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主题

- ❑ Elsevier简介
- ❑ ClinicalKey Student的价值
 - ❑ 教学和学习模块
 - ❑ 测评模块

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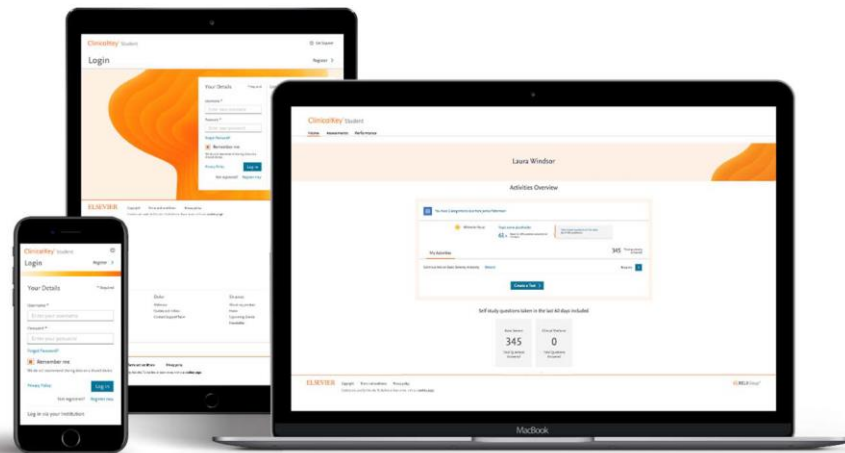


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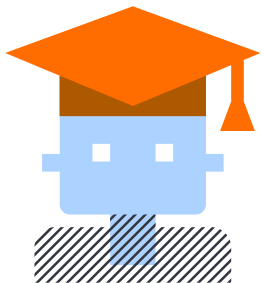
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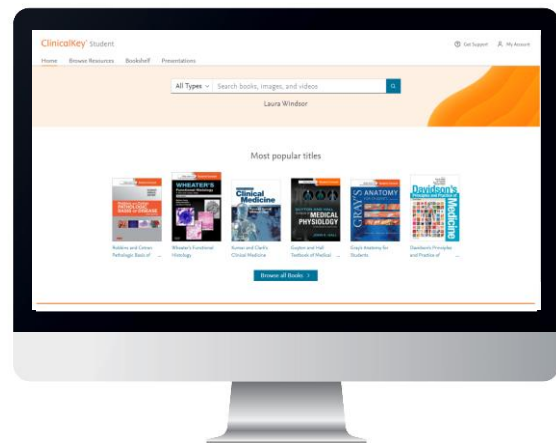
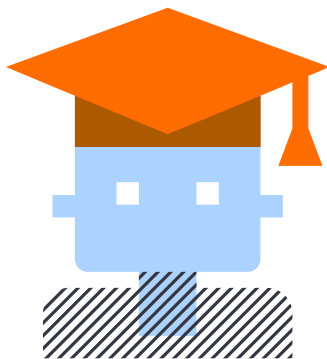
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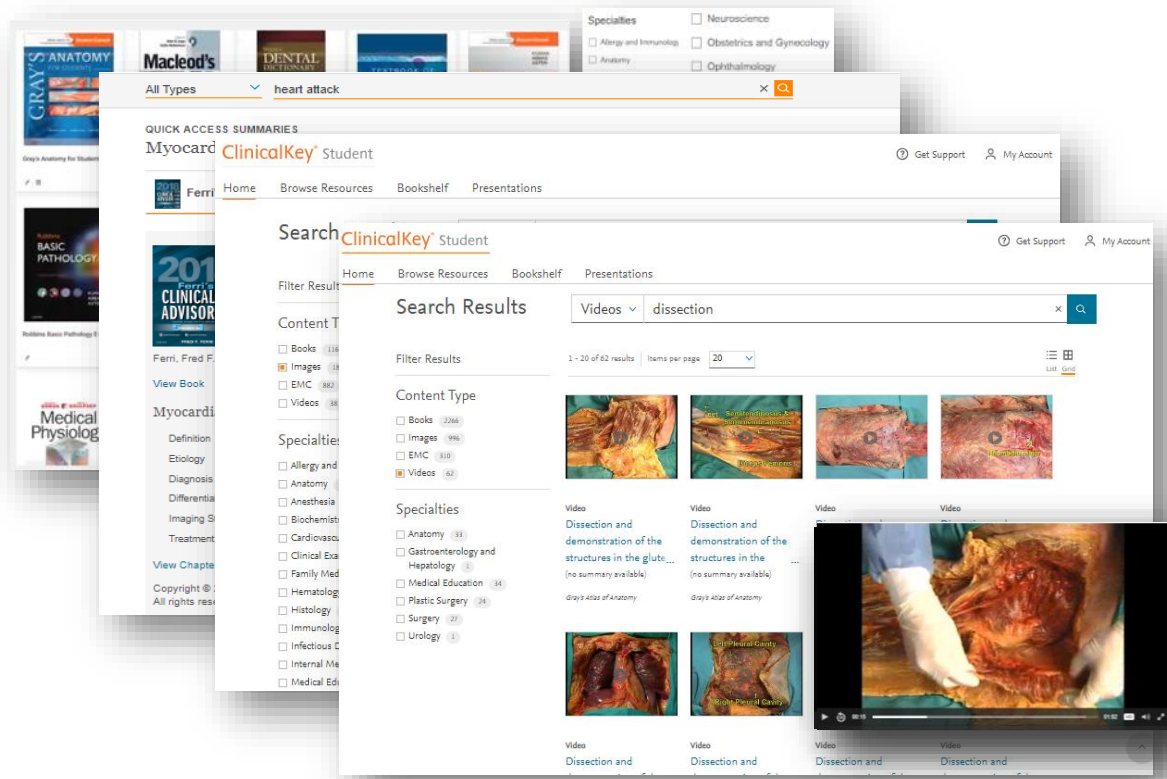
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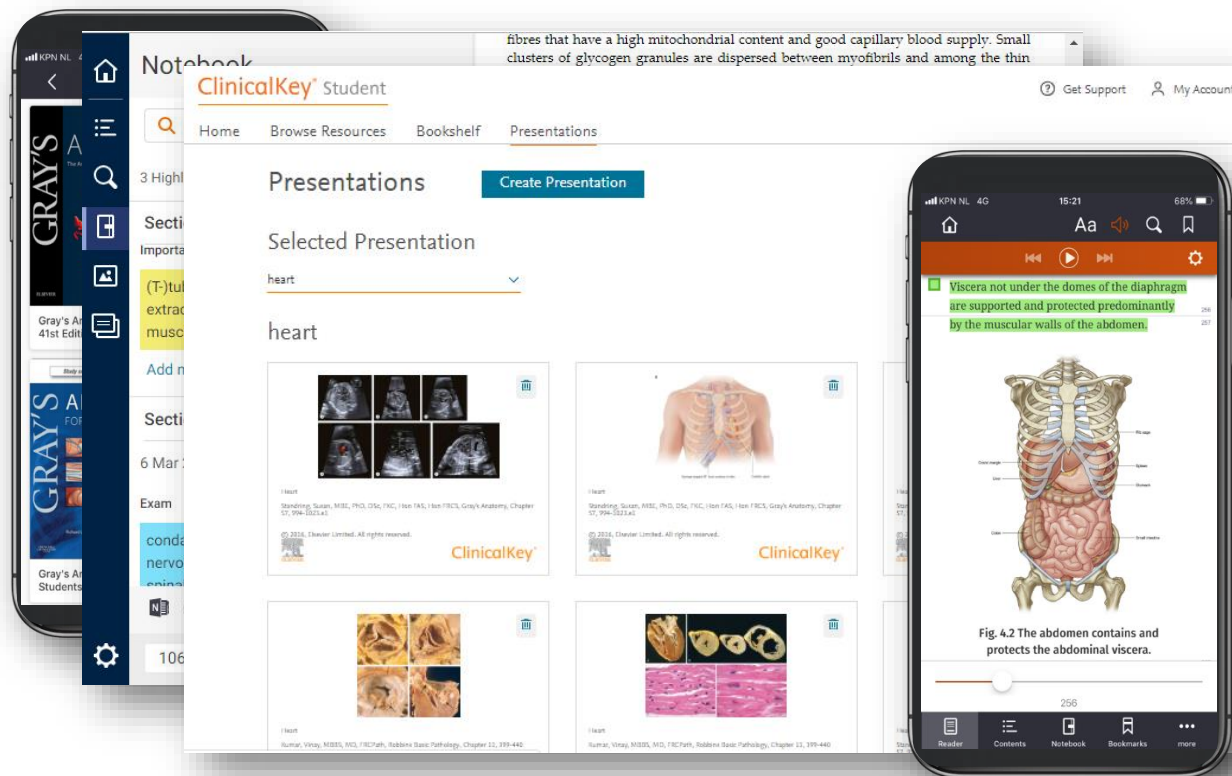
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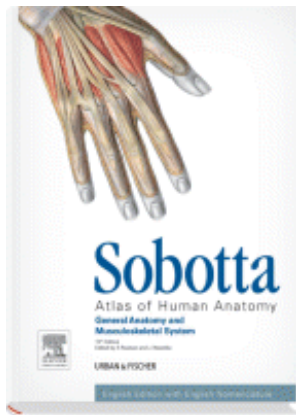
Zhu Li

Activities Overview



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Sobotta Atlas of Human Anatomy



心脏瓣膜

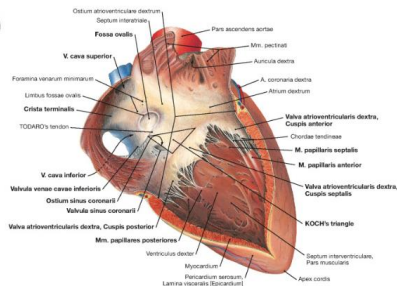


图55



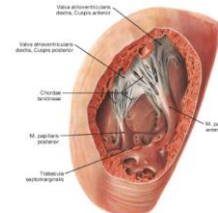
Sobotta解剖对于心脏瓣膜的描述

右房室瓣, Valva atrioventricularis dextra; 膜面观。

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 tendinae) 连接到三个乳头肌 (前, 后和隔侧)。通过在心脏收缩期乳头肌的主动收缩, 可以防止尖瓣逆向心腔。



图56



心脏瓣膜的投射

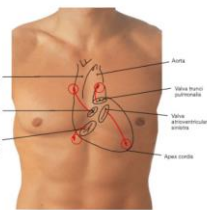


图59

在胸部前方投影心脏瓣膜和听诊部位。
四个心脏瓣膜的位置用十字形, 从胸中平面朝前向正中线, 瓣膜的位置具有较小的实际重要性, 因为在此早期阶段, 所有瓣膜的心腔和心脏尖瓣均被血液所淹没 (箭头) 至胸中平面 (前面), 心脏在那时收缩 (听诊)。

心脏瓣膜的听诊点	心脏瓣膜听诊部位	
肺动脉瓣	左 (L) 胸骨处, 3 rd 肋软骨	a ¹ ICS 左胸骨旁
主动脉瓣	胸骨左缘第 2 nd ICS	a ² ICS 左胸骨旁
二尖瓣	4 th ICS 前侧乳突骨离开了	m ⁵ ICS 留在前侧中线
三尖瓣	在胸骨左面, m ⁵ 肋软骨	m ⁵ ICS 右胸骨旁

ICS=肋间隙



右房室瓣的乳头肌, Valva atrioventricularis dextra; 背观。
右心室从顶部向上打; 三个乳头肌中的两个 (乳头肌突起), 该腱索 (Chordae tendinae) 和 M. papillaris 前部与三尖瓣 (Valva atrioventricularis dextra) 的隔牙尖 (Cusps 隔部) 和隔牙尖 (Cusps 隔部) 的乳头肌连接。

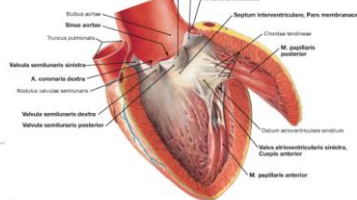


图57

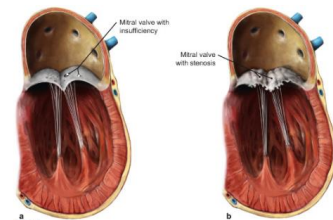


图560

使用二尖瓣的瓣子的心脏瓣膜的病理变化。一个二尖瓣关闭不全, b 二尖瓣狭窄。[L26]
除了心脏瓣膜的先天性狭窄 (其被认为是心脏缺陷 (vita) 之外, 伴随不是成狭窄的心脏瓣膜的其他缺陷或变形可以由缺血性过程引起。



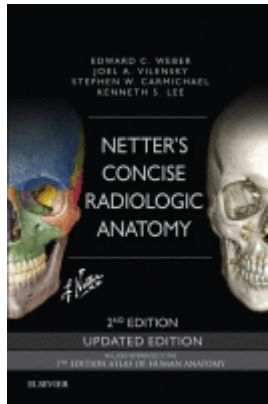
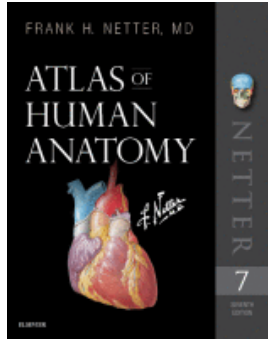
当用听诊器 (听诊) 听到心脏的声音时, 人们会听到心脏发出的不同声音, 这是心脏的作用:

- 在第一心音是在收缩的由尖点瓣的室收缩和反冲开始创建。
- 在第二心音是在心脏舒张由半月瓣的关闭开始产生。

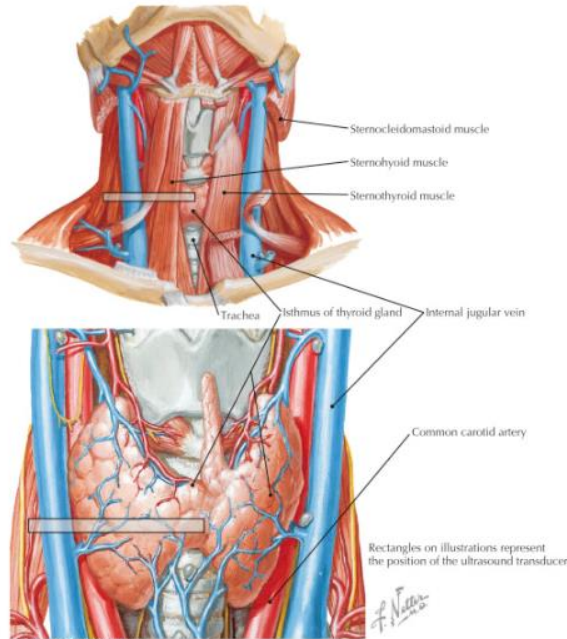
然而, 心脏杂音并不存在于健康人群中, 而是由于瓣膜功能失常引起的。瓣膜狭窄 (狭窄) 以及闭合不足 (失败) 均可引起杂音。杂音的定时及其定位给出了各个瓣膜故障的信息。

瓣膜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), 在尖头瓣膜上方发生杂音, 这意味着存在故障, 因为在此阶段反冲关闭瓣膜。如果在尖瓣上方的舒张期可以听到杂音, 这表明由于瓣膜在填充阶段打开, 因此狭窄。使用半月形瓣膜正好相反。狭窄可以是先天性的或后天性的 (风湿性高热, 细菌性心内膜炎)。如果瓣膜尖瓣的乳头肌受损, 通常会导致失败并且也可能由心脏病变引起。

Netter系列解剖图谱



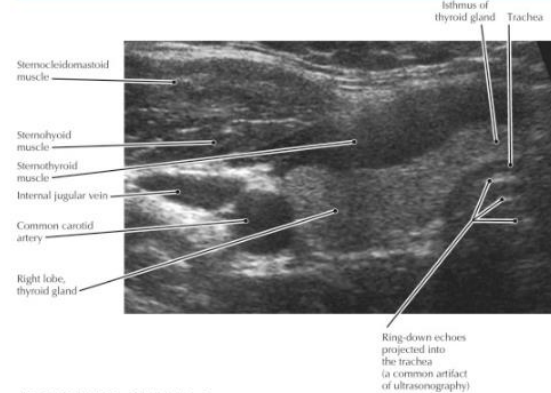
甲状腺



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

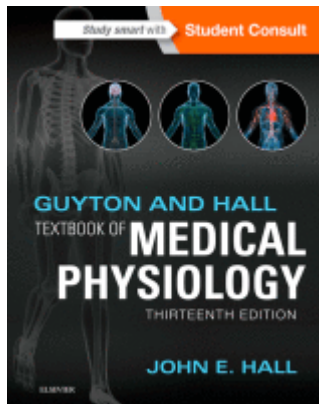
超声 (US) 是检查甲状腺形态异常的主要成像方式。由于颈总动脉和甲状腺之间的密切关系, 颈动脉超声检查常常发现未预料到的偶发性甲状腺结节。评估可疑癌症的甲状腺结节的标准程序是美国引导的细针穿刺。放射性核素扫描和放射性碘摄取测量以及血清化学测试用于评估甲状腺功能。



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腺腺, 这是甲状腺后缘的一个小的低回声结节, 但这通常不明显。甲状腺腺的数量和大小变化很大。
- 薄壁颈内静脉的形状取决于腔内压力, 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



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"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

书籍

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版, 47-59



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⁺，但只含有少量的K⁺。细胞内液体的情况恰恰相反。此外，细胞外液含有大量Ca²⁺离子，而细胞内液含有少量Ca²⁺离子。但是，Ca²⁺和Mg²⁺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极为重要。本章的目的是解释细胞膜的运输机制如何产生这些差异。

EXTRACELLULAR FLUID	INTRACELLULAR FLUID
Na ⁺ — 142 mEq/L	10 mEq/L
K ⁺ — 4 mEq/L	140 mEq/L
Ca ²⁺ — 2.4 mEq/L	0.0001 mEq/L
Mg ²⁺ — 1.2 mEq/L	58 mEq/L
Cl ⁻ — 103 mEq/L	4 mEq/L
HCO ₃ ⁻ — 26 mEq/L	10 mEq/L
Phosphate — 4 mEq/L	75 mEq/L
SO ₄ ²⁻ — 1 mEq/L	2 mEq/L
Glucose — 80 mg/dl	0 to 20 mg/dl
Amino acids — 30 mg/dl	200 mg/dl
Cholesterol	2 to 95 g/dl
Phospholipids	
Neutral fat	
PO ₂ — 35 mm Hg	20 mm Hg
PCO ₂ — 40 mm Hg	50 mm Hg
pH — 7.4	7.0
Proteins — 2 g/dl (5 mEq/L)	18 g/dl (40 mEq/L)

图4-1 细胞外和细胞内液的主要化学成分。问号表示细胞内液的确切浓度未知。红色表示细胞膜。

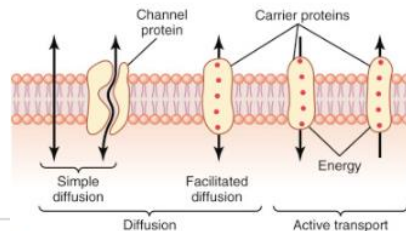


图4-2 通过细胞膜的运输途径和运输的基本机制。

扩散

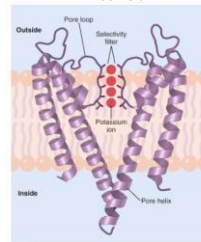


图4-4 钾通道的结构。该通道由四个亚基组成（仅显示其中两个）。每个亚基具有两个跨膜螺旋。由孔环和侧基形成选择性过滤器。钾离子在过滤器之间的空腔上。与空腔结合的水分子屏蔽了离子。钾离子与侧基结合的空腔内导致侧基离子数量增加的水分子，允许水化的钾离子通过。

主动转运

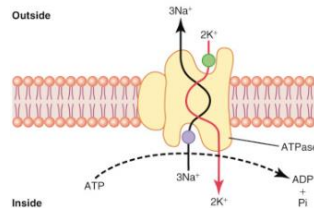
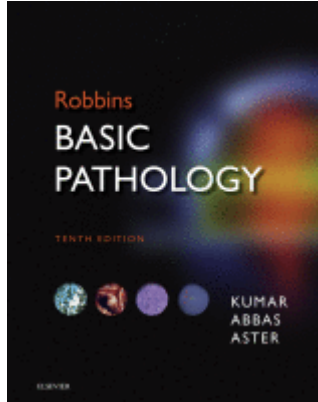


图4-12 钠钾泵的假定机制。ADP，二磷酸腺苷；ATP，三磷酸腺苷；Pi，磷酸根离子。

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**），其撞击在血管腔和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。

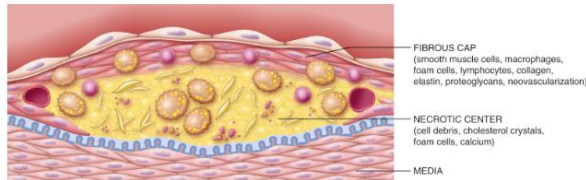
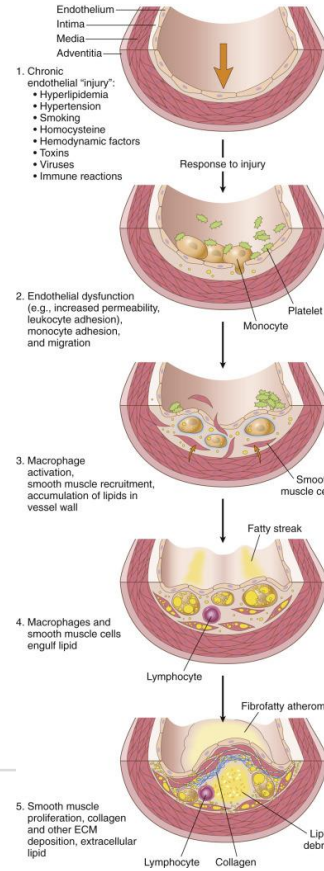


图10.7 动脉粥样硬化斑块的基本结构。



动脉粥样硬化斑块。这些病变的关键特征是在内瓣瓣膜和瓣膜聚积（见图10.7）。Atheromatous斑块是白色的凸起病变；它们的直径为0.3到1.5厘米，但可以聚积形成更大的质量。聚积在瓣膜上的血栓呈暗红色（图10.12）。

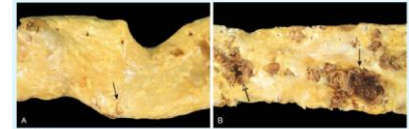


图10.12 动脉粥样硬化性病变。(A)具有轻度动脉粥样硬化的主动脉由纤维斑组成。一个暗红色血栓。(B)主动脉瓣有严重的纤维状病变，包括瓣膜钙化（空心箭头），和上面有血栓的瓣膜（实心箭头）。

动脉粥样硬化斑块是碎片状的，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易损性可能与血管血流动力学的变幻莫测有关。局部流动扰动，例如分支点处的涡流，使血管壁的某些部分特别容易形成斑块。

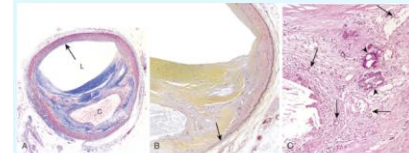
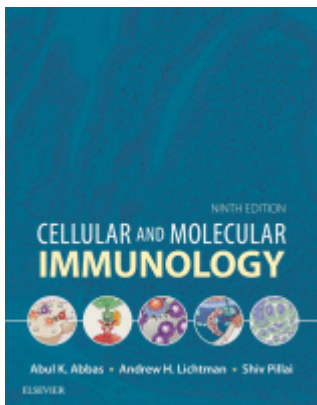


图10.13 动脉粥样硬化斑块，冠状动脉。(A)显示纤维帽覆盖的脂质(F)和中央坏死(主要是胆固醇)(C)。胶原(蓝色)用Masson三色染色。透明(T)这种病变使中层变薄，使血管壁的一部分不受影响(箭头)。(B)A型胆固醇结晶的早期阶段。对弹性染色(黄色)；内部和外部的弹性纤维。这些点在最先出现的斑块(箭头)下变薄。(C)纤维帽核心交界处的泡沫细胞聚集，显示散在的炎症细胞、钙化(箭头)，和新月形形成(小箭头)。

严重程度依次降低，动脉粥样硬化涉及颈下颈主动脉，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，动脉粥样硬化在颈主动脉中通常比在胸主动脉中更严重。上肢的血管通常不受影响，肠系膜和肾动脉也是如此，除了它们的口。重要的注意事项，在一个血管位置的动脉粥样硬化的严重程度不一定预示其在另一个血管位置的严重程度（例

免疫学



Author Information

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肿瘤免疫

肿瘤免疫概述

肿瘤抗原

对肿瘤的免疫反应

肿瘤对免疫应答的逃避

肿瘤的免疫疗法

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细胞的过程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，由重链免疫球蛋白 (Ig) 可变基团和含有TCR和共刺激受体信号域的细胞质尾部组成 (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，但它们都具有TCR ζ 和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。

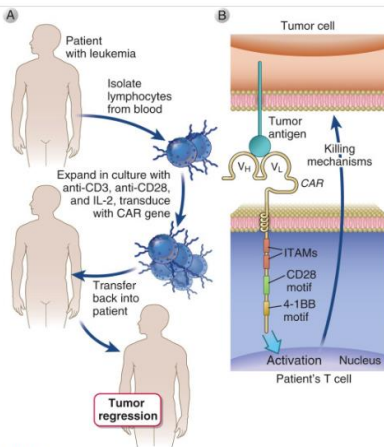


图18.11

嵌合抗原受体T细胞疗法。

从患者血液中分离的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，分离专用的外周血T细胞，用抗CD3和/或抗CD8抗体刺激以扩增所有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细胞注射回患者体内。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，因为所有转移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标志B细胞标记物。正常B细胞以及肿瘤B细胞被杀死，但是患者可以补充完整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。

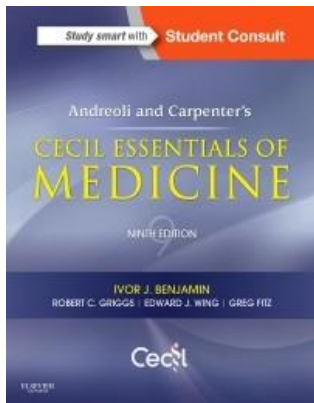
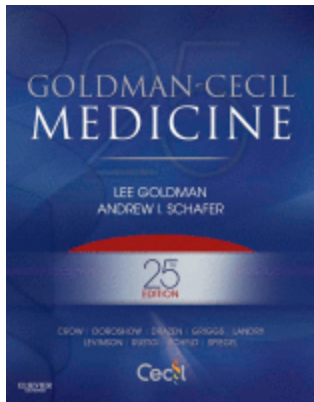
为了成功扩大CAR-T细胞疗法的使用，仍然需要克服一些重大障碍。

- 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累的风险仍然是一个问题，尤其是脑部未完全发育的儿童。
- 如果肿瘤没有完全清除，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。该问题最小化的一种方法是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。使用这种方法的验证正在进行中。
- 在一些患者中，转移的CAR-T细胞似乎随着时间的推移而推移变得无反应，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志物 (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症，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，到目前为止这还不行。此外，有必要设计对恶性肿瘤特异的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激活的双特异性CAR-T细胞。



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书籍 阻塞性肺病

Jankowich, 马修 D ;
安德烈奥利和医学的木匠的丝丝精华。 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疾病。在某些情况下，这些疾病在临床上重叠（图16-1），除了存在呼气气流限制外，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。

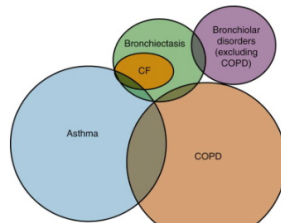


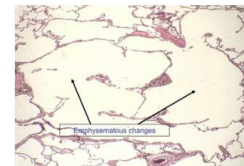
图16-1

阻塞性肺病的分类。尽管大多数慢性阻塞性肺病（COPD）患者的气道病变较小，但细支气管疾病与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应性的频繁关联而区别于COPD。这些疾病在

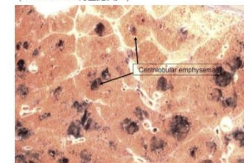
COPD肺气肿

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和小球（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；这是与吸烟有关的气肿中观察到的最常见的组织学特征。Panlobular肺气肿见于 α_1 -抗胰蛋白酶缺乏症。



E-Figure 16-1

肺气肿，近端气道扩大。
(Charles Kuhn博士提供。)



E-Figure 16-2

小叶肺气肿包围正常肺。
(Charles Kuhn博士提供。)

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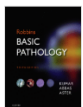
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Fig. 5.27 Projection of the heart contour onto the ventral thoracic wall. The heart is displaced to the left side and thus does not lie in the centre of the chest cavity. The right margin of the heart projects from the third to sixth costal cartil...

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Medical Physiology © 2017

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from Chapter 22: The Heart as a Pump

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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作为泵的心脏: 心音图和心音

心脏作为泵: Ca²⁺ 从外部进入触发Ca²⁺ 诱导的Ca²⁺ 从肌浆网中释放

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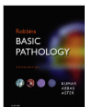
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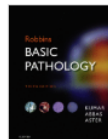
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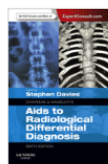
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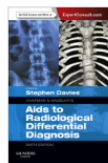
Chapman & Nakielný's Aids to Radiological Differential Diagnosis © 2014

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](#) ▼



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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。胚胎心脏环旋转失败导致> 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。

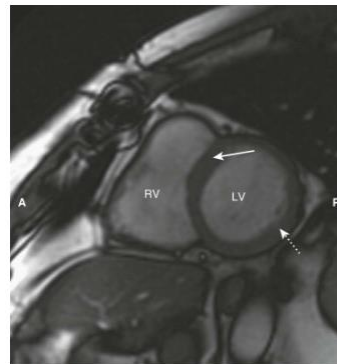


FIGURE 4-19

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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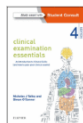
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Book

Clinical Examination Essentials © 2016

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

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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

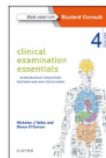
The heart and cardiovascular system: Inspection

The heart and cardiovascular system: Syncope and dizziness

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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S₁和低音调的舒张期低音杂音)。心脏的杂音的...

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心脏和心血管系统

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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

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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...

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- 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
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- Cardiovascular disease: Exercise electrocardiography
- Cardiovascular disease: Vascular
- Cardiovascular disease: Character

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Kumar and Clark's 临床医学 © 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.....

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- 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
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- 心血管疾病: M型和二维超声心动图
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- Genetics (56)
- Microbiology (1)



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...

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- 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 (LCAacnm1) arising from the sinus of the left aortic cusp, located posteriorly on the aorta, and by a right coronary artery (RCAacnm1) arising from the sinus of the right cusp, located anter...

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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：...

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- 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（LCAacnm1）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（RCAacnm1），位于前方。

..

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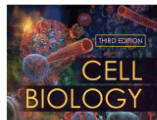


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膜载体

Pollard, Thomas D., MD; 恩蕪, 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。

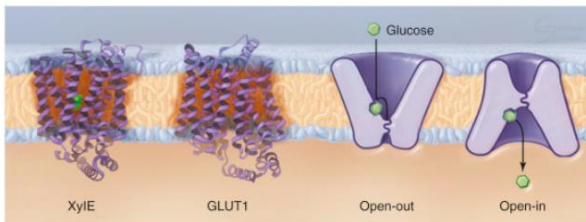
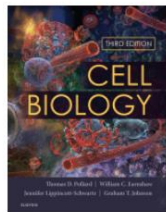


图15.1
载体蛋白质运输。



细胞生物学 第三版

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

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目二 十

启动书架

The screenshot displays the ClinicalKey Student interface. On the left is a vertical sidebar menu with icons and text for: 帐户 (Account), 设备 (Devices), 语言 (Language), 工具 (Tools), 正在共享 (Currently Shared), 荧光笔 (Highlighter), 应用菜单 (App Menu), 帮助 (Help), and 支持 (Support). Below the menu is a section for '使用Bookshelf桌面应用离线阅读' (Use Bookshelf desktop app for offline reading). The main content area shows a document titled 'CHAPTER 1 Introduction to Cells'. The text discusses the history of biology and evolution, with a highlighted sentence: '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.' A floating toolbar is visible over the text, containing options like '检查' (Check), '添加笔记' (Add Note), '复制' (Copy), '创建抽认卡' (Create Flashcard), and '从这里大声朗读' (Read aloud from here). To the right of the text is a phylogenetic tree diagram showing the relationships between Eucarya, Plants, Animals, Fungi, and Amoeba, with a 'Chloroplast' branch and time markers for '-1 billion years ago' and '-1-2 billion years ago'. At the bottom right, there are icons for '复制' (Copy), '字体' (Font), '朗读' (Read Aloud), '标注' (Annotate), '引文' (Cite), and '网址' (URL).

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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

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2019年8月28日

重要

DNA到RNA到蛋白质

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需要澄清

储存在鸡蛋中。内质网 (ER) 在作为磷脂

712图表

The grid contains several diagrams: 1. A cell diagram showing organelles like the nucleus, mitochondria, and chloroplasts. 2. A diagram of DNA replication with labels for 'Parent DNA strand' and 'Newly synthesized strand'. 3. A diagram of protein synthesis showing 'Transcription' and 'Translation'. 4. A diagram of a microtubule track with a motor protein. 5. A diagram of a ligand binding to a receptor, labeled 'A. Ligand binds receptor turning it on'. 6. A diagram of a receptor activating GTP-binding proteins, labeled 'B. Receptor activates GTP-binding proteins'. 7. A diagram of a cell with a microtubule track, labeled 'C. Actual second'.

individuals with random differences in their genes determines 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 of evolution and shows that many biochemical processes similar to those that sustain contemporary cells.

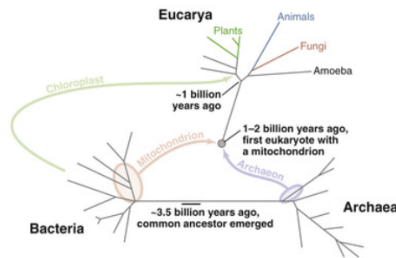


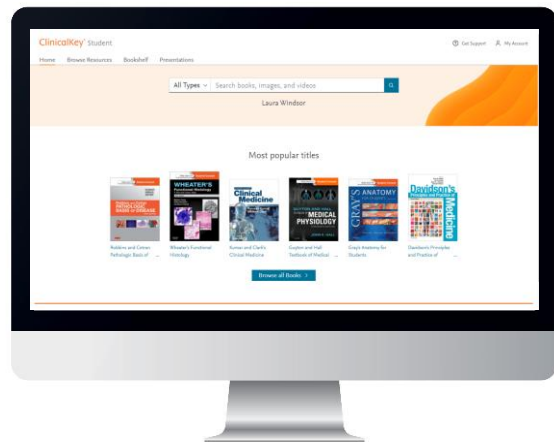
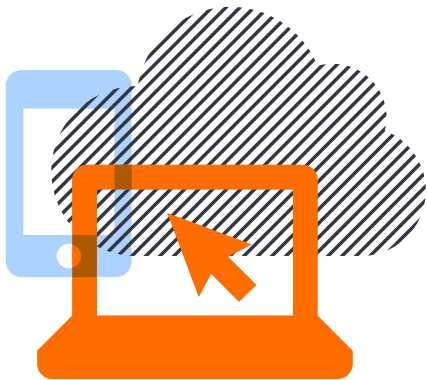
FIGURE 1.1 THE TREE OF LIFE. This tree shows the common ancestor of all living things and the three main branches of life: Archaea and Bacteria diverged from the common ancestor and both gave rise to the eukaryotic mitochondria and chloroplasts originated as symbiotic Bacteria.

The tree of life diverged from the common ancestor into three great divisions: Bacteria, Archaea, and Eucarya (Fig. 1.1). Archaea and Bacteria were considered to be one domain of life, but the discovery of genes for ribosomal RNAs revealed that their ancestors branched from each other early in evolution. The origin of eukaryotes, cells with a nucleus, is still debated between Archaea and Bacteria. One possibility is that eukaryotes originated when an Archaea engulfed a Bacterium that subsequently evolved into the blue and red in Fig. 1.1) evolved relatively recently, hundreds of millions of years after single-celled eukaryotes appeared. Note that algae and plants are part of the tree of life.

Organisms 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. Some organisms, such as plants, algae, and some Bacteria, use photosynthesis to derive energy from sunlight. Some Bacteria and Archaea, such as hydrogen bacteria, hydrogen sulfide bacteria, or iron bacteria, extract energy from organic compounds.

As it becomes clearer, the underlying similarities among organisms are more impressive than their external differences. For example, all living organisms store energy as ATP using a common genetic code, transfer genetic information from DNA to RNA to protein, employ proteins (and some RNAs) to catalyze chemical reactions, derive energy by breaking down simple sugars and lipids, use adenosine triphosphate (ATP) as their energy currency, and separate their cytoplasm from the environment by membranes containing pumps, carriers, and channels.

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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

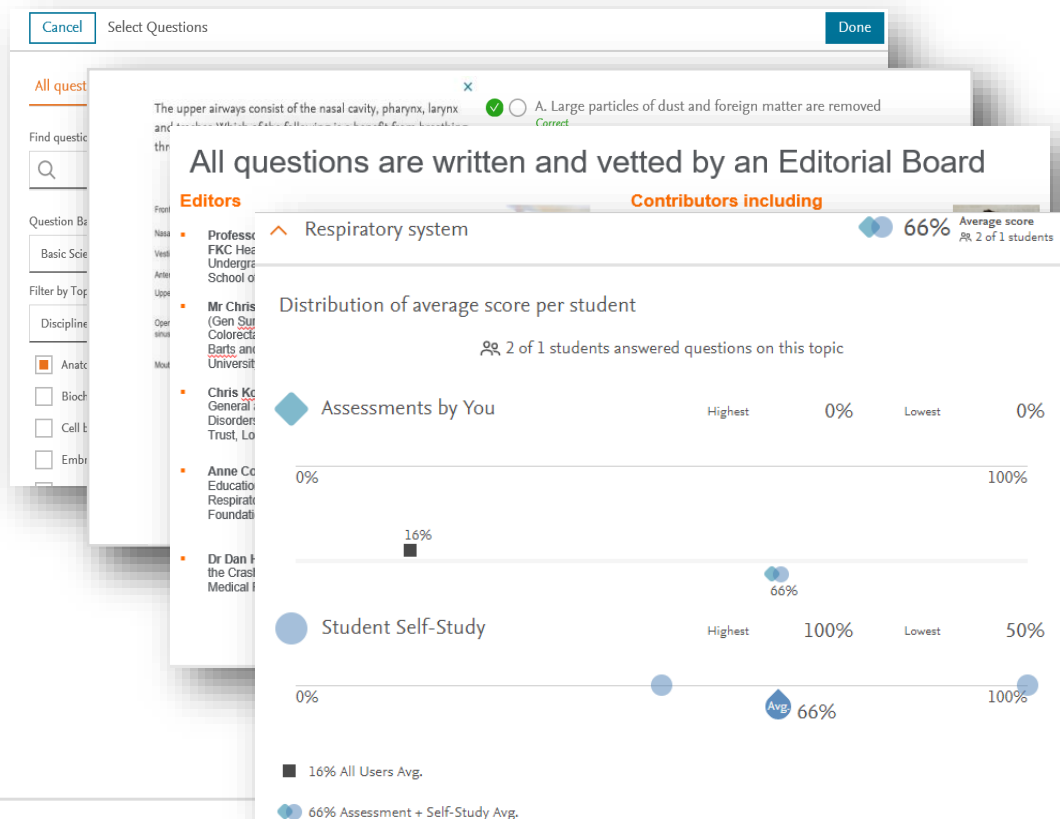
学生

- “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
- 4200+ 问题 (1,800 基础科学 & 2,400 临床医学). USMLE (1600+ 题库)
- 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 vignette reads: "A 55-year-old man presents with a lump in his groin for 3...". 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" and "Total Time". The main content area shows "Search Results" for "optic neuritis", displaying 1-20 of 341 results. 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 top result is from "Ophthalmology Secrets in Color" (2016), with the most relevant section being "Optic Neuritis" from Chapter 31. A "Quick Access Summary" for "Optic Neuritis" is also visible, featuring a "Definition" section: "Optic neuritis is an inflammation of the optic nerve resulting in impaired visual function." The Elsevier logo is present in the bottom right corner.

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

测评结果

Question 1 of 10



View Lab Value

Score

20%

Total Time

2 min. 0 sec.

A 45-year-old patient with hypertension is taking the following medication. Which of the following is a beta-blocker?

Focus your revision on these 11 key concepts:

Based on questions you answered incorrectly.

A. Dry

1. Allosteric Regulation (1 question)

B. Hydrochlorothiazide

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

C. Angiotensin II

3. Calcium Homeostasis (1 question)

D. Renin

4. Cortisol (1 question)

E. Parathyroid hormone

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



Retake Incorrect Questions ³

Now

In 1 week

In 1 month

Retake Now



谢谢聆听！