

the previous edition, nor should this book be relied on by people new to the field of exercise physiology, who might be overwhelmed by the dense nature of the material and who would benefit from a more easily understood text that focuses on the essentials of exercise physiology.

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**Atlas of Chest Sonography.** Gebhard Mathis MD and Klaus Dieter Lessnau MD, editors. Berlin: Springer-Verlag. 2003. Hard cover, illustrated 179 pages, \$99.

Chest sonography is tricky because the ultrasound beam is almost completely reflected by the thoracic bones, and it is almost fully obliterated by the gas-filled lung. Given those limitations, chest sonography has been viewed as being of little importance for the clinical assessment of thoracic or pulmonary disease. The value was largely seen as for assessment of pleural effusion, where sonography was used as a diagnostic tool and as a guide for punctures to install drainage systems.

The **Atlas of Chest Sonography**, edited by Mathis and Lessnau, shows us with impressive pictures how much we have underestimated the technique by reducing its use only to assessment of pleural effusions. The ultrasound technique, and especially chest sonography, has dramatically improved over the last 15 years; numerous papers on its value in various clinical settings have been published and promoted our knowledge and interest in this noninvasive technique, which is, to our knowledge today, virtually free of adverse effects. It is the merit of the **Atlas** that it comprehensively summarizes all modern applications of chest sonography, which is particularly important because the widespread availability of ultrasound makes it necessary to further spread the physician's knowledge on this technique. The **Atlas** fulfills this task with its broad variety of excellent pictures, each of which is accompanied by a short description and history of the patient. With this clinical approach, the **Atlas** primarily addresses physicians who might conduct chest sonography or who should at least be able to interpret sonography results.

The **Atlas** is divided into 10 chapters, beginning with some introductory remarks on the indications and the technical and investigational aspects. This chapter, written by Beckh, is definitively not intended to cover all technical aspects of ultrasound and its reflection, but it focuses on the requirements and the investigation of the chest, thereby serving as a good "teaser" to learn more about the technique.

The next chapters are divided according to the various anatomical structures assessable with ultrasound: the chest wall (written by Bitschnau and Mathis); the pleura (by Reuss); consolidations of the peripheral lung, subdivided into inflammatory processes (by Mathis), neoplastic conditions (by Beckh), vascular diseases (by Mathis), atelectasis formation (by Görg), and congenital pulmonary sequestration (by Mathis); and the mediastinum, subdivided into the transthoracic views (by Blank) and transesophageal views (by Annema, Veselic, and Rabe). All the chapters are full of high-quality pictures of virtually all clinical conditions that might be seen via chest sonography. All the pictures are accompanied by a short text that describes the patient's medical condition and history, thereby putting the ultrasound investigation and the obtained picture in a strictly clinical perspective. This approach facilitates easy understanding for the clinician, helping us to better understand the sensitivity and specificity of the method embedded in a clinical context. I have honestly not found any relevant ultrasound picture that is not shown in the **Atlas**, and I have to admit that most of the pictures shown are of a clarity and quality far above my clinical average. Therefore, the **Atlas** is not only a high quality teaching tool but also a motivation for experienced users to improve their skills to the level shown in the **Atlas**. The pictures have clear legends and arrows pointing to the important structures explained in the legends.

In Chapter 6 Herth and Becker describe the technique of endobronchial sonography, which is interesting to read, although the tool might be restricted to the pulmonologist. However, it gives an interesting impression of the technique and the results attainable with it. Again, the pictures are the merit of the chapter, being accompanied by short clinical notes. In Chapter 7, Görg describes the ultrasound assessment of the white hemithorax, due either to liquid or solid masses. This comprehensive clinical

chapter is really a "must read" for every physician involved in chest sonography.

It is a special merit of the **Atlas** that it mentions artifacts and pitfalls (in Chapter 8, written by Schuler). Every investigator knows about these difficulties in ultrasonic investigations, and therefore the chapter is highly appreciated by clinicians to systematically learn about the possible limits of this technique. Again, the clarity and quality of the pictures makes the chapter a valuable teaching and learning tool.

In Chapter 9, Blank points out some aspects of interventional chest sonography. The chapter helps to understand possibilities and to judge what can be done in specialized centers by experienced users. The last chapter, by Beckh, describes the role of ultrasonic investigations in a clinical pathway to examine frequent clinical conditions in chest medicine, such as chest pain, pleural disease, and pneumonia. Here it becomes evident how ultrasound results might be used to promote and direct additional and complementary investigations in various clinical settings.

The **Atlas** was originally published in 2001, edited by Mathis, in German. In 2003 Lessnau became co-editor of the English translation. In Germany and the English-speaking countries during those years, "real-time sonography" came into use as a point-of-care investigation throughout the hospital, and that practice will definitely continue. Thus, sonography is an issue not only for the radiologist or pulmonologist, but for every physician involved in treating chest disease. In my intensive care department, chest sonography is performed by surgeons, internists, and anesthesiologists, and it is being taught to every resident and fellow staying with us. We use the **Atlas** as an excellent teaching and learning tool for the beginner and as a reference book for the more experienced user. I highly recommend it to every physician involved in interdisciplinary workups of chest patients. I fully agree with Lessnau, who writes in the preface to the English edition, "The time is certainly well invested."

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