


Porth Pathophysiology

Concepts of Altered Health States

FIRST
CANADIAN
EDITION



Ruth A. Hannon
Charlotte Pooler
Carol M. Porth

 Wolters Kluwer Health | Lippincott Williams & Wilkins

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Inside

PORTH PATHOPHYSIOLOGY

Concepts of Altered Health States

FIRST CANADIAN EDITION

Ruth A. Hannon, RN(EC), MHA, MSFNP-BC
Assistant Professor
School of Nursing
McMaster University
Hamilton, Ontario

Charlotte Pooler, RN, BScN, MN, PhD(Nursing),
CNC(C), CNC(C)
Director, Baccalaureate Nursing Program
Faculty of Health and Community Studies
Grant MacEwan College
Edmonton, Alberta

Carol Mattson Porth, RN, MSN, PhD (Physiology)
Professor Emerita
College of Nursing
University of Wisconsin—Milwaukee
Milwaukee, Wisconsin

Glenn Matfin, BSc (Hons), MSc (Oxford), MB ChB,
DGM, FFPM, FACE, FACP, FRCP
Clinical Associate Professor of Medicine,
Department of Endocrinology
School of Medicine
New York University
New York, New York



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Senior Acquisitions Editor: Hilarie Surrena
Product Manager: Helen Kogut
Director of Nursing Production: Helen Ewan
Vendor Manager: Cindy Rudy
Art Director, Design: Holly McLaughlin
Art Director, Illustration: Brett MacNaughton
Manufacturing Coordinator: Karen Duffield
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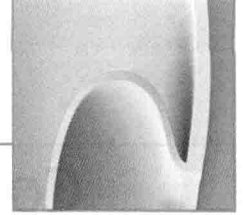
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*This book is dedicated to
Andrew and Narelle who have supported me throughout this process*
—RUTH HANNON

My family, each of them contributors in a unique way
—CHARLOTTE POOLER

Contributors to the First Canadian Edition



Anna Barkman, RN, BN, MN
Instructor
School of Nursing
Faculty of Health and Community Studies
Mount Royal College
Calgary, Alberta
(Chapters 22, 23, 24, 25, 26)

Lynn Miles, RN, BScN, MSc, PhD (c)
Professor
Mohawk College
Hamilton, Ontario
(Chapter 59)

Lesley Lyn Moisey, RD, MS
Clinical Dietitian
Humber River Regional Hospital
Weston, Ontario
(Chapter 39)

Joanna Pierazzo, RN, BEd, MScN, PhD (c)
Assistant Professor
McMaster University
Hamilton, Ontario
(Chapters 50, 51)

Otto H. Sanchez, MD, MSc, PhD
Associate Professor
University of Ontario Institute of Technology
Oshawa, Ontario
(Chapter 8)

Linda Slater-MacLean, RN, BScN, MN, CNCC(C)
Clinical Nurse Specialist, Critical Care
University of Alberta Hospital
Edmonton, Alberta
(Chapters 30, 31, 32, 33, 34)

Consultants to the Eighth Edition

Kathryn J. Gaspard, PhD
Clinical Associate Professor Emerita
College of Nursing
University of Wisconsin—Milwaukee
Milwaukee, Wisconsin

Kim Litwack, RN, PhD, FAAN, APNP
Associate Professor
College of Nursing
University of Wisconsin—Milwaukee
Milwaukee, Wisconsin

Contributors to the Eighth Edition

Judith A. Aberg, MD
Principal Investigator, AIDS Clinical
Trials Unit
Director of HIV, Bellevue Hospital
Center
Associate Professor of Medicine
New York University School
of Medicine
(Chapter 20)

Toni Balistrieri, RN, MSN, CCNS
Clinical Nurse Specialist, Critical Care
Zablocki Veterans Affairs Medical
Center
Milwaukee, Wisconsin
(Chapter 24)

Anna Barkman, RN, BN, MN
Instructor
School of Nursing
Faculty of Health and Community
Studies
Mount Royal College
Calgary, Alberta
(Chapter 26)

Diane S. Book, MD
Assistant Professor of Neurology
Medical College of Wisconsin
Milwaukee, Wisconsin
(Chapter 51)

Edward W. Carroll, MS, PhD
Clinical Assistant Professor
Department of Biomedical Sciences,
College of Health Sciences
Marquette University
Milwaukee, Wisconsin
(Chapters 4, 6, 48, 54)

Robin Curtis, PhD
Professor, Retired
Department of Cellular Biology,
Neurobiology, and Anatomy
Medical College of Wisconsin
Milwaukee, Wisconsin
(Chapters 48, 54)

W. Michael Dunne Jr., PhD
Professor of Pathology, Immunology,
and Molecular Microbiology
Washington University School of
Medicine
Medical Director of Microbiology
Barnes-Jewish Hospital
St. Louis, Missouri
(Chapter 16)

Jason Faulhaber, MD, Fellow
Division of Infectious Diseases and
Immunology
New York University School of Medicine
New York, New York
(Chapter 20)

Susan A. Fontana, PhD, APRN-BC
Associate Professor and Family Nurse
Practitioner
College of Nursing
University of Wisconsin—Milwaukee
Milwaukee, Wisconsin
(Chapter 55)

Kathryn J. Gaspard, PhD
Clinical Associate Professor Emerita
College of Nursing
University of Wisconsin—Milwaukee
Milwaukee, Wisconsin
(Chapters 12, 13, 14)

**Kathleen E. Gunta, MSN,
RN, OCNS-C**
Clinical Nurse Specialist
Aurora St. Luke's Medical Center
Milwaukee, Wisconsin
(Chapters 57, 58)

**Safak Guven, MD, MBA,
FACE, FACP**
Las Vegas, Nevada
(Chapter 42)

Serena W. Hung, MD
Assistant Professor, Department
of Neurology
Medical College of Wisconsin
Milwaukee, Wisconsin
(Chapter 50)

Scott A. Jens, OD, FAAO
 Doctor of Optometry
 Isthmus Eye Care, SC
 Middleton, Wisconsin
(Chapter 54)

Mary Kay Jiricka, RN, MSN, CCRN, APN-BC
 Staff Nurse, Cardiac Intensive Care Unit
 Aurora St. Luke's Medical Center
 Milwaukee, Wisconsin
(Chapter 11)

Julie A. Kuenzi, RN, MSN, CDE
 Manager, Diabetes and Endocrine Center
 Froedtert Hospital and Medical College of Wisconsin
 Milwaukee, Wisconsin
(Chapter 42)

Mary Pat Kunert, RN, PhD
 Associate Professor
 College of Nursing
 University of Wisconsin—Milwaukee
 Milwaukee, Wisconsin
(Chapters 9, 10)

Nathan A. Ledeboer, PhD
 Assistant Professor of Pathology
 Medical College of Wisconsin
 Director, Clinical Microbiology
 DynaCare Laboratories
 Milwaukee, Wisconsin
(Chapter 16)

Kim Litwack, RN, PhD, FAAN, APNP
 Associate Professor
 College of Nursing
 University of Wisconsin—Milwaukee
 Milwaukee, Wisconsin
(Chapters 32, 49)

Judy Wright Lott, RNC, DSN, FAAN
 Dean and Professor of Nursing
 Louise Herrington School of Nursing
 Baylor University
 Waco, Texas
(Chapter 2)

Patricia McCowen Mehring, RNC, MSN, WHNP
 Nurse Practitioner, Department of OB-GYN
 Medical College of Wisconsin
 Milwaukee, Wisconsin
(Chapters 45, 46, 47)

Carrie J. Merkle, RN, PhD, FAAN
 Associate Professor
 College of Nursing
 University of Arizona
 Tucson, Arizona
(Chapters 5, 8)

Kathleen Mussatto, RN, PhD
 Research Manager
 Herma Heart Center
 Children's Hospital of Wisconsin
 Milwaukee, Wisconsin
(Chapter 24)

Sandra Kawczynski Pasch, RN, MS, MA
 Assistant Professor
 Columbia College of Nursing
 Milwaukee, Wisconsin
(Chapter 53)

Janice Kuiper Pikna, RN, MSN, CS
 Clinical Nurse Specialist—Gerontology
 Froedtert Hospital
 Milwaukee, Wisconsin
(Chapter 3)

Joan Pleuss, RD, MS, CDE, CD
 Program Manager/Bionutrition Core
 General Clinical Research Center (GCRC)
 Medical College of Wisconsin
 Milwaukee, Wisconsin
(Chapter 39)

Charlotte Pooler, RN, BScN, MN, PhD (Nursing), CNCC(C), CNC(C)
 Director, Baccalaureate Nursing Program
 Faculty of Health and Community Studies
 Grant MacEwan College
 Edmonton, Alberta, Canada
(Chapters 26, 29)

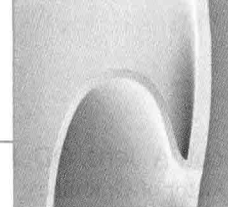
Debra Bancroft Rizzo, RN, MSN, FNP-C
 Nurse Practitioner
 Rheumatic Disease Center
 Glendale, Wisconsin
(Chapter 59)

Gladys Simandl, RN, PhD
 Professor
 Columbia College of Nursing
 Milwaukee, Wisconsin
(Chapters 60, 61)

Cynthia Sommer, PhD, MT (ASCP)
 Associate Professor Emerita,
 Department of Biological Sciences
 University of Wisconsin-Milwaukee
 Milwaukee, Wisconsin
(Chapters 17, 18)

Jill Winters, RN, PhD
 Dean and Professor
 Columbia College of Nursing
 Milwaukee, Wisconsin
(Chapter 25)

Reviewers for the Canadian Edition



Tamara Burnham, RN, BN
Instructor
University of Manitoba
Dugald, Manitoba

Linda Cook, BSN, MN, PhD
Continuing Faculty
Baccalaureate Nursing Program
Faculty of Health and Community Studies
Grant MacEwan College
Edmonton, Alberta

Lorna Estabrooks, RN, MN,
CNC(C), CCN(C)
Instructor, Advanced Studies Critical
Care Nursing Program
Mount Royal College
Calgary, Alberta

Lori Knight, CHIM
Instructor, Health Information
Management Program
SIAST, Wascana Campus
Regina, Saskatchewan

Ginette Patricia Michel, BPHE, MA,
PhD(c)
Professor, School of Human Kinetics
Laurentian University
Sudbury, Ontario

Carrie Mines, RN, BScN, MSc(T), PhD(c)
Professor, Faculty of Nursing
Mohawk College
Hamilton, Ontario

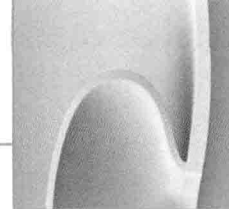
Maurine Parzen, BScN, MScT
Professor, Faculty of Nursing
Mohawk College
Hamilton, Ontario

Darlene Sheremet, BScN, MEd
Professor, Faculty of Nursing
Mohawk College
Hamilton, Ontario

Beth Swart, RN, MES
Professor
Ryerson University
Toronto, Ontario

Trish Whelan, RN, BScN, MHS, ENC(C)
Instructor, Faculty of Health
and Community Studies
Grant MacEwan College
Edmonton, Alberta

Preface



The preparation of this first Canadian edition has only been made possible by the extensive work of previous editions of *Pathophysiology: Concepts of Altered Health States*. Carol Mattson Porth's major emphasis, as a nurse-physiologist, has always been "to relate normal body functioning to the physiologic changes that participate in disease production and occur as a result of disease, as well as the body's remarkable ability to compensate for these changes." She believes that "the beauty of physiology is that it integrates all of the aspects of human genetics, molecular and cellular biology, and organ anatomy and physiology into a functional whole that can be used to explain both the physical and psychological aspects of altered health." It has been her philosophy "to share the beauty of the human body and to emphasize that in disease as in health, there is more 'going right' in the body than is 'going wrong'." It is based on this perspective that we hope all our readers "will learn to appreciate the marvellous potential of the body."

This Canadian edition is adapted from the eighth edition of Porth's *Pathophysiology: Concepts of Altered Health States*. In the process of writing a Canadian perspective, the commonalities were far more extensive than differences. Of course, the underlying pathophysiology that contributes to alterations in health is not unique to individual countries; however, minor differences do occur with regard to units of measurement, predominant etiologies, epidemiology, and management. This Canadian edition maintains all the features of the eighth edition and, while maintaining an international focus, gives supplementary attention to Canadian specific content.



FEATURES

A variety of features appear throughout the book to enhance learning.

Illustrations




Over 800 illustrations appear throughout this book and have been carefully developed or chosen to support the concepts that are presented in the text. There is a balance between line drawings of anatomic structures and pathophysiologic processes, flow charts, and photographic illustrations of disease states to enhance conceptual learning, linking text content to illustration content. Clinical illustrations, new to the eighth edition and included in this Canadian edition, depict the clinical manifestations of selected disease states.

Understanding

The Understanding feature focuses on key physiologic processes and phenomena that form a basis for understanding

the disorders presented in the text. This feature, which is illustrated in full colour, breaks a process or phenomenon down into its consecutive parts and presents them in a sequential manner, providing an insight into the many opportunities for disease processes to disrupt the sequence.

Reading and Learning Aids

Objectives, appearing at the beginning of each major section in a chapter, provide a focus of study and *Summary* boxes appearing at the end of a major section provide a review and reinforcement of the main content. *Key concept boxes* are intended to help the reader retain and use text information by identifying the major ideas or concepts. *Tables* and *charts* are designed to present complex information in a format that is meaningful and easy to remember. *Icons* identify specific content related to infants and children , pregnant women , and older adults . *Review Exercises* appear at the end of each chapter and assist the reader in using a conceptual approach to solving problems related to chapter content.

This edition also has a list of suffixes and prefixes, a glossary, and a table of normal laboratory values. The table of laboratory values includes Standard International (SI) and conventional units, as well as Internet addresses for conversion resources.



STUDENT AND INSTRUCTOR RESOURCES

A variety of ancillary materials are available to support students and instructors alike.

Resources for Students

Student Resource DVD. This free DVD is found in the front of the book, and contains **Animations** of selected pathophysiologic processes.

thePoint[®]*. Even **more animations** and additional resources are available online at thePoint.LWW.com

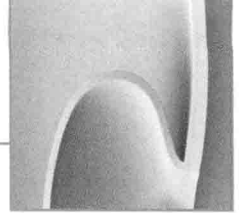
Resources for Instructors

Instructor's Resource DVD. This comprehensive resource includes the following:

- A **Test Generator**, containing more than 1,000 multiple-choice questions
- **PowerPoint** presentations
- An **Image Bank**, containing over 500 images from the text in formats suitable for printing, projecting, and incorporating into websites

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Acknowledgments



For this inaugural Canadian edition of *Porth Pathophysiology: Concepts of Altered Health States*, acknowledgement must first and foremost be given to Carol Mattson Porth. We are indebted to her history of maintaining high standards and her attention to detail as seen in previous editions that has allowed a seamless adaptation for the Canadian market. As we adapted this edition, it was clear that Carol and Glenn have assembled contributing authors who are world renowned in their fields, thus providing a solid foundation to build upon.

We would like to thank all our colleagues from across Canada who have helped us in the preparation of this Canadian edition with their constructive comments. They provided us with a diverse pool of resources to both enhance our knowledge and enrich the content of the book in a valuable way.

It has been a pleasure to work with the team at Lippincott Williams & Wilkins as they provided much patience and guidance through this process. The editorial and production staff were directed by Helen Kogut as Product Manager, Hilarie Surrena as Senior Acquisitions Editor, and Sara Krause and Brett MacNaughton who coordinated the

new illustrations—without them and many others behind the scenes this project would have been insurmountable.

We want to thank the students who challenged us to create this Canadian edition in order to more readily facilitate their transfer of knowledge, including our unique Canadian culture and perspectives, from the classroom to clinical practice. It is our hope that this edition will clarify Canadian guidelines and measurements and reduce any confusion when approaching key pathophysiological concepts.

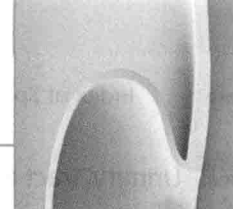
Special words of gratitude are extended to our many family members, friends, and colleagues who have supported and encouraged us during the creation of this edition.

Lastly, we recognize the diverse levels of expertise amongst our readers and encourage you to send us any pertinent and relevant information, plus any comments or suggestions about this Canadian edition, at the email address below. We will carefully consider all correspondence to enhance future editions.







Ruth A. Hannon
Charlotte Pooler
pathobook@hotmail.com

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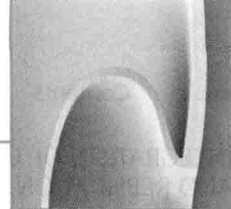
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