英文影印版

Halperin and Goldstein

## 水、电解质和酸碱平衡生理学

第 3 版 Third Edition

FLUID, ELECTROLYTE, and ACID-BASE PHYSIOLOGY

A PROBLEM-BASED APPROACH

HPO >>> HP + H+ >>>>>> HPH

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Third Edition

Mitchell L. Halperin, MD, FRCPC Marc B. Goldstein, MD, FRCPC

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# Fluid, Electrolyte, and Acid-Base Physiology

## **A Problem-Based Approach**

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## Fluid, Electrolyte, and Acid-Base Physiology

## Preface

There have been many insights gained at the subcellular level on the mechanisms operating in the areas we address as well as the substantial advances in our understanding of many important and common disorders. These have provided the impetus to proceed with this Third Edition, despite the fact that it is only five years since the last edition of *Fluid, Electrolyte, and Acid-Base Physiology*. We have also added many new challenging cases, which we hope will stimulate the reader as much as they have stimulated us. The philosophical priorities of the book remain unchanged.

- Our commitment to "learn by understanding" is further reinforced by the new information from the discipline of cell biology. We also stress the relevant physiology and biochemistry, bringing the basic science to the bedside to explain the disorders and make their therapy obvious. A good example is the pathophysiology of metabolic alkalosis in Chapter 4 and the implications for therapy.
- · The book must be useful to readers with different needs:
  - In the emergency room, the diagnostic flow charts (identified in their own table of contents) quickly guide one to the appropriate diagnosis. The approach to therapy is then readily available.
  - For the reader with little time and looking for a quick overview of a topic, we provide an initial outline of major principles at the beginning of each chapter. Each key point is highlighted in a shadow box, and the reader can pursue these key points of interest by reading the subsequent details.
- Our teaching has always been "problem-based," even prior to it
  being in vogue, and we continue to add challenging and instructive
  cases to reinforce the clinical messages. We also have review
  cases at the end of each chapter, and for those readers who enjoy
  the clinical challenges, we have a table of contents for the cases.
- In addition to the clinical cases, we pose numerous challenges in the form of questions and provide the answers at the end of the chapter. Additional information is also provided in the margins so as not to distract the reader and disrupt the flow of thought.

### **HOW TO USE THIS BOOK:**

**FACED WITH AN EMERGENCY?** Go to the Diagnostic Flow Chart Table of Contents, page xv, and find the therapeutic approach in the Table of Contents at the beginning of the relevant chapter.

WANT A QUICK OVERVIEW? Read the outline of major principles and the shaded key points in the area of interest.

WANT A CLINICAL CHALLENGE? Choose from the list of cases on page xi. Each case is discussed in detail after you have had a chance to form your opinions.

WANT TO BECOME AN EXPERT? Begin with the chapter on the relevant physiology, and then read the appropriate chapter, using the questions to indicate where you need more work. Additional reading is recommended at the end of each section.

### NOTICE

Medicine is an ever-changing field. Standard safety precautions must be followed, but as new research and clinical experience broaden our knowledge, changes in treatment and drug therapy become necessary or appropriate. Readers are advised to check the product information currently provided by the manufacturer of each drug to be administered to verify the recommended dose, the method and duration of administration, and the contraindications. It is the responsibility of the treating physician, relying on experience and knowledge of the patient, to determine dosages and the best treatment for the patient. Neither the publisher nor the editor assumes any responsibility for any injury and/or damage to persons or property.

THE PUBLISHER

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SECTION

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## Acid-Base