《Pathophysiology for the health professions》（第4版）介绍和评价

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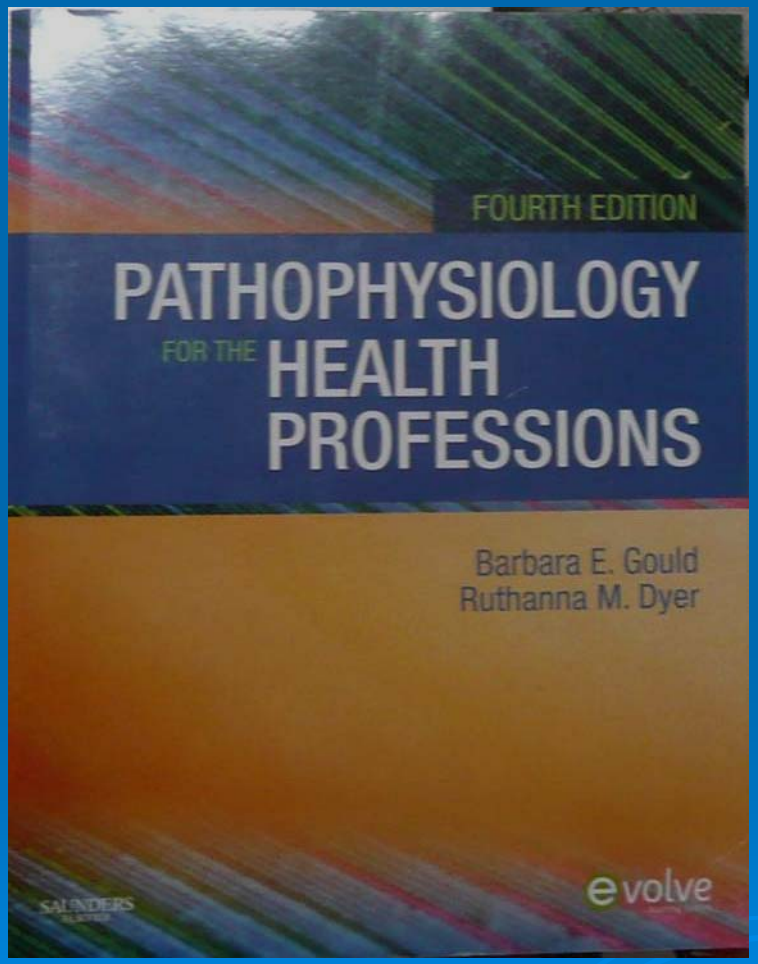


《Pathophysiology for the health professions》是一部在国内外病理生理学界享有盛誉的英文教材。

教材总体内容构架

第一部分－病理生理学的基本概念和进程

- 介绍病理生理学术语和基本细胞的变化
- 章节涉及了炎症和愈合，肿瘤，感染，免疫反应和水，电解质，酸碱平衡紊乱
- 在每个章节后都补充了相关疾病的病例

第二部分－机体发育、病理生理影响因素与疾病之间的关系

- 介绍青春期发育、怀孕和衰老正常生理变化，以及不同时期对疾病发生发展的影响
- 应激、药物滥用和疼痛等因素对疾病的作用和影响
- 简洁的介绍了药理学等治疗方法对病理生理学的影响

教材总体内容构架

第三部分－各系统器官病理生理学

- 章节的选择是基于发病率以及给学生呈现出多种病理生理学进程和病因学的需要
- 针对重要的器官紊乱，重点讲述了病理生理学，病因学，临床诊断，查体和实验室检查，治疗模式和潜在的并发症
- 其他的章节仅是强调了特有的特征和意义，附录中对相关信息做了补充

Section I Basic Concepts of Disease Processes

Section II The Effects of Altered Status/Growth and Development on Disease Processes

Section III Pathophysiology of the Systems

Appendices

教材章节编排与内容的特点

教材编写简洁和概念定义准确，教学内容新颖，编写格式活泼多样，图片精致，教材的章节内容编排合，结合了最新研究和临床进展。

CHAPTER 1

Introduction to Pathophysiology

CHAPTER OUTLINE

LEARNING OBJECTIVES

After studying this chapter, the student is expected to:

1. Explain the role of pathophysiology in the diagnosis and treatment of disease.
2. Use appropriate terminology.
3. Explain the importance of a patient's medical history.
4. Describe common cellular adaptations and possible reasons for the occurrence of each.
5. Identify precancerous cellular changes.
6. List the common causes of cell damage.
7. Describe the common types of cell necrosis and possible outcomes.

KEY TERMS

anaerobic
apoptosis
autopsy
biopsy
endogenous
exogenous
gangrene
homeostasis
hypoxia
iatrogenic
idiopathic
inflammation
ischemia
lysis
lysosomal
microorganisms
microscopic
morphologic
probability

每个章节首先提出有关正常生理知识的小问题，随后在每个小节末会提出思考题，章节的末尾编有相关的学习问题

THINK ABOUT 1-1

a. Why are many stage one or two research projects stopped?
b. What is the purpose of double blinding in a research trial?
c. What is a placebo and why is it used in some studies?

RESEARCH 1-1

a. State two dependable resources that could be used in a search for new developments in medicine generally or in your particular profession.

CHALLENGE 1-1

Using the heart and the lungs, show how you can apply your prior knowledge of anatomy and physiology to your study of pathophysiology. (Hint: Change part of the normal structure and predict the resulting loss of function.)

Blood and Lymphatic Disorders

CHAPTER OUTLINE

LEARNING OBJECTIVES

每个章节都列有学习目的

After studying this chapter, the student is expected to:

1. Define the terms describing abnormalities in the blood.
2. Describe and compare the pathophysiology, etiology, manifestations, diagnostic tests, and treatment for each of the selected anemias: iron-deficiency, pernicious, aplastic, sickle cell, and thalassemia.
3. Differentiate between primary and secondary polycythemia, and describe the effects on the blood and circulation.
4. Describe hemophilia A: its pathophysiology, signs, and treatment.
5. Discuss the disorder disseminated intravascular coagulation: its pathophysiology, etiology, manifestations, and treatment.
6. Discuss the myelodysplastic syndrome and its relationship to other blood disorders.
7. Compare acute and chronic leukemia: the incidence, onset and course, pathophysiology, signs, diagnostic tests, and treatment.
8. Compare Hodgkin's disease and non-Hodgkin's lymphomas, including pathophysiology, signs, and treatment.
9. Describe the pathophysiology, signs, and treatment of multiple myeloma.

每个章节的开始部分，都对相应正常人体的解剖和生理做一简介

讨论某个特定的紊乱时，首先强调病理生理学变化，因为这是认识机体发生改变的基础

REVIEW OF THE BLOOD

BLOOD

Blood provides the major transport system of the body for essentials such as oxygen, glucose and other nutrients, hormones, electrolytes, and cell wastes. It serves as a critical part of the body's defenses, carrying anti-

Aplastic Anemia

Pathophysiology

stic anemia results from impairment or failure marrow, leading to loss of stem cells and pan-ia, the decreased numbers of erythrocytes, leu-, and platelets in the blood. These deficits lead to many serious complications. In addition the bone marrow is exhibits reduced cell components and increased fatty tissue.

Etiology

Aplastic anemia may be a temporary or permanent condition depending on the cause.

- In approximately half the cases, the patients are middle-aged, and the cause is unknown or idiopathic (primary type).
- **Myelotoxins,** such as radiation, industrial chemicals (e.g., benzene), and drugs (e.g., chloramphenicol,

作者给出了实验室检查和处理方法的简单介绍

Signs and symptoms

In the majority of cases, the onset is insidious. Because the entire bone marrow is affected, manifestations include those of:

1. Anemia (pallor, weakness, and dyspnea)
2. Leukopenia, such as recurrent or multiple infections
3. **Thrombocytopenia** (**petechiae**—flat, red, pinpoint hemorrhages on the skin [see Fig. 17-15 for photograph]—and a tendency to bleed excessively, particularly in the mouth)

As blood counts diminish, particularly WBCs and platelets, uncontrollable infection and hemorrhage are likely.

Diagnostic tests

Blood counts indicate pancytopenia. A bone marrow biopsy may be required to confirm the cause of the pancytopenia. The erythrocytes are often normal in appearance.

Treatment

Prompt treatment of the underlying cause and removal of any bone marrow suppressants are essential to recovery of the bone marrow. Blood transfusion may be necessary if stem cell levels are very low.

Bone marrow transplantation may be helpful in

作者给出了病例分析和章节内容的总结

CASE STUDY A

Acute Lymphocytic Leukemia

P.M., aged 4 years, has returned to the family physician because of a recurrent sore throat and cough. Her mother mentions unusual listlessness and anorexia. The physician notices several bruises on her legs and arms and one on her back. The physician orders blood tests and a course of antibacterial drugs. Test results indicate a low hemoglobin level, thrombocytopenia, and a high lymphocyte count, with abnormally high numbers of blast cells. Following a bone marrow aspiration, a diagnosis of ALL is confirmed.

CHAPTER SUMMARY

Blood serves many purposes in the body. Abnormalitie involving blood cells, plasma proteins, or blood clottin factors frequently have widespread and possibly life threatening effects on the body. When lymphatic dis orders interfere with the immune response, serious consequences may result.

- Anemias may be caused by many factors, including dietary deficits, malabsorption syndromes, genetic defects, damage to the bone marrow, or blood loss.
- Chronic blood loss causes iron-deficiency anemia with production of hypochromic, microcytic RBCs.
- Pernicious anemia is a megaloblastic anemia result

每个章节复习部分都会给出有难度的问题
给出交叉引用文献和其他信息来源

STUDY QUESTIONS

1. Name six substances that are transported in the blood and the function of each.
2. Explain the cause of incompatible blood transfusion.
3. List three types of clotting problems.
4. Explain how pernicious anemia may develop from chronic gastritis.
5. For which conditions could secondary polycythemia develop as compensation? VSD, CHF, chronic lung disease, aplastic anemia, multiple myeloma
6. Explain how DIC develops and state two signs of its development.

ADDITIONAL RESOURCES

Guyton AC, Hall JE: *Textbook of Medical Physiology*, 12th ed. Philadelphia, WB Saunders, 2007.

Kliegman RM, Marcdante K, Jenson HB, Behrman RE: *Nelson Essentials of Pediatrics*, 5th ed. Philadelphia, WB Saunders, 2006.

Kumar V, Abbas AK, Fausto M: *Robbins and Cotran Pathologic Basis of Disease*, 8th ed. Philadelphia, WB Saunders, 2007.

Web Sites

http://www.cancer.gov *National Cancer Institute, U.S. National Institutes of Health*

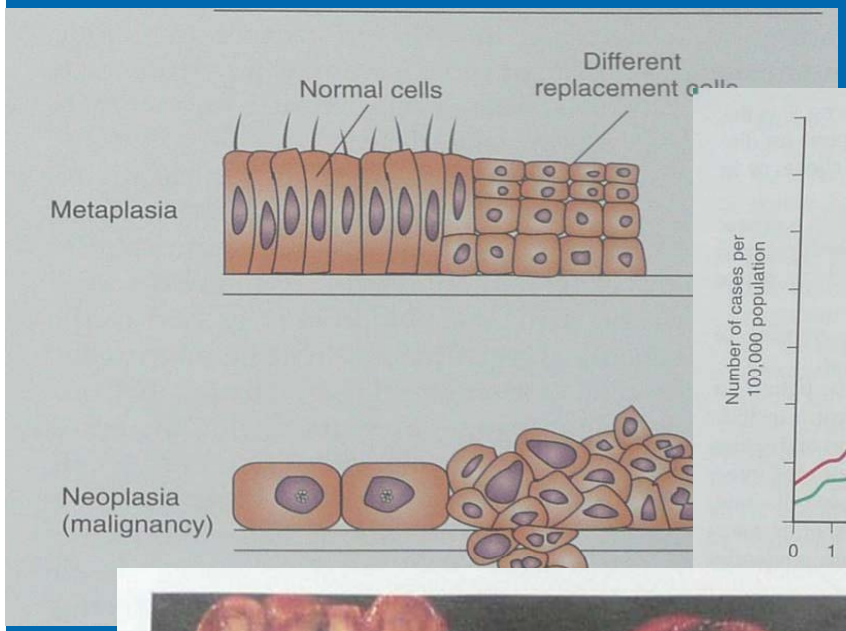
http://www.leukemia-lymphoma.org *The Leukemia & Lymphoma Society*

http://www.mayoclinic.com *Mayo Clinic*

http://www.nlm.nih.gov/medlineplus *U.S. National Library of Medicine and National Institutes of Health*

http://www.mskcc.org *Memorial Sloan-Kettering Cancer Center*

大量的插图包括流程图，原理图，照片以及清晰的文本信息



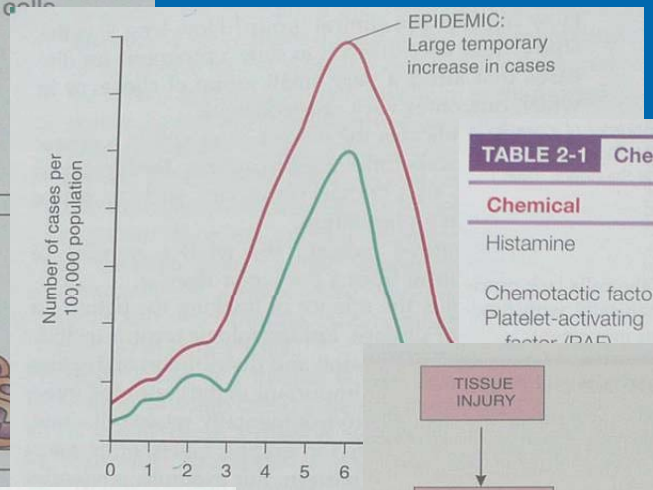
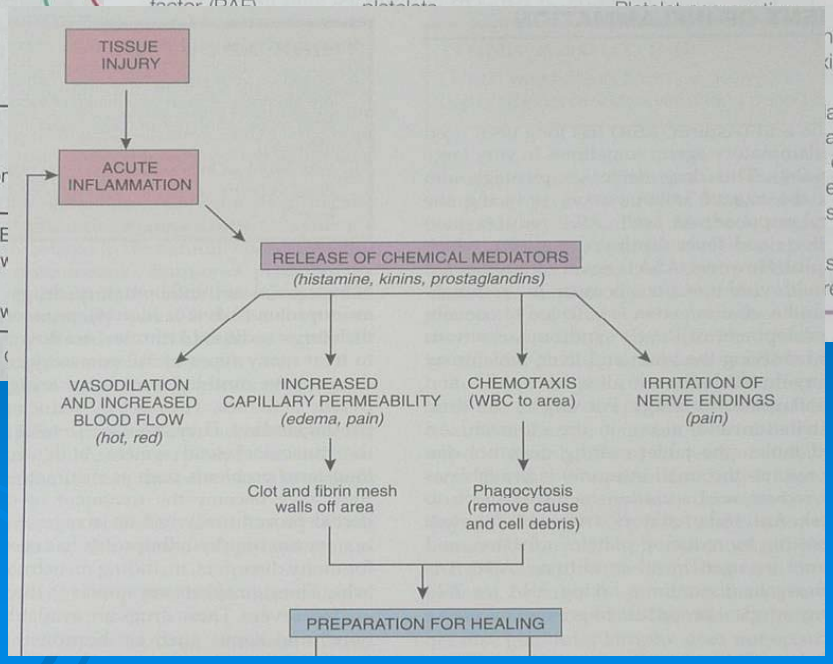


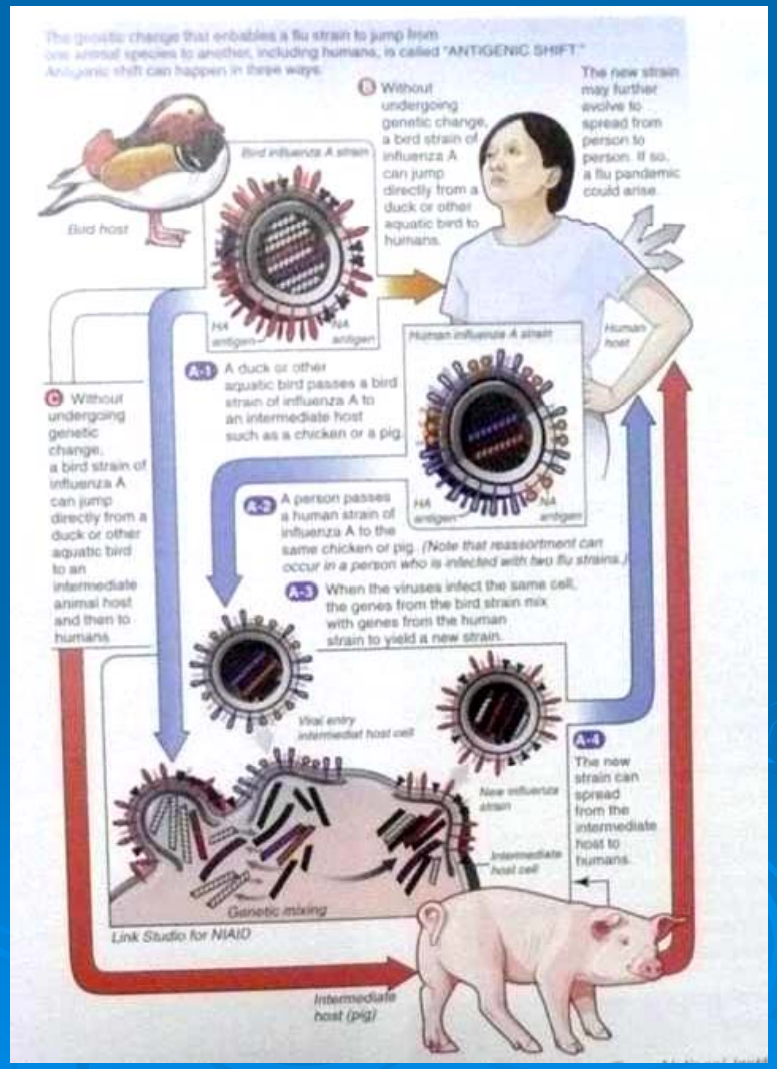
TABLE 2-1 Chemical Mediators in the Inflammatory Response

Chemical	Source	Major Action
Histamine	Mast cell granules	Immediate vasodilation and in to form exudate
Chemotactic factors	Mast cell granules	For example, attract neutrophi
Platelet-activating	Cell membranes of	Activate neutrophils



结合了最新研究和临床进展

- 撰写第四章时补充了H1N1流感的最新信息



开展双语教学，选择合适教材

- 双语教学、教材改革、教学方式改革等，是目前大部分高校都在进行探索的主要教改项目。
- 英文教材形式多样，有现成的国外英文教材；也可以自编于中文教材相配套的英文教材。
- 教师可以根据学生的具体情况不同，针对原版教材中的不同编排和内容，指导学生，达到因材施教的目的。
- 双语教学也是进一步培养学生的专业外语听、说能力的有效途径。

附录

- 参考1 人体平面、体腔、分区、体液组成及肢体运动图
- 参考2 常用解剖术语
- 参考3 换算表
- 参考4 常用缩写与简称
- 参考5 常用诊断方法
- 参考6 病例书写模板
- 参考7 疾病名称索引
- 参考8 药品索引
- 参考9 其他词汇表索引

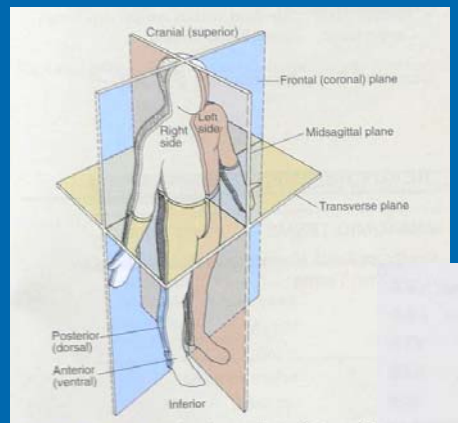
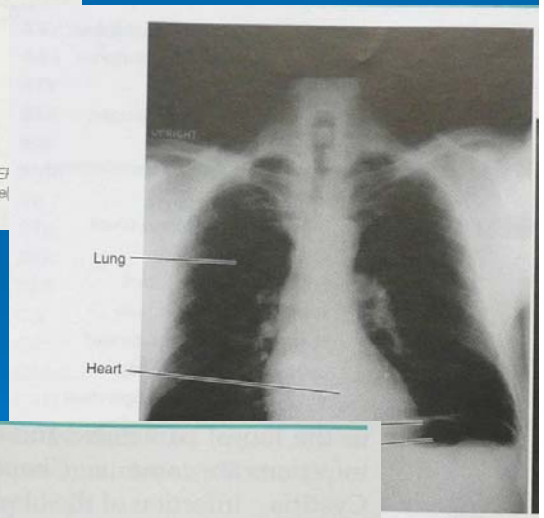


FIGURE RR1-1 Body planes. (From Solomon El
standing Human Anatomy and Physiology, Philadel
Saunders, 1987.)



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DISEASE INDEX

Acne vulgaris A staphylococcal infection involving the sebaceous glands and hair follicles, common in teenagers; Chapter 8

Acromegaly Caused by increased secretion of growth hormone in the adult and resulting in broader bones and soft tissue growth; Chapter 25

谢谢！