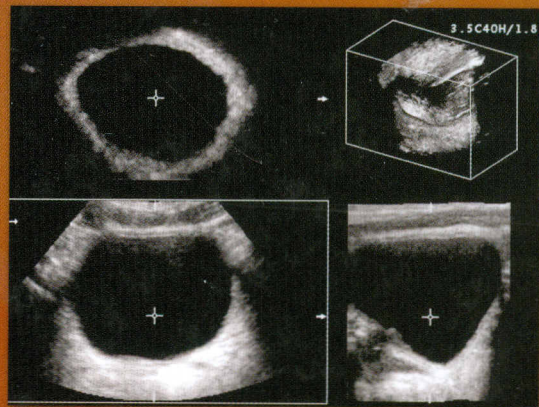
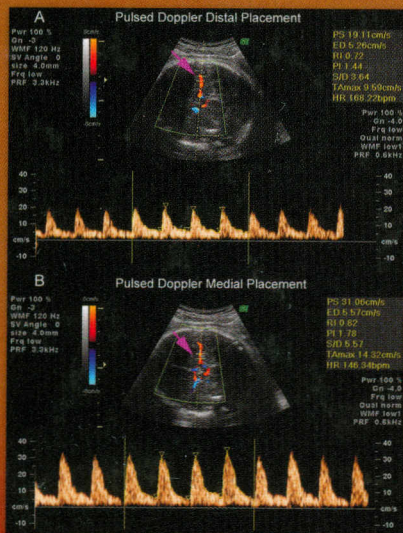


154290

Second Edition

Atlas of Ultrasound Measurements

Barry B. Goldberg, MD
John P. McGahan, MD



MOSBY



Contents

Part 1: First Trimester Obstetrical Measurements

- 1 Amniotic Fluid in the First Trimester 2**
John P. McGahan
- 2 Crown-Rump Length 3**
John P. McGahan
- 3 Embryonic Heart Rate 6**
Henry Sabata, John P. McGahan
- 4 Gestational Sac Size–Crown-Rump Length Difference 8**
John P. McGahan
- 5 Human Chorionic Gonadotropin Values Correlated with Sonography 10**
John P. McGahan
- 6 Mean Sac Diameter 12**
John P. McGahan
- 7 Yolk Sac 15**
Sam Chao, John P. McGahan

Part 2: Second and Third Trimester Obstetrical Measurements

- 8 Amniotic Fluid Index 20**
Lyndon Hill
- 9 Biophysical Profile Score 26**
Lyndon Hill
- 10 Cervical Length 28**
Lyndon Hill
- 11 Fetal Abdominal Circumference 30**
Lyndon Hill
- 12 Fetal Adrenal Gland 35**
Marijo A. Gillen
- 13 Fetal Biparietal Diameter 40**
Lyndon Hill
- 14 Fetal Clavicular Length 43**
Lyndon Hill
- 15 Fetal Ear Length 45**
Lyndon Hill
- 16 Fetal Weight 47**
Lyndon Hill
- 17 Estimates and Ratios of Menstrual Age and Fetal Weight 50**
Lyndon Hill
- 18 Fetal Bowel 57**
Lyndon Hill
- 19 Fetal Foot Length 61**
Lyndon Hill
- 20 Fetal Head Circumference 64**
Lyndon Hill

Contents—continued

- 21 Fetal Liver Length 68**
Lyndon Hill
- 22 Fetal Long Bones 72**
Lyndon Hill
- 23 Fetal Mandible 84**
Lyndon Hill
- 24 Fetal Nasal Bone 87**
Lyndon Hill
- 25 Fetal Nuchal Translucency 90**
Lyndon Hill
- 26 Fetal Ocular Biometry 93**
Lyndon Hill
- 27 Fetal Renal Length 97**
Lyndon Hill
- 28 Fetal Rib Length 99**
Lyndon Hill
- 29 Fetal Scapular Length 101**
Lyndon Hill
- 30 Fetal Splenic Circumference 103**
Lyndon Hill
- 31 Fetal Transverse Cerebellar Diameter 106**
Lyndon Hill
- 32 Twins: Second and Third Trimester Biometric Data, Excluding Fetal Weight 108**
Lyndon Hill

Part 3: Obstetrical Doppler

- 33 Two-Dimensional and Pulsed Doppler Examination of the Fetal Ductus Arteriosus 114**
Greggory R. DeVore
- 34 M-Mode Measurement of the Fetal Heart 119**
Greggory R. DeVore
- 35 B-Mode Measurement of the Fetal Heart 143**
Greggory R. DeVore
- 36 Pulsed Doppler Examination of the Fetal Heart 159**
Greggory R. DeVore
- 37 Maternal Uterine Artery During Pregnancy 177**
Greggory R. DeVore
- 38 Fetal Umbilical Artery 183**
Greggory R. DeVore
- 39 Fetal Middle Cerebral Artery 190**
Greggory R. DeVore
- 40 Fetal Inferior Vena Cava 205**
Greggory R. DeVore

41 Fetal Intra-Abdominal Umbilical Vein 212*Greggory R. DeVore***42 Fetal Intra-Amniotic Umbilical Vein 220***Greggory R. DeVore***43 Fetal Ductus Venosus 230***Greggory R. DeVore***Part 4: Gynecology****44 Female Pelvic Organ Measurements (Ovaries, Uterus, Endometrium) 240***Maria Fogata***Part 5: Pediatric Measurements****45 Level of the Conus Medullaris in the Newborn Spine 250***Rebecca Stein-Wexler***46 Measurements of Extra-axial Fluid in the Neonatal Head 252***Rebecca Stein-Wexler***47 Correlation of Cerebellar Measurements and Gestational Age in Neonates 254***Rebecca Stein-Wexler***48 Neonatal Cerebral Ventricles 258***Rebecca Stein-Wexler***49 Pediatric Patients: Miscellaneous Measurement (Thyroid, Thymus, and Testis) 261***Diane Babcock***50 Pediatric Pylorus 267***Diane Babcock***51 Pediatric Kidneys 270***Diane Babcock***52 Neonatal Adrenal Gland 277***Diane Babcock***53 Pediatric Gallbladder and Biliary Tract 279***Diane Babcock***54 Pediatric Liver 281***Diane Babcock***55 Pediatric Pancreas 283***Diane Babcock***56 Pediatric Portal Vein 284***Diane Babcock***57 Pediatric Spleen 286***Diane Babcock***58 Pediatric Lymph Nodes 289***Diane Babcock***59 Pediatric Urinary Bladder 291***Diane Babcock***60 Pediatric Appendix 293***Diane Babcock***61 Pediatric Uterus 294***Diane Babcock*

Contents—continued

62 Pediatric Ovary 297

Diane Babcock

63 Newborn Hip 300

Diane Babcock

Part 6: Head and Neck Doppler

64 Transcranial Doppler Examinations 306

Mira L. Katz

65 Temporal Arteritis Ultrasound Findings 311

Michael S. Cronan

66 Internal Carotid Artery Doppler 315

Mark E. Lockhart, Lincoln L. Berland

67 Vertebral Artery Doppler 319

Mark E. Lockhart, Lincoln L. Berland

Part 7: Head and Neck

68 Ophthalmic Ultrasound: Axial Length Measurements 326

Elizabeth L. Affel

69 Thyroid and Parathyroid 328

Laurence Needleman

Part 8: Echocardiography

70 Echocardiographic Measurements: Introduction 334

Anita J. Moon-Grady

71 Echocardiographic Doppler 335

Anita J. Moon-Grady

72 Echocardiographic M-Mode 345

Anita J. Moon-Grady

73 Two-Dimensional Echocardiography 352

Anita J. Moon-Grady

Part 9: Abdomen Genitourinary

74 Adrenal Gland 362

Marijo A. Gillen, Ethan J. Halpern

75 Renal Measurements 366

Ethan J. Halpern

76 Prostate and Seminal Vesicle Measurements 370

Ethan J. Halpern

77 Scrotal Ultrasound Measurements 375

Eugenio Gerscovich

78 Bladder 382

Ethan J. Halpern

Part 10: Abdomen–Vascular Ultrasound Measurements

- 79 Doppler Ultrasound Measurements in the Liver 388**
Hisham Tchelepi, Edward Grant, Philip W. Ralls
- 80 Doppler Ultrasound in the Evaluation of Transjugular Intrahepatic Portosystemic Shunts (TIPS) 392**
Hisham Tchelepi, Edward Grant, Philip W. Ralls
- 81 Doppler Ultrasound Measurements in the Kidney 394**
Hisham Tchelepi, Edward Grant, Philip W. Ralls
- 82 Doppler Ultrasound in the Evaluation of Mesenteric Ischemia 400**
Hisham Tchelepi, Edward Grant, Philip W. Ralls
- 83 Doppler Ultrasound Measurements in Abdominal Organ Transplantation 403**
Hisham Tchelepi, Edward Grant, Philip W. Ralls

Part 11: Abdomen/GI

- 84 Ultrasound Measurements of the Liver 414**
Suhas G. Parulekar, Aparna Balachandran
- 85 Ultrasound Measurements of the Extrahepatic Bile Ducts 419**
Bijan Bijan, Hedieh Eslamy, John P. McGahan
- 86 Ultrasound Measurements of the Gallbladder 425**
Bijan Bijan, Hedieh Eslamy, John P. McGahan
- 87 Ultrasound Measurements of the Pancreas 433**
Bijan Bijan, Hedieh Eslamy, John P. McGahan
- 88 Ultrasound Measurements of the Spleen 439**
Suhas G. Parulekar, Aparna Balachandran
- 89 Ultrasound Measurements of the Gastrointestinal Tract 443**
John P. McGahan

Part 12: Peripheral Vascular

- 90 Measurements of the Abdominal Aorta 448**
Laurence Needleman
- 91 Measurements of the Peripheral Arteries 451**
Laurence Needleman
- 92 Measurements of the Peripheral Veins 456**
Laurence Needleman

Part 13: Peripheral

- 93 Musculoskeletal System Measurements 460**
Ronald S. Adler, Jonathan S. Luchs
- Index 467**