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# **EMERGENCY RADIOLOGY**

## Case Studies

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# EMERGENCY RADIOLOGY Case Studies

**David T. Schwartz, MD, FACEP**

Associate Professor of Clinical Emergency Medicine  
New York University School of Medicine  
Bellevue Hospital and New York University Medical Center  
New York, New York



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**Emergency Radiology: Case Studies**

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## *Dedication*

*To the NYU/Bellevue Emergency Medicine Residents, past, present, and future. It has been a privilege and pleasure to have worked with the thoughtful and dedicated individuals listed below and to share in their development over the years, their enthusiasm for learning, and their devotion to the care of Emergency Department patients.*

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Paula Whiteman

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Patient ages are categorized as follows: young adult, 18-40 years;  
middle-aged 41-65 years, elderly > 65 years

# PREFACE

Working in the Emergency Department is a wonder. There is an extraordinary range of clinical problems to solve and opportunities to attend to patients in need. Diagnostic imaging plays an important role in many clinical situations, although its role must always remain secondary to a carefully performed history and physical examination.

Many different imaging modalities are employed in emergency practice including conventional radiography, CT, ultrasonography and, less often, MRI, nuclear scintigraphy, angiography, and enteric contrast radiography. Nonetheless, conventional radiography remains the most frequently used modality and the one that emergency clinicians are most frequently called upon to interpret. In addition, an understanding of radiographic findings is important to deriving essential information from the radiologist's report and to communicating accurately with medical and surgical colleagues. Conventional radiography is therefore the focus of most of the cases in this book. Noncontrast head CT, which is the chief imaging study for various neurological emergencies, is covered in one section. Other imaging modalities are discussed where they play a role.

This book is based on clinical cases, and is designed to hone the reader's skills in the use and interpretation of radiographs. Easily missed disorders and diagnostic dilemmas are emphasized. Although not exhaustive, the book encompasses many of the major areas in which radiography is helpful in achieving a diagnosis. By limiting the range of topics, these areas can be discussed in greater depth than is possible in an all-inclusive textbook. Such all-inclusive coverage can be found in *Emergency Radiology*, edited by David T. Schwartz and Earl J. Reisdorff (McGraw-Hill, 2000).

The book is divided into seven sections: chest, abdomen, upper and lower extremity, cervical spine, head CT and face. Each section begins with an introductory chapter that discusses the radiographic principles for that region. These include indications for radiography, radiographic views, anatomy, and principles of interpretation.

Each case begins with a description of the patient's clinical presentation and initial radiographic studies. The reader should attempt to interpret the radiographs before proceeding to the discussion. In some instances, a second set of images is provided as the case develops.

A list of suggested reading is provided at the end of each chapter, including both recent and classic articles. These should serve as a starting point for further investigation of the topic. The references are listed alphabetically by author's name and, in many instances, are divided by topic.

Because the cases are initially presented without a final diagnosis, the table of contents identifies only the patient's chief complaint. A second table of contents, located at the end of the front matter on page xiii, lists chapters by diagnosis and should not be consulted until after the cases have been reviewed. This will assist readers in locating the material for later reference. In addition, a comprehensive index is provided in which major topics are indicated by boldface text.

My hope is that the reader will find these cases instructive and engaging, and that they will serve as a stimulus to advance his or her knowledge of diagnostic imaging in emergency medicine practice.

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