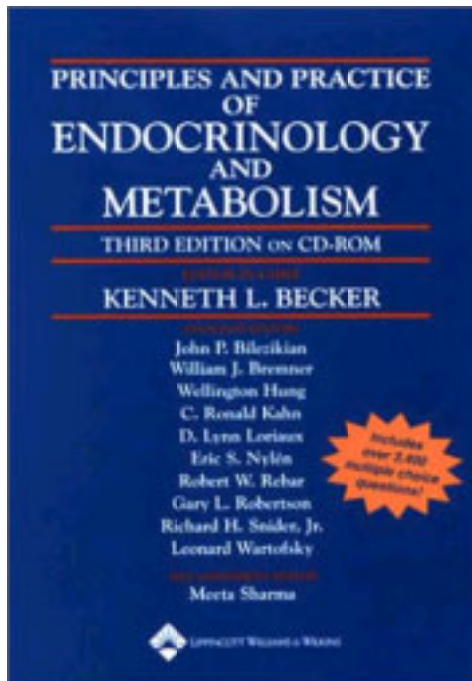


**Principles and Practice of Endocrinology and Metabolism (December 2002):** by Kenneth L. Becker  
Lippincott Williams & Wilkins Publishers



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# Principles and Practice of Endocrinology

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**Chapter 240 DNA Diagnosis of Endocrine Disease**

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**Chapter 241 Dynamic Procedures in Endocrinology**

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## PREFACE

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This third edition of *Principles and Practice of Endocrinology and Metabolism* has been substantially revised. Many chapters have been entirely rewritten, and many deal with completely new topics. Furthermore, additional chapters have been added to reflect the very date of printing.

The new chapters covering topics that did not appear in depth in the prior edition include: Molecular Biology of the Endocrine System; Therapeutic Options; The Incidental Adrenal Mass; Appetite; Pancreas and Islet Transplantation; Secondary Endocrine Disorders; Growth Factors and Cytokines; The Endocrine Blood Cells; The Endocrine Adipocyte; and Endocrine Disorders of the Elderly.

We would like to welcome the authors of these chapters, and also the new authors who have updated chapters that appeared in the last edition.

A new section has been added to this textbook: Endocrinology of Critical Illness. The six chapters cover this topic in a manner that is unique. Critical illness, which to some extent afflicts the great bulk of humankind, has many dimensions that relate directly to the diagnosis of the illness, influence the response of the host and the ultimate outcome. The specific chapters include Critical Illness and Systemic Inflammation, Endocrine Markers of Critical Illness, Hypothalamic–Pituitary–Adrenal Axis in Stress and Critical Illness, Neuroendocrine Response to Acute Illness, Drug Delivery in Critical Illness, and Endocrine Therapeutics in Critical Illness. These subjects are of great interest and are involved in fundamental endocrine research.

Overall, the goal of this textbook is to continue to provide, in a readable, understandable, and well-illustrated manner, the principles and practice of endocrinology and metabolism that will be useful to both clinicians and basic scientists. We also wish this book to be useful to medical students. We have attempted to cover the field thoroughly and broadly, to include most of the important topics, to describe messenger molecules, to furnish appropriate and current references, and to be of practical benefit to the reader.

A complete CD version of this entire textbook is available. It contains approximately 4000 self-assessment questions. Meeta Sharma.

I wish to acknowledge the very helpful library assistance of Joanne Bennett. I am very grateful for the assistance of the Library Assistant, Roberta L. Brown, Pharm. D.

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# PREFACE TO THE FIRST EDITION

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Although there are several excellent large textbooks of endocrinology, we have felt the need for a book which would be disease-oriented, would have practical applicability to the care of the adult and child, and would provide a source of pathophysiologic, diagnostic, and therapeutic information.

To fulfill this goal we called upon not only eminent specialists in endocrinology but also upon experts who would survey general aspects of endocrinology. The eight succeeding parts deal with specific fields of endocrinology: Pituitary Gland, Calcium and Bone Metabolism, The Adrenal Glands, Sex Determination and Development, Disorders of Fuel Metabolism. Each of these parts contains relevant anatomic, physiologic, diagnostic, and therapeutic coverage of the topic.

Diffuse Hormonal Secretion expounds upon the fact that endocrine function is not confined to anatomically defined glands and organs. This part is divided in two; it first presents a discussion of hormones which have a diffuse site of action, subsequently it deals with body constituents which are important sites of hormonal secretion.

Heritable Abnormalities of Endocrinology and Metabolism underlines the importance of genetics in endocrinology. Endocrine and metabolic dysfunction in the young and in the aged is the subject of a separate part. The fact that endocrine disorders differ profoundly from those of individuals in their middle decades.

Interrelationships Between Hormones and the Body discusses the impact of hormones on the somatotropic axis. Hormones and Cancer examines the phenomenon of hormone-induced neoplasms, elaborates on the fact that several of these hormones can cause additional clinical disorders, and that some neoplasms respond to hormone therapy.

The ensuing part, entitled Endocrine and Metabolic Effects of Toxic Agents deals with the sometimes overlooked effects of toxic agents: medication, alcohol, tobacco, and cannabis; it also addresses the consequences of environmental factors. The therapeutic use of drugs in endocrinology and the proper interpretation of laboratory values. It offers a table on reference values, and an outline of the dynamic procedures used in endocrinology. The goal is to provide a guide to the diagnosis and therapy of the endocrine patient.

As a rule, the emphasis of this textbook is on the endocrinology of the human being. Animal data are used to illustrate human physiology and pathology. To maximize current relevance, historical information is kept to a minimum. The fact that certain topics may recur when viewed from different standpoints. It is hoped that this will provide a comprehensive view of endocrine function and dysfunction.

In order not to interrupt continuity, bibliographic references are grouped at the end of each part. This was done in preference to composing an index as detailed as possible.

I wish to thank the associate editors of this text for their skill, their enthusiasm, and their hard work. I also wish to thank the contributors. During the preparation of the manuscripts, there was considerable inter-communication and cooperation, both content and presentation.

I wish to acknowledge the participation of Richard H. Snider, PhD, and Eric S. Nylén, MD, who have assisted in the preparation of the textbook.

The field of endocrinology and metabolism is evolving rapidly. New data are being developed continually. It is hoped that this will add up-to-date information until nearly the date of publication.

There are numerous matters upon which there is no current common agreement, and logical arguments may be advanced on both sides. This textbook is written by many authors; though most of the beliefs and conclusions of the contributors are similar, they do not impose a uniformity of pathophysiologic, diagnostic, or therapeutic viewpoints, and the book does not attempt to do so.

We hope that the *Principles and Practice of Endocrinology and Metabolism* will be a relevant source of information for the practicing clinician, the fascinating discipline, whether they be clinicians, basic scientists, allied health personnel, or students.

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