病: 心脏快速性心律失常的长期治疗
- 心血管疾病: 心脏病调查
- 心血管疾病
- 心血管疾病: 心肌基因表达的变化
- 心血管疾病: 心悸
- 心血管疾病: 心电图
- 心血管疾病: 心力衰竭时心肌重塑
- 心血管疾病: 永久性起搏
- 心血管疾病: 植入式心律转复除颤器
- 心血管疾病: 静脉回流(预负荷)
- 心血管疾病: 心肌供应神经
- 心血管疾病: 运动心电图
- 心血管疾病: 血管疾病
- 心血管疾病: 性格
- 心血管疾病: CT冠状动脉造影
- 心血管疾病: 心肌灌注和活力
- 心血管疾病: 调查
- 心血管疾病: 冠状动脉疾病
- 心血管疾病: M型和二维超声心动图
- 心血管疾病: 缩窄性心包炎
- 心血管疾病: 心脏移植

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# 心脏-外科

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- Images (9)

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- Critical Care (101)
- Dentistry (551)
- Dermatology (43)
- Dictionaries (32)
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- Endocrinology and Metabolism (19)
- Epidemiology/Medical Statistics (26)
- Ethics (1)
- Family Medicine (241)
- Forensic/Legal (19)
- Gastroenterology and Hepatology (35)
- General Nursing (32)
- Genetics (56)

**Book**  
Principles and Practice of Surgery © 2018

**Most relevant section: Coronary anatomy**  
from Chapter 22: Cardiothoracic surgery

There are two coronary arteries (left and right), which have origin in the coronary sinuses: left or posterior sinus, right or anterior sinus. The left main coronary artery passes behind the pulmonary trunk and divides into two large branches: the...

*Matching results in chapter. View 11 more sections ^*

- Cardiothoracic surgery: Cardiac trauma
- Cardiothoracic surgery: Cardioplegia
- Cardiothoracic surgery
- Cardiothoracic surgery: Aortic dissection
- Cardiothoracic surgery: Pericardial effusion
- Cardiothoracic surgery: Indications
- Cardiothoracic surgery: Cardiopulmonary bypass
- Cardiothoracic surgery: Recovery time
- Cardiothoracic surgery: Surgical management
- Cardiothoracic surgery: Ischaemic heart disease
- Cardiothoracic surgery: Assessment of risk

**Book**  
Clinical Surgery © 2012

**Most relevant section: Coronary anatomy**  
from Chapter 17: Cardiac surgery

The normal heart is supplied by a left coronary artery (LCAacrm1) arising from the sinus of the left aortic cusp, located posteriorly on the aorta, and by a right coronary artery (RCAacrm1) arising from the sinus of the right cusp, located anter...

*Matching results in chapter. View 32 more sections v*



**书**  
外科学原理与实践 © 2018

**最相关的部分: 冠状动脉解剖**  
来自 第22章: 心胸外科



有两条冠状动脉（左侧和右侧），起源于冠状窦：左侧或后侧窦，右侧或前侧窦。左冠状动脉主干通过肺动脉干后方分为两大分支：...

[在章节中匹配结果: 查看另外11个部分 ^](#)

- 心胸外科: 心脏外伤
- 心胸外科: 心脏停搏液
- 心胸外科
- 心胸外科: 主动脉夹层
- 心胸外科: 心包积液
- 心胸外科: 适应症
- 心胸外科: 体外循环
- 心胸外科: 恢复时间
- 心胸外科: 外科治疗
- 心胸外科: 缺血性心脏病
- 心胸外科: 风险评估

**书**  
临床外科 © 2012

**最相关的部分: 冠状动脉解剖**  
来自 第17章: 心脏外科手术



正常心脏由左冠状动脉（LCAacrm1）提供，该左冠状动脉来自位于主动脉后部的左主动脉瓣的窦，以及由右侧尖瓣的窦形成的右冠状动脉（RCAacrm1），位于前方。

[在章节中匹配结果: 查看其他32个部分 ^](#)

- 心脏外科: 心脏病
- 心脏手术: 子弹伤到心脏
- 心脏手术: 心脏和大血管的创伤
- 心脏手术: 心肌管理

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# 浏览图书

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Home Assignments Performance

BOOK

## Cell Biology, Third Edition



### Table of Contents

- Front Matter
  - Copyright
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  - Contributors
  - Preface
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  - Guide to Figures Featuring Specific Organisms and Specialized Cells
- 1. Introduction to Cells
- 2. Evolution of Life on Earth
- Section II Overview
- 3. Molecules: Structures and Dynamics
- 4. Biophysical Principles
- 5. Macromolecular Assembly
- 6. Research Strategies
- 7. Chromosome Organization
- 8. DNA Packaging in Chromatin

- 基本运营机制
- 三种运输策略
- 载体蛋白的多样性
  - 线粒体载体家族
  - SWEET / SemiSWEET糖载体
  - 细菌多药载体
  - 兴奋性神经递质载体
  - APC运营商超级家族
  - NhaA运营商家庭
  - MFS载体蛋白
- 致谢
- 选读

上一页

下一页

书章

### 膜载体

Pollard, Thomas D., MD; 恩兼, 威廉C., 博士, FRS; Lippincott-Schwartz, Jennifer, 博士; Johnson, Graham T., MA, PhD, CMI;

细胞生物学, 第15章, 253-259

Carriers是跨所有细胞膜(移动选择化学基整合膜蛋白 图15.1)。载体的常见底物是离子和小的可溶性有机分子, 但是一些底物是脂溶性的。传输基质的能量来自跨膜的电化学梯度。一些载体沿着浓度梯度传输底物, 但是其他载体使用由泵产生的跨膜离子梯度以跨越浓度梯度的膜传输。

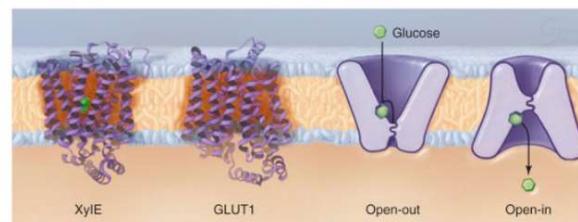
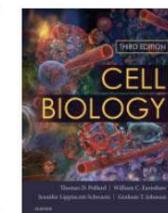


图15.1 载体蛋白质运输。



### 细胞生物学 第三版

Pollard, Thomas D., MD; 恩兼, 威廉C., 博士, FRS; Lippincott-Schwartz, Jennifer, 博士; Johnson, Graham T., MA, PhD, CMI

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阅读, 突出

# 启动书架

The screenshot displays the ClinicalKey Student interface. On the left is a vertical navigation menu with icons for Home, Account, Devices, Language, Tools, Currently Shared, Highlighter, Application Menu, Help, and Support. The main content area shows 'CHAPTER 1 Introduction to Cells'. The text discusses the history of biology and evolution, mentioning 'Search in Percipio' and 'common ancestor'. A diagram shows the Eucarya tree with branches for Plants, Animals, Fungi, and Amoeba, and a Chloroplast branch labeled '-1 billion years ago'. A bottom toolbar includes icons for Copy, Font, Read Aloud, Highlight, and Citation. A right-side menu offers '复制', '字体', '朗读', '标注', '引文', and '网址'.

CHAPTER 1

## Introduction to Cells

Biology is based on the fundamental laws of nature embodied in chemistry and physics, but the origin and evolution of life on earth were historical events. This makes biology more like astronomy than like chemistry and physics. Neither the organization of the universe nor life as we know it had to evolve as they did. Chance played a central role. Through [Search in Percipio](#) continuing today, the genes of all organisms have sustained chemical changes, some of which are inherited by their progeny. Many changes have no obvious effect on the fitness of the organism, but some reduce it and others improve fitness. Over the long term, competition between individuals with random differences in their genes determines which organisms survive in various environments. Surviving variants have a selective advantage over the alternatives, but the process does not necessarily optimize each chemical life process. Thus, students could probably design simpler or more elegant mechanisms for many cellular

of life share many molecular mechanisms, because they all descended from a **common ancestor** that lived and organism no longer exists, but it must have used many biochemical processes similar to those that

Eucarya

Plants

Animals

Fungi

Amoeba

Chloroplast

-1 billion years ago

-1-2 billion years ago

复制 字体 朗读 标注 引文 网址

# 笔记本

笔记本

搜索热点标注和注释

3 热点标注和注释

在线访问说明 (3)

2019年8月28日

检查

基因随机差异的个体决定了哪种生物在各种环境中存活

添加笔记

2019年8月28日

重要

DNA到RNA到蛋白质

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2019年8月28日

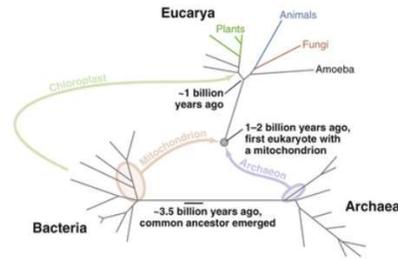
需要澄清

储存在鸡蛋中。内质网 (ER) 在作为磷脂

< 图表

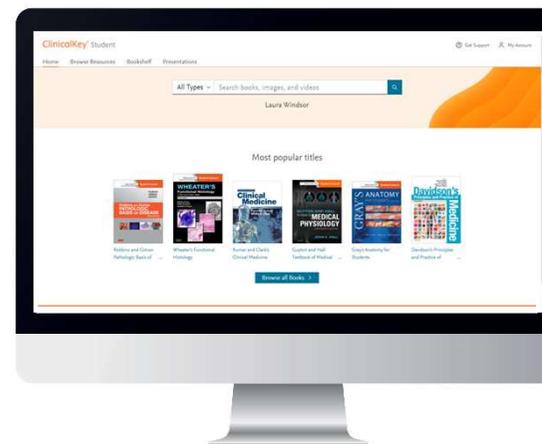
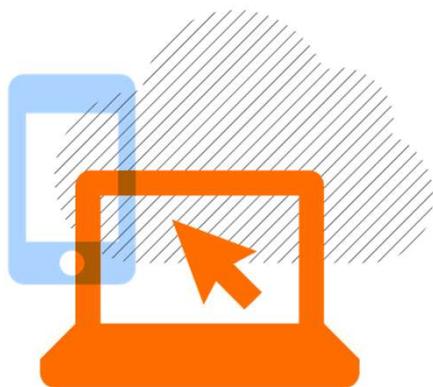
712图表

Individuals with random differences in their genes determine which organisms survive in various environments. Surviving variants have a selective advantage and do not necessarily optimize each chemical life process. Thus, students could probably design simpler or more elegant mechanisms for many cellular processes. All life forms share many molecular mechanisms, because they all descended from a common ancestor that lived 3 to 4 billion years ago (Fig. 1.1). This finding supports the theory that many biochemical processes similar to those that sustain contemporary cells.



Phylogenetic TREE. This tree shows the common ancestor of all living things and the three main branches of life: Archaea and Bacteria diverged from the common ancestor and both are considered to be one gene for ribosomal RNAs revealed that their ancestors branched from each other early in evolution. The origin of eukaryotes, cells with a nucleus, is still unclear. One possibility is that eukaryotes originated when an Archaea engulfed a Bacterium that subsequently evolved into the eukaryotic tree of life. Eukaryotes are adapted to environments as extreme as deep-sea hydrothermal vents at temperatures of 113°C or pockets of water at 0°C in frozen Antarctic lakes. Plants, algae, and some Bacteria use photosynthesis to derive energy from sunlight. Some Bacteria and Archaea extract energy from their environments. Many organisms in all parts of the tree, including animals, extract energy from organic compounds. It becomes clearer, the underlying similarities among organisms are more impressive than their external differences. For example, all living organisms store genetic information using a common genetic code, transfer genetic information from DNA to RNA to protein, employ proteins (and some RNAs) to catalyze chemical reactions, and use adenosine triphosphate (ATP) as their energy currency, and separate their cytoplasm from the extracellular environment by membranes containing pumps, carriers, and channels.

# 测评模块



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# 为什么需要测评功能

## 教师

- 由于时间有限，班级规模较大，无法及时跟踪了解每个学生的学习进度
- 设计测试问题需要花费大量时间，同时还需要紧跟最新的临床和基础科研知识，让学生将医学知识应用于临床问题
- 需要更多的了解学生的学习情况，但没时间频繁的安排测评
- 了解学生的兴趣点和薄弱点，从而及时调整课程内容
- 中国学生大部分比较害羞，缺乏具体的个人反馈
- 留学生喜欢互动和得到反馈，但往往课程时间太少，没有充足互动时间

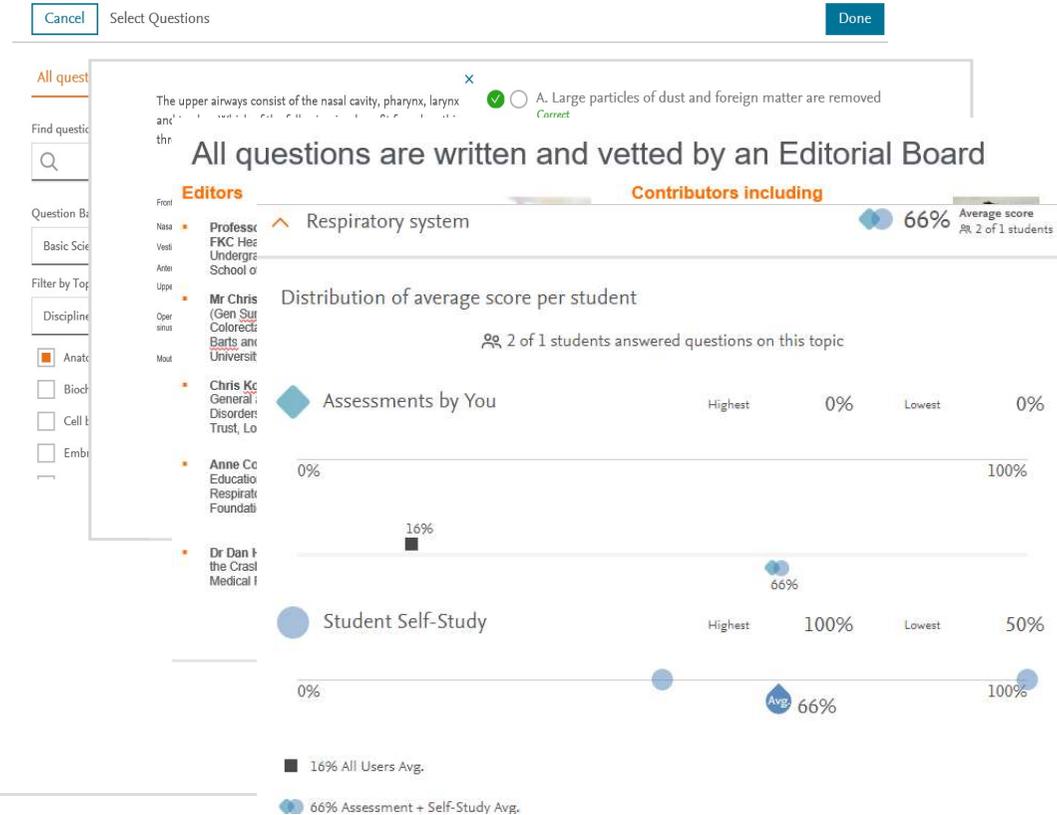
## 学生

- “不了解我和同学的学习差距在哪。”
- “无法得到及时和足够的反馈”
- “希望完成的测评是可以提升临床实践知识的”。
- “希望可查阅的知识就在 “手边”，并且信息可靠



# 让老师教学省时、高效

- 瞬时为学生定制作业，更早发现问题
- 5000+ 问题 (1,800 基础科学 & 2,400 临床医学, 1000+美国职业医师考试).
- 每个问题都有注解
- 由专业编委会撰写和审查，题库时时更新
- 即时数据，清晰了解学生薄弱环节
- 提供及时和有针对性的补救措施



# 提高学生的学业成效

- 学生可以按照自己的学习节奏进行自我测评
- 可以得到针对个人的反馈，让学生了解自己在同学中的情况
- 针对自己的薄弱环节定制测试
- 薄弱知识点链接到书中相关知识
- 临床情景式问题，让知识应用于实践

The screenshot displays the ClinicalKey Student interface. At the top, a clinical case is presented: "A 55-year-old man presents with a lump in his groin for 3 months." The interface includes a navigation bar with "ClinicalKey Student", "Get Support", and "My Account". A green banner indicates the date and time: "Mar 07, 2019 at 01:55 pm". Below this, there are sections for "Score" (3) and "Total Time". The main content area shows "Search Results" for "Optic Neuritis". The search results are filtered by "Content Type" (Books: 321, Images: 20) and "Specialties" (Allergy and Immunology: 1, Anatomy: 8, Clinical Examination: 8, Dermatology: 3, Emergency: 4, Endocrinology and Metabolism: 2, Family Medicine: 15, Histology: 1, Immunology: 2). The most relevant section is "Optic Neuritis" from Chapter 31 of "Ophthalmology Secrets in Color". The definition states: "Optic neuritis is an inflammation of the optic nerve resulting in impaired visual function." The interface also includes a "Quick Access Summary" and a "Definition" section.

# 测评

ClinicalKey® Student

Home

Assignments

Which Basic Science topics do you want to do questions on?

Endocrine system x

Search Basic Science Topics

You chose:

Basic Science > Endocrine system Biochemistry

What kinds of questions do you want?

Any questions

OR

Questions I haven't seen yet

Questions I got wrong

Questions where I chose Not Sure



How many questions do you want?



10

questions



< Topics

Start my Test >

305

questions available with these options

om?

ClinicalKey® Student



# 测评结果

Question 1 of 10



Score

20%

A 45-year-old patient with the following symptoms is being treated with an ACE inhibitor. Which of the following is a common side effect of ACE inhibitors?

You answered 2/10 questions correctly.

Total Time

2 min. 0 sec.

You took ~12 sec. on each question.

Focus your revision on these **11** key concepts:

Based on questions you answered incorrectly.

A. Dry

1. Allosteric Regulation (1 question)

B. Hypertension

2. Angiotensin Converting Enzyme Inhibitor Side Effect (1 question)

C. Angiotensin II

3. Calcium Homeostasis (1 question)

D. Renin

4. Cortisol (1 question)

E. Pericarditis

5. Diagram (1 question)

6. Ion Transport (1 question)

7. Meiosis (1 question)

8. Menstrual Cycle (1 question)

9. Movement (1 question)

Confident

10. Nephron (1 question)

Search for Content



扫描左侧二维码，体验从题库中随机抽取的48道题目。

Retake Incorrect Questions <sup>4</sup>

Now

In 1 week

In 1 month

Retake Now >



# 谢谢聆听！



ClinicalKey Student 调研



爱思唯尔医学苑

ClinicalKey<sup>®</sup> Student

