



# Medicine

## Springer and Palgrave Essential Textbooks

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ISBN : 978-3-319-46405-3

Hoskins, P.R., Lawford, P.V., Doyle, B.J. (Eds.), Centre for Cardiovascular Science, Queens Medical Research Institute, Edinburgh, UK

## Cardiovascular Biomechanics

- Written in a style accessible to a broad readership, including students, life scientists and clinicians, as well as physical scientists and engineers
- Includes key concepts exemplified by illustrations using cutting-edge imaging, modelling, and measurement technologies
- Offers a highly concise and relevant textbook focusing on core areas of cardiovascular mechanics

This book provides a balanced presentation of the fundamental principles of cardiovascular biomechanics research, as well as its valuable clinical applications. Pursuing an integrated approach at the interface of the life sciences, physics and engineering, it also includes extensive images to explain the concepts discussed. With a focus on explaining the underlying principles, this book examines the physiology and mechanics of circulation, mechanobiology and the biomechanics of different components of the cardiovascular system, in-vivo techniques, in-vitro techniques, and the medical applications of this research. Written for undergraduate ...

## Contents

Introduction to fluid and solid mechanics.- Introduction to biomechanics of the cardiovascular system.- Blood and blood flow.- Arterial biomechanics I. Pressure, flow and stiffness.- Arterial biomechanics II. Forces, adaptability and mechanotransduction.- Excitation-contraction in the heart.- Biomechanics of the venous system.- Biomechanics of the microcirculation.- Medical imaging.- Modelling of the cardiovascular system.- Patient specific modelling.- Flow phantoms.- Measurement of the mechanical properties of biological tissues.- Hypertension.- Atherosclerosis.- Aneurysms.- Cardiovascular prostheses.- Appendix 1: Questions.- Appendix 2: ...

## Fields of Interest

Cardiology; Biomedical Engineering and Bioengineering; Medical and Radiation Physics; Human Physiology

## Content Level

Upper undergraduate

## Product category

Graduate/advanced undergraduate textbook

Available

## Bibliography

1st ed. 2017, IX, 462 p. 220 illus. in color. Hardcover

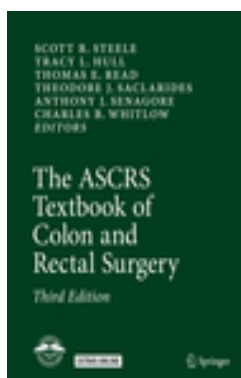
## Medium Type

Book

## Imprint

Springer

Order Quantity



ISBN : 978-3-319-25968-0

Steele, S.R., Hull, T.L., Read, T.E., Saclarides, T.J., Senagore, A.J., Whitlow, C.B. (Eds.), University Hospitals Case Medical Center Case Western Reserve University, Cleveland, OH, USA

## The ASCRS Textbook of Colon and Rectal Surgery

- Provides links to online videos give the reader an up-front look into technical aspects of colorectal surgery
- Format follows that of both a "how to" manual as well as an algorithm-based guide
- Written by expert surgeons with unique perspectives

This third edition text provides a completely revised and updated new version of this unique, modern, practical text that covers the strategic evaluation, specific approaches, and detailed management techniques utilized by expert colorectal surgeons caring for patients with complex problems—whether they result from underlying colorectal disease or from

complications arising from previous surgical therapy. The format follows that of both a "how to" manual as well as an algorithm-based guide to allow the reader to understand the thought process behind the proposed treatment strategy. By making use of evidence-based recommendations, each ...

## Contents

Anatomy and Embryology of the Colon, Rectum & Anus.- Colonic Physiology.- Anal Physiology: The physiology of continence and defecation.- Endoscopy.- Endoscopic management of polyps, polypectomy and combined endoscopic and laparoscopic surgery.- Preoperative assessment of colorectal patients.- Optimizing Outcomes with Enhanced Recovery.- Postoperative Complications.- Anastomotic Construction.- Anastomotic complications.- Approach to Anal Pain.- Hemorrhoids.- Anal Fissure.- Anorectal Abscess and Fistula.- Complex Anorectal Fistulas.- Rectovaginal Fistula.- Pilonidal Disease and Hidradenitis Suppurativa.- Dermatology and Pruritus Ani.- Sexually ...

## Fields of Interest

Colorectal Surgery; General Surgery; Surgical Oncology

## Content Level

Graduate

## Product category

Graduate/advanced undergraduate textbook

Available

## Bibliography

3rd ed. 2016, XXIII, 1292 p. 1089 illus., 555 illus. in color. In 2 volumes, not available separately. Hardcover

## Medium Type

Book

## Imprint

Springer

Order Quantity



ISBN : 978-1-4471-4473-1

Shortliffe, Edward H., Cimino, James J. (Eds.),  
Departments of Biomedical Informatics at  
Columbia University and Arizona State University,  
New York, NY, USA

## Biomedical Informatics

### Computer Applications in Health Care and Biomedicine

- Provides the conceptual base needed to comprehend and utilize medical informatics through easy to understand examples
- Fills the need for a high quality text in computers and medicine
- Focuses on the role of computers in the provision of medical services

The practice of modern medicine and biomedical research requires sophisticated information technologies with which to manage patient information, plan diagnostic procedures, interpret laboratory results, and carry out investigations. Biomedical Informatics provides both a conceptual framework and a practical inspiration for this swiftly emerging scientific discipline at the intersection of computer science, decision science, information science, cognitive science, and biomedicine. Now revised and in its third edition, this text meets the growing demand by practitioners, researchers, and students for a comprehensive introduction to key topics ...

### Contents

Biomedical Informatics: The Science and the Pragmatics.- Biomedical Data: Their Acquisition, Storage, and Use.- Biomedical Decision Making: Probabilistic Clinical Reasoning.- Cognitive Science and Biomedical Informatics.- Computer Architectures for Health Care and Biomedicine.- Software Engineering for Health Care and Biomedicine.- Standards in Biomedical Informatics.- Natural Language Processing in Health Care and Biomedicine.- Biomedical Imaging Informatics.- Ethics and Biomedical and Health Informatics: Users, Standards, and Outcomes.- Evaluation of Biomedical and Health Information Resources.- Electronic Health Record Systems.- The ...

### Fields of Interest

Health Informatics; Biomedicine, general

### Content Level

Graduate

### Product category

Graduate/advanced undergraduate textbook

Available

### Bibliography

4th ed. 2014,XXVI, 965 p. 253 illus., 135 illus. in color. Hardcover

## Medium Type

Book

### Imprint

Springer

Order Quantity



ISBN : 978-3-319-82796-4

Hyzy, Robert C. (Ed.), University of Michigan, Ann Arbor, MI, USA

## Evidence-Based Critical Care

### A Case Study Approach

- Case-based approach closely replicates the usual clinical learning process in medicine
- Takes a novel approach to the presentation of information with the emphasis placed on evidenced based medicine and the boundaries of current knowledge, what we are calling the "evidence contour"
- Bridges the gulf between the traditional encyclopedic textbook and the single-hit online reference

This book provides learners with a unique opportunity by virtue of the format outlined above. Each case presentation has a case vignette, which leads up to an important clinical question, and is followed by additional discussion which resolves the question posed. This is a new way to present knowledge in a medical book and should help critical care practitioners, fellows, residents, allied health professionals and students expand their critical care knowledge in an efficient and effective manner. This approach should also benefit those preparing for board examinations.

### Contents

Cardiac Arrest Management.- Post- Cardiac Arrest Management.- Undifferentiated Shock.- Hypovolemic Shock and Massive Transfusion.- Acute Respiratory Failure - NIV Implementation and Intubation.- Diagnosis and Management of Tricyclic Antidepressant Ingestion.- Management of Calcium Channel Blocker Poisoning.- Diagnosis and

Management of Ethylene Glycol Ingestion.- Accidental Hypothermia.- Management of Cardiogenic Shock.- Management of Acute Heart Failure.- Management of Acute Coronary Syndrome.- Complications of Myocardial Infarction.- Management of Cardiac Tamponade.- Hypertensive Crises.- Atrial Fibrillation and Other Supraventricular ...

### Fields of Interest

Intensive / Critical Care Medicine

### Content Level

Graduate

### Product category

Graduate/advanced undergraduate textbook

Available

### Bibliography

Softcover reprint of the original 1st ed. 2017,XXVI, 805 p. 233 illus., 133 illus. in color. Softcover

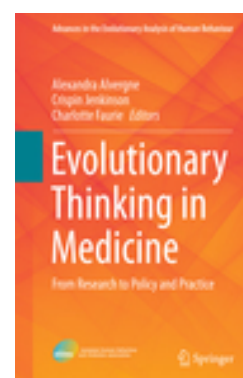
## Medium Type

Book (Paperback Initiative)

### Imprint

Springer

Order Quantity



ISBN : 978-3-319-29714-9

Alvergne, A., Jenkinson, C., Faurie, C. (Eds.),  
University of Oxford, Oxford, UK

## Evolutionary Thinking in Medicine

### From Research to Policy and Practice

- This is the first book of evolutionary medicine organized by medical subfields
- Provides a truly inter-disciplinary perspective, with contributions from medics, anthropologists, psychologist and biologists
- Highlights the importance of evolution in understanding health and disease in humans



The aim of this edited book is to provide health professionals, across a wide variety of specialisms, with a targeted access to evolutionary medicine. Throughout the book, the views of both medical and evolutionary scientists on the latest relevant research is presented with a focus on practical implications. The inclusion of boxes explaining the theoretical background as well as both a glossary for technical terms and a lay summary for non-specialists enable medical researchers, public health professionals, policy makers, physicians, students, scholars and the public alike to quickly and easily access appropriate information. This edited ...

### Contents

Preface.- Chapter 1: Applying evolutionary thinking in medicine: an introduction.- Chapter 2: "Foetal-maternal conflicts" and adverse outcomes in human pregnancies.- Chapter 3: Obstructed labour: the classic obstetric dilemma and beyond.- Chapter 4: Bottle feeding: the impact on postpartum depression, birth spacing and autism.- Chapter 5: Sudden Infant Death Syndrome.- Chapter 6: The Developmental Origins of Health and Disease: adaptation reconsidered.- Chapter 7: Is calculus relevant to survival? Managing the evolutionary novelty of modern education.- Chapter 8: Binge eating, Disinhibition and obesity.- Chapter 9: Evolutionary aspects of ...

### Fields of Interest

Medicine/Public Health, general; Health Psychology; Anthropology; Evolutionary Biology

### Content Level

Research

### Product category

Graduate/advanced undergraduate textbook

Available

### Bibliography

1st ed. 2016,XIV, 382 p. 37 illus., 17 illus. in color.(Advances in the Evolutionary Analysis of Human Behaviour) Hardcover

### Medium Type

Book

### Imprint

Springer

Order Quantity



ISBN : 978-3-319-98874-0

Meyer, Bernhard, Rauschmann, Michael (Eds.),  
Klinikum rechts der Isar, Technische Universität  
München, Munich, Germany

## Spine Surgery

### A Case-Based Approach

- Explains basic and advanced spine surgeries
- Based on European spine surgery training curriculum
- Provides a case-based approach to aid learning

This book covers the content of European postgraduate spine surgery courses, using a case-based approach. It describes a stepwise solution to a real-world clinical problem and compares this with the best available evidence. It then provides suggestions on how to bridge the gap (if there is one) between standard of care and evidence-based medicine. Spine Surgery: A Case-Based Approach is aimed at postgraduate students of spine surgery (both trainee neurosurgeons and trainee orthopedic surgeons), and is also of interest to medical students.

### Contents

Part 1: Basics and Conservative Therapy.- Psychosomatics/behaviour therapy.- Indications for emergency treatment.- Part 2: Surgical treatment of degenerative cervical, thoracic and lumbar spinal pathologies.- Anterior cervical sub-axial treatment (fusion).- Cervical motion preserving procedures (TDR).- Posterior motion preserving procedures (Frykholm, laminoplasty).- Cervical myelopathy: indication and operative procedure.- Thoracic disc herniation and myelopathy.- Lumbar disc herniation, nucleol and sequestrectomy.- Lumbar spinal stenosis.- Degenerative spondylolisthesis.- Slipped vertebra and degenerative lumbar scoliosis.- Lumbar non-fusion ...

### Fields of Interest

Neurosurgery; Surgical Orthopedics

### Content Level

Graduate

### Product category

Graduate/advanced undergraduate textbook

Available

### Bibliography

1st ed. 2019,XVII, 707 p. 485 illus., 192 illus. in color. Hardcover

### Medium Type

Book

### Imprint

Springer

Order Quantity



ISBN : 978-3-319-48846-2

Veronesi, U., Goldhirsch, A., Veronesi, P., Gentilini,  
O.D., Leonardi, M.C. (Eds.), European Institute of  
Oncology, Milan, Italy

## Breast Cancer

### Innovations in Research and Management

- Describes all the important recent advances in the management of breast cancer
- Covers progress in understanding of genetics and biology in detail
- Designed to serve as a state-of-the-art reference for practitioners, residents, researchers, and advanced students

This book provides the reader with up-to-date information on important advances in the understanding of breast cancer and innovative approaches to its management. Current and emerging perspectives on genetics, biology, and prevention are first discussed in depth, and individual sections are then devoted to pathology, imaging, oncological surgery, plastic and reconstructive surgery, medical oncology, and radiotherapy. In each case the focus is on the most recent progress and/or state of the art therapies and techniques. Further topics to receive detailed consideration include particular conditions requiring multidisciplinary approaches, the ...

**Contents**

Part I An Integrated view of Breast Cancer Biology.- Fundamental pathways in breast cancer 1: signaling from the membrane.- Fundamental pathways in breast cancer 2: maintenance of genomic stability.- Fundamental pathways in breast cancer 3: estrogen biology.- Fundamental pathways in breast cancer 4: maintenance of epigenomic stability and the role of stem cells.- Breast cancer microenvironment and the metastatic process.- Mouse models of breast cancer.- Human mammary tumor virus proteins in human breast cancer cells.- Part II Epidemiology, Genetics and Prevention.- Epidemiology, life style and environment.- Genetic predisposition.- ...

**Fields of Interest**

Oncology; Imaging / Radiology; Surgery; Pathology; Human Genetics

**Content Level**

Graduate

**Product category**

Graduate/advanced undergraduate textbook

Available

**Bibliography**

1st ed. 2017,XIV, 928 p. 296 illus., 236 illus. in color. Hardcover

**Medium Type**

Book

**Imprint**

Springer

**Order Quantity**