

Preface to the Second Edition

When I. Donald, J. MacVicar, and T. G. Brown published the first obstetric ultrasound images in *Lancet* in 1958, they could not have envisioned the tremendous advances and extensive use that diagnostic ultrasound would achieve in prenatal diagnosis during subsequent decades. The basic evolution of diagnostic ultrasound has been from A-mode to B-mode scanning, then to real-time 2-D imaging and color Doppler sonography, and finally to real-time 3-D ultrasound technology. This progress has included many smaller but no less important evolutionary steps, such as advances in transducer designs and innovations in computer hardware and software. Today we have at our disposal a sophisticated sonographic technology that not only provides an increasingly detailed look at embryonic and fetal development and physiology but also permits the early detection of numerous pathologic conditions. As a result, the ultrasound examination has become an indispensable part of prenatal diagnosis and treatment.

Given the broad range of developments in ultrasound technology, it is not surprising that the number of publications dealing with ultrasonography have reached startling proportions. This has made it difficult even for specialists in obstetric ultrasound to keep abreast of the latest developments.

This second edition of *Ultrasound in Gynecology and Obstetrics* is designed to provide the prenatal diagnostician with a comprehensive, up-to-date review of transvaginal and abdominal sonography as they are applied to obstetrics. Besides offering copious information and illustrations, each chapter concludes with an extensive list of bibliographic references. As in the gynecologic volume, sonographic images in this volume are matched with clinical photographs so that the observer can gain a clearer appreciation of pathologic findings. This edition also gives special attention to biometry, providing growth charts and an appendix with tables listing the normal values that are most relevant to prenatal diagnosis.

The combined efforts of 26 contributors have resulted in a textbook and atlas that will familiarize hospital and office practitioners with the current applications of the various ultrasound techniques used in prenatal diagnosis and treatment while also guiding physicians in the sound and discriminating clinical use of these techniques.

I express thanks to all of my coauthors, who have contributed decisively to the success of this book. I also thank Dr. J. Bohl (Dept. of Neuropathology, University of Mainz) for preparing the pathoanatomic brain sections, Prof. H. Muntefering (head of the Dept. of Pediatric Pathology, University of Mainz) for providing various images of pathologic conditions, Prof. J. W. Spranger (executive director of the Mainz University Pediatric Hospital) for his help in reviewing the nomenclature for fetal limb anomalies, and Prof. S. Wellek (director of Mannheim Central Institute, Dept. of Biostatistics) for his extensive help in constructing growth charts and tables.

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