

THIRD EDITION

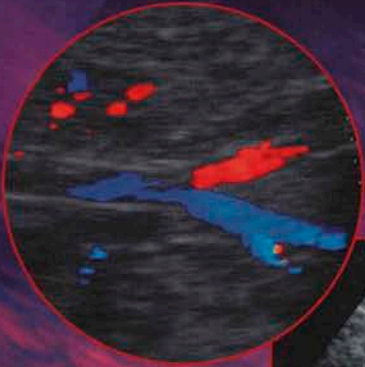


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# Obstetric ULTRASOUND

HOW, WHY AND WHEN

Edited by  
Trish Chudleigh  
Basky Thilaganathan



# Obstetric Ultrasound

## How, Why and When

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THIRD EDITION

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EDINBURGH LONDON NEW YORK OXFORD PHILADELPHIA ST LOUIS SYDNEY TORONTO 2004

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An imprint of Elsevier Science Limited

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First edition 1986

Second edition 1992

Third edition 2004

ISBN 0 443 054711

**British Library Cataloguing in Publication Data**

A catalogue record for this book is available from the British Library

**Library of Congress Cataloging in Publication Data**

A catalog record for this book is available from the Library of Congress

**Note**

Medical knowledge is constantly changing. As new information becomes available, changes in treatment, procedures, equipment and the use of drugs become necessary. The authors, contributors and publishers have taken care to ensure that the information given in this text is accurate and up to date. However, readers are strongly advised to confirm that the information, especially with regard to drug usage, complies with the latest legislation and standards of practice.

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# Preface

The third edition of this text follows the path of its predecessors in combining the description of best practice with practical advice for all ultrasound practitioners who participate in obstetric imaging programmes. The suggestions we make are derived from our experiences of working for many years in teaching centres of excellence that act both as tertiary referral centres and also as providers of routine screening for their local populations. As in most ultrasound departments, the education and training of others has formed an integral part of what we do. We hope that the combining of the technical expertise of the ultrasound practitioner with the clinical expertise of the obstetrician and our understanding of the challenges of working in a multidisciplinary environment make this text instructive to both the novice and the experienced ultrasound practitioner.

The development of units dedicated to early pregnancy, gynaecological and infertility investigations is encouraging specialization in particular areas of obstetric and gynaecological imaging. In order to gain from the expertise of such specialists this edition incorporates chapters on the imaging and management of early pregnancy, gynaecology and infertility from international experts in these fields. A clear understanding of the principles of ultrasound when applied to 2D imaging or to Doppler examinations is critical to the safe and effective use of ultrasound in clinical practice. Understanding the principles of ultrasound, however, is frequently not synonymous with the skill of

being able to impart that knowledge to others. We hope that the reader of this edition will benefit from the clear thinking of, in our opinion, one of the best current teachers of the principles of 2D ultrasound and Doppler ultrasound.

The continuing improvement in resolution of ultrasound systems brings with it both advantages and challenges. While we are able to identify an ever-increasing range of abnormalities in the fetus, this diagnostic sophistication is not without its cost. The interpretation of findings that are not abnormal but may confer an increased risk of a particular condition provide the challenge to us as operators and communicators and to parents as the receivers of our care. The uncertainty surrounding the interpretation of markers of aneuploidy remains an example of such a challenge. This is now further compounded by the introduction of prior screening by nuchal translucency and/or biochemical screening in many departments. The need for the practitioner to understand clearly the purpose of the examination, the information it may provide and how to interpret it has never been greater. This expertise must now be combined with the additional ability to communicate the interpretation of the findings, be they straightforward or complex, to the parents in a way that they can understand. For this reason we have introduced a new chapter into this edition that offers what we consider to be a helpful approach to the communication of 'good' and 'bad' news to parents.

In putting together this third edition it has been our intention to provide a clear, concise and usefully illustrated text that addresses many of the issues that the qualified ultrasound practitioner will face in his or her daily practice. We also hope that it will provide a readable and clinically helpful text for the student sonographer, that it will support

them through their training and will ultimately provide a logical foundation on which they base their clinical practice.

Trish Chudleigh and Basky Thilaganathan  
London 2004

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# Obstetric ULTRASOUND

HOW, WHY AND WHEN



- A highly illustrated manual now fully updated and improved that serves as a step-by-step guide for those new to obstetric, gynaecological and infertility ultrasound as well as a source of reference for the more experienced sonographer.
- Written by a sonographer and an obstetrician both of whom have extensive experience in the practice and teaching of obstetric ultrasound.
- Details the safe use of transvaginal and transabdominal ultrasound, including Doppler techniques, in normal and abnormal pregnancy and in the gynaecological patient.
- Teaches a logical approach to ultrasound imaging in pregnancy that allows the exclusion of abnormality as part of every routine examination.
- Aims to improve the knowledge of the sonographer and the clinician involved in the care of the pregnant woman or of the gynaecological patient.

Important contributions from Davor Jurkovic, Simon Kelly and Tony Evans who are all experts in the fields of gynaecology and early pregnancy, infertility and medical physics, respectively.

From reviews of the successful first edition

...an essential reference for people starting out in obstetric ultrasound, be they medical or technical.

*Radiology Now*

...a practical manual...admirably suited for those new to ultrasonography who need to know its easy terminology and physical basis, and a basic technique to follow.

*Placenta*

...easy to read, simple to understand but comprehensive account of ultrasound used in obstetric practice...a mine of relevant information.

*Midwifery*

*Obstetric Ultrasound* is a leader in its field and the 314 pages make an easy read with good photographic and diagrammatic illustrations. It compares favourably with other ultrasound books on the market because it is so comprehensive and user friendly.

*Midwifery Digest*

It is almost a DIY guide for all students, doctors, midwives and tutors who want to provide a quality service to their clients. These people need books that provide accurate, precise, relevant and applicable information, and this book provides just that.

*Professional Nurse*

This product is appropriate for:

- imaging
- ultrasound
- radiography



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ISBN 0-443-05471-1



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