

# **COMPUTED TOMOGRAPHY**

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## **OF THE BODY**

**With Magnetic Resonance Imaging**

**Volume Two**  
**Bone and Joint**

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## **OF THE BODY**

**With Magnetic Resonance Imaging**

**Second Edition**

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## **Volume Two**

### **Bone and Joint**

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# PREFACE

The second edition of *Computed Tomography of the Body* has been extensively updated and is presented as a comprehensive, state-of-the-art text on computed tomography (CT) of the body that now includes an integration of magnetic resonance (MR) imaging in all sections of the book. Since the first edition, there have been great advances in CT and its application to patient care. Although the impact of CT has been enormous, magnetic resonance imaging is undergoing explosive growth and is having an ever-increasing impact on body imaging.

As in the first edition, this text is organized so that basic anatomy and CT and MR techniques are discussed for each region of the body. The features of disease entities in these two imaging modalities are described and illustrated, and the relationship of CT to MR and other imaging techniques is discussed in depth. Recommendations are offered as to the role of each modality in specific clinical situations. The book presents an integrated approach, reflecting our current standard of practice. Knowledge of CT and MR imaging will continue to expand, and recommendations, techniques, and patterns of use will undoubtedly change in the future.

In writing this book, now expanded to three volumes, there have been many people without whose support, guidance, insight, and help this work could not have been completed. We thank our colleagues who contributed their time and case material, and we acknowledge the illustration departments at the University of California, San Francisco, and the University of Washington, as well as the secretarial and editorial support of Jan Taylor, Isabel Rosenthal, and Denice Nakano.

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# INTRODUCTION TO VOLUME TWO

Computed tomography (CT) has made an enormous impact on musculoskeletal imaging in general and orthopaedic diagnosis in particular. The technical advances achieved during the 1980s provide the basis for rapid, efficient, and reliable performance, and now CT is used routinely and universally in a broad array of musculoskeletal applications.

Magnetic resonance imaging (MRI), developed in the early 1980s and refined for musculoskeletal application in the late 1980s, is now a primary diagnostic modality in orthopaedic practice and to a lesser extent in rheumatologic practice. The technical developments in MRI have been explosive and continue to drive this modality to ever more diverse and exacting applications. Today, MRI may be viewed as the most important advance of the century in orthopaedic diagnosis.

In Volume Two, the major and important applications of CT and MRI are combined in chapters covering The Joints, The Spine, Osteoporosis, Musculoskeletal Tumors, and Marrow-Infiltrating Disorders. Each topic is handled in depth and illustrated extensively.

I would like to thank my many colleagues and collaborators at the University of California, San Francisco, and at other centers around the country and around the globe who have contributed directly or indirectly to this volume. Without their wisdom, insight, and support, this work would not have been possible.

HARRY K. GENANT, M.D.

# CONTENTS

## **Volume One** **Thorax and Neck**

### **CHAPTER 1**

#### **THE TRACHEA AND CENTRAL BRONCHI ..... 1**

*Gordon Gamsu*

### **CHAPTER 2**

#### **THE MEDIASTINUM ..... 43**

*Gordon Gamsu*

### **CHAPTER 3**

#### **THE PULMONARY HILA ..... 119**

*Gordon Gamsu*

### **CHAPTER 4**

#### **THE LUNGS ..... 157**

*Gordon Gamsu*

### **CHAPTER 5**

#### **THE CHEST WALL, AXILLARY SPACE, PLEURAE, AND DIAPHRAGM ..... 237**

*W. Richard Webb • Gordon Gamsu*

### **CHAPTER 6**

#### **THE HEART AND PERICARDIUM ..... 285**

*Charles B. Higgins*

### **CHAPTER 7**

#### **TRAUMA ..... 311**

*Pierre Schnyder • Gordon Gamsu • Axel Essinger • Bertrand Duvoisin*

### **CHAPTER 8**

#### **INTERVENTIONAL TECHNIQUES ..... 325**

*Jeffrey S. Klein*



xii CONTENTS

CHAPTER 9

THE LARYNX AND PIRIFORM SINUSES ..... 343

*Gordon Gamsu*

CHAPTER 10

THE NECK ..... 395

*William P. Dillon • Anthony A. Mancuso*

**Volume Two**  
**Bone and Joint**

CHAPTER 11

THE JOINTS ..... 435

*David W. Stoller • Harry K. Genant*

CHAPTER 12

THE SPINE ..... 477

*Neil I. Chafetz • Stephen L. G. Rothman • Harry K. Genant • Jay A. Kaiser*

CHAPTER 13

OSTEOPOROSIS ..... 523

*Harry K. Genant • Claus-C. Glöer • Peter Steiger • Kenneth G. Faulkner*

CHAPTER 14

MUSCULOSKELETAL TUMORS ..... 551

*Lynne S. Steinbach • Harry K. Genant • Clyde A. Helms*

CHAPTER 15

MARROW-INFILTRATING DISORDERS ..... 603

*Bruce A. Porter*

**Volume Three**  
**Abdomen and Pelvis**

CHAPTER 16

THE GASTROINTESTINAL TRACT ..... 643

*Ruedi F. Thoenig • Albert A. Moss*

CHAPTER 17

THE LIVER ..... 735

*Richard L. Baron • Patrick C. Freeny • Albert A. Moss*

CHAPTER 18

THE BILIARY TRACT ..... 823

*Richard L. Baron*

CHAPTER 19	
THE PANCREAS .....	869
<i>Michael P. Federle • Henry I. Goldberg</i>	
CHAPTER 20	
THE KIDNEYS .....	933
<i>Albert A. Moss • William H. Bush</i>	
CHAPTER 21	
THE ADRENAL GLANDS .....	1021
<i>William P. Shuman • Albert A. Moss</i>	
CHAPTER 22	
THE SPLEEN .....	1059
<i>Michael P. Federle</i>	
CHAPTER 23	
THE RETROPERITONEUM AND LYMPHOVASCULAR STRUCTURES .....	1091
<i>Randall M. Patten • William P. Shuman • R. Brooke Jeffrey, Jr.</i>	
CHAPTER 24	
THE PERITONEAL CAVITY AND MESENTERY ..	1139
<i>R. Brooke Jeffrey, Jr.</i>	
CHAPTER 25	
THE PELVIS .....	1183
<i>Leslie M. Scoutt • Shirley M. McCarthy • Albert A. Moss</i>	
CHAPTER 26	
PEDIATRIC BODY IMAGING .....	1267
<i>Edward Weinberger • David K. Brewer</i>	
CHAPTER 27	
INTERVENTIONAL COMPUTED TOMOGRAPHY .....	1297
<i>Albert A. Moss</i>	
CHAPTER 28	
PRINCIPLES OF MAGNETIC RESONANCE IMAGING .....	1341
<i>Peter L. Davis</i>	
CHAPTER 29	
PRINCIPLES OF COMPUTED TOMOGRAPHY .	1355
<i>Douglas P. Boyd • Dennis L. Parker • Mitchell M. Goodmitt</i>	
INDEX .....	i















