

● Subject Index to Volume 41

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3D

Synonyms

3-D, three dimensional, three-dimensional, 3-dimensional

Scopus Search

3D OR 3-D OR “three dimensional” OR three-dimensional OR 3-dimensional

Guang Y, Wang X, Cai A-L, Xie L-M, Ding H-L, Meng X-Y.

Evaluation of the Development of the Fetal Anal Sphincter with Tomography Ultrasonography Imaging. *41:40-46.*

Sotaquira M, Pepi M, Fusini L, Maffessanti F, Lang RM, Caiani EG. Semi-automated Segmentation and Quantification of Mitral Annulus and Leaflets from Transesophageal 3-D Echocardiographic Images. *41:251-267.*

Qiu W, Yuan J, Kishimoto J, McLeod J, Chen Y, de Ribaupierre S, Fenster A. User-Guided Segmentation of Preterm Neonate Ventricular System from 3-D Ultrasound Images Using Convex Optimization. *41:542-556.*

Aye CYL, Stevenson GN, Impey L, Collins SL. Comparison of 2-D and 3-D Estimates of Placental Volume in Early Pregnancy. *41:734-740.*

Yap CH, Park DW, Dutta D, Simon M, Kim K. Methods for Using 3-D Ultrasound Speckle Tracking in Biaxial Mechanical Testing of Biological Tissue Samples. *41:1029-1042.*

Najafi M, Afsham N, Abolmaesumi P, Rohling R. A Closed-Form Differential Formulation for Ultrasound Spatial Calibration: Single Wall Phantom. *41:1079-1094.*

Tonni G, Martins WP, Guimarães Filho H, Araujo Júnior E. Role of 3-D Ultrasound in Clinical Obstetric Practice: Evolution Over 20 Years. *41:1180-1211.*

Carminati MC, Piazzese C, Weinert L, Tsang W, Tamborini G, Pepi M, Lang RM, Caiani EG. Reconstruction of the Descending Thoracic Aorta by Multiview Compounding of 3-D Transesophageal Echocardiographic Aortic Data Sets for Improved Examination and Quantification of Atheroma Burden. *41:1263-1276.*

Polte CL, Lagerstrand KM, Gao SA, Lamm CR, Bech-Hanssen O. Quantification of Left Ventricular Linear, Areal and Volumetric Dimensions: A Phantom and in Vivo Comparison of 2-D and Real-Time 3-D Echocardiography with Cardiovascular Magnetic Resonance. *41:1981-1990.*

Haak A, Ren B, Mulder HW, Vegas-Sánchez-Ferrero G, van Burken G, van der Steen AFW, van Stralen M, Pluim JPW, van Walsum T, Bosch JG. Improved Segmentation of Multiple Cavities of the Heart in Wide-View 3-D Transesophageal Echocardiograms. *41:1991-2000.*

Beigi P, Rohling R, Salcudean T, Lessoway VA, Ng GC. Needle Trajectory and Tip Localization in Real-Time 3-D Ultrasound Using a Moving Stylus. *41:2057-2070.*

Rafii-Tari H, Lessoway VA, Kamani AA, Abolmaesumi P, Rohling R. Panorama Ultrasound for Navigation and Guidance of Epidural Anesthesia. *41:2220-2231.*

Kozinszky Z, Surányi A, Pécs H, Molnár A, Pál A. Placental Volumetry by 2-D Sonography with a New Mathematical Formula: Prospective Study on the Shell of a Spherical Sector Model. *41:2252-2258.*

Han X-S, Ning C-P, Sun L-T, Li X-Y, Peng Y-Q, Dang M-Z. Three-Dimensional Transvaginal Tomographic Ultrasound Imaging for Cervical Cancer Staging. *41:2303-2309.*

Ermacorora D, Pesente S, Pascoli F, Raducci S, Mauro R, Rumeileh IA, Verhaegen F, Fontanarosa D. Automated Computed Tomography–Ultrasound Cross-Modality 3-D Contouring Algorithm for Prostate. *41:2646-2662.*

Polanski LT, Baumgarten MN, Brosens JJ, Quenby SM, Campbell BK, Martins WP, Raine-Fenning NJ. 4-D Assessment of Endometrial Vascularity Using Spatiotemporal Image Correlation: A Study Comparing Spherical Sampling and Whole-Tissue Analysis. *41:2798-2805.*

Lee W. A Practical Guide to 3-D Ultrasound. *41:3030.*

Li W-B, Zhang B, Zhu Q-L, Jiang Y-X, Sun J, Yang M, Li J-C. Comparison between Thin-Slice 3-D Volumetric Ultrasound and Conventional Ultrasound in the Differentiation of Benign and Malignant Thyroid Lesions. *41:3096-3101.*

Kim J, Kim JH, Yoon SH, Choi WS, Kim YJ, Han JK, Choi B-I. Feasibility of Using Volumetric Contrast-Enhanced Ultrasound with a 3-D Transducer to Evaluate Therapeutic Response after Targeted Therapy in Rabbit Hepatic VX2 Carcinoma. *41:3131-3139.*

Stevenson GN, Collins SL, Ding J, Impey L, Noble JA. 3-D Ultrasound Segmentation of the Placenta Using the Random Walker Algorithm: Reliability and Agreement. *41:3182-3193.*

Brounstein A, Hacıhaliloglu I, Guy P, Hodgson A, Abugharbieh R. Fast and Accurate Data Extraction for Near Real-Time Registration of 3-D Ultrasound and Computed Tomography in Orthopedic Surgery. *41:3194-3204.*

A

Angiogenesis

Synonyms: increase in vascularity, vascularisation

Scopus Search: Angiogenesis OR “increase in vascularity” OR “vascularity index” OR VI OR vasculari*ation OR “capillary density” OR “microvessel density” OR neoangiogenesis OR neovasculari*ation

Hoyt K, Umphrey H, Lockhart M, Robbin M, Forero-Torres A. Ultrasound Imaging of Breast Tumor Perfusion and Neovascular Morphology. *41:2292-2302*.

Watanabe R, Munemasa T, Matsumura M. Contrast-Enhanced Ultrasound with Perflubutane in the Assessment of Anti-Angiogenic Effects: Early Prediction of the Anticancer Activity of Bevacizumab in a Mouse Xenografted Model. *41:2497-2505*.

Animal studies

Synonyms: animal model

Scopus Search: “animal stud*” OR “animal model” OR mouse OR dog OR bovine OR murine OR canine OR porcine OR rabbit OR pig OR rat OR primate

Dudea M, Clichici S, Olteanu DE, Nagy A, Cucos M, Dudea S. Usefulness of Real-Time Elastography Strain Ratio in the Assessment of Bile Duct Ligation-Induced Liver Injury and the Hepatoprotective Effect of Chitosan: An Experimental Animal Study. *41:114-123*.

Lee Y-F, Lin C-C, Cheng J-S, Chen G-S. High-Intensity Focused Ultrasound Attenuates Neural Responses of Sciatic Nerves Isolated from Normal or Neuropathic Rats. *41:132-142*.

Chen Y-W, Tzeng J-I, Huang P-C, Hung C-H, Shao D-Z, Wang J-J. Therapeutic Ultrasound Suppresses Neuropathic Pain and Upregulation of Substance P and Neurokinin-1 Receptor in Rats after Peripheral Nerve Injury. *41:143-150*.

Zortéa D, Silveira PCL, Souza PS, Fidelis GSP, Paganini CS, Pozzi BG, Tuon T, De Souza CT, Paula MMS, Pinho RA. Effects of Phonophoresis and Gold Nanoparticles in Experimental Model of Muscle Overuse: Role of Oxidative Stress. *41:151-162*.

Hu B, Cai X-Z, Shi Z-L, Chen Y-L, Zhao X, Zhu H-X, Yan S-G. Microbubble Injection Enhances Inhibition of Low-Intensity Pulsed Ultrasound on Debris-Induced Periprosthetic Osteolysis in Rabbit Model. *41:177-186*.

Leguerney I, Scoazec J-Y, Gadot N, Robin N, Pénault-Llorca F, Victorin S, Lassau N. Molecular Ultrasound Imaging Using Contrast Agents Targeting Endoglin, Vascular Endothelial Growth Factor Receptor 2 and Integrin. *41:197-207*.

Wu Z, Kumon RE, Laughner JI, Efimov IR, Deng CX. Electrophysiological Changes Correlated with Temperature Increases Induced by High-Intensity Focused Ultrasound Ablation. *41:432-448*.

Zhang Y, Aubry J-F, Zhang J, Wang Y, Roy J, Mata JF, Miller W, Dumont E, Xie M, Lee K, Zuo Z, Wintermark M. Defining

the Optimal Age for Focal Lesioning in a Rat Model of Transcranial HIFU. *41:449-455*.

Pacella JJ, Brands J, Schnatz FG, Black JJ, Chen X, Villanueva FS. Treatment of Microvascular Micro-embolization Using Microbubbles and Long-Tone-Burst Ultrasound: An in Vivo Study. *41:456-464*.

Li P, Wang P-j, Zhang W. Prenatal Exposure to Ultrasound Affects Learning and Memory in Young Rats. *41:644-653*.

Urbanczyk CA, Palmeri ML, Bass CR. Material Characterization of in Vivo and in Vitro Porcine Brain Using Shear Wave Elasticity. *41:713-723*.

Fischer S, Mueller W, Schulte M, Kiefer J, Hirche C, Heimer S, Köllensperger E, Germann G, Reichenberger MA. Multiple Extracorporeal Shock Wave Therapy Degrades Capsular Fibrosis after Insertion of Silicone Implants. *41:781-789*.

Lee J-H, Kim S-G. Effects of Extracorporeal Shock Wave Therapy on Functional Recovery and Neurotrophin-3 Expression in the Spinal Cord after Crushed Sciatic Nerve Injury in Rats. *41:790-796*.

Rossato DD, Lago PD, Hentschke VS, Rucatti AL, Signori LU, Silveira MN, Méa Plentz RD. Ultrasound Modulates Skeletal Muscle Cytokine Levels in Rats with Heart Failure. *41:797-805*.

Sheeran PS, Rojas JD, Puett C, Hjelmquist J, Arena CB, Dayton PA. Contrast-Enhanced Ultrasound Imaging and in Vivo Circulatory Kinetics with Low-Boiling-Point Nanoscale Phase-Change Perfluorocarbon Agents. *41:814-831*.

Yiu BYS, Yu ACH. GPU-Based Minimum Variance Beamformer for Synthetic Aperture Imaging of the Eye. *41:871-883*.

Jung YJ, Kim R, Ham H-J, Park SI, Lee MY, Kim J, Hwang J, Park M-S, Yoo S-S, Maeng L-S, Chang W, Chung Y-A. Focused Low-Intensity Pulsed Ultrasound Enhances Bone Regeneration in Rat Calvarial Bone Defect through Enhancement of Cell Proliferation. *41:999-1007*.

Hashima JN, Rogers V, Langley SM, Ashraf M, Sahn DJ, Ohtonen P, Davis LE, Hohimer AR, Rasanen J. Fetal Ventricular Interactions and Wall Mechanics During Ductus Arteriosus Occlusion in a Sheep Model. *41:1020-1028*.

Tuckett AZ, Zakrzewski JL, Li D, van den Brink MRM, Thornton RH. Free-hand Ultrasound Guidance Permits Safe and Efficient Minimally Invasive Intrathymic Injections in Both Young and Aged Mice. *41:1105-1111*.

Ahlgren ÅR, Steen S, Segstedt S, Erlöv T, Lindström K, Sjöberg T, Persson HW, Ricci S, Tortoli P, Cinthio M. Profound Increase in Longitudinal Displacements of the Porcine Carotid Artery Wall Can Take Place Independently of Wall Shear Stress: A Continuation Report. *41:1342-1353*.

Kato S, Shirai Y, Kanzaki H, Sakamoto M, Mori S, Kodama T. Delivery of Molecules to the Lymph Node via Lymphatic Vessels Using Ultrasound and Nano/Microbubbles. *41:1411-1421*.

- Miller DL, Dou C, Raghavendran K. Dependence of Thresholds for Pulmonary Capillary Hemorrhage on Diagnostic Ultrasound Frequency. *41:1640-1650*.
- Kim H, Kee PH, Rim Y, Moody MR, Klegerman ME, Vela D, Huang S-L, McPherson DD, Laing ST. Nitric Oxide-Enhanced Molecular Imaging of Atheroma using Vascular Cellular Adhesion Molecule 1-Targeted Echogenic Immunoliposomes. *41:1701-1710*.
- Miller DL, Dou C, Lu X, Zhu YI, Fabiilli ML, Owens GE, Kripfgans OD. Use of Theranostic Strategies in Myocardial Cavitation-Enabled Therapy. *41:1865-1875*.
- Shelton SE, Lee YZ, Lee M, Cherin E, Foster FS, Aylward SR, Dayton PA. Quantification of Microvascular Tortuosity during Tumor Evolution Using Acoustic Angiography. *41:1896-1904*.
- Lindsey BD, Shelton SE, Dayton PA. Optimization of Contrast-to-Tissue Ratio Through Pulse Windowing in Dual-Frequency “Acoustic Angiography” Imaging. *41:1884-1895*.
- Qu E, Dai Z, Liang X, Qian Y, Wang S, Ke H, Wang J. Detection and Pathologic Evaluation of Sentinel Lymph Nodes in the VX2 Tumor Model Using a Novel Ultrasound/Near-Infrared Dual-Modality Contrast Agent. *41:1905-1912*.
- Payen T, Dizeux A, Baldini C, Le Guillou-Buffello D, Lamuraglia M, Comperat E, Lucidarme O, Bridal SL. VEGFR2-Targeted Contrast-Enhanced Ultrasound to Distinguish between Two Anti-Angiogenic Treatments. *41:2202-2211*.
- Miller DL, Dou C, Raghavendran K. Pulmonary Capillary Hemorrhage Induced by Fixed-Beam Pulsed Ultrasound. *41:2212-2219*.
- Cohen G, Natsheh H, Sunny Y, Bawiec CR, Touitou E, Lerman MA, Lazarovici P, Lewin PA. Enhanced Therapeutic Anti-Inflammatory Effect of Betamethasone on Topical Administration with Low-Frequency, Low-Intensity (20 kHz, 100 mW/cm²) Ultrasound Exposure on Carrageenan-Induced Arthritis in a Mouse Model. *41:2449-2457*.
- Du G-Q, Xue J-Y, Guo Y, Chen S, Du P, Wu Y, Wang Y-H, Zong L-Q, Tian J-W. Measurement of Myocardial Perfusion and Infarction Size Using Computer-Aided Diagnosis System for Myocardial Contrast Echocardiography. *41:2466-2477*.
- Yeh JS-M, Sennoga CA, McConnell E, Eckersley R, Tang M-X, Nourshargh S, Seddon JM, Haskard DO, Nihoyannopoulos P. Quantitative Ultrasound Molecular Imaging. *41:2478-2496*.
- Watanabe R, Munemasa T, Matsumura M. Contrast-Enhanced Ultrasound with Perflubutane in the Assessment of Anti-Angiogenic Effects: Early Prediction of the Anticancer Activity of Bevacizumab in a Mouse Xenografted Model. *41:2497-2505*.
- Martin JA, Biedrzycki AH, Lee KS, DeWall RJ, Brounts SH, Murphy WL, Markel MD, Thelen DG. In Vivo Measures of Shear Wave Speed as a Predictor of Tendon Elasticity and Strength. *41:2722-2730*.
- Yan F, Xu X, Chen Y, Deng Z, Liu H, Xu J, Zhou J, Tan G, Wu J, Zheng H. A Lipopeptide-Based $\alpha v \beta 3$ Integrin-Targeted Ultrasound Contrast Agent for Molecular Imaging of Tumor Angiogenesis. *41:2765-2773*.
- “Erratum to: “Prenatal exposure to ultrasound affects learning and memory in young rats,” by Li Ping, Wang pei-jun, Zhang Wei. *Ultrasound Med Biol* 2015;41:644-653. *41:2784*.
- Wang G, Zhuo Z, Yang B, Wu S, Xu Y, Liu Z, Tan K, Xia H, Wang X, Zou L, Gan L, Gao Y. Enhanced Homing Ability and Retention of Bone Marrow Stromal Cells to Diabetic Nephropathy by Microbubble-Mediated Diagnostic Ultrasound Irradiation. *41:2977-2989*.
- Ito K, Noro K, Yanagisawa Y, Sakamoto M, Mori S, Shiga K, Kodama T, Aoki T. High-Accuracy Ultrasound Contrast Agent Detection Method for Diagnostic Ultrasound Imaging Systems. *41:3120-3130*.
- Kim J, Kim JH, Yoon SH, Choi WS, Kim YJ, Han JK, Choi B-I. Feasibility of Using Volumetric Contrast-Enhanced Ultrasound with a 3-D Transducer to Evaluate Therapeutic Response after Targeted Therapy in Rabbit Hepatic VX2 Carcinoma. *41:3131-3139*.
- Kang B-K, Lee SS, Cheong H, Hong SM, Jang K, Lee M-G. Shear Wave Elastography for Assessment of Steatohepatitis and Hepatic Fibrosis in Rat Models of Non-Alcoholic Fatty Liver Disease. *41:3205-3215*.

Artefacts

See **image artifacts**

Atherosclerosis

Synonyms: vascular disease, atheromatous plaque, arterial hardening

Scopus Search: Atherosclerosis OR plaque OR stenosis OR “vascular disease” OR atheromatous OR “arter* hardening”

See also: **blood vessels**

Widman E, Caidahl K, Heyde B, D’hooge J, Larsson M. Ultrasound Speckle Tracking Strain Estimation of in Vivo Carotid Artery Plaque with in Vitro Sonomicrometry Validation. *41:77-88*.

Zahnd G, Balocco S, Sérusclat A, Moulin P, Orkisz M, Vray D. Progressive Attenuation of the Longitudinal Kinetics in the Common Carotid Artery: Preliminary in Vivo Assessment. *41:339-345*.

Bonanno L, Marino S, Bramanti P, Sottile F. Validation of a Computer-Aided Diagnosis System for the Automatic Identification of Carotid Atherosclerosis. *41:509-516*.

Akkus Z, Carvalho DDB, van den Oord SCH, Schinkel AFL, Niessen WJ, de Jong N, van der Steen AFW, Klein S, Bosch JG. Fully Automated Carotid Plaque Segmentation in Combined Contrast-Enhanced and B-Mode Ultrasound. *41:517-531*.

Czernuszewicz TJ, Homeister JW, Caughey MC, Farber MA, Fulton JJ, Ford PF, Marston WA, Vallabhaneni R, Nichols TC, Gallippi CM. Non-invasive in Vivo Characterization of Human Carotid Plaques with Acoustic Radiation Force Impulse Ultrasound: Comparison with Histology after Endarterectomy. *41:685-697*.

Liu F, Yong Q, Zhang Q, Liu P, Yang Y. Real-Time Tissue Elastography for the Detection of Vulnerable Carotid Plaques in Patients Undergoing Endarterectomy: A Pilot Study. *41:705-712*.

Ikeda N, Gupta A, Dey N, Bose S, Shafique S, Arak T, Godia EC, Saba L, Laird JR, Nicolaides A, Suri JS. Improved Correlation between Carotid and Coronary Atherosclerosis SYNTAX Score Using Automated Ultrasound Carotid Bulb Plaque IMT Measurement. *41:1247-1262*.

Richards MS, Perucchio R, Doyley MM. Visualizing the Stress Distribution Within Vascular Tissues Using Intravascular Ultrasound Elastography: A Preliminary Investigation. *41:1616-1631*.

Kim H, Kee PH, Rim Y, Moody MR, Klegerman ME, Vela D, Huang S-L, McPherson DD, Laing ST. Nitric Oxide-Enhanced Molecular Imaging of Atheroma using Vascular Cellular Adhesion Molecule 1-Targeted Echogenic Immunoliposomes. *41:1701-1710*.

Attenuation

Synonyms: BUA

Scopus Search: *attenuat** OR BUA

Rajagopal S, Sadhoo N, Zeqiri B. Reference Characterisation of Sound Speed and Attenuation of the IEC Agar-Based Tissue-Mimicking Material Up to a Frequency of 60 MHz. *41:317-333*.

B

Biological effects

Synonyms: Bioeffects, Biochemical effect

Scopus Search: *Bioeffect** OR *Bio-effect** OR *"Bio effect"*

See also: **therapeutic effects of ultrasound, thermal effects**

Wu Z, Kumon RE, Laughner JI, Efimov IR, Deng CX. Electrophysiological Changes Correlated with Temperature Increases Induced by High-Intensity Focused Ultrasound Ablation. *41:432-448*.

Zhang Y, Aubry J-F, Zhang J, Wang Y, Roy J, Mata JF, Miller W, Dumont E, Xie M, Lee K, Zuo Z, Wintermark M. Defining the Optimal Age for Focal Lesioning in a Rat Model of Transcranial HIFU. *41:449-455*.

Mino K, Imura M, Koyama D, Omori M, Kawarabata S, Sato M, Watanabe Y. Meshless Bubble Filter Using Ultrasound for Extracorporeal Circulation and its Effect on Blood. *41:465-471*.

Church CC, Labuda C, Nightingale K. A Theoretical Study of Inertial Cavitation from Acoustic Radiation Force Impulse Imaging and Implications for the Mechanical Index I. *41:472-485*.

Li P, Wang P-j, Zhang W. Prenatal Exposure to Ultrasound Affects Learning and Memory in Young Rats. *41:644-653*.

Miller DL, Dou C, Raghavendran K. Dependence of Thresholds for Pulmonary Capillary Hemorrhage on Diagnostic Ultrasound Frequency. *41:1640-1650*.

Miller DL, Dou C, Raghavendran K. Pulmonary Capillary Hemorrhage Induced by Fixed-Beam Pulsed Ultrasound. *41:2212-2219*.

Zhao L, Feng Y, Shi A, Zong Y, Wan M. Apoptosis Induced by Microbubble-Assisted Acoustic Cavitation in K562 Cells: The Predominant Role of the Cyclosporin A-Dependent Mitochondrial Permeability Transition Pore. *41:2755-2764*.

Seda R, Li DS, Fowlkes JB, Bull JL. Characterization of Bioeffects on Endothelial Cells under Acoustic Droplet Vaporization. *41:3241-3252*.

Blood flow

Synonyms: haemodynamics, venous reflux

Scopus Search: *"Blood flow"* OR *"h*emodynamic*(s)"* OR *"venous reflux"* OR *"flow index"*

See also: **Doppler**

Thomas KN, Cotter JD, Lucas SJE, Hill BG, van Rij AM. Reliability of Contrast-Enhanced Ultrasound for the Assessment of Muscle Perfusion in Health and Peripheral Arterial Disease. *41:26-34*.

Gao H, Bijmens N, Coisne D, Lugiez M, Rutten M, D'Hooge J. 2-D Left Ventricular Flow Estimation by Combining Speckle Tracking With Navier–Stokes-Based Regularization: An In Silico, In Vitro and In Vivo Study. *41:99-113*.

Kokkalis E, Cookson AN, Stonebridge PA, Corner GA, Houston JG, Hoskins PR. Comparison of Vortical Structures Induced by Arteriovenous Grafts Using Vector Doppler Ultrasound. *41:760-774*.

Jia L, Hua Y, Li J, Duan C, Zhou Y, Jiao L. Optimal Ultrasound Criteria for Defining the Severity of Vertebral Artery in-Stent Restenosis. *41:775-780*.

Miyashita S, Murotsuki J, Muromoto J, Ozawa K, Yaegashi N, Hasegawa H, Kanai H. Measurement of Internal Diameter Changes and Pulse Wave Velocity in Fetal Descending Aorta Using the Ultrasonic Phased-Tracking Method in Normal and Growth-Restricted Fetuses. *41:1311-1319*.

Agnew CE, Hamilton PK, McCann AJ, McGivern RC, McVeigh GE. Wavelet Entropy of Doppler Ultrasound Blood Velocity Flow Waveforms Distinguishes Nitric Oxide-Modulated States. *41:1320-1327*.

- Chen S-P, Hu Y-P. Waveform Patterns and Peak Reversed Velocity in Vertebral Arteries Predict Severe Subclavian Artery Stenosis and Occlusion. [41:1328-1333](#).
- Sisini F, Tessari M, Gadda G, Di Domenico G, Taibi A, Menegatti E, Gambaccini M, Zamboni P. An Ultrasonographic Technique to Assess the Jugular Venous Pulse: A Proof of Concept. [41:1334-1341](#).
- Ahlgren ÅR, Steen S, Segstedt S, Erlöv T, Lindström K, Sjöberg T, Persson HW, Ricci S, Tortoli P, Cinthio M. Profound Increase in Longitudinal Displacements of the Porcine Carotid Artery Wall Can Take Place Independently of Wall Shear Stress: A Continuation Report. [41:1342-1353](#).
- López-Hernández N, García-Escrivá A, Ballenilla F, Gallego-Leon JI. Hemodynamic Effects of Proximal Supra-aortic Artery Stenosis on Anterior Cerebral Artery. [41:1488-1492](#).
- Soresi M, Giannitrapani L, Noto D, Terranova A, Campagna ME, Cefalù AB, Giammanco A, Montalto G. Effects of Steatosis on Hepatic Hemodynamics in Patients with Metabolic Syndrome. [41:1545-1552](#).
- Sekimoto T, Maruyama H, Kiyono S, Kondo T, Shimada T, Takahashi M, Yokosuka O, Yamaguchi T. Liver Stiffness: A Significant Relationship with the Waveform Pattern in the Hepatic Vein. [41:1801-1807](#).
- Conti F, Ceccarelli F, Gigante A, Perricone C, Barbano B, Massaro L, Spinelli FR, Alessandri C, Valesini G, Cianci R. Ultrasonographic Evaluation of Resistive Index and Renal Artery Stenosis in Patients with Anti-Phospholipid Syndrome: Two Distinct Mechanisms? [41:1814-1820](#).
- Gómez-Choco M, Schreiber SJ, Weih M, Doepp F, Valdueza JM. Delayed Transcranial Echo-Contrast Bolus Arrival in Unilateral Internal Carotid Artery Stenosis and Occlusion. [41:1827-1834](#).
- Cai S-f, Gai Y-h, Ma S, Liang B, Wang G-c, Liu Q-w. Ultrasonographic Visualization of Accessory Hepatic Veins and Their Lesions in Budd–Chiari Syndrome. [41:2091-2098](#).
- Omar AMS, Abdel-Rahman MA, Khorshid H, Helmy M, Raslan H, Rifaie O. Tissue Doppler-Derived Myocardial Acceleration during Isovolumetric Contraction Predicts Pulmonary Capillary Wedge Pressure in Patients with Significant Mitral Regurgitation. [41:2108-2118](#).
- Blood vessel**
Synonyms: artery, vein, capillary, vascular
Scopus Search: “blood vessel” OR artery OR vein OR capillary OR vascular
- Turk M, Pretnar-Oblak J, Zupan M, Zvan B, Zaletel M. Ultrasound Diagnosis of Carotid Artery Stiffness in Patients with Ischemic Leukoaraiosis. [41:64-71](#).
- Yang S, Wang D-z, Zhang H-x, He W, Chen B-x. Echo-Tracking Technology Assessment of Carotid Artery Stiffness in Patients with Coronary Slow Flow. [41:72-76](#).
- Widman E, Caidahl K, Heyde B, D’hooge J, Larsson M. Ultrasound Speckle Tracking Strain Estimation of in Vivo Carotid Artery Plaque with in Vitro Sonomicrometry Validation. [41:77-88](#).
- Zahnd G, Balocco S, Sérusclat A, Moulin P, Orkisz M, Vray D. Progressive Attenuation of the Longitudinal Kinetics in the Common Carotid Artery: Preliminary in Vivo Assessment. [41:339-345](#).
- Mesin L, Pasquero P, Albani S, Porta M, Roatta S. Semi-automated Tracking and Continuous Monitoring of Inferior Vena Cava Diameter in Simulated and Experimental Ultrasound Imaging. [41:845-857](#).
- Bone**
Synonyms: osteo-
Scopus Search: bone OR trabecular OR cortical OR osteo*
- Cheng E, Mabee M, Swami VG, Pi Y, Thompson R, Dulai S, Jaremko JL. Ultrasound Quantification of Acetabular Rounding in Hip Dysplasia: Reliability and Correlation to Treatment Decisions in a Retrospective Study. [41:56-63](#).
- Hu B, Cai X-Z, Shi Z-L, Chen Y-L, Zhao X, Zhu H-X, Yan S-G. Microbubble Injection Enhances Inhibition of Low-Intensity Pulsed Ultrasound on Debris-Induced Periprosthetic Osteolysis in Rabbit Model. [41:177-186](#).
- Conversano F, Franchini R, Greco A, Soloperto G, Chiriaco F, Casciaro E, Avenaggiato M, Renna MD, Pisani P, Di Paola M, Grimaldi A, Quarta L, Quarta E, Muratore M, Laugier P, Casciaro S. A Novel Ultrasound Methodology for Estimating Spine Mineral Density. [41:281-300](#).
- Roggen I, Louis O, Van Biervliet S, Van Daele S, Robberecht E, De Wachter E, Malfroot A, De Waele K, Gies I, Vanbesien J, De Schepper J. Quantitative Bone Ultrasound at the Distal Radius in Adults with Cystic Fibrosis. [41:334-338](#).
- Daughschies M, Brixen K, Hermann P, Rohde K, Glüer C-C, Barkmann R. Quantitative Ultrasound Measurements at the Heel: Improvement of Short- and Mid-Term Speed of Sound Precision. [41:858-870](#).
- Jung YJ, Kim R, Ham H-J, Park SI, Lee MY, Kim J, Hwang J, Park M-S, Yoo S-S, Maeng L-S, Chang W, Chung Y-A. Focused Low-Intensity Pulsed Ultrasound Enhances Bone Regeneration in Rat Calvarial Bone Defect through Enhancement of Cell Proliferation. [41:999-1007](#).
- Mantsopoulos K, Wurm J, Iro H, Zenk J. Role of Ultrasonography in the Detection of a Subperiosteal Abscess Secondary to Mastoiditis in Pediatric Patients. [41:1612-1615](#).
- Chiu C-Y, Tsai T-L, Vanderby Jr R, Bradica G, Lou S-L, Li W-J. Osteoblastogenesis of Mesenchymal Stem Cells in 3-D Culture Enhanced by Low-Intensity Pulsed Ultrasound through Soluble Receptor Activator of Nuclear Factor Kappa B Ligand. [41:1842-1852](#).

Liu C, Tang T, Xu F, Ta D, Matsukawa M, Hu B, Wang W. Signal of Interest Selection Standard for Ultrasonic Backscatter in Cancellous Bone Evaluation. *41:2714-2721*.

Zheng R, Le LH, Sacchi MD, Lou E. Imaging Internal Structure of Long Bones Using Wave Scattering Theory. *41:2955-2965*.

Guipieri S, Nagatani Y, Bosc R, Nguyen V-H, Chappard C, Geiger D, Haiat G. Ultrasound Speed of Sound Measurements in Trabecular Bone Using the Echographic Response of a Metallic Pin. *41:2966-2976*.

Book review

Kollmann C. Diagnostic Ultrasound Imaging: Inside Out (Second Edition). *41:622*.

Fournier J. Musculoskeletal Ultrasound. *41:623*.

Stride E. Microscale Acoustofluidics. *41:2783*.

Lee W. A Practical Guide to 3-D Ultrasound. *41:3030*.

Dahl JJ. Diagnostic Ultrasound: Imaging and Blood Flow Measurements (Second Edition). *41:3259-3260*.

Brain

Synonyms: cerebral, cerebrovascular, cerebrum

Scopus Search: Brain OR cerebr* OR neurosurgery

Chang JW, Min B-K, Kim B-S, Chang WS, Lee Y-H. Neurophysiologic Correlates of Sonication Treatment in Patients with Essential Tremor. *41:124-131*.

Rivaz H, Collins DL. Near Real-Time Robust Non-rigid Registration of Volumetric Ultrasound Images for Neurosurgery. *41:574-587*.

Li P, Wang P-j, Zhang W. Prenatal Exposure to Ultrasound Affects Learning and Memory in Young Rats. *41:644-653*.

Urbanczyk CA, Palmeri ML, Bass CR. Material Characterization of in Vivo and in Vitro Porcine Brain Using Shear Wave Elasticity. *41:713-723*.

Pavlovic AM, Stevic Z, Pekmezovic T, Mijajlovic M, Jovanovic Z, Lavrnjic D. Increased Frequency of Pathologic Findings on Transcranial B-Mode Parenchymal Sonography in Patients with Sporadic Amyotrophic Lateral Sclerosis. *41:982-988*.

Bolesch S, von Wegner F, Senft C, Lorenz MW. Transcranial Ultrasound to Detect Elevated Intracranial Pressure: Comparison of Septum Pellucidum Undulations and Optic Nerve Sheath Diameter. *41:1233-1240*.

Min JY, Lee J-R, Oh J-T, Kim M-S, Jun E-K, An J. Ultrasonographic Assessment of Optic Nerve Sheath Diameter during Pediatric Laparoscopy. *41:1241-1246*.

Bazan R, Braga GP, Luvizutto GJ, Hueb JC, Hokama NK, Zanati Bazan SG, de Carvalho Nunes HR, Leite JP, Pontes-Neto OM. Evaluation of the Temporal Acoustic Window for Transcranial Doppler in a Multi-Ethnic Population in Brazil. *41:2131-2134*.

Breast

Synonyms: mammary glands

Scopus Search: Breast OR Mamm*

Jin Z-Q, Lin M-Y, Hao W-Q, Jiang H-T, Zhang L, Hu W-H, Zhang M. Diagnostic Evaluation of Ductal Carcinoma in Situ of the Breast: Ultrasonographic, Mammographic and Histopathologic Correlations. *41:47-55*.

Dobruch-Sobczak K, Nowicki A. Role of Shear Wave Sonoelastography in Differentiation Between Focal Breast Lesions. *41:366-374*.

Jung HK, Han K, Lee YJ, Moon HJ, Kim E-K, Kim MJ. Mammographic and Sonographic Features of Triple-Negative Invasive Carcinoma of No Special Type. *41:375-383*.

Zhang Q, Xiao Y, Chen S, Wang C, Zheng H. Quantification of Elastic Heterogeneity Using Contourlet-Based Texture Analysis in Shear-Wave Elastography for Breast Tumor Classification. *41:588-600*.

Youk JH, Kim H, Kim E-k, Son EJ, Kim MJ, Kim J-A. Phyllodes Tumor Diagnosed after Ultrasound-Guided Vacuum-Assisted Excision: Should It Be Followed by Surgical Excision? *41:741-747*.

Shi XQ, Li JL, Wan WB, Huang Y. A Set of Shear Wave Elastography Quantitative Parameters Combined with Ultrasound BI-RADS to Assess Benign and Malignant Breast Lesions. *41:960-966*.

Rodrigues R, Braz R, Pereira M, Moutinho J, Pinheiro AMG. A Two-Step Segmentation Method for Breast Ultrasound Masses Based on Multi-resolution Analysis. *41:1737-1748*.

Zhang Y-N, Wang C-J, Xu Y, Zhu Q-L, Zhou Y-D, Zhang J, Mao F, Jiang Y-X, Sun Q. Sensitivity, Specificity and Accuracy of Ultrasound in Diagnosis of Breast Cancer Metastasis to the Axillary Lymph Nodes in Chinese Patients. *41:1835-1841*.

Granchi S, Vannacci E, Biagi E, Masotti L. Differentiation of Breast Lesions by Use of HyperSPACE: Hyper-Spectral Analysis for Characterization in Echography. *41:1967-1980*.

Ara SR, Alam F, Rahman MH, Akhter S, Awwal R, Hasan MK. Bimodal Multiparameter-Based Approach for Benign-Malignant Classification of Breast Tumors. *41:2022-2038*.

Lo C-M, Moon WK, Huang C-S, Chen J-H, Yang M-C, Chang R-F. Intensity-Invariant Texture Analysis for Classification of BI-RADS Category 3 Breast Masses. *41:2039-2048*.

Yoon H, Yoon JH, Kim E-K, Moon HJ, Park B-W, Kim MJ. Adding Ultrasound to the Evaluation of Patients with Pathologic Nipple Discharge to Diagnose Additional Breast Cancers: Preliminary Data. *41:2099-2107*.

Hoyt K, Humphrey H, Lockhart M, Robbin M, Forero-Torres A. Ultrasound Imaging of Breast Tumor Perfusion and Neovascular Morphology. [41:2292-2302](#).

Feldmann A, Langlois C, Dewailly M, Martinez EF, Boulanger L, Kerdraon O, Faye N. Shear Wave Elastography (SWE): An Analysis of Breast Lesion Characterization in 83 Breast Lesions. [41:2594-2604](#).

Moorman AM, Bourez RLJH, de Leeuw DM, Kouwenhoven EA. Pre-operative Ultrasonographic Evaluation of Axillary Lymph Nodes in Breast Cancer Patients: For Which Group Still of Additional Value and in Which Group Cause for Special Attention? [41:2842-2848](#).

Li X, Wang J-N, Fan Z-Y, Kang S, Liu Y-J, Zhang Y-X, Wang X-M. Determination of the Elasticity of Breast Tissue during the Menstrual Cycle Using Real-Time Shear Wave Elastography. [41:3140-3147](#).

Venkatesh SS, Levenback BJ, Sultan LR, Bouzghar G, Sehgal CM. Going beyond a First Reader: A Machine Learning Methodology for Optimizing Cost and Performance in Breast Ultrasound Diagnosis. [41:3148-3162](#).

C

Calibration

Synonyms: standards, metrology, quality assurance, performance, reference

Scopus Search: [calibration OR standard* OR metrology OR quality assurance](#)

See also: [dosimetry, instrumentation](#)

Nemescu D, Berescu A. Acoustic Output Measured by Thermal and Mechanical Indices during Fetal Echocardiography at the Time of the First Trimester Scan. [41:35-39](#).

Huang C-C, Chou H-L, Chen P-Y. Measurement of the Doppler Power of Flowing Blood Using Ultrasound Doppler Devices. [41:565-573](#).

Gélat P, Shaw A. Relationship between Acoustic Power and Acoustic Radiation Force on Absorbing and Reflecting Targets for Spherically Focusing Radiators. [41:832-844](#).

Najafi M, Afsham N, Abolmaesumi P, Rohling R. A Closed-Form Differential Formulation for Ultrasound Spatial Calibration: Single Wall Phantom. [41:1079-1094](#).

Kudo N. A Simple Technique for Visualizing Ultrasound Fields Without Schlieren Optics. [41:2071-2081](#).

Kenwright DA, Anderson T, Moran CM, Hoskins PR. Assessment of Spectral Doppler for an Array-Based Preclinical Ultrasound Scanner Using a Rotating Phantom. [41:2232-2239](#).

Keravnou CP, Izamis M-L, Averkiou MA. Method for Estimating the Acoustic Pressure in Tissues Using Low-Amplitude Measurements in Water. [41:3001-3012](#).

Cancer

Synonyms: tumor

Scopus Search: [cancer*](#)

Jin Z-Q, Lin M-Y, Hao W-Q, Jiang H-T, Zhang L, Hu W-H, Zhang M. Diagnostic Evaluation of Ductal Carcinoma in Situ of the Breast: Ultrasonographic, Mammographic and Histopathologic Correlations. [41:47-55](#).

Dobruch-Sobczak K, Nowicki A. Role of Shear Wave Sonoelastography in Differentiation Between Focal Breast Lesions. [41:366-374](#).

Jung HK, Han K, Lee YJ, Moon HJ, Kim E-K, Kim MJ. Mammographic and Sonographic Features of Triple-Negative Invasive Carcinoma of No Special Type. [41:375-383](#).

Li T, Zhou P, Zhang X, Ding M, Yuchi M, Li Y. Diagnosis of Thyroid Nodules Using Virtual Touch Tissue Quantification Value and Anteroposterior/Transverse Diameter Ratio. [41:384-392](#).

Zhang Q, Xiao Y, Chen S, Wang C, Zheng H. Quantification of Elastic Heterogeneity Using Contourlet-Based Texture Analysis in Shear-Wave Elastography for Breast Tumor Classification. [41:588-600](#).

Youk JH, Kim H, Kim E-k, Son EJ, Kim MJ, Kim J-A. Phyllodes Tumor Diagnosed after Ultrasound-Guided Vacuum-Assisted Excision: Should It Be Followed by Surgical Excision? [41:741-747](#).

Piotrkowska-Wroblewska H, Litniewski J, Szymanska E, Nowicki A. Quantitative Sonography of Basal Cell Carcinoma. [41:748-759](#).

Wood AKW, Sehgal CM. A Review of Low-Intensity Ultrasound for Cancer Therapy. [41:905-928](#).

Kong W-T, Wang W-P, Huang B-J, Ding H, Mao F, Si Q. Contrast-Enhanced Ultrasound in Combination with Color Doppler Ultrasound Can Improve the Diagnostic Performance of Focal Nodular Hyperplasia and Hepatocellular Adenoma. [41:944-951](#).

Kunze G, Staritz M, Köhler M. Contrast-Enhanced Ultrasound in Different Stages of Pyogenic Liver Abscess. [41:952-959](#).

Shi XQ, Li JL, Wan WB, Huang Y. A Set of Shear Wave Elastography Quantitative Parameters Combined with Ultrasound BI-RADS to Assess Benign and Malignant Breast Lesions. [41:960-966](#).

Wu Y, Peng H, Zhao X. Diagnostic Performance of Contrast-Enhanced Ultrasound for Ovarian Cancer: A Meta-Analysis. [41:967-974](#).

Mischi M, Demi L, Smeenge M, Kuenen MPJ, Postema AW, de la Rosette JJMCH, Wijkstra H. Transabdominal Contrast-Enhanced Ultrasound Imaging of the Prostate. [41:1112-1118](#).

Wang Z, Liu G, Lu M-D, Xie X, Kuang M, Wang W, Xu Z, Lin M, Chen L. Role of Portal Vein Tumor Thrombosis in Quantitative Perfusion Analysis of Contrast-Enhanced Ultrasound of Hepatocellular Carcinoma. [41:1277-1286](#).

- Lee YJ, Kim DW, Park HK, Kim DH, Jung SJ, Oh M, Bae SK. Pre-operative Ultrasound Diagnosis of Nodal Metastasis in Papillary Thyroid Carcinoma Patients According to Nodal Compartment. *41:1294-1300*.
- Corvino A, Catalano O, Setola SV, Sandomenico F, Corvino F, Petrillo A. Contrast-Enhanced Ultrasound in the Characterization of Complex Cystic Focal Liver Lesions. *41:1301-1310*.
- Kato S, Shirai Y, Kanzaki H, Sakamoto M, Mori S, Kodama T. Delivery of Molecules to the Lymph Node via Lymphatic Vessels Using Ultrasound and Nano/Microbubbles. *41:1411-1421*.
- Feng Y, Qin X-C, Luo Y, Li Y-Z, Zhou X. Efficacy of Contrast-Enhanced Ultrasound Washout Rate in Predicting Hepatocellular Carcinoma Differentiation. *41:1553-1560*.
- Wei Y, Yu X-L, Liang P, Cheng Z-G, Han Z-Y, Liu F-Y, Yu J. Guiding and Controlling Percutaneous Pancreas Biopsies with Contrast-Enhanced Ultrasound: Target Lesions Are Not Localized on B-Mode Ultrasound. *41:1561-1569*.
- Zhang Y-N, Wang C-J, Xu Y, Zhu Q-L, Zhou Y-D, Zhang J, Mao F, Jiang Y-X, Sun Q. Sensitivity, Specificity and Accuracy of Ultrasound in Diagnosis of Breast Cancer Metastasis to the Axillary Lymph Nodes in Chinese Patients. *41:1835-1841*.
- Lindsey BD, Shelton SE, Dayton PA. Optimization of Contrast-to-Tissue Ratio Through Pulse Windowing in Dual-Frequency “Acoustic Angiography” Imaging. *41:1884-1895*.
- Qu E, Dai Z, Liang X, Qian Y, Wang S, Ke H, Wang J. Detection and Pathologic Evaluation of Sentinel Lymph Nodes in the VX2 Tumor Model Using a Novel Ultrasound/Near-Infrared Dual-Modality Contrast Agent. *41:1905-1912*.
- Granchi S, Vannacci E, Biagi E, Masotti L. Differentiation of Breast Lesions by Use of HyperSPACE: Hyper-Spectral Analysis for Characterization in Echography. *41:1967-1980*.
- Ara SR, Alam F, Rahman MH, Akhter S, Awwal R, Hasan MK. Bimodal Multiparameter-Based Approach for Benign–Malignant Classification of Breast Tumors. *41:2022-2038*.
- Lo C-M, Moon WK, Huang C-S, Chen J-H, Yang M-C, Chang R-F. Intensity-Invariant Texture Analysis for Classification of BI-RADS Category 3 Breast Masses. *41:2039-2048*.
- Yoon H, Yoon JH, Kim E-K, Moon HJ, Park B-W, Kim MJ. Adding Ultrasound to the Evaluation of Patients with Pathologic Nipple Discharge to Diagnose Additional Breast Cancers: Preliminary Data. *41:2099-2107*.
- Hoyt K, Umphrey H, Lockhart M, Robbin M, Forero-Torres A. Ultrasound Imaging of Breast Tumor Perfusion and Neovascular Morphology. *41:2292-2302*.
- Han X-S, Ning C-P, Sun L-T, Li X-Y, Peng Y-Q, Dang M-Z. Three-Dimensional Transvaginal Tomographic Ultrasound Imaging for Cervical Cancer Staging. *41:2303-2309*.
- Fukuhara T, Matsuda E, Endo Y, Takenobu M, Izawa S, Fujiwara K, Kitano H. Correlation between Quantitative Shear Wave Elastography and Pathologic Structures of Thyroid Lesions. *41:2326-2332*.
- Kim M-H, Luo S, Ko SH, Bae J-S, Lim J, Lim D-J, Kim Y. Thyroid Nodule Parameters Influencing Performance of Ultrasound Elastography Using Intrinsic Compression. *41:2333-2339*.
- Brandt AH, Hemmsen MC, Hansen PM, Madsen SS, Krohn PS, Lange T, Hansen KL, Jensen JA, Nielsen MB. Clinical Evaluation of Synthetic Aperture Harmonic Imaging for Scanning Focal Malignant Liver Lesions. *41:2368-2375*.
- Tang Q-Y, Guo L-D, Wang W-X, Zhou W, Liu Y-N, Liu H-Y, Li L, Deng Y-B. Usefulness of Contrast Perfusion Echocardiography for Differential Diagnosis of Cardiac Masses. *41:2382-2390*.
- Zhang T-T, Luo H-C, Cui X, Zhang W, Zhang L-Y, Chen X-P, Li K-Y. Ultrasound-Guided Percutaneous Microwave Ablation Treatment of Initial Recurrent Hepatocellular Carcinoma after Hepatic Resection: Long-Term Outcomes. *41:2391-2399*.
- Du J, Li H-L, Zhai B, Chang S, Li F-H. Radiofrequency Ablation for Hepatocellular Carcinoma: Utility of Conventional Ultrasound and Contrast-Enhanced Ultrasound in Guiding and Assessing Early Therapeutic Response and Short-Term Follow-Up Results. *41:2400-2411*.
- Endo S, Kudo N, Yamaguchi S, Sumiyoshi K, Motegi H, Kobayashi H, Terasaka S, Houkin K. Porphyrin Derivatives-Mediated Sonodynamic Therapy for Malignant Gliomas In Vitro. *41:2458-2465*.
- Watanabe R, Munemasa T, Matsumura M. Contrast-Enhanced Ultrasound with Perflubutane in the Assessment of Anti-Angiogenic Effects: Early Prediction of the Anticancer Activity of Bevacizumab in a Mouse Xenografted Model. *41:2497-2505*.
- Zhang Y-F, Xu H-X, Xu J-M, Liu C, Guo L-H, Liu L-N, Zhang J, Xu X-H, Qu S, Xing M. Acoustic Radiation Force Impulse Elastography in the Diagnosis of Thyroid Nodules: Useful or Not Useful? *41:2581-2593*.
- Lim H, Lee GH, Na HK, Ahn JY, Lee JH, Choi K-S, Kim DH, Choi KD, Song HJ, Jung H-Y, Kim J-H, Kim D, Park YS. Use of Endoscopic Ultrasound to Evaluate Large Gastric Folds: Features Predictive of Malignancy. *41:2614-2620*.
- Zou R-H, Lin Q-G, Huang W, Li X-L, Cao Y, Zhang J, Zhou J-H, Li A-H, Beretta L, Qian C-N. Quantitative Contrast-Enhanced Ultrasonic Imaging Reflects Microvascularization in Hepatocellular Carcinoma and Prognosis after Resection. *41:2621-2630*.
- Kim DW. Ultrasonographic Features of the Major Salivary Glands after Radioactive Iodine Ablation in Patients with Papillary Thyroid Carcinoma. *41:2640-2645*.

- Ermacorra D, Pesente S, Pascoli F, Raducci S, Mauro R, Rumeileh IA, Verhaegen F, Fontanarosa D. Automated Computed Tomography–Ultrasound Cross-Modality 3-D Contouring Algorithm for Prostate. [41:2646-2662](#).
- Chmielewski A, Dufort P, Scaranelo AM. A Computerized System to Assess Axillary Lymph Node Malignancy from Sonographic Images. [41:2690-2699](#).
- Fadhel MN, Berndt ESL, Strohm EM, Kolios MC. High-Frequency Acoustic Impedance Imaging of Cancer Cells. [41:2700-2713](#).
- Wang X, Jia Y, Su X, Wang P, Zhang K, Feng X, Liu Q. Combination of Protoporphyrin IX-mediated Sonodynamic Treatment with Doxorubicin Synergistically Induced Apoptotic Cell Death of a Multidrug-Resistant Leukemia K562/DOX Cell Line. [41:2731-2739](#).
- Tardoski S, Gineyts E, Ngo J, Kocot A, Clézardin P, Melodelima D. Low-Intensity Ultrasound Promotes Clathrin-Dependent Endocytosis for Drug Penetration into Tumor Cells. [41:2740-2754](#).
- Yan F, Xu X, Chen Y, Deng Z, Liu H, Xu J, Zhou J, Tan G, Wu J, Zheng H. A Lipopeptide-Based $\alpha\beta 3$ Integrin-Targeted Ultrasound Contrast Agent for Molecular Imaging of Tumor Angiogenesis. [41:2765-2773](#).
- Koh J, Jung DC, Oh YT, Yoo MG, Noh S, Han KH, Rha K-H, Choi YD, Hong SJ. Additional Targeted Biopsy in Clinically Suspected Prostate Cancer: Prospective Randomized Comparison between Contrast-Enhanced Ultrasound and Sonoelastography Guidance. [41:2836-2841](#).
- Moorman AM, Bourez RLJH, de Leeuw DM, Kouwenhoven EA. Pre-operative Ultrasonographic Evaluation of Axillary Lymph Nodes in Breast Cancer Patients: For Which Group Still of Additional Value and in Which Group Cause for Special Attention? [41:2842-2848](#).
- Park KN, Kang KY, Hong HS, Jeong H-S, Lee SW. Predictive Value of Estimated Tumor Volume Measured by Ultrasonography for Occult Central Lymph Node Metastasis in Papillary Thyroid Carcinoma. [41:2849-2854](#).
- Azizi G, Keller JM, Mayo ML, Piper K, Puett D, Earp KM, Malchoff CD. Thyroid Nodules and Shear Wave Elastography: A New Tool in Thyroid Cancer Detection. [41:2855-2865](#).
- Li Y, Wang Y, Wu Q, Hu B. Transforming Growth Factor $\beta 1$ Could Influence Thyroid Nodule Elasticity and Also Improve Cervical Lymph Node Metastasis in Papillary Thyroid Carcinoma. [41:2866-2872](#).
- Yoon JH, Shin HJ, Kim E-K, Moon HJ, Roh YH, Kwak JY. Quantitative Evaluation of Vascularity Using 2-D Power Doppler Ultrasonography May Not Identify Malignancy of the Thyroid. [41:2873-2883](#).
- Taimr P, Jongerius VL, Pek CJ, Krak NC, Hansen BE, Janssen HLA, Metselaar HJ, van Eijck CHJ. Liver Contrast-Enhanced Ultrasound Improves Detection of Liver Metastases in Patients with Pancreatic or Periampullary Cancer. [41:3063-3069](#).
- Tada T, Kumada T, Toyoda H, Ito T, Sone Y, Kaneoka Y, Maeda A, Okuda S, Otobe K, Takahashi K. Utility of Contrast-enhanced Ultrasonography with Perflubutane for Determining Histologic Grade in Hepatocellular Carcinoma. [41:3070-3078](#).
- Kondo T, Maruyama H, Kiyono S, Sekimoto T, Shimada T, Takahashi M, Ogasawara S, Suzuki E, Ooka Y, Tawada A, Chiba T, Kanai F, Yokosuka O. Intensity-Based Assessment of Microbubble-Enhanced Ultrasonography: Phase-Related Diagnostic Ability for Cellular Differentiation of Hepatocellular Carcinoma. [41:3079-3087](#).
- Han J, Liu Y, Han F, Li Q, Yan C, Zheng W, Wang J, Guo Z, Wang J, Li A, Zhou J. The Degree of Contrast Washout on Contrast-Enhanced Ultrasound in Distinguishing Intrahepatic Cholangiocarcinoma from Hepatocellular Carcinoma. [41:3088-3095](#).
- Li W-B, Zhang B, Zhu Q-L, Jiang Y-X, Sun J, Yang M, Li J-C. Comparison between Thin-Slice 3-D Volumetric Ultrasound and Conventional Ultrasound in the Differentiation of Benign and Malignant Thyroid Lesions. [41:3096-3101](#).
- Zhao R-N, Zhang B, Yang X, Jiang Y-X, Lai X-J, Zhang X-Y. Logistic Regression Analysis of Contrast-Enhanced Ultrasound and Conventional Ultrasound Characteristics of Sub-centimeter Thyroid Nodules. [41:3102-3108](#).
- Li F, Bai M, Wu Y, He Y, Gu J, Xing J, Du L. Comparative Diagnostic Performance of Contrast-Enhanced ultrasound versus Baseline Ultrasound for Renal Pelvis Lesions. [41:3109-3119](#).
- Kim J, Kim JH, Yoon SH, Choi WS, Kim YJ, Han JK, Choi B-I. Feasibility of Using Volumetric Contrast-Enhanced Ultrasound with a 3-D Transducer to Evaluate Therapeutic Response after Targeted Therapy in Rabbit Hepatic VX2 Carcinoma. [41:3131-3139](#).
- Venkatesh SS, Levenback BJ, Sultan LR, Bouzghar G, Sehgal CM. Going beyond a First Reader: A Machine Learning Methodology for Optimizing Cost and Performance in Breast Ultrasound Diagnosis. [41:3148-3162](#).

Cardiology

Synonyms: heart, cardiography

Scopus Search: Cardi* OR myocardi* OR heart OR ECG OR ventricular OR atrial

See also: echocardiography

Nemescu D, Berescu A. Acoustic Output Measured by Thermal and Mechanical Indices during Fetal Echocardiography at the Time of the First Trimester Scan. [41:35-39](#).

Gao H, Bijmens N, Coisne D, Lugiez M, Rutten M, D'Hooge J. 2-D Left Ventricular Flow Estimation by Combining Speckle Tracking With Navier–Stokes-Based Regularization: An In Silico, In Vitro and In Vivo Study. [41:99-113](#).

- Sotaquira M, Pepi M, Fusini L, Maffessanti F, Lang RM, Caiani EG. Semi-automated Segmentation and Quantification of Mitral Annulus and Leaflets from Transesophageal 3-D Echocardiographic Images. *41:251-267*.
- Lin D, French BA, Xu Y, Hossack JA, Holmes JW. An Ultrasound-Driven Kinematic Model for Deformation of the Infarcted Mouse Left Ventricle Incorporating a Near-Incompressibility Constraint. *41:532-541*.
- Qiu W, Yuan J, Kishimoto J, McLeod J, Chen Y, de Ribaupierre S, Fenster A. User-Guided Segmentation of Preterm Neonate Ventricular System from 3-D Ultrasound Images Using Convex Optimization. *41:542-556*.
- Mele D, Rizzo P, Pollina AV, Fiorencis A, Ferrari R. Cancer Therapy-Induced Cardiotoxicity: Role of Ultrasound Deformation Imaging as an Aid to Early Diagnosis. *41:627-643*.
- Wu C-T, Han K, Guo Z-N, Yang Y, Gao Y-S, Bai J, Xing Y-Q. Effects of Patient Position on Right-to-Left Shunt Detection by Contrast Transcranial Doppler. *41:654-658*.
- Rossato DD, Lago PD, Hentschke VS, Rucatti AL, Signori LU, Silveira MN, Méa Plentz RD. Ultrasound Modulates Skeletal Muscle Cytokine Levels in Rats with Heart Failure. *41:797-805*.
- Hashima JN, Rogers V, Langley SM, Ashraf M, Sahn DJ, Ohtonen P, Davis LE, Hohimer AR, Rasanen J. Fetal Ventricular Interactions and Wall Mechanics During Ductus Arteriosus Occlusion in a Sheep Model. *41:1020-1028*.
- Omar AMS, Abdel-Rahman MA, Khorshid H, Helmy M, Raslan H, Rifaie O. Tissue Doppler-Derived Myocardial Acceleration during Isovolumetric Contraction Predicts Pulmonary Capillary Wedge Pressure in Patients with Significant Mitral Regurgitation. *41:2108-2118*.
- Han K, Xing Y, Yang Y, Chao AC, Sheng W-Y, Hu H-H, Wu J. Body Positions in the Diagnosis of Right-to-Left Shunt by Contrast Transcranial Doppler. *41:2376-2381*.
- Tang Q-Y, Guo L-D, Wang W-X, Zhou W, Liu Y-N, Liu H-Y, Li L, Deng Y-B. Usefulness of Contrast Perfusion Echocardiography for Differential Diagnosis of Cardiac Masses. *41:2382-2390*.
- Du G-Q, Xue J-Y, Guo Y, Chen S, Du P, Wu Y, Wang Y-H, Zong L-Q, Tian J-W. Measurement of Myocardial Perfusion and Infarction Size Using Computer-Aided Diagnosis System for Myocardial Contrast Echocardiography. *41:2466-2477*.
- Imaging and Implications for the Mechanical Index I. *41:472-485*.
- Muleki Seya P, Fouqueray M, Ngo J, Poizat A, Inserra C, Béra J-C. Sonoporation of Adherent Cells under Regulated Ultrasound Cavitation Conditions. *41:1008-1019*.
- Simon JC, Sapozhnikov OA, Wang Y-N, Khokhlova VA, Crum LA, Bailey MR. Investigation into the Mechanisms of Tissue Atomization by High-Intensity Focused Ultrasound. *41:1372-1385*.
- Petit B, Bohren Y, Gaud E, Bussat P, Arditi M, Yan F, Tranquart F, Allémann E. Sonothrombolysis: The Contribution of Stable and Inertial Cavitation to Clot Lysis. *41:1402-1410*.
- Vlaisavljevich E, Lin K-W, Maxwell A, Warnez MT, Mancina L, Singh R, Putnam AJ, Fowlkes B, Johnsen E, Cain C, Xu Z. Effects of Ultrasound Frequency and Tissue Stiffness on the Histotripsy Intrinsic Threshold for Cavitation. *41:1651-1667*.
- Ramaekers P, de Greef M, Moonen CTW, Ries MG. Cavitation-Enhanced Back Projection for Acoustic Rib Detection and Attenuation Mapping. *41:1726-1736*.
- Gourevich D, Volovick A, Dogadkin O, Wang L, Mulvana H, Medan Y, Melzer A, Cochran S. In Vitro Investigation of the Individual Contributions of Ultrasound-Induced Stable and Inertial Cavitation in Targeted Drug Delivery. *41:1853-1864*.
- Vlaisavljevich E, Aydin O, Yuksel Durmaz Y, Lin K-W, Fowlkes B, ElSayed M, Xu Z. Effects of Ultrasound Frequency on Nanodroplet-Mediated Histotripsy. *41:2135-2147*.
- Burgess MT, Porter TM. Acoustic Cavitation-Mediated Delivery of Small Interfering Ribonucleic Acids with Phase-Shift Nano-Emulsions. *41:2191-2201*.
- Haworth KJ, Salgaonkar VA, Corregan NM, Holland CK, Mast TD. Using Passive Cavitation Images to Classify High-Intensity Focused Ultrasound Lesions. *41:2420-2434*.
- Wang G, Zhuo Z, Yang B, Wu S, Xu Y, Liu Z, Tan K, Xia H, Wang X, Zou L, Gan L, Gao Y. Enhanced Homing Ability and Retention of Bone Marrow Stromal Cells to Diabetic Nephropathy by Microbubble-Mediated Diagnostic Ultrasound Irradiation. *41:2977-2989*.

Clinical Applications of Ultrasound

Synonyms: Clinical study, clinical trial

Scopus Search: Clinical AND study OR trial

Bota S, Bob F, Sporea I, Şirli R, Popescu A. Factors that Influence Kidney Shear Wave Speed Assessed by Acoustic Radiation Force Impulse Elastography in Patients without Kidney Pathology. *41:1-6*.

Zhang D, Chen M, Wang R, Liu Y, Zhang D, Liu L, Zhou G. Comparison of Acoustic Radiation Force Impulse Imaging and Transient Elastography for Non-invasive Assessment of Liver Fibrosis in Patients with Chronic Hepatitis B. *41:7-14*.

Cavitation

Synonyms: bubble dynamics, acoustic cavitation, bubble collapse

Scopus Search: cavitation OR inertial OR transient OR “bubble collapse”

See also: **contrast agents**

Church CC, Labuda C, Nightingale K. A Theoretical Study of Inertial Cavitation from Acoustic Radiation Force Impulse

- Ooi CC, Schneider ME, Malliaras P, Chadwick M, Connell DA. Diagnostic Performance of Axial-Strain Sonoelastography in Confirming Clinically Diagnosed Achilles Tendinopathy: Comparison with B-Mode Ultrasound and Color Doppler Imaging. *41:15-25*.
- Thomas KN, Cotter JD, Lucas SJE, Hill BG, van Rij AM. Reliability of Contrast-Enhanced Ultrasound for the Assessment of Muscle Perfusion in Health and Peripheral Arterial Disease. *41:26-34*.
- Nemescu D, Berescu A. Acoustic Output Measured by Thermal and Mechanical Indices during Fetal Echocardiography at the Time of the First Trimester Scan. *41:35-39*.
- Guang Y, Wang X, Cai A-L, Xie L-M, Ding H-L, Meng X-Y. Evaluation of the Development of the Fetal Anal Sphincter with Tomography Ultrasonography Imaging. *41:40-46*.
- Jin Z-Q, Lin M-Y, Hao W-Q, Jiang H-T, Zhang L, Hu W-H, Zhang M. Diagnostic Evaluation of Ductal Carcinoma in Situ of the Breast: Ultrasonographic, Mammographic and Histopathologic Correlations. *41:47-55*.
- Cheng E, Mabee M, Swami VG, Pi Y, Thompson R, Dulai S, Jaremko JL. Ultrasound Quantification of Acetabular Rounding in Hip Dysplasia: Reliability and Correlation to Treatment Decisions in a Retrospective Study. *41:56-63*.
- Turk M, Pretnar-Oblak J, Zupan M, Zvan B, Zaletel M. Ultrasound Diagnosis of Carotid Artery Stiffness in Patients with Ischemic Leukoaraiosis. *41:64-71*.
- Yang S, Wang D-z, Zhang H-x, He W, Chen B-x. Echo-Tracking Technology Assessment of Carotid Artery Stiffness in Patients with Coronary Slow Flow. *41:72-76*.
- Widman E, Caidahl K, Heyde B, D'hooge J, Larsson M. Ultrasound Speckle Tracking Strain Estimation of in Vitro Carotid Artery Plaque with in Vitro Sonomicrometry Validation. *41:77-88*.
- Chang JW, Min B-K, Kim B-S, Chang WS, Lee Y-H. Neurophysiologic Correlates of Sonication Treatment in Patients with Essential Tremor. *41:124-131*.
- Sotaquira M, Pepi M, Fusini L, Maffessanti F, Lang RM, Caiani EG. Semi-automated Segmentation and Quantification of Mitral Annulus and Leaflets from Transesophageal 3-D Echocardiographic Images. *41:251-267*.
- Conversano F, Franchini R, Greco A, Soloperto G, Chiriaco F, Casciaro E, Avenaggiato M, Renna MD, Pisani P, Di Paola M, Grimaldi A, Quarta L, Quarta E, Muratore M, Laugier P, Casciaro S. A Novel Ultrasound Methodology for Estimating Spine Mineral Density. *41:281-300*.
- Roggen I, Louis O, Van Biervliet S, Van Daele S, Robberecht E, De Wachter E, Malfroot A, De Waele K, Gies I, Vanbesien J, De Schepper J. Quantitative Bone Ultrasound at the Distal Radius in Adults with Cystic Fibrosis. *41:334-338*.
- Dobruch-Sobczak K, Nowicki A. Role of Shear Wave Sonoelastography in Differentiation Between Focal Breast Lesions. *41:366-374*.
- Jung HK, Han K, Lee YJ, Moon HJ, Kim E-K, Kim MJ. Mammographic and Sonographic Features of Triple-Negative Invasive Carcinoma of No Special Type. *41:375-383*.
- Li T, Zhou P, Zhang X, Ding M, Yuchi M, Li Y. Diagnosis of Thyroid Nodules Using Virtual Touch Tissue Quantification Value and Anteroposterior/Transverse Diameter Ratio. *41:384-392*.
- Wang B, Ye Z, Chen Y, Zhao Q, Huang M, Chen F, Li Y, Jiang Ta. Hepatic Angiomyolipomas: Ultrasonic Characteristics of 25 Patients from a Single Center. *41:393-400*.
- Wang X, Liu D, He H, Du W, Zhang H, Liu Y, Chai W, Zhang Q, Zhou X. Using Critical Care Chest Ultrasonic Examination in Emergency Consultation: A Pilot Study. *41:401-406*.
- Nguyen BL, Capotosto L, Persi A, Placanca A, Rafique A, Piccirillo G, Gaudio C, Gang ES, Siegel RJ, Vitarelli A. Global and Regional Left Ventricular Strain Indices in Post-Myocardial Infarction Patients with Ventricular Arrhythmias and Moderately Abnormal Ejection Fraction. *41:407-417*.
- Papavasileiou V, Milionis H, Hirt L, Michel P. Strokes and TIAs during and after Carotid Artery Doppler: Cause or Coincidence? *41:418-422*.
- Zhao W-P, Chen J-Y, Chen W-Z. Effect of Biological Characteristics of Different Types of Uterine Fibroids, as Assessed with T2-Weighted Magnetic Resonance Imaging, on Ultrasound-Guided High-Intensity Focused Ultrasound Ablation. *41:423-431*.
- Abe T, Loenneke JP, Young KC, Thiebaud RS, Nahar VK, Holloway KM, Stover CD, Ford MA, Bass MA, Loftin M. Validity of Ultrasound Prediction Equations for Total and Regional Muscularity in Middle-aged and Older Men and Women. *41:557-564*.
- Roll SC, Rana M, Sigward SM, Yani MS, Kirages DJ, Kutch JJ. Reliability of Superficial Male Pelvic Floor Structural Measurements Using Linear-Array Transperineal Sonography. *41:610-617*.
- Wu C-T, Han K, Guo Z-N, Yang Y, Gao Y-S, Bai J, Xing Y-Q. Effects of Patient Position on Right-to-Left Shunt Detection by Contrast Transcranial Doppler. *41:654-658*.
- Ma X, Li Y, Jia H, Zhang J, Wang G, Liu X, Song Y. Contrast-Enhanced Ultrasound in the Diagnosis of Patients Suspected of Having Active Crohn's Disease: Meta-analysis. *41:659-668*.
- Yoshii Y, Ishii T, Tanaka T, Tung W-I, Sakai S. Detecting Median Nerve Strain Changes with Cyclic Compression Apparatus: A Comparison of Carpal Tunnel Syndrome Patients and Healthy Controls. *41:669-674*.

- Palmer TB, Akehi K, Thiele RM, Smith DB, Thompson BJ. Reliability of Panoramic Ultrasound Imaging in Simultaneously Examining Muscle Size and Quality of the Hamstring Muscles in Young, Healthy Males and Females. [41:675-684](#).
- Czernuszewicz TJ, Homeister JW, Caughey MC, Farber MA, Fulton JJ, Ford PF, Marston WA, Vallabhaneni R, Nichols TC, Gallippi CM. Non-invasive in Vivo Characterization of Human Carotid Plaques with Acoustic Radiation Force Impulse Ultrasound: Comparison with Histology after Endarterectomy. [41:685-697](#).
- Liao L-Y, Kuo K-L, Chiang H-S, Lin C-Z, Lin Y-P, Lin C-L. Acoustic Radiation Force Impulse Elastography of the Liver in Healthy Patients: Test Location, Reference Range and Influence of Gender and Body Mass Index. [41:698-704](#).
- Liu F, Yong Q, Zhang Q, Liu P, Yang Y. Real-Time Tissue Elastography for the Detection of Vulnerable Carotid Plaques in Patients Undergoing Endarterectomy: A Pilot Study. [41:705-712](#).
- Tzschätzsch H, Ipek-Ugay S, Nguyen Trong M, Guo J, Eggers J, Gentz E, Fischer T, Schultz M, Braun J, Sack I. Multifrequency Time-Harmonic Elastography for the Measurement of Liver Viscoelasticity in Large Tissue Windows. [41:724-733](#).
- Aye CYL, Stevenson GN, Impey L, Collins SL. Comparison of 2-D and 3-D Estimates of Placental Volume in Early Pregnancy. [41:734-740](#).
- Youk JH, Kim H, Kim E-k, Son EJ, Kim MJ, Kim J-A. Phyllodes Tumor Diagnosed after Ultrasound-Guided Vacuum-Assisted Excision: Should It Be Followed by Surgical Excision? [41:741-747](#).
- Piotrkowska-Wroblewska H, Litniewski J, Szymanska E, Nowicki A. Quantitative Sonography of Basal Cell Carcinoma. [41:748-759](#).
- Jia L, Hua Y, Li J, Duan C, Zhou Y, Jiao L. Optimal Ultrasound Criteria for Defining the Severity of Vertebral Artery in-Stent Restenosis. [41:775-780](#).
- Liu Y, Zhou H, Chen C, Cui C, Liu X, Liu Q, Ye M, Wang J. Assessment of the Safety and Efficacy of Bedside Ultrasound Guidance for Inferior Vena Cava Filter Placement in Critically Ill Intensive Care Unit Patients. [41:929-935](#).
- Pellot-Barakat C, Lefort M, Chami L, Labit M, Frouin F, Lucidarme O. Automatic Assessment of Shear Wave Elastography Quality and Measurement Reliability in the Liver. [41:936-943](#).
- Kong W-T, Wang W-P, Huang B-J, Ding H, Mao F, Si Q. Contrast-Enhanced Ultrasound in Combination with Color Doppler Ultrasound Can Improve the Diagnostic Performance of Focal Nodular Hyperplasia and Hepatocellular Adenoma. [41:944-951](#).
- Kunze G, Staritz M, Köhler M. Contrast-Enhanced Ultrasound in Different Stages of Pyogenic Liver Abscess. [41:952-959](#).
- Shi XQ, Li JL, Wan WB, Huang Y. A Set of Shear Wave Elastography Quantitative Parameters Combined with Ultrasound BI-RADS to Assess Benign and Malignant Breast Lesions. [41:960-966](#).
- Wu Y, Peng H, Zhao X. Diagnostic Performance of Contrast-Enhanced Ultrasound for Ovarian Cancer: A Meta-Analysis. [41:967-974](#).
- Cui X-W, Ignee A, Baum U, Dietrich CF. Feasibility and Usefulness of Using Swallow Contrast-Enhanced Ultrasound to Diagnose Zenker's Diverticulum: Preliminary Results. [41:975-981](#).
- Pavlovic AM, Stevic Z, Pekmezovic T, Mijajlovic M, Jovanovic Z, Lavrnjc D. Increased Frequency of Pathologic Findings on Transcranial B-Mode Parenchymal Sonography in Patients with Sporadic Amyotrophic Lateral Sclerosis. [41:982-988](#).
- Machado FS, Furtado RNV, Takahashi RD, de Buosi ALP, Natour J. Sonographic Cutoff Values for Detection of Abnormalities in Small, Medium and Large Joints: A Comparative Study Between Patients with Rheumatoid Arthritis and Healthy Volunteers. [41:989-998](#).
- Piskunowicz M, Kosiak W, Batko T, Piankowski A, Połczyńska K, Adamkiewicz-Drożyńska E. Safety of Intravenous Application of Second-Generation Ultrasound Contrast Agent in Children: Prospective Analysis. [41:1095-1099](#).
- Zhou Z-f, Xia C-z, Wu M, Yu L-n, Yan G-z, Ren Q-s, Hu C-x, Yan M. Comparison of Three Methods for the Confirmation of Laryngeal Mask Airway Placement in Female Patients Undergoing Gynecologic Surgery. [41:1212-1220](#).
- Ahn SY, Cho KH, Beom J, Park DJ, Jee S, Nam JH. Reliability of Ultrasound Evaluation of Hyoid-Larynx Approximation with Positional Change. [41:1221-1225](#).
- Liu D, Huang Y, Tian D, Yin J. Quantitative Ultrasound Assessment of the Facet Joint in the Lumbar Spine: A Feasibility Study. [41:1226-1232](#).
- Bolesch S, von Wegner F, Senft C, Lorenz MW. Transcranial Ultrasound to Detect Elevated Intracranial Pressure: Comparison of Septum Pellucidum Undulations and Optic Nerve Sheath Diameter. [41:1233-1240](#).
- Min JY, Lee J-R, Oh J-T, Kim M-S, Jun E-K, An J. Ultrasonographic Assessment of Optic Nerve Sheath Diameter during Pediatric Laparoscopy. [41:1241-1246](#).
- Ikeda N, Gupta A, Dey N, Bose S, Shafique S, Arak T, Godia EC, Saba L, Laird JR, Nicolaides A, Suri JS. Improved Correlation between Carotid and Coronary Atherosclerosis SYNTAX Score Using Automated Ultrasound Carotid Bulb Plaque IMT Measurement. [41:1247-1262](#).
- Carminati MC, Piazzese C, Weinert L, Tsang W, Tamborini G, Pepi M, Lang RM, Caiani EG. Reconstruction of the Descending Thoracic Aorta by Multiview Compounding of 3-D Transesophageal Echocardiographic Aortic Data Sets for Improved Examination and Quantification of Atheroma Burden. [41:1263-1276](#).

- Wang Z, Liu G, Lu M-D, Xie X, Kuang M, Wang W, Xu Z, Lin M, Chen L. Role of Portal Vein Tumor Thrombosis in Quantitative Perfusion Analysis of Contrast-Enhanced Ultrasound of Hepatocellular Carcinoma. [41:1277-1286](#).
- Lee YJ, Kim DW, Park HK, Kim DH, Jung SJ, Oh M, Bae SK. Pre-operative Ultrasound Diagnosis of Nodal Metastasis in Papillary Thyroid Carcinoma Patients According to Nodal Compartment. [41:1294-1300](#).
- Corvino A, Catalano O, Setola SV, Sandomenico F, Corvino F, Petrillo A. Contrast-Enhanced Ultrasound in the Characterization of Complex Cystic Focal Liver Lesions. [41:1301-1310](#).
- Miyashita S, Murotsuki J, Muromoto J, Ozawa K, Yaegashi N, Hasegawa H, Kanai H. Measurement of Internal Diameter Changes and Pulse Wave Velocity in Fetal Descending Aorta Using the Ultrasonic Phased-Tracking Method in Normal and Growth-Restricted Fetuses. [41:1311-1319](#).
- Agnew CE, Hamilton PK, McCann AJ, McGivern RC, McVeigh GE. Wavelet Entropy of Doppler Ultrasound Blood Velocity Flow Waveforms Distinguishes Nitric Oxide-Modulated States. [41:1320-1327](#).
- Chen S-P, Hu Y-P. Waveform Patterns and Peak Reversed Velocity in Vertebral Arteries Predict Severe Subclavian Artery Stenosis and Occlusion. [41:1328-1333](#).
- Sisini F, Tessari M, Gadda G, Di Domenico G, Taibi A, Menegatti E, Gambaccini M, Zamboni P. An Ultrasonographic Technique to Assess the Jugular Venous Pulse: A Proof of Concept. [41:1334-1341](#).
- López-Hernández N, García-Escrivá A, Ballenilla F, Gallego-Leon JI. Hemodynamic Effects of Proximal Supra-aortic Artery Stenosis on Anterior Cerebral Artery. [41:1488-1492](#).
- Cortes DH, Suydam SM, Silbernagel KG, Buchanan TS, Elliott DM. Continuous Shear Wave Elastography: A New Method to Measure Viscoelastic Properties of Tendons in Vivo. [41:1518-1529](#).
- Hu Z, Li Y, Li C, Huang C, Ou Z, Guo J, Luo H, Tang X. Using Ultrasonic Transient Elastometry (FibroScan) to Predict Esophageal Varices in Patients with Viral Liver Cirrhosis. [41:1530-1537](#).
- Zeng X, Xu C, He D, Zhang H, Xia J, Shi D, Kong L, He X, Wang Y. Influence of Hepatic Inflammation on FibroScan Findings in Diagnosing Fibrosis in Patients with Chronic Hepatitis B. [41:1538-1544](#).
- Soresi M, Giannitrapani L, Noto D, Terranova A, Campagna ME, Cefalù AB, Giammanco A, Montalto G. Effects of Steatosis on Hepatic Hemodynamics in Patients with Metabolic Syndrome. [41:1545-1552](#).
- Feng Y, Qin X-C, Luo Y, Li Y-Z, Zhou X. Efficacy of Contrast-Enhanced Ultrasound Washout Rate in Predicting Hepatocellular Carcinoma Differentiation. [41:1553-1560](#).
- Wei Y, Yu X-L, Liang P, Cheng Z-G, Han Z-Y, Liu F-Y, Yu J. Guiding and Controlling Percutaneous Pancreas Biopsies with Contrast-Enhanced Ultrasound: Target Lesions Are Not Localized on B-Mode Ultrasound. [41:1561-1569](#).
- Mestre XM, Coll RV, Villegas AR, Rico CM. Role of Contrast-Enhanced Ultrasound Arterial Mapping in Surgical Planning for Patients with Critical Limb Ischemia. [41:1570-1576](#).
- Suehiro K, Morikage N, Murakami M, Yamashita O, Harada T, Ueda K, Samura M, Tanaka Y, Nakamura K, Hamano K. Skin and Subcutaneous Tissue Strain in Legs with Lymphedema and Lipodermatosclerosis. [41:1577-1583](#).
- Jenkins NDM, Miller JM, Buckner SL, Cochrane KC, Bergstrom HC, Hill EC, Smith CM, Housh TJ, Cramer JT. Test-Retest Reliability of Single Transverse versus Panoramic Ultrasound Imaging for Muscle Size and Echo Intensity of the Biceps Brachii. [41:1584-1591](#).
- Teggeler M, Schmitz M, Fink A, Jansen JACG, Pisters MF. Reliability and Agreement of Ultrasonographic Thickness Measurements of the Common Lateral Extensors of the Elbow. [41:1592-1598](#).
- Kim M-S, Yoon KB, Yoon DM, Kim D-H. Effect of Cervical Sympathetic Block on Optic Nerve Sheath Diameter Measured by Ultrasonography. [41:1599-1604](#).
- Kaewlai R, Lertlumsakulsub W, Srichareon P. Body Mass Index, Pain Score and Alvarado Score Are Useful Predictors of Appendix Visualization at Ultrasound in Adults. [41:1605-1611](#).
- Mantsopoulos K, Wurm J, Iro H, Zenk J. Role of Ultrasonography in the Detection of a Subperiosteal Abscess Secondary to Mastoiditis in Pediatric Patients. [41:1612-1615](#).
- Duchateau J, Cornolle C, Peyrou J, Ritter P, Pillois X, Réant P, Reynaud A, Landelle M, Lafitte S. Abnormal Left Ventricular Contraction Sequence in Hypertrophic Cardiomyopathy Patients: First Description of Hypersynchrony and Invert Synchrony. [41:1632-1639](#).
- Watanabe T, Terabayashi N, Fukuoka D, Murakami H, Ito H, Matsuoka T, Seishima M. A Pilot Study to Assess Fatty Infiltration of the Supraspinatus in Patients with Rotator Cuff Tears: Comparison with Magnetic Resonance Imaging. [41:1779-1783](#).
- Remijn L, Weijers G, Nijhuis-van der Sanden MWG, Groen BE, de Korte CL. Ultrasound Imaging for Analyzing Lateral Tongue Movements during Mastication in Adults with Cerebral Palsy Compared with Adults without Oral Motor Disabilities. [41:1784-1793](#).
- Sekimoto T, Maruyama H, Kiyono S, Kondo T, Shimada T, Takahashi M, Yokosuka O, Yamaguchi T. Liver Stiffness: A Significant Relationship with the Waveform Pattern in the Hepatic Vein. [41:1801-1807](#).
- Maurice RL, Vaujois L, Dahdah N, Nuyt A-M, Bigras J-L. Comparing Carotid and Brachial Artery Stiffness: A First Step Toward Mechanical Mapping of the Arterial Tree. [41:1808-1813](#).

- Conti F, Ceccarelli F, Gigante A, Perricone C, Barbano B, Massaro L, Spinelli FR, Alessandri C, Valesini G, Cianci R. Ultrasonographic Evaluation of Resistive Index and Renal Artery Stenosis in Patients with Anti-Phospholipid Syndrome: Two Distinct Mechanisms? *41:1814-1820*.
- Papatzika F, Papandreou M, Ekizos A, Panteli C, Arampatzis A. Reliability and Limits of Agreement of the Supraspinatus Muscle Anatomical Cross-Sectional Area Assessment by Ultrasonography. *41:1821-1826*.
- Gómez-Choco M, Schreiber SJ, Weih M, Doepp F, Valdeuza JM. Delayed Transcranial Echo-Contrast Bolus Arrival in Unilateral Internal Carotid Artery Stenosis and Occlusion. *41:1827-1834*.
- Zhang Y-N, Wang C-J, Xu Y, Zhu Q-L, Zhou Y-D, Zhang J, Mao F, Jiang Y-X, Sun Q. Sensitivity, Specificity and Accuracy of Ultrasound in Diagnosis of Breast Cancer Metastasis to the Axillary Lymph Nodes in Chinese Patients. *41:1835-1841*.
- Deng Y, Palmeri ML, Rouze NC, Rosenzweig SJ, Abdelmalek MF, Nightingale KR. Analyzing the Impact of Increasing Mechanical Index and Energy Deposition on Shear Wave Speed Reconstruction in Human Liver. *41:1948-1957*.
- Cuesta-Vargas AI. Development of a New Ultrasound-Based System for Tracking Motion of the Human Lumbar Spine: Reliability, Stability and Repeatability during Forward Bending Movement Trials. *41:2049-2056*.
- Paquette P, Lamontagne M, Higgins J, Gagnon DH. Repeatability and Minimal Detectable Change in Longitudinal Median Nerve Excursion Measures During Upper Limb Neurodynamic Techniques in a Mixed Population: A Pilot Study Using Musculoskeletal Ultrasound Imaging. *41:2082-2086*.
- Cai S-f, Gai Y-h, Ma S, Liang B, Wang G-c, Liu Q-w. Ultrasonographic Visualization of Accessory Hepatic Veins and Their Lesions in Budd–Chiari Syndrome. *41:2091-2098*.
- Yoon H, Yoon JH, Kim E-K, Moon HJ, Park B-W, Kim MJ. Adding Ultrasound to the Evaluation of Patients with Pathologic Nipple Discharge to Diagnose Additional Breast Cancers: Preliminary Data. *41:2099-2107*.
- Omar AMS, Abdel-Rahman MA, Khorshid H, Helmy M, Raslan H, Rifaie O. Tissue Doppler-Derived Myocardial Acceleration during Isovolumetric Contraction Predicts Pulmonary Capillary Wedge Pressure in Patients with Significant Mitral Regurgitation. *41:2108-2118*.
- Abe T, Counts BR, Barnett BE, Dankel SJ, Lee K, Loenneke JP. Associations between Handgrip Strength and Ultrasound-Measured Muscle Thickness of the Hand and Forearm in Young Men and Women. *41:2125-2130*.
- Bazan R, Braga GP, Luvizutto GJ, Hueb JC, Hokama NK, Zanati Bazan SG, de Carvalho Nunes HR, Leite JP, Pontes-Neto OM. Evaluation of the Temporal Acoustic Window for Transcranial Doppler in a Multi-Ethnic Population in Brazil. *41:2131-2134*.
- Rahmani N, Mohseni-Bandpei MA, Vameghi R, Salavati M, Abdollahi I. Application of Ultrasonography in the Assessment of Skeletal Muscles in Children with and without Neuromuscular Disorders: A Systematic Review. *41:2275-2283*.
- Dubois G, Kheireddine W, Vergari C, Bonneau D, Thoreux P, Rouch P, Tanter M, Gennisson J-L, Skalli W. Reliable Protocol for Shear Wave Elastography of Lower Limb Muscles at Rest and During Passive Stretching. *41:2284-2291*.
- Hoyt K, Umphrey H, Lockhart M, Robbin M, Forero-Torres A. Ultrasound Imaging of Breast Tumor Perfusion and Neovascular Morphology. *41:2292-2302*.
- Han X-S, Ning C-P, Sun L-T, Li X-Y, Peng Y-Q, Dang M-Z. Three-Dimensional Transvaginal Tomographic Ultrasound Imaging for Cervical Cancer Staging. *41:2303-2309*.
- Mantsopoulos K, Klintworth N, Iro H, Bozzato A. Applicability of Shear Wave Elastography of the Major Salivary Glands: Values in Healthy Patients and Effects of Gender, Smoking and Pre-Compression. *41:2310-2318*.
- Sawires HK, Abdel Ghany EA, Hussein NF, Seif HM. Use of Lung Ultrasound in Detection of Complications of Respiratory Distress Syndrome. *41:2319-2325*.
- Kim M-H, Luo S, Ko SH, Bae J-S, Lim J, Lim D-J, Kim Y. Thyroid Nodule Parameters Influencing Performance of Ultrasound Elastography Using Intrinsic Compression. *41:2333-2339*.
- Bota S, Paternostro R, Etschmaier A, Schwarzer R, Salzl P, Mandorfer M, Kienbacher C, Ferlitsch M, Reiberger T, Trauner M, Peck-Radosavljevic M, Ferlitsch A. Performance of 2-D Shear Wave Elastography in Liver Fibrosis Assessment Compared with Serologic Tests and Transient Elastography in Clinical Routine. *41:2340-2349*.
- Gerber L, Kasper D, Fitting D, Knop V, Vermehren A, Sprinzl K, Hansmann ML, Herrmann E, Bojunga J, Albert J, Sarrazin C, Zeuzem S, Friedrich-Rust M. Assessment of Liver Fibrosis with 2-D Shear Wave Elastography in Comparison to Transient Elastography and Acoustic Radiation Force Impulse Imaging in Patients with Chronic Liver Disease. *41:2350-2359*.
- Huang Y, Liu G-J, Liao B, Huang G-L, Liang J-Y, Zhou L-Y, Wang F, Li W, Xie X-Y, Wang W, Lu M-D. Impact Factors and the Optimal Parameter of Acoustic Structure Quantification in the Assessment of Liver Fibrosis. *41:2360-2367*.
- Brandt AH, Hemmsen MC, Hansen PM, Madsen SS, Krohn PS, Lange T, Hansen KL, Jensen JA, Nielsen MB. Clinical Evaluation of Synthetic Aperture Harmonic Imaging for Scanning Focal Malignant Liver Lesions. *41:2368-2375*.
- Han K, Xing Y, Yang Y, Chao AC, Sheng W-Y, Hu H-H, Wu J. Body Positions in the Diagnosis of Right-to-Left Shunt by Contrast Transcranial Doppler. *41:2376-2381*.

- Tang Q-Y, Guo L-D, Wang W-X, Zhou W, Liu Y-N, Liu H-Y, Li L, Deng Y-B. Usefulness of Contrast Perfusion Echocardiography for Differential Diagnosis of Cardiac Masses. [41:2382-2390](#).
- Zhang T-T, Luo H-C, Cui X, Zhang W, Zhang L-Y, Chen X-P, Li K-Y. Ultrasound-Guided Percutaneous Microwave Ablation Treatment of Initial Recurrent Hepatocellular Carcinoma after Hepatic Resection: Long-Term Outcomes. [41:2391-2399](#).
- Du J, Li H-L, Zhai B, Chang S, Li F-H. Radiofrequency Ablation for Hepatocellular Carcinoma: Utility of Conventional Ultrasound and Contrast-Enhanced Ultrasound in Guiding and Assessing Early Therapeutic Response and Short-Term Follow-Up Results. [41:2400-2411](#).
- Gellhorn AC, Gillenwater C, Mourad PD. Intense Focused Ultrasound Stimulation of the Rotator Cuff: Evaluation of the Source of Pain in Rotator Cuff Tears and Tendinopathy. [41:2412-2419](#).
- McFarlin BL, Balash J, Kumar V, Bigelow TA, Pombar X, Abramowicz JS, O'Brien Jr WD. Development of an Ultrasonic Method to Detect Cervical Remodeling in Vivo in Full-Term Pregnant Women. [41:2533-2539](#).
- Dimassi K, Douik F, Ajroudi M, Triki A, Gara MF. Ultrasound Fetal Weight Estimation: How Accurate Are We Now Under Emergency Conditions? [41:2562-2566](#).
- Taniguchi M, Fukumoto Y, Kobayashi M, Kawasaki T, Maegawa S, Ibuki S, Ichihashi N. Quantity and Quality of the Lower Extremity Muscles in Women with Knee Osteoarthritis. [41:2567-2574](#).
- Fujimoto K, Kanchiku T, Kido K, Imajo Y, Funaba M, Taguchi T. Diagnosis of Severe Carpal Tunnel Syndrome Using Nerve Conduction Study and Ultrasonography. [41:2575-2580](#).
- Zhang Y-F, Xu H-X, Xu J-M, Liu C, Guo L-H, Liu L-N, Zhang J, Xu X-H, Qu S, Xing M. Acoustic Radiation Force Impulse Elastography in the Diagnosis of Thyroid Nodules: Useful or Not Useful? [41:2581-2593](#).
- Feldmann A, Langlois C, Dewailly M, Martinez EF, Boulanger L, Kerdraon O, Faye N. Shear Wave Elastography (SWE): An Analysis of Breast Lesion Characterization in 83 Breast Lesions. [41:2594-2604](#).
- Ríos-Díaz J, Martínez-Payá JJ, del Baño-Aledo ME, de Groot-Ferrando A, Botía-Castillo P, Fernández-Rodríguez D. Sonoelastography of Plantar Fascia: Reproducibility and Pattern Description in Healthy Subjects and Symptomatic Subjects. [41:2605-2613](#).
- Lim H, Lee GH, Na HK, Ahn JY, Lee JH, Choi K-S, Kim DH, Choi KD, Song HJ, Jung H-Y, Kim J-H, Kim D, Park YS. Use of Endoscopic Ultrasound to Evaluate Large Gastric Folds: Features Predictive of Malignancy. [41:2614-2620](#).
- Zou R-H, Lin Q-G, Huang W, Li X-L, Cao Y, Zhang J, Zhou J-H, Li A-H, Beretta L, Qian C-N. Quantitative Contrast-Enhanced Ultrasonic Imaging Reflects Microvascularization in Hepatocellular Carcinoma and Prognosis after Resection. [41:2621-2630](#).
- Gao J, Rubin JM, Weitzel W, Lee J, Dadhanian D, Kapur S, Min R. Comparison of Ultrasound Corticomedullary Strain with Doppler Parameters in Assessment of Renal Allograft Interstitial Fibrosis/Tubular Atrophy. [41:2631-2639](#).
- Kim DW. Ultrasonographic Features of the Major Salivary Glands after Radioactive Iodine Ablation in Patients with Papillary Thyroid Carcinoma. [41:2640-2645](#).
- Ermacorac D, Pesente S, Pascoli F, Raducci S, Mauro R, Rumeileh IA, Verhaegen F, Fontanarosa D. Automated Computed Tomography-Ultrasound Cross-Modality 3-D Contouring Algorithm for Prostate. [41:2646-2662](#).
- Chmielewski A, Dufort P, Scaranelo AM. A Computerized System to Assess Axillary Lymph Node Malignancy from Sonographic Images. [41:2690-2699](#).
- Muller M, Ait-Belkacem D, Hessabi M, Gennisson J-L, Grangé G, Goffinet F, Lecarpentier E, Cabrol D, Tanter M, Tsatsaris V. Assessment of the Cervix in Pregnant Women Using Shear Wave Elastography: A Feasibility Study. [41:2789-2797](#).
- Polanski LT, Baumgarten MN, Brosens JJ, Quenby SM, Campbell BK, Martins WP, Raine-Fenning NJ. 4-D Assessment of Endometrial Vascularity Using Spatiotemporal Image Correlation: A Study Comparing Spherical Sampling and Whole-Tissue Analysis. [41:2798-2805](#).
- Lee SY, Cardones AR, Doherty J, Nightingale K, Palmeri M. Preliminary Results on the Feasibility of Using ARFI/SWEI to Assess Cutaneous Sclerotic Diseases. [41:2806-2819](#).
- Ebadi H, Siddiqui H, Ebadi S, Ngo M, Breiner A, Bril V. Peripheral Nerve Ultrasound in Small Fiber Polyneuropathy. [41:2820-2826](#).
- Elsaman AMMY, Thabit MN, Radwan ARA-A, Ohrndorf S. Idiopathic Carpal Tunnel Syndrome: Evaluation of the Depth of the Carpal Tunnel by Ultrasonography. [41:2827-2835](#).
- Koh J, Jung DC, Oh YT, Yoo MG, Noh S, Han KH, Rha K-H, Choi YD, Hong SJ. Additional Targeted Biopsy in Clinically Suspected Prostate Cancer: Prospective Randomized Comparison between Contrast-Enhanced Ultrasound and Sonoelastography Guidance. [41:2836-2841](#).
- Moorman AM, Bourez RLJH, de Leeuw DM, Kouwenhoven EA. Pre-operative Ultrasonographic Evaluation of Axillary Lymph Nodes in Breast Cancer Patients: For Which Group Still of Additional Value and in Which Group Cause for Special Attention? [41:2842-2848](#).
- Park KN, Kang KY, Hong HS, Jeong H-S, Lee SW. Predictive Value of Estimated Tumor Volume Measured by Ultrasonography for Occult Central Lymph Node Metastasis in Papillary Thyroid Carcinoma. [41:2849-2854](#).
- Azizi G, Keller JM, Mayo ML, Piper K, Puett D, Earp KM, Malchoff CD. Thyroid Nodules and Shear Wave Elastography: A New Tool in Thyroid Cancer Detection. [41:2855-2865](#).

- Li Y, Wang Y, Wu Q, Hu B. Transforming Growth Factor β 1 Could Influence Thyroid Nodule Elasticity and Also Improve Cervical Lymph Node Metastasis in Papillary Thyroid Carcinoma. [41:2866-2872](#).
- Yoon JH, Shin HJ, Kim E-K, Moon HJ, Roh YH, Kwak JY. Quantitative Evaluation of Vascularity Using 2-D Power Doppler Ultrasonography May Not Identify Malignancy of the Thyroid. [41:2873-2883](#).
- Yang Z, Zhang H, Wang K, Cui G, Fu F. Assessment of Diffuse Thyroid Disease by Strain Ratio in Ultrasound Elastography. [41:2884-2889](#).
- Lin C-Y, Lin C-C, Chou Y-C, Chen P-Y, Wang C-L. Heel Pad Stiffness in Plantar Heel Pain by Shear Wave Elastography. [41:2890-2898](#).
- Hsiao M-Y, Chen Y-C, Lin C-Y, Chen W-S, Wang T-G. Reduced Patellar Tendon Elasticity with Aging: In Vivo Assessment by Shear Wave Elastography. [41:2899-2905](#).
- Akagi R, Yamashita Y, Ueyasu Y. Age-Related Differences in Muscle Shear Moduli in the Lower Extremity. [41:2906-2912](#).
- Fukumoto Y, Ikezoe T, Yamada Y, Tsukagoshi R, Nakamura M, Takagi Y, Kimura M, Ichihashi N. Age-Related Ultrasound Changes in Muscle Quantity and Quality in Women. [41:3013-3017](#).
- Bühler M, Johnson G, Meikle G. Longitudinal In Vivo Ultrasound Observations of the Surgically Repaired Zone II Flexor Digitorum Profundus Tendon. [41:3018-3022](#).
- McFarlin BL, Kumar V, Bigelow TA, Simpson DG, White-Traut RC, Abramowicz JS, O'Brien Jr WD. Beyond Cervical Length: A Pilot Study of Ultrasonic Attenuation for Early Detection of Preterm Birth Risk. [41:3023-3029](#).
- Taimr P, Jongerius VL, Pek CJ, Krak NC, Hansen BE, Janssen HLA, Metselaar HJ, van Eijck CHJ. Liver Contrast-Enhanced Ultrasound Improves Detection of Liver Metastases in Patients with Pancreatic or Periampullary Cancer. [41:3063-3069](#).
- Tada T, Kumada T, Toyoda H, Ito T, Sone Y, Kaneoka Y, Maeda A, Okuda S, Otake K, Takahashi K. Utility of Contrast-enhanced Ultrasonography with Perflubutane for Determining Histologic Grade in Hepatocellular Carcinoma. [41:3070-3078](#).
- Kondo T, Maruyama H, Kiyono S, Sekimoto T, Shimada T, Takahashi M, Ogasawara S, Suzuki E, Ooka Y, Tawada A, Chiba T, Kanai F, Yokosuka O. Intensity-Based Assessment of Microbubble-Enhanced Ultrasonography: Phase-Related Diagnostic Ability for Cellular Differentiation of Hepatocellular Carcinoma. [41:3079-3087](#).
- Han J, Liu Y, Han F, Li Q, Yan C, Zheng W, Wang J, Guo Z, Wang J, Li A, Zhou J. The Degree of Contrast Washout on Contrast-Enhanced Ultrasound in Distinguishing Intrahepatic Cholangiocarcinoma from Hepatocellular Carcinoma. [41:3088-3095](#).
- Li W-B, Zhang B, Zhu Q-L, Jiang Y-X, Sun J, Yang M, Li J-C. Comparison between Thin-Slice 3-D Volumetric Ultrasound and Conventional Ultrasound in the Differentiation of Benign and Malignant Thyroid Lesions. [41:3096-3101](#).
- Zhao R-N, Zhang B, Yang X, Jiang Y-X, Lai X-J, Zhang X-Y. Logistic Regression Analysis of Contrast-Enhanced Ultrasound and Conventional Ultrasound Characteristics of Sub-centimeter Thyroid Nodules. [41:3102-3108](#).
- Li F, Bai M, Wu Y, He Y, Gu J, Xing J, Du L. Comparative Diagnostic Performance of Contrast-Enhanced ultrasound versus Baseline Ultrasound for Renal Pelvis Lesions. [41:3109-3119](#).
- Li X, Wang J-N, Fan Z-Y, Kang S, Liu Y-J, Zhang Y-X, Wang X-M. Determination of the Elasticity of Breast Tissue during the Menstrual Cycle Using Real-Time Shear Wave Elastography. [41:3140-3147](#).
- Arif M, Idzenga T, van Mastrigt R, de Korte CL. Diagnosing Bladder Outlet Obstruction Using Non-invasive Decorrelation-Based Ultrasound Imaging: A Feasibility Study in Healthy Male Volunteers. [41:3163-3171](#).
- Clinical note**
- Roggen I, Louis O, Van Biervliet S, Van Daele S, Robberecht E, De Wachter E, Malfroot A, De Waele K, Gies I, Vanbesien J, De Schepper J. Quantitative Bone Ultrasound at the Distal Radius in Adults with Cystic Fibrosis. [41:334-338](#).
- Roll SC, Rana M, Sigward SM, Yani MS, Kirages DJ, Kutch JJ. Reliability of Superficial Male Pelvic Floor Structural Measurements Using Linear-Array Transperineal Sonography. [41:610-617](#).
- Saffari H, Kennedy A, Peterson KA, Gleich GJ, Pease Iii LF. Non-invasive Ultrasound to Identify Eosinophil Granule Proteins in Eosinophilic Esophagitis. [41:884-889](#).
- Piskunowicz M, Kosiak W, Batko T, Piankowski A, Połczyńska K, Adamkiewicz-Drożyńska E. Safety of Intravenous Application of Second-Generation Ultrasound Contrast Agent in Children: Prospective Analysis. [41:1095-1099](#).
- López-Hernández N, García-Escrivá A, Ballenilla F, Gallego-Leon JI. Hemodynamic Effects of Proximal Supra-aortic Artery Stenosis on Anterior Cerebral Artery. [41:1488-1492](#).
- Watanabe T, Terabayashi N, Fukuoka D, Murakami H, Ito H, Matsuoka T, Seishima M. A Pilot Study to Assess Fatty Infiltration of the Supraspinatus in Patients with Rotator Cuff Tears: Comparison with Magnetic Resonance Imaging. [41:1779-1783](#).
- Fukumoto Y, Ikezoe T, Yamada Y, Tsukagoshi R, Nakamura M, Takagi Y, Kimura M, Ichihashi N. Age-Related Ultrasound Changes in Muscle Quantity and Quality in Women. [41:3013-3017](#).
- Bühler M, Johnson G, Meikle G. Longitudinal In Vivo Ultrasound Observations of the Surgically Repaired Zone II Flexor Digitorum Profundus Tendon. [41:3018-3022](#).

Computed tomography**Synonyms:** ultrasonic tomography, CT**Scopus Search:** tomography OR CT

Guang Y, Wang X, Cai A-L, Xie L-M, Ding H-L, Meng X-Y. Evaluation of the Development of the Fetal Anal Sphincter with Tomography Ultrasonography Imaging. *41:40-46*.

Jaeger M, Held G, Peeters S, Preisser S, Grünig M, Frenz M. Computed Ultrasound Tomography in Echo Mode for Imaging Speed of Sound Using Pulse-Echo Sonography: Proof of Principle. *41:235-250*.

Han X-S, Ning C-P, Sun L-T, Li X-Y, Peng Y-Q, Dang M-Z. Three-Dimensional Transvaginal Tomographic Ultrasound Imaging for Cervical Cancer Staging. *41:2303-2309*.

Computer aided diagnosis (CAD) system**Synonyms:** CAD, automated analysis, automatic classification, automatic thresholding, artificial intelligence**Scopus Search:** "Computer-Aided Diagnosis" OR CAD OR "automa* analysis" OR "automa* classification" OR "automa* thresholding"*See also:* **Ultrasound guided surgery**

Bonanno L, Marino S, Bramanti P, Sottile F. Validation of a Computer-Aided Diagnosis System for the Automatic Identification of Carotid Atherosclerosis. *41:509-516*.

Akkus Z, Carvalho DDB, van den Oord SCH, Schinkel AFL, Niessen WJ, de Jong N, van der Steen AFW, Klein S, Bosch JG. Fully Automated Carotid Plaque Segmentation in Combined Contrast-Enhanced and B-Mode Ultrasound. *41:517-531*.

Pellot-Barakat C, Lefort M, Chami L, Labit M, Frouin F, Lucidarme O. Automatic Assessment of Shear Wave Elastography Quality and Measurement Reliability in the Liver. *41:936-943*.

Ikeda N, Gupta A, Dey N, Bose S, Shafique S, Arak T, Godia EC, Saba L, Laird JR, Nicolaides A, Suri JS. Improved Correlation between Carotid and Coronary Atherosclerosis SYNTAX Score Using Automated Ultrasound Carotid Bulb Plaque IMT Measurement. *41:1247-1262*.

Ara SR, Alam F, Rahman MH, Akhter S, Awwal R, Hasan MK. Bimodal Multiparameter-Based Approach for Benign–Malignant Classification of Breast Tumors. *41:2022-2038*.

Lo C-M, Moon WK, Huang C-S, Chen J-H, Yang M-C, Chang R-F. Intensity-Invariant Texture Analysis for Classification of BI-RADS Category 3 Breast Masses. *41:2039-2048*.

Du G-Q, Xue J-Y, Guo Y, Chen S, Du P, Wu Y, Wang Y-H, Zong L-Q, Tian J-W. Measurement of Myocardial Perfusion and Infarction Size Using Computer-Aided Diagnosis System for Myocardial Contrast Echocardiography. *41:2466-2477*.

Chmielewski A, Dufort P, Scaranelo AM. A Computerized System to Assess Axillary Lymph Node Malignancy from Sonographic Images. *41:2690-2699*.

Venkatesh SS, Levenback BJ, Sultan LR, Bouzghar G, Sehgal CM. Going beyond a First Reader: A Machine Learning Methodology for Optimizing Cost and Performance in Breast Ultrasound Diagnosis. *41:3148-3162*.

Arif M, Idzenga T, van Mastriegt R, de Korte CL. Diagnosing Bladder Outlet Obstruction Using Non-invasive Decorrelation-Based Ultrasound Imaging: A Feasibility Study in Healthy Male Volunteers. *41:3163-3171*.

Stevenson GN, Collins SL, Ding J, Impey L, Noble JA. 3-D Ultrasound Segmentation of the Placenta Using the Random Walker Algorithm: Reliability and Agreement. *41:3182-3193*.

Contrast agents**Synonyms:** Contrast media, microbubbles**Scopus Search:** Contrast AND agent* OR medi* OR microbubble* OR "micro-bubble*" OR Optison OR Sonovue OR Levovist OR Quantison OR Definity*See also:* **cavitation, contrast enhanced ultrasound**

Kwekkeboom RFJ, Lei Z, Bogaards SJP, Aiazian E, Kamp O, Paulus WJ, Sluijter JPG, Musters RJP. Ultrasound and Microbubble-Induced Local Delivery of MicroRNA-Based Therapeutics. *41:163-176*.

Hu B, Cai X-Z, Shi Z-L, Chen Y-L, Zhao X, Zhu H-X, Yan S-G. Microbubble Injection Enhances Inhibition of Low-Intensity Pulsed Ultrasound on Debris-Induced Periprosthetic Osteolysis in Rabbit Model. *41:177-186*.

Bader KB, Gruber MJ, Holland CK. Shaken and Stirred: Mechanisms of Ultrasound-Enhanced Thrombolysis. *41:187-196*.

Radhakrishnan K, Haworth KJ, Peng T, McPherson DD, Holland CK. Loss of Echogenicity and Onset of Cavitation from Echogenic Liposomes: Pulse Repetition Frequency Independence. *41:208-221*.

Pacella JJ, Brands J, Schnatz FG, Black JJ, Chen X, Villanueva FS. Treatment of Microvascular Micro-embolization Using Microbubbles and Long-Tone-Burst Ultrasound: An in Vivo Study. *41:456-464*.

Daeichin V, Bosch JG, Needles A, Foster FS, van der Steen A, de Jong N. Subharmonic, Non-linear Fundamental and Ultraharmonic Imaging of Microbubble Contrast at High Frequencies. *41:486-497*.

Sheeran PS, Rojas JD, Puett C, Hjelmquist J, Arena CB, Dayton PA. Contrast-Enhanced Ultrasound Imaging and in Vivo Circulatory Kinetics with Low-Boiling-Point Nanoscale Phase-Change Perfluorocarbon Agents. *41:814-831*.

Kato S, Shirai Y, Kanzaki H, Sakamoto M, Mori S, Kodama T. Delivery of Molecules to the Lymph Node via Lymphatic Vessels Using Ultrasound and Nano/Microbubbles. *41:1411-1421*.

- Li S, Lin S, Cheng Y, Matsunaga TO, Eckersley RJ, Tang M-X. Quantifying Activation of Perfluorocarbon-Based Phase-Change Contrast Agents Using Simultaneous Acoustic and Optical Observation. *41:1422-1431*.
- van Rooij T, Luan Y, Renaud G, van der Steen AFW, Versluis M, de Jong N, Kooiman K. Non-linear Response and Viscoelastic Properties of Lipid-Coated Microbubbles: DSPC versus DPPC. *41:1432-1445*.
- Lindsey BD, Rojas JD, Dayton PA. On the Relationship Between Microbubble Fragmentation, Deflation and Broadband Superharmonic Signal Production. *41:1711-1725*.
- Gourevich D, Volovick A, Dogadkin O, Wang L, Mulvana H, Medan Y, Melzer A, Cochran S. In Vitro Investigation of the Individual Contributions of Ultrasound-Induced Stable and Inertial Cavitation in Targeted Drug Delivery. *41:1853-1864*.
- Miller DL, Dou C, Lu X, Zhu YI, Fabiilli ML, Owens GE, Kripfgans OD. Use of Theranostic Strategies in Myocardial Cavitation-Enabled Therapy. *41:1865-1875*.
- Delalande A, Leduc C, Midoux P, Postema M, Pichon C. Efficient Gene Delivery by Sonoporation Is Associated with Microbubble Entry into Cells and the Clathrin-Dependent Endocytosis Pathway. *41:1913-1926*.
- Carugo D, Owen J, Crake C, Lee JY, Stride E. Biologically and Acoustically Compatible Chamber for Studying Ultrasound-Mediated Delivery of Therapeutic Compounds. *41:1927-1937*.
- Shamout FE, Pouliopoulos AN, Lee P, Bonaccorsi S, Towhid L, Krams R, Choi JJ. Enhancement of Non-Invasive Trans-Membrane Drug Delivery Using Ultrasound and Microbubbles During Physiologically Relevant Flow. *41:2435-2448*.
- Zhao L, Feng Y, Shi A, Zong Y, Wan M. Apoptosis Induced by Microbubble-Assisted Acoustic Cavitation in K562 Cells: The Predominant Role of the Cyclosporin A-Dependent Mitochondrial Permeability Transition Pore. *41:2755-2764*.
- Acconcia C, Leung BYC, Manjunath A, Goertz DE. The Effect of Short Duration Ultrasound Pulses on the Interaction Between Individual Microbubbles and Fibrin Clots. *41:2774-2782*.
- Ja'afar F, Leow CH, Garbin V, Sennoga CA, Tang M-X, Seddon JM. Surface Charge Measurement of SonoVue, Definity and Optison: A Comparison of Laser Doppler Electrophoresis and Micro-Electrophoresis. *41:2990-3000*.
- Owen J, Stride E. Technique for the Characterization of Phospholipid Microbubbles Coatings by Transmission Electron Microscopy. *41:3253-3258*.
- Contrast enhanced ultrasound**
Synonyms: contrast echocardiography, contrast ultrasound, contrast sonography, contrast-enhanced, CEUS
Scopus Search: "contrast enhanc*"
See also: **Doppler, contrast agents**
- Thomas KN, Cotter JD, Lucas SJE, Hill BG, van Rij AM. Reliability of Contrast-Enhanced Ultrasound for the Assessment of Muscle Perfusion in Health and Peripheral Arterial Disease. *41:26-34*.
- Leguerney I, Scoazec J-Y, Gadot N, Robin N, Pénault-Llorca F, Victorin S, Lassau N. Molecular Ultrasound Imaging Using Contrast Agents Targeting Endoglin, Vascular Endothelial Growth Factor Receptor 2 and Integrin. *41:197-207*.
- Wang S, Mauldin Jr FW, Klivanov AL, Hossack JA. Ultrasound-Based Measurement of Molecular Marker Concentration in Large Blood Vessels: A Feasibility Study. *41:222-234*.
- Wang B, Ye Z, Chen Y, Zhao Q, Huang M, Chen F, Li Y, Jiang Ta. Hepatic Angiomyolipomas: Ultrasonic Characteristics of 25 Patients from a Single Center. *41:393-400*.
- Daeichin V, Bosch JG, Needles A, Foster FS, van der Steen A, de Jong N. Subharmonic, Non-linear Fundamental and Ultraharmonic Imaging of Microbubble Contrast at High Frequencies. *41:486-497*.
- Akkus Z, Carvalho DDB, van den Oord SCH, Schinkel AFL, Niessen WJ, de Jong N, van der Steen AFW, Klein S, Bosch JG. Fully Automated Carotid Plaque Segmentation in Combined Contrast-Enhanced and B-Mode Ultrasound. *41:517-531*.
- Wu C-T, Han K, Guo Z-N, Yang Y, Gao Y-S, Bai J, Xing Y-Q. Effects of Patient Position on Right-to-Left Shunt Detection by Contrast Transcranial Doppler. *41:654-658*.
- Ma X, Li Y, Jia H, Zhang J, Wang G, Liu X, Song Y. Contrast-Enhanced Ultrasound in the Diagnosis of Patients Suspected of Having Active Crohn's Disease: Meta-analysis. *41:659-668*.
- Saffari H, Kennedy A, Peterson KA, Gleich GJ, Pease Iii LF. Non-invasive Ultrasound to Identify Eosinophil Granule Proteins in Eosinophilic Esophagitis. *41:884-889*.
- Kong W-T, Wang W-P, Huang B-J, Ding H, Mao F, Si Q. Contrast-Enhanced Ultrasound in Combination with Color Doppler Ultrasound Can Improve the Diagnostic Performance of Focal Nodular Hyperplasia and Hepatocellular Adenoma. *41:944-951*.
- Kunze G, Staritz M, Köhler M. Contrast-Enhanced Ultrasound in Different Stages of Pyogenic Liver Abscess. *41:952-959*.
- Shi XQ, Li JL, Wan WB, Huang Y. A Set of Shear Wave Elastography Quantitative Parameters Combined with Ultrasound BI-RADS to Assess Benign and Malignant Breast Lesions. *41:960-966*.
- Wu Y, Peng H, Zhao X. Diagnostic Performance of Contrast-Enhanced Ultrasound for Ovarian Cancer: A Meta-Analysis. *41:967-974*.
- Cui X-W, Ignee A, Baum U, Dietrich CF. Feasibility and Usefulness of Using Swallow Contrast-Enhanced Ultrasound to Diagnose Zenker's Diverticulum: Preliminary Results. *41:975-981*.

- Piskunowicz M, Kosiak W, Batko T, Piankowski A, Połczyńska K, Adamkiewicz-Drożyńska E. Safety of Intravenous Application of Second-Generation Ultrasound Contrast Agent in Children: Prospective Analysis. *41:1095-1099*.
- Mischi M, Demi L, Smeenge M, Kuenen MPJ, Postema AW, de la Rosette JJMCH, Wijkstra H. Transabdominal Contrast-Enhanced Ultrasound Imaging of the Prostate. *41:1112-1118*.
- Wang Z, Liu G, Lu M-D, Xie X, Kuang M, Wang W, Xu Z, Lin M, Chen L. Role of Portal Vein Tumor Thrombosis in Quantitative Perfusion Analysis of Contrast-Enhanced Ultrasound of Hepatocellular Carcinoma. *41:1277-1286*.
- Corvino A, Catalano O, Setola SV, Sandomenico F, Corvino F, Petrillo A. Contrast-Enhanced Ultrasound in the Characterization of Complex Cystic Focal Liver Lesions. *41:1301-1310*.
- Feng Y, Qin X-C, Luo Y, Li Y-Z, Zhou X. Efficacy of Contrast-Enhanced Ultrasound Washout Rate in Predicting Hepatocellular Carcinoma Differentiation. *41:1553-1560*.
- Wei Y, Yu X-L, Liang P, Cheng Z-G, Han Z-Y, Liu F-Y, Yu J. Guiding and Controlling Percutaneous Pancreas Biopsies with Contrast-Enhanced Ultrasound: Target Lesions Are Not Localized on B-Mode Ultrasound. *41:1561-1569*.
- Mestre XM, Coll RV, Villegas AR, Rico CM. Role of Contrast-Enhanced Ultrasound Arterial Mapping in Surgical Planning for Patients with Critical Limb Ischemia. *41:1570-1576*.
- Kim H, Kee PH, Rim Y, Moody MR, Klegerman ME, Vela D, Huang S-L, McPherson DD, Laing ST. Nitric Oxide-Enhanced Molecular Imaging of Atheroma using Vascular Cellular Adhesion Molecule 1-Targeted Echogenic Immunoliposomes. *41:1701-1710*.
- Gómez-Choco M, Schreiber SJ, Weih M, Doepp F, Valdeuza JM. Delayed Transcranial Echo-Contrast Bolus Arrival in Unilateral Internal Carotid Artery Stenosis and Occlusion. *41:1827-1834*.
- Miller DL, Dou C, Lu X, Zhu YI, Fabiilli ML, Owens GE, Kripfgans OD. Use of Theranostic Strategies in Myocardial Cavitation-Enabled Therapy. *41:1865-1875*.
- Cheung WK, Gujral DM, Shah BN, Chahal NS, Bhattacharyya S, Cosgrove DO, Eckersley RJ, Harrington KJ, Senior R, Nutting CM, Tang M-X. Attenuation Correction and Normalisation for Quantification of Contrast Enhancement in Ultrasound Images of Carotid Arteries. *41:1876-1883*.
- Lindsey BD, Shelton SE, Dayton PA. Optimization of Contrast-to-Tissue Ratio Through Pulse Windowing in Dual-Frequency “Acoustic Angiography” Imaging. *41:1884-1895*.
- Shelton SE, Lee YZ, Lee M, Cherin E, Foster FS, Aylward SR, Dayton PA. Quantification of Microvascular Tortuosity during Tumor Evolution Using Acoustic Angiography. *41:1896-1904*.
- Qu E, Dai Z, Liang X, Qian Y, Wang S, Ke H, Wang J. Detection and Pathologic Evaluation of Sentinel Lymph Nodes in the VX2 Tumor Model Using a Novel Ultrasound/Near-Infrared Dual-Modality Contrast Agent. *41:1905-1912*.
- Yildiz YO, Eckersley RJ, Senior R, Lim AKP, Cosgrove D, Tang M-X. Correction of Non-Linear Propagation Artifact in Contrast-Enhanced Ultrasound Imaging of Carotid Arteries: Methods and in Vitro Evaluation. *41:1938-1947*.
- Payen T, Dizeux A, Baldini C, Le Guillou-Buffello D, Lamuraglia M, Comperat E, Lucidarme O, Bridal SL. VEGFR2-Targeted Contrast-Enhanced Ultrasound to Distinguish between Two Anti-Angiogenic Treatments. *41:2202-2211*.
- Han K, Xing Y, Yang Y, Chao AC, Sheng W-Y, Hu H-H, Wu J. Body Positions in the Diagnosis of Right-to-Left Shunt by Contrast Transcranial Doppler. *41:2376-2381*.
- Tang Q-Y, Guo L-D, Wang W-X, Zhou W, Liu Y-N, Liu H-Y, Li L, Deng Y-B. Usefulness of Contrast Perfusion Echocardiography for Differential Diagnosis of Cardiac Masses. *41:2382-2390*.
- Du J, Li H-L, Zhai B, Chang S, Li F-H. Radiofrequency Ablation for Hepatocellular Carcinoma: Utility of Conventional Ultrasound and Contrast-Enhanced Ultrasound in Guiding and Assessing Early Therapeutic Response and Short-Term Follow-Up Results. *41:2400-2411*.
- Du G-Q, Xue J-Y, Guo Y, Chen S, Du P, Wu Y, Wang Y-H, Zong L-Q, Tian J-W. Measurement of Myocardial Perfusion and Infarction Size Using Computer-Aided Diagnosis System for Myocardial Contrast Echocardiography. *41:2466-2477*.
- Yeh JS-M, Sennoga CA, McConnell E, Eckersley R, Tang M-X, Nourshargh S, Seddon JM, Haskard DO, Nihoyannopoulos P. Quantitative Ultrasound Molecular Imaging. *41:2478-2496*.
- Watanabe R, Munemasa T, Matsumura M. Contrast-Enhanced Ultrasound with Perflubutane in the Assessment of Anti-Angiogenic Effects: Early Prediction of the Anticancer Activity of Bevacizumab in a Mouse Xenografted Model. *41:2497-2505*.
- Zou R-H, Lin Q-G, Huang W, Li X-L, Cao Y, Zhang J, Zhou J-H, Li A-H, Beretta L, Qian C-N. Quantitative Contrast-Enhanced Ultrasonic Imaging Reflects Microvascularization in Hepatocellular Carcinoma and Prognosis after Resection. *41:2621-2630*.
- Yan F, Xu X, Chen Y, Deng Z, Liu H, Xu J, Zhou J, Tan G, Wu J, Zheng H. A Lipopeptide-Based $\alpha v\beta 3$ Integrin-Targeted Ultrasound Contrast Agent for Molecular Imaging of Tumor Angiogenesis. *41:2765-2773*.
- Koh J, Jung DC, Oh YT, Yoo MG, Noh S, Han KH, Rha K-H, Choi YD, Hong SJ. Additional Targeted Biopsy in Clinically Suspected Prostate Cancer: Prospective Randomized Comparison between Contrast-Enhanced Ultrasound and Sonoelastography Guidance. *41:2836-2841*.
- Leow CH, Bazigou E, Eckersley RJ, Yu ACH, Weinberg PD, Tang M-X. Flow Velocity Mapping Using Contrast Enhanced High-Frame-Rate Plane Wave Ultrasound and Image Tracking: Methods and Initial in Vitro and in Vivo Evaluation. *41:2913-2925*.

- Leow CH, Iori F, Corbett R, Duncan N, Caro C, Vincent P, Tang M-X. Microbubble Void Imaging: A Non-invasive Technique for Flow Visualisation and Quantification of Mixing in Large Vessels Using Plane Wave Ultrasound and Controlled Microbubble Contrast Agent Destruction. [41:2926-2937](#).
- Taimr P, Jongerius VL, Pek CJ, Krak NC, Hansen BE, Janssen HLA, Metselaar HJ, van Eijck CHJ. Liver Contrast-Enhanced Ultrasound Improves Detection of Liver Metastases in Patients with Pancreatic or Periapillary Cancer. [41:3063-3069](#).
- Tada T, Kumada T, Toyoda H, Ito T, Sone Y, Kaneoka Y, Maeda A, Okuda S, Ootobe K, Takahashi K. Utility of Contrast-enhanced Ultrasonography with Perflubutane for Determining Histologic Grade in Hepatocellular Carcinoma. [41:3070-3078](#).
- Kondo T, Maruyama H, Kiyono S, Sekimoto T, Shimada T, Takahashi M, Ogasawara S, Suzuki E, Ooka Y, Tawada A, Chiba T, Kanai F, Yokosuka O. Intensity-Based Assessment of Microbubble-Enhanced Ultrasonography: Phase-Related Diagnostic Ability for Cellular Differentiation of Hepatocellular Carcinoma. [41:3079-3087](#).
- Han J, Liu Y, Han F, Li Q, Yan C, Zheng W, Wang J, Guo Z, Wang J, Li A, Zhou J. The Degree of Contrast Washout on Contrast-Enhanced Ultrasound in Distinguishing Intrahepatic Cholangiocarcinoma from Hepatocellular Carcinoma. [41:3088-3095](#).
- Zhao R-N, Zhang B, Yang X, Jiang Y-X, Lai X-J, Zhang X-Y. Logistic Regression Analysis of Contrast-Enhanced Ultrasound and Conventional Ultrasound Characteristics of Sub-centimeter Thyroid Nodules. [41:3102-3108](#).
- Li F, Bai M, Wu Y, He Y, Gu J, Xing J, Du L. Comparative Diagnostic Performance of Contrast-Enhanced ultrasound versus Baseline Ultrasound for Renal Pelvis Lesions. [41:3109-3119](#).
- Ito K, Noro K, Yanagisawa Y, Sakamoto M, Mori S, Shiga K, Kodama T, Aoki T. High-Accuracy Ultrasound Contrast Agent Detection Method for Diagnostic Ultrasound Imaging Systems. [41:3120-3130](#).
- Kim J, Kim JH, Yoon SH, Choi WS, Kim YJ, Han JK, Choi B-I. Feasibility of Using Volumetric Contrast-Enhanced Ultrasound with a 3-D Transducer to Evaluate Therapeutic Response after Targeted Therapy in Rabbit Hepatic VX2 Carcinoma. [41:3131-3139](#).
- D**
- Dental**
- Synonyms:** teeth
- Scopus Search:** [Dent*](#) OR [t*th](#) OR [enamel](#)
- Sindi KH, Bubb NL, Gutteridge DL, Evans JA. In Vitro Enamel Thickness Measurements with Ultrasound. [41:301-308](#).
- Chuembou Pekam F, Marotti J, Wolfart S, Tinschert J, Rademacher K, Heger S. High-Frequency Ultrasound as an Option for Scanning of Prepared Teeth: An in Vitro Study. [41:309-316](#).
- Vafaeian B, Al-Daghreer S, El-Rich M, Adeeb S, El-Bialy T. Simulation of Low-Intensity Ultrasound Propagating in a Beagle Dog Dentoalveolar Structure to Investigate the Relations between Ultrasonic Parameters and Cementum Regeneration. [41:2173-2190](#).
- Doppler ultrasound**
- Scopus Search:** [Doppler](#)
- Ooi CC, Schneider ME, Malliaras P, Chadwick M, Connell DA. Diagnostic Performance of Axial-Strain Sonoelastography in Confirming Clinically Diagnosed Achilles Tendinopathy: Comparison with B-Mode Ultrasound and Color Doppler Imaging. [41:15-25](#).
- Radhakrishnan K, Haworth KJ, Peng T, McPherson DD, Holland CK. Loss of Echogenicity and Onset of Cavitation from Echogenic Liposomes: Pulse Repetition Frequency Independence. [41:208-221](#).
- Wang B, Ye Z, Chen Y, Zhao Q, Huang M, Chen F, Li Y, Jiang Ta. Hepatic Angiomyolipomas: Ultrasonic Characteristics of 25 Patients from a Single Center. [41:393-400](#).
- Papavasileiou V, Milionis H, Hirt L, Michel P. Strokes and TIAs during and after Carotid Artery Doppler: Cause or Coincidence? [41:418-422](#).
- Huang C-C, Chou H-L, Chen P-Y. Measurement of the Doppler Power of Flowing Blood Using Ultrasound Doppler Devices. [41:565-573](#).
- Wu C-T, Han K, Guo Z-N, Yang Y, Gao Y-S, Bai J, Xing Y-Q. Effects of Patient Position on Right-to-Left Shunt Detection by Contrast Transcranial Doppler. [41:654-658](#).
- Kokkalis E, Cookson AN, Stonebridge PA, Corner GA, Houston JG, Hoskins PR. Comparison of Vortical Structures Induced by Arteriovenous Grafts Using Vector Doppler Ultrasound. [41:760-774](#).
- Jia L, Hua Y, Li J, Duan C, Zhou Y, Jiao L. Optimal Ultrasound Criteria for Defining the Severity of Vertebral Artery in-Stent Restenosis. [41:775-780](#).
- Kong W-T, Wang W-P, Huang B-J, Ding H, Mao F, Si Q. Contrast-Enhanced Ultrasound in Combination with Color Doppler Ultrasound Can Improve the Diagnostic Performance of Focal Nodular Hyperplasia and Hepatocellular Adenoma. [41:944-951](#).
- Hashima JN, Rogers V, Langley SM, Ashraf M, Sahn DJ, Ohtonen P, Davis LE, Hohimer AR, Rasanen J. Fetal Ventricular Interactions and Wall Mechanics During Ductus Arteriosus Occlusion in a Sheep Model. [41:1020-1028](#).

- Sultan LR, Xiong H, Zafar HM, Schultz SM, Langer JE, Sehgal CM. Vascularity Assessment of Thyroid Nodules by Quantitative Color Doppler Ultrasound. *41:1287-1293*.
- Agnew CE, Hamilton PK, McCann AJ, McGivern RC, McVeigh GE. Wavelet Entropy of Doppler Ultrasound Blood Velocity Flow Waveforms Distinguishes Nitric Oxide-Modulated States. *41:1320-1327*.
- Chen S-P, Hu Y-P. Waveform Patterns and Peak Reversed Velocity in Vertebral Arteries Predict Severe Subclavian Artery Stenosis and Occlusion. *41:1328-1333*.
- Sisini F, Tessari M, Gadda G, Di Domenico G, Taibi A, Menegatti E, Gambaccini M, Zamboni P. An Ultrasonographic Technique to Assess the Jugular Venous Pulse: A Proof of Concept. *41:1334-1341*.
- Tortoli P, Lenge M, Righi D, Ciuti G, Liebgott H, Ricci S. Comparison of Carotid Artery Blood Velocity Measurements by Vector and Standard Doppler Approaches. *41:1354-1362*.
- Zhang X, Miller RM, Lin K-W, Levin AM, Owens GE, Gurm HS, Cain CA, Xu Z. Real-Time Feedback of Histotripsy Thrombolysis Using Bubble-Induced Color Doppler. *41:1386-1401*.
- López-Hernández N, García-Escrivá A, Ballenilla F, Gallego-Leon JJ. Hemodynamic Effects of Proximal Supra-aortic Artery Stenosis on Anterior Cerebral Artery. *41:1488-1492*.
- Soresi M, Giannitrapani L, Noto D, Terranova A, Campagna ME, Cefalù AB, Giammanco A, Montalto G. Effects of Steatosis on Hepatic Hemodynamics in Patients with Metabolic Syndrome. *41:1545-1552*.
- Gómez-Choco M, Schreiber SJ, Weih M, Doepf F, Valdeuzá JM. Delayed Transcranial Echo-Contrast Bolus Arrival in Unilateral Internal Carotid Artery Stenosis and Occlusion. *41:1827-1834*.
- Omar AMS, Abdel-Rahman MA, Khorshid H, Helmy M, Raslan H, Rifaie O. Tissue Doppler-Derived Myocardial Acceleration during Isovolumetric Contraction Predicts Pulmonary Capillary Wedge Pressure in Patients with Significant Mitral Regurgitation. *41:2108-2118*.
- Bazan R, Braga GP, Luvizutto GJ, Hueb JC, Hokama NK, Zanati Bazan SG, de Carvalho Nunes HR, Leite JP, Pontes-Neto OM. Evaluation of the Temporal Acoustic Window for Transcranial Doppler in a Multi-Ethnic Population in Brazil. *41:2131-2134*.
- Kenwright DA, Anderson T, Moran CM, Hoskins PR. Assessment of Spectral Doppler for an Array-Based Preclinical Ultrasound Scanner Using a Rotating Phantom. *41:2232-2239*.
- Han K, Xing Y, Yang Y, Chao AC, Sheng W-Y, Hu H-H, Wu J. Body Positions in the Diagnosis of Right-to-Left Shunt by Contrast Transcranial Doppler. *41:2376-2381*.
- Gao J, Rubin JM, Weitzel W, Lee J, Dadhanian D, Kapur S, Min R. Comparison of Ultrasound Corticomedullary Strain with Doppler Parameters in Assessment of Renal Allograft Interstitial Fibrosis/Tubular Atrophy. *41:2631-2639*.
- Polanski LT, Baumgarten MN, Brosens JJ, Quenby SM, Campbell BK, Martins WP, Raine-Fenning NJ. 4-D Assessment of Endometrial Vascularity Using Spatiotemporal Image Correlation: A Study Comparing Spherical Sampling and Whole-Tissue Analysis. *41:2798-2805*.
- Yoon JH, Shin HJ, Kim E-K, Moon HJ, Roh YH, Kwak JY. Quantitative Evaluation of Vascularity Using 2-D Power Doppler Ultrasonography May Not Identify Malignancy of the Thyroid. *41:2873-2883*.
- Leow CH, Bazigou E, Eckersley RJ, Yu ACH, Weinberg PD, Tang M-X. Flow Velocity Mapping Using Contrast Enhanced High-Frame-Rate Plane Wave Ultrasound and Image Tracking: Methods and Initial in Vitro and in Vivo Evaluation. *41:2913-2925*.
- Ribes S, Girault J-M, Perrotin F, Kouamé D. Multidimensional Ultrasound Doppler Signal Analysis for Fetal Activity Monitoring. *41:3172-3181*.
- Dosimetry**
Synonyms: dose response, dosology
Scopus Search: Dos*
See also: **bioeffects, calibration**
- Miller DL, Dou C, Raghavendran K. Pulmonary Capillary Hemorrhage Induced by Fixed-Beam Pulsed Ultrasound. *41:2212-2219*.
- Nemescu D, Berescu A. Acoustic Output Measured by Thermal and Mechanical Indices during Fetal Echocardiography at the Time of the First Trimester Scan. *41:35-39*.
- Miller DL, Dou C, Raghavendran K. Dependence of Thresholds for Pulmonary Capillary Hemorrhage on Diagnostic Ultrasound Frequency. *41:1640-1650*.
- Drug delivery**
Synonyms: controlled release, targeted delivery, site-specific delivery, sonodynamic
Scopus Search: “controlled release” OR “drug delivery” OR “targeted delivery” OR “Site Specific delivery”
See also: **sonoporation**
- Kato S, Shirai Y, Kanzaki H, Sakamoto M, Mori S, Kodama T. Delivery of Molecules to the Lymph Node via Lymphatic Vessels Using Ultrasound and Nano/Microbubbles. *41:1411-1421*.
- Gourevich D, Volovick A, Dogadkin O, Wang L, Mulvana H, Medan Y, Melzer A, Cochran S. In Vitro Investigation of the Individual Contributions of Ultrasound-Induced Stable and Inertial Cavitation in Targeted Drug Delivery. *41:1853-1864*.

- Delalande A, Leduc C, Midoux P, Postema M, Pichon C. Efficient Gene Delivery by Sonoporation Is Associated with Microbubble Entry into Cells and the Clathrin-Dependent Endocytosis Pathway. *41:1913-1926*.
- Carugo D, Owen J, Crake C, Lee JY, Stride E. Biologically and Acoustically Compatible Chamber for Studying Ultrasound-Mediated Delivery of Therapeutic Compounds. *41:1927-1937*.
- Burgess MT, Porter TM. Acoustic Cavitation-Mediated Delivery of Small Interfering Ribonucleic Acids with Phase-Shift Nano-Emulsions. *41:2191-2201*.
- Nieminen HJ, Ylitalo T, Suuronen J-P, Rahunen K, Salmi A, Saarakkala S, Serimaa R, Hæggström E. Delivering Agents Locally into Articular Cartilage by Intense MHz Ultrasound. *41:2259-2265*.
- Shamout FE, Poulipoulos AN, Lee P, Bonaccorsi S, Towhidi L, Krams R, Choi JJ. Enhancement of Non-Invasive Trans-Membrane Drug Delivery Using Ultrasound and Microbubbles During Physiologically Relevant Flow. *41:2435-2448*.
- Cohen G, Natsheh H, Sunny Y, Bawiec CR, Touitou E, Lerman MA, Lazarovici P, Lewin PA. Enhanced Therapeutic Anti-Inflammatory Effect of Betamethasone on Topical Administration with Low-Frequency, Low-Intensity (20 kHz, 100 mW/cm²) Ultrasound Exposure on Carrageenan-Induced Arthritis in a Mouse Model. *41:2449-2457*.
- Endo S, Kudo N, Yamaguchi S, Sumiyoshi K, Motegi H, Kobayashi H, Terasaka S, Houkin K. Porphyrin Derivatives-Mediated Sonodynamic Therapy for Malignant Gliomas In Vitro. *41:2458-2465*.
- Wang X, Jia Y, Su X, Wang P, Zhang K, Feng X, Liu Q. Combination of Protoporphyrin IX-mediated Sonodynamic Treatment with Doxorubicin Synergistically Induced Apoptotic Cell Death of a Multidrug-Resistant Leukemia K562/DOX Cell Line. *41:2731-2739*.
- Tardoski S, Gineyts E, Ngo J, Kocot A, Clézardin P, Melodelima D. Low-Intensity Ultrasound Promotes Clathrin-Dependent Endocytosis for Drug Penetration into Tumor Cells. *41:2740-2754*.
- Zhao L, Feng Y, Shi A, Zong Y, Wan M. Apoptosis Induced by Microbubble-Assisted Acoustic Cavitation in K562 Cells: The Predominant Role of the Cyclosporin A-Dependent Mitochondrial Permeability Transition Pore. *41:2755-2764*.
- Nemescu D, Berescu A. Acoustic Output Measured by Thermal and Mechanical Indices during Fetal Echocardiography at the Time of the First Trimester Scan. *41:35-39*.
- Gao H, Bijmens N, Coisne D, Lugiez M, Rutten M, D'Hooge J. 2-D Left Ventricular Flow Estimation by Combining Speckle Tracking With Navier–Stokes-Based Regularization: An In Silico, In Vitro and In Vivo Study. *41:99-113*.
- Sotaquira M, Pepi M, Fusini L, Maffessanti F, Lang RM, Caiani EG. Semi-automated Segmentation and Quantification of Mitral Annulus and Leaflets from Transesophageal 3-D Echocardiographic Images. *41:251-267*.
- Nguyen BL, Capotosto L, Persi A, Placanica A, Rafique A, Piccirillo G, Gaudio C, Gang ES, Siegel RJ, Vitarelli A. Global and Regional Left Ventricular Strain Indices in Post-Myocardial Infarction Patients with Ventricular Arrhythmias and Moderately Abnormal Ejection Fraction. *41:407-417*.
- Carminati MC, Piazzese C, Weinert L, Tsang W, Tamborini G, Pepi M, Lang RM, Caiani EG. Reconstruction of the Descending Thoracic Aorta by Multiview Compounding of 3-D Transesophageal Echocardiographic Aortic Data Sets for Improved Examination and Quantification of Atheroma Burden. *41:1263-1276*.
- Duchateau J, Cornolle C, Peyrou J, Ritter P, Pillois X, Réant P, Reynaud A, Landelle M, Lafitte S. Abnormal Left Ventricular Contraction Sequence in Hypertrophic Cardiomyopathy Patients: First Description of Hypersynchrony and Invert Synchrony. *41:1632-1639*.
- Perperidis A, Cusack D, White A, McDicken N, MacGillivray T, Anderson T. Temporal Compounding: A Novel Implementation and Its Impact on Quality and Diagnostic Value in Echocardiography. *41:1749-1765*.
- Polte CL, Lagerstrand KM, Gao SA, Lamm CR, Bech-Hanssen O. Quantification of Left Ventricular Linear, Areal and Volumetric Dimensions: A Phantom and in Vivo Comparison of 2-D and Real-Time 3-D Echocardiography with Cardiovascular Magnetic Resonance. *41:1981-1990*.
- Haak A, Ren B, Mulder HW, Vegas-Sánchez-Ferrero G, van Burken G, van der Steen AFW, van Stralen M, Pluim JPW, van Walsum T, Bosch JG. Improved Segmentation of Multiple Cavities of the Heart in Wide-View 3-D Transesophageal Echocardiograms. *41:1991-2000*.

E

Echocardiography

Synonyms: cardiac imaging, sonocardiography

Scopus Search: echocard* OR "card* imaging" OR "card* ultraso*" OR sonocard*

See also: **cardiology, contrast enhanced ultrasound**

Elastography

Synonyms: elasticity imaging, strain imaging, sonoelastography, vibro-acoustography

Scopus Search: *elastography OR "elastic* imaging" OR "strain imaging" OR "vibro*acoustography" OR "Modulus Contrast"

See also: **Tissue elasticity**

Bota S, Bob F, Sporea I, Şirli R, Popescu A. Factors that Influence Kidney Shear Wave Speed Assessed by Acoustic Radiation Force Impulse Elastography in Patients without Kidney Pathology. *41:1-6*.

- Zhang D, Chen M, Wang R, Liu Y, Zhang D, Liu L, Zhou G. Comparison of Acoustic Radiation Force Impulse Imaging and Transient Elastography for Non-invasive Assessment of Liver Fibrosis in Patients with Chronic Hepatitis B. [41:7-14](#).
- Dudea M, Clichici S, Olteanu DE, Nagy A, Cucos M, Dudea S. Usefulness of Real-Time Elastography Strain Ratio in the Assessment of Bile Duct Ligation-Induced Liver Injury and the Hepatoprotective Effect of Chitosan: An Experimental Animal Study. [41:114-123](#).
- Dobruch-Sobczak K, Nowicki A. Role of Shear Wave Sonoelastography in Differentiation Between Focal Breast Lesions. [41:366-374](#).
- Zhang Q, Xiao Y, Chen S, Wang C, Zheng H. Quantification of Elastic Heterogeneity Using Contourlet-Based Texture Analysis in Shear-Wave Elastography for Breast Tumor Classification. [41:588-600](#).
- Zhu Y, Dong C, Yin Y, Chen X, Guo Y, Zheng Y, Shen Y, Wang T, Zhang X, Chen S. The Role of Viscosity Estimation for Oil-in-gelatin Phantom in Shear Wave Based Ultrasound Elastography. [41:601-609](#).
- Yoshii Y, Ishii T, Tanaka T, Tung W-I, Sakai S. Detecting Median Nerve Strain Changes with Cyclic Compression Apparatus: A Comparison of Carpal Tunnel Syndrome Patients and Healthy Controls. [41:669-674](#).
- Liao L-Y, Kuo K-L, Chiang H-S, Lin C-Z, Lin Y-P, Lin C-L. Acoustic Radiation Force Impulse Elastography of the Liver in Healthy Patients: Test Location, Reference Range and Influence of Gender and Body Mass Index. [41:698-704](#).
- Liu F, Yong Q, Zhang Q, Liu P, Yang Y. Real-Time Tissue Elastography for the Detection of Vulnerable Carotid Plaques in Patients Undergoing Endarterectomy: A Pilot Study. [41:705-712](#).
- Urbanczyk CA, Palmeri ML, Bass CR. Material Characterization of in Vivo and in Vitro Porcine Brain Using Shear Wave Elasticity. [41:713-723](#).
- Tzschätzsch H, Ipek-Ugay S, Nguyen Trong M, Guo J, Eggers J, Gentz E, Fischer T, Schultz M, Braun J, Sack I. Multifrequency Time-Harmonic Elastography for the Measurement of Liver Viscoelasticity in Large Tissue Windows. [41:724-733](#).
- Pellot-Barakat C, Lefort M, Chami L, Labit M, Frouin F, Lucidarme O. Automatic Assessment of Shear Wave Elastography Quality and Measurement Reliability in the Liver. [41:936-943](#).
- Shi XQ, Li JL, Wan WB, Huang Y. A Set of Shear Wave Elastography Quantitative Parameters Combined with Ultrasound BI-RADS to Assess Benign and Malignant Breast Lesions. [41:960-966](#).
- Hollender PJ, Rosenzweig SJ, Nightingale KR, Trahey GE. Single- and Multiple-Track-Location Shear Wave and Acoustic Radiation Force Impulse Imaging: Matched Comparison of Contrast, Contrast-to-Noise Ratio and Resolution. [41:1043-1057](#).
- Nahiyan A, Hasan MK. Hybrid Algorithm for Elastography to Visualize Both Solid and Fluid-Filled Lesions. [41:1058-1078](#).
- Parker KJ. Could Linear Hysteresis Contribute to Shear Wave Losses in Tissues? [41:1100-1104](#).
- Kudo M. Foreword to the WFUMB Guidelines and Recommendations on the Clinical Use of Ultrasound Elastography. [41:1125](#).
- Shiina T, Nightingale KR, Palmeri ML, Hall TJ, Bamber JC, Barr RG, Castera L, Choi BI, Chou Y-H, Cosgrove D, Dietrich CF, Ding H, Amy D, Farrokh A, Ferraioli G, Filice C, Friedrich-Rust M, Nakashima K, Schafer F, Sporea I, Suzuki S, Wilson S, Kudo M. WFUMB Guidelines and Recommendations for Clinical Use of Ultrasound Elastography: Part 1: Basic Principles and Terminology. [41:1126-1147](#).
- Barr RG, Nakashima K, Amy D, Cosgrove D, Farrokh A, Schafer F, Bamber JC, Castera L, Choi BI, Chou Y-H, Dietrich CF, Ding H, Ferraioli G, Filice C, Friedrich-Rust M, Hall TJ, Nightingale KR, Palmeri ML, Shiina T, Suzuki S, Sporea I, Wilson S, Kudo M. WFUMB Guidelines and Recommendations for Clinical Use of Ultrasound Elastography: Part 2: Breast. [41:1148-1160](#).
- Ferraioli G, Filice C, Castera L, Choi BI, Sporea I, Wilson SR, Cosgrove D, Dietrich CF, Amy D, Bamber JC, Barr R, Chou Y-H, Ding H, Farrokh A, Friedrich-Rust M, Hall TJ, Nakashima K, Nightingale KR, Palmeri ML, Schafer F, Shiina T, Suzuki S, Kudo M. WFUMB Guidelines and Recommendations for Clinical Use of Ultrasound Elastography: Part 3: Liver. [41:1161-1179](#).
- Ozkan F, Yildiz S, Menzilcioglu MS, Duyumus M, Avcu S. Do Not Forget to Calculate the Mean Shear Wave Speed as Assessed by Acoustic Radiation Force Impulse Elastography as a Harmonic Mean, Not an Arithmetical Mean. [41:1493](#).
- Bota S, Bob F. Reply to the Letter to the Editor Regarding do Not Forget to Calculate the Mean Shear Wave Speed as Assessed by Acoustic Radiation Force Impulse Elastography as a Harmonic Mean, Not an Arithmetical Mean. [41:1493-1494](#).
- Cortes DH, Suydam SM, Silbernagel KG, Buchanan TS, Elliott DM. Continuous Shear Wave Elastography: A New Method to Measure Viscoelastic Properties of Tendons in Vivo. [41:1518-1529](#).
- Hu Z, Li Y, Li C, Huang C, Ou Z, Guo J, Luo H, Tang X. Using Ultrasonic Transient Elastometry (FibroScan) to Predict Esophageal Varices in Patients with Viral Liver Cirrhosis. [41:1530-1537](#).
- Zeng X, Xu C, He D, Zhang H, Xia J, Shi D, Kong L, He X, Wang Y. Influence of Hepatic Inflammation on FibroScan Findings in Diagnosing Fibrosis in Patients with Chronic Hepatitis B. [41:1538-1544](#).

- Suehiro K, Morikage N, Murakami M, Yamashita O, Harada T, Ueda K, Samura M, Tanaka Y, Nakamura K, Hamano K. Skin and Subcutaneous Tissue Strain in Legs with Lymphedema and Lipodermatosclerosis. [41:1577-1583](#).
- Richards MS, Perucchio R, Doyley MM. Visualizing the Stress Distribution Within Vascular Tissues Using Intravascular Ultrasound Elastography: A Preliminary Investigation. [41:1616-1631](#).
- Sekimoto T, Maruyama H, Kiyono S, Kondo T, Shimada T, Takahashi M, Yokosuka O, Yamaguchi T. Liver Stiffness: A Significant Relationship with the Waveform Pattern in the Hepatic Vein. [41:1801-1807](#).
- Maurice RL, Vaujois L, Dahdah N, Nuyt A-M, Bigras J-L. Comparing Carotid and Brachial Artery Stiffness: A First Step Toward Mechanical Mapping of the Arterial Tree. [41:1808-1813](#).
- Deng Y, Palmeri ML, Rouze NC, Rosenzweig SJ, Abdelmalek MF, Nightingale KR. Analyzing the Impact of Increasing Mechanical Index and Energy Deposition on Shear Wave Speed Reconstruction in Human Liver. [41:1948-1957](#).
- Akagi R, Kusama S. Comparison Between Neck and Shoulder Stiffness Determined by Shear Wave Ultrasound Elastography and a Muscle Hardness Meter. [41:2266-2271](#).
- Dubois G, Kheireddine W, Vergari C, Bonneau D, Thoreux P, Rouch P, Tanter M, Gennisson J-L, Skalli W. Reliable Protocol for Shear Wave Elastography of Lower Limb Muscles at Rest and During Passive Stretching. [41:2284-2291](#).
- Mantsopoulos K, Klintworth N, Iro H, Bozzato A. Applicability of Shear Wave Elastography of the Major Salivary Glands: Values in Healthy Patients and Effects of Gender, Smoking and Pre-Compression. [41:2310-2318](#).
- Fukuhara T, Matsuda E, Endo Y, Takenobu M, Izawa S, Fujiwara K, Kitano H. Correlation between Quantitative Shear Wave Elastography and Pathologic Structures of Thyroid Lesions. [41:2326-2332](#).
- Kim M-H, Luo S, Ko SH, Bae J-S, Lim J, Lim D-J, Kim Y. Thyroid Nodule Parameters Influencing Performance of Ultrasound Elastography Using Intrinsic Compression. [41:2333-2339](#).
- Bota S, Paternostro R, Etschmaier A, Schwarzer R, Salzl P, Mandorfer M, Kienbacher C, Ferlitsch M, Reiberger T, Trauner M, Peck-Radosavljevic M, Ferlitsch A. Performance of 2-D Shear Wave Elastography in Liver Fibrosis Assessment Compared with Serologic Tests and Transient Elastography in Clinical Routine. [41:2340-2349](#).
- Gerber L, Kasper D, Fitting D, Knop V, Vermehren A, Sprinzel K, Hansmann ML, Herrmann E, Bojunga J, Albert J, Sarrazin C, Zeuzem S, Friedrich-Rust M. Assessment of Liver Fibrosis with 2-D Shear Wave Elastography in Comparison to Transient Elastography and Acoustic Radiation Force Impulse Imaging in Patients with Chronic Liver Disease. [41:2350-2359](#).
- Huang Y, Liu G-J, Liao B, Huang G-L, Liang J-Y, Zhou L-Y, Wang F, Li W, Xie X-Y, Wang W, Lu M-D. Impact Factors and the Optimal Parameter of Acoustic Structure Quantification in the Assessment of Liver Fibrosis. [41:2360-2367](#).
- Zhang Y-F, Xu H-X, Xu J-M, Liu C, Guo L-H, Liu L-N, Zhang J, Xu X-H, Qu S, Xing M. Acoustic Radiation Force Impulse Elastography in the Diagnosis of Thyroid Nodules: Useful or Not Useful? [41:2581-2593](#).
- Feldmann A, Langlois C, Dewailly M, Martinez EF, Boulanger L, Kerdraon O, Faye N. Shear Wave Elastography (SWE): An Analysis of Breast Lesion Characterization in 83 Breast Lesions. [41:2594-2604](#).
- Ríos-Díaz J, Martínez-Payá JJ, del Baño-Aledo ME, de Groot-Ferrando A, Botía-Castillo P, Fernández-Rodríguez D. Sonoelastography of Plantar Fascia: Reproducibility and Pattern Description in Healthy Subjects and Symptomatic Subjects. [41:2605-2613](#).
- Martin JA, Biedrzycki AH, Lee KS, DeWall RJ, Brounts SH, Murphy WL, Markel MD, Thelen DG. In Vivo Measures of Shear Wave Speed as a Predictor of Tendon Elasticity and Strength. [41:2722-2730](#).
- Muller M, Ait-Belkacem D, Hessabi M, Gennisson J-L, Grangé G, Goffinet F, Lecarpentier E, Cabrol D, Tanter M, Tsatsaris V. Assessment of the Cervix in Pregnant Women Using Shear Wave Elastography: A Feasibility Study. [41:2789-2797](#).
- Lee SY, Cardones AR, Doherty J, Nightingale K, Palmeri M. Preliminary Results on the Feasibility of Using ARFI/SWEI to Assess Cutaneous Sclerotic Diseases. [41:2806-2819](#).
- Koh J, Jung DC, Oh YT, Yoo MG, Noh S, Han KH, Rha K-H, Choi YD, Hong SJ. Additional Targeted Biopsy in Clinically Suspected Prostate Cancer: Prospective Randomized Comparison between Contrast-Enhanced Ultrasound and Sonoelastography Guidance. [41:2836-2841](#).
- Azizi G, Keller JM, Mayo ML, Piper K, Puett D, Earp KM, Malchoff CD. Thyroid Nodules and Shear Wave Elastography: A New Tool in Thyroid Cancer Detection. [41:2855-2865](#).
- Li Y, Wang Y, Wu Q, Hu B. Transforming Growth Factor β 1 Could Influence Thyroid Nodule Elasticity and Also Improve Cervical Lymph Node Metastasis in Papillary Thyroid Carcinoma. [41:2866-2872](#).
- Yang Z, Zhang H, Wang K, Cui G, Fu F. Assessment of Diffuse Thyroid Disease by Strain Ratio in Ultrasound Elastography. [41:2884-2889](#).
- Lin C-Y, Lin C-C, Chou Y-C, Chen P-Y, Wang C-L. Heel Pad Stiffness in Plantar Heel Pain by Shear Wave Elastography. [41:2890-2898](#).

Hsiao M-Y, Chen Y-C, Lin C-Y, Chen W-S, Wang T-G. Reduced Patellar Tendon Elasticity with Aging: In Vivo Assessment by Shear Wave Elastography. *41:2899-2905*.

Akagi R, Yamashita Y, Ueyasu Y. Age-Related Differences in Muscle Shear Moduli in the Lower Extremity. *41:2906-2912*.

Liu B-J, Li D-D, Xu H-X, Guo L-H, Zhang Y-F, Xu J-M, Liu C, Liu L-N, Li X-L, Xu X-H, Qu S, Xing M. Quantitative Shear Wave Velocity Measurement on Acoustic Radiation Force Impulse Elastography for Differential Diagnosis between Benign and Malignant Thyroid Nodules: A Meta-analysis. *41:3035-3043*.

Li X, Wang J-N, Fan Z-Y, Kang S, Liu Y-J, Zhang Y-X, Wang X-M. Determination of the Elasticity of Breast Tissue during the Menstrual Cycle Using Real-Time Shear Wave Elastography. *41:3140-3147*.

Kang B-K, Lee SS, Cheong H, Hong SM, Jang K, Lee M-G. Shear Wave Elastography for Assessment of Steatohepatitis and Hepatic Fibrosis in Rat Models of Non-Alcoholic Fatty Liver Disease. *41:3205-3215*.

Suomi V, Edwards D, Cleveland R. Optical Quantification of Harmonic Acoustic Radiation Force Excitation in a Tissue-Mimicking Phantom. *41:3216-3232*.

Endoscopic ultrasonography

Synonyms: EUS

Scopus Search: “Endoscopic” OR “EUS”

See also: **intravascular ultrasound**

Carminati MC, Piazzese C, Weinert L, Tsang W, Tamborini G, Pepi M, Lang RM, Caiani EG. Reconstruction of the Descending Thoracic Aorta by Multiview Compounding of 3-D Transesophageal Echocardiographic Aortic Data Sets for Improved Examination and Quantification of Atheroma Burden. *41:1263-1276*.

Errata

Erratum. *41:900*.

“Erratum to: “Prenatal exposure to ultrasound affects learning and memory in young rats,” by Li Ping, Wang pei-jun, Zhang Wei. *Ultrasound Med Biol* 2015;41:644-653. *41:2784*.

Eyes

Synonyms: ocular, retinal, cornea

Scopus Search: eye* OR ocular OR retin* OR cornea*

Yiu BYS, Yu ACH. GPU-Based Minimum Variance Beamformer for Synthetic Aperture Imaging of the Eye. *41:871-883*.

Kim NK, Kim CY, Choi MJ, Park SR, Choi BH. Effects of Low-Intensity Ultrasound on Oxidative Damage in Retinal Pigment Epithelial Cells in vitro. *41:1363-1371*.

Zhang X, Yin Y, Guo Y, Fan N, Lin H, Liu F, Diao X, Dong C, Chen X, Wang T, Chen S. Measurement of Quantitative

Viscoelasticity of Bovine Corneas Based on Lamb Wave Dispersion Properties. *41:1461-1472*.

Kim M-S, Yoon KB, Yoon DM, Kim D-H. Effect of Cervical Sympathetic Block on Optic Nerve Sheath Diameter Measured by Ultrasonography. *41:1599-1604*.

Buschschlüter S, von Eicken J, Koch C, Höh H. Experimental and Numerical Determination of the Local Temperature Distribution during Phacoemulsification and Comparison of Different Surgery Situations within Enucleated Porcine Eyes. *41:2161-2172*.

G

Gastroenterology

Synonyms: Gastrointestinal Tract, gastric, digestive system, oesophageal

Scopus Search: Gastr* AND digestive OR oesophag* OR esophag*

See also: **liver, pancreas**

Guang Y, Wang X, Cai A-L, Xie L-M, Ding H-L, Meng X-Y. Evaluation of the Development of the Fetal Anal Sphincter with Tomography Ultrasonography Imaging. *41:40-46*.

Ma X, Li Y, Jia H, Zhang J, Wang G, Liu X, Song Y. Contrast-Enhanced Ultrasound in the Diagnosis of Patients Suspected of Having Active Crohn’s Disease: Meta-analysis. *41:659-668*.

Saffari H, Kennedy A, Peterson KA, Gleich GJ, Pease Iii LF. Non-invasive Ultrasound to Identify Eosinophil Granule Proteins in Eosinophilic Esophagitis. *41:884-889*.

Cui X-W, Ignee A, Baum U, Dietrich CF. Feasibility and Usefulness of Using Swallow Contrast-Enhanced Ultrasound to Diagnose Zenker’s Diverticulum: Preliminary Results. *41:975-981*.

Ahn SY, Cho KH, Beom J, Park DJ, Jee S, Nam JH. Reliability of Ultrasound Evaluation of Hyoid–Larynx Approximation with Positional Change. *41:1221-1225*.

Kaewlai R, Lertlumsakulsub W, Srichareon P. Body Mass Index, Pain Score and Alvarado Score Are Useful Predictors of Appendix Visualization at Ultrasound in Adults. *41:1605-1611*.

Lim H, Lee GH, Na HK, Ahn JY, Lee JH, Choi K-S, Kim DH, Choi KD, Song HJ, Jung H-Y, Kim J-H, Kim D, Park YS. Use of Endoscopic Ultrasound to Evaluate Large Gastric Folds: Features Predictive of Malignancy. *41:2614-2620*.

Gene therapy

Synonyms: gene delivery, Gene transfection, Gene transfer

Scopus Search: gene AND therapy OR transfection OR transfer

Kwekkeboom RFJ, Lei Z, Bogaards SJP, Aiazian E, Kamp O, Paulus WJ, Sluijter JPG, Musters RJP. Ultrasound and Microbubble-Induced Local Delivery of MicroRNA-Based Therapeutics. *41:163-176*.

Burgess MT, Porter TM. Acoustic Cavitation-Mediated Delivery of Small Interfering Ribonucleic Acids with Phase-Shift Nano-Emulsions. *41:2191-2201*.

Genitourinary

Synonyms: urinary tract, bladder, urodynamics, reproductive system, pelvis

Scopus Search: Genitourinary OR urin* OR urodynamic* OR bladder OR reproduc* OR pelvi*

See also: prostate

Arif M, Idzenga T, van Mastrigt R, de Korte CL. Diagnosing Bladder Outlet Obstruction Using Non-invasive Decorrelation-Based Ultrasound Imaging: A Feasibility Study in Healthy Male Volunteers. *41:3163-3171*.

Guidelines

Kudo M. Foreword to the WFUMB Guidelines and Recommendations on the Clinical Use of Ultrasound Elastography. *41:1125*.

Shiina T, Nightingale KR, Palmeri ML, Hall TJ, Bamber JC, Barr RG, Castera L, Choi BI, Chou Y-H, Cosgrove D, Dietrich CF, Ding H, Amy D, Farrok A, Ferraioli G, Filice C, Friedrich-Rust M, Nakashima K, Schafer F, Sporea I, Suzuki S, Wilson S, Kudo M. WFUMB Guidelines and Recommendations for Clinical Use of Ultrasound Elastography: Part 1: Basic Principles and Terminology. *41:1126-1147*.

Barr RG, Nakashima K, Amy D, Cosgrove D, Farrok A, Schafer F, Bamber JC, Castera L, Choi BI, Chou Y-H, Dietrich CF, Ding H, Ferraioli G, Filice C, Friedrich-Rust M, Hall TJ, Nightingale KR, Palmeri ML, Shiina T, Suzuki S, Sporea I, Wilson S, Kudo M. WFUMB Guidelines and Recommendations for Clinical Use of Ultrasound Elastography: Part 2: Breast. *41:1148-1160*.

Ferraioli G, Filice C, Castera L, Choi BI, Sporea I, Wilson SR, Cosgrove D, Dietrich CF, Amy D, Bamber JC, Barr R, Chou Y-H, Ding H, Farrok A, Friedrich-Rust M, Hall TJ, Nakashima K, Nightingale KR, Palmeri ML, Schafer F, Shiina T, Suzuki S, Kudo M. WFUMB Guidelines and Recommendations for Clinical Use of Ultrasound Elastography: Part 3: Liver. *41:1161-1179*.

H

High frequency ultrasound

Synonyms: high resolution

Scopus Search: "high frequency" OR "high resolution"

Chuembou Pekam F, Marotti J, Wolfart S, Tinschert J, Radermacher K, Heger S. High-Frequency Ultrasound as an Option for Scanning of Prepared Teeth: An in Vitro Study. *41:309-316*.

Rajagopal S, Sadhoo N, Zeqiri B. Reference Characterisation of Sound Speed and Attenuation of the IEC Agar-Based

Tissue-Mimicking Material Up to a Frequency of 60 MHz. *41:317-333*.

Lin D, French BA, Xu Y, Hossack JA, Holmes JW. An Ultrasound-Driven Kinematic Model for Deformation of the Infarcted Mouse Left Ventricle Incorporating a Near-Incompressibility Constraint. *41:532-541*.

Piotrkowska-Wroblewska H, Litniewski J, Szymanska E, Nowicki A. Quantitative Sonography of Basal Cell Carcinoma. *41:748-759*.

Kenwright DA, Laverick N, Anderson T, Moran CM, Hoskins PR. Wall-less Flow Phantom for High-Frequency Ultrasound Applications. *41:890-897*.

Lindsey BD, Shelton SE, Dayton PA. Optimization of Contrast-to-Tissue Ratio Through Pulse Windowing in Dual-Frequency "Acoustic Angiography" Imaging. *41:1884-1895*.

Shelton SE, Lee YZ, Lee M, Cherin E, Foster FS, Aylward SR, Dayton PA. Quantification of Microvascular Tortuosity during Tumor Evolution Using Acoustic Angiography. *41:1896-1904*.

Kenwright DA, Anderson T, Moran CM, Hoskins PR. Assessment of Spectral Doppler for an Array-Based Preclinical Ultrasound Scanner Using a Rotating Phantom. *41:2232-2239*.

Fadhel MN, Berndl ESL, Strohm EM, Kolios MC. High-Frequency Acoustic Impedance Imaging of Cancer Cells. *41:2700-2713*.

High intensity focused ultrasound

Synonyms: Focused ultrasound surgery, HIFU, FUS, thermal ablation

Scopus Search: "high intensity focused ultrasound" OR "Focused ultrasound surgery" OR HIFU OR FUS OR ablat*

See also: therapeutic applications of ultrasound, thermal effects

Chang JW, Min B-K, Kim B-S, Chang WS, Lee Y-H. Neurophysiologic Correlates of Sonication Treatment in Patients with Essential Tremor. *41:124-131*.

Lee Y-F, Lin C-C, Cheng J-S, Chen G-S. High-Intensity Focused Ultrasound Attenuates Neural Responses of Sciatic Nerves Isolated from Normal or Neuropathic Rats. *41:132-142*.

Chen Y-W, Tzeng J-I, Huang P-C, Hung C-H, Shao D-Z, Wang J-J. Therapeutic Ultrasound Suppresses Neuropathic Pain and Upregulation of Substance P and Neurokinin-1 Receptor in Rats after Peripheral Nerve Injury. *41:143-150*.

Zhao W-P, Chen J-Y, Chen W-Z. Effect of Biological Characteristics of Different Types of Uterine Fibroids, as Assessed with T2-Weighted Magnetic Resonance Imaging, on Ultrasound-Guided High-Intensity Focused Ultrasound Ablation. *41:423-431*.

- Wu Z, Kumon RE, Laughner JI, Efimov IR, Deng CX. Electrophysiological Changes Correlated with Temperature Increases Induced by High-Intensity Focused Ultrasound Ablation. [41:432-448](#).
- Zhang Y, Aubry J-F, Zhang J, Wang Y, Roy J, Mata JF, Miller W, Dumont E, Xie M, Lee K, Zuo Z, Wintermark M. Defining the Optimal Age for Focal Lesioning in a Rat Model of Transcranial HIFU. [41:449-455](#).
- Guntur SR, Choi MJ. Influence of Temperature-Dependent Thermal Parameters on Temperature Elevation of Tissue Exposed to High-Intensity Focused Ultrasound: Numerical Simulation. [41:806-813](#).
- Simon JC, Sapozhnikov OA, Wang Y-N, Khokhlova VA, Crum LA, Bailey MR. Investigation into the Mechanisms of Tissue Atomization by High-Intensity Focused Ultrasound. [41:1372-1385](#).
- Hoogenboom M, Eikelenboom D, den Brok MH, Heerschap A, Fütterer JJ, Adema GJ. Mechanical High-Intensity Focused Ultrasound Destruction of Soft Tissue: Working Mechanisms and Physiologic Effects. [41:1500-1517](#).
- Ramaekers P, de Greef M, Moonen CTW, Ries MG. Cavitation-Enhanced Back Projection for Acoustic Rib Detection and Attenuation Mapping. [41:1726-1736](#).
- Gellhorn AC, Gillenwater C, Mourad PD. Intense Focused Ultrasound Stimulation of the Rotator Cuff: Evaluation of the Source of Pain in Rotator Cuff Tears and Tendinopathy. [41:2412-2419](#).
- Haworth KJ, Salgaonkar VA, Corregan NM, Holland CK, Mast TD. Using Passive Cavitation Images to Classify High-Intensity Focused Ultrasound Lesions. [41:2420-2434](#).
- Vlaisavljevich E, Xu Z, Arvidson A, Jin L, Roberts W, Cain C. Effects of Thermal Preconditioning on Tissue Susceptibility to Histotripsy. [41:2938-2954](#).
- Histotripsy**
Synonyms: pulsed ultrasound cavitation therapy
Scopus Search: Histotripsy OR “cav* therapy”
 See also: **Cavitation**
- Simon JC, Sapozhnikov OA, Wang Y-N, Khokhlova VA, Crum LA, Bailey MR. Investigation into the Mechanisms of Tissue Atomization by High-Intensity Focused Ultrasound. [41:1372-1385](#).
- Zhang X, Miller RM, Lin K-W, Levin AM, Owens GE, Gurm HS, Cain CA, Xu Z. Real-Time Feedback of Histotripsy Thrombolysis Using Bubble-Induced Color Doppler. [41:1386-1401](#).
- Hoogenboom M, Eikelenboom D, den Brok MH, Heerschap A, Fütterer JJ, Adema GJ. Mechanical High-Intensity Focused Ultrasound Destruction of Soft Tissue: Working Mechanisms and Physiologic Effects. [41:1500-1517](#).
- Vlaisavljevich E, Lin K-W, Maxwell A, Warnez MT, Mancía L, Singh R, Putnam AJ, Fowlkes B, Johnsen E, Cain C, Xu Z. Effects of Ultrasound Frequency and Tissue Stiffness on the Histotripsy Intrinsic Threshold for Cavitation. [41:1651-1667](#).
- Vlaisavljevich E, Aydin O, Yuksel Durmaz Y, Lin K-W, Fowlkes B, ElSayed M, Xu Z. Effects of Ultrasound Frequency on Nanodroplet-Mediated Histotripsy. [41:2135-2147](#).
- Lin K-W, Hall TL, Xu Z, Cain CA. Histotripsy Lesion Formation Using an Ultrasound Imaging Probe Enabled by a Low-Frequency Pump Transducer. [41:2148-2160](#).
- Buschschlüter S, von Eicken J, Koch C, Höh H. Experimental and Numerical Determination of the Local Temperature Distribution during Phacoemulsification and Comparison of Different Surgery Situations within Enucleated Porcine Eyes. [41:2161-2172](#).
- Vlaisavljevich E, Xu Z, Arvidson A, Jin L, Roberts W, Cain C. Effects of Thermal Preconditioning on Tissue Susceptibility to Histotripsy. [41:2938-2954](#).
- I**
- Image artifacts**
Synonyms: artefacts, shadowing, imaging errors, defocusing, aliasing, distortion, afterglow, duplication
Scopus Search: artifacts OR artefacts OR shadow*
 See also: **image processing**
- Mesin L, Pasquero P, Albani S, Porta M, Roatta S. Semi-automated Tracking and Continuous Monitoring of Inferior Vena Cava Diameter in Simulated and Experimental Ultrasound Imaging. [41:845-857](#).
- Du H, Ma R, Wang X, Zhang J, Fang J. Bas-Relief Map Using Texture Analysis with Application to Live Enhancement of Ultrasound Images. [41:1446-1460](#).
- Image processing**
Synonyms: filtering, averaging, denoising, decluttering, image enhancement, attenuation correction
Scopus Search: “image processing” OR Filter* OR averag* OR denois* OR *clutter OR “image enhance*” OR “attenuation correction”
 See also: **computer aided diagnosis**
- Gao H, Bijnens N, Coisne D, Lugiez M, Rutten M, D’Hooge J. 2-D Left Ventricular Flow Estimation by Combining Speckle Tracking With Navier–Stokes-Based Regularization: An In Silico, In Vitro and In Vivo Study. [41:99-113](#).
- Shankar PM. Statistics of Boundaries in Ultrasonic B-Scan Images. [41:268-280](#).
- Du H, Ma R, Wang X, Zhang J, Fang J. Bas-Relief Map Using Texture Analysis with Application to Live Enhancement of Ultrasound Images. [41:1446-1460](#).

Perperidis A, Cusack D, White A, McDicken N, MacGillivray T, Anderson T. Temporal Compounding: A Novel Implementation and Its Impact on Quality and Diagnostic Value in Echocardiography. *41:1749-1765*.

Granchi S, Vannacci E, Biagi E, Masotti L. Differentiation of Breast Lesions by Use of HyperSPACE: Hyper-Spectral Analysis for Characterization in Echography. *41:1967-1980*.

Haak A, Ren B, Mulder HW, Vegas-Sánchez-Ferrero G, van Burken G, van der Steen AFW, van Stralen M, Pluim JPW, van Walsum T, Bosch JG. Improved Segmentation of Multiple Cavities of the Heart in Wide-View 3-D Transesophageal Echocardiograms. *41:1991-2000*.

Gao Z, Hau WK, Lu M, Huang W, Zhang H, Wu W, Liu X, Zhang Y-T. Automated Framework for Detecting Lumen and Media-Adventitia Borders in Intravascular Ultrasound Images. *41:2001-2021*.

Tsui P-H, Wan Y-L, Tai D-I, Shu Y-C. Effects of Estimators on Ultrasound Nakagami Imaging in Visualizing the Change in the Backscattered Statistics from a Rayleigh Distribution to a Pre-Rayleigh Distribution. *41:2240-2251*.

Kozinszky Z, Surányi A, Pécs H, Molnár A, Pál A. Placental Volumetry by 2-D Sonography with a New Mathematical Formula: Prospective Study on the Shell of a Spherical Sector Model. *41:2252-2258*.

Hoyt K, Umphrey H, Lockhart M, Robbin M, Forero-Torres A. Ultrasound Imaging of Breast Tumor Perfusion and Neovascular Morphology. *41:2292-2302*.

Brandt AH, Hemmsen MC, Hansen PM, Madsen SS, Krohn PS, Lange T, Hansen KL, Jensen JA, Nielsen MB. Clinical Evaluation of Synthetic Aperture Harmonic Imaging for Scanning Focal Malignant Liver Lesions. *41:2368-2375*.

Molinari F, Caresio C, Acharya UR, Mookiah MRK, Minetto MA. Advances in Quantitative Muscle Ultrasonography Using Texture Analysis of Ultrasound Images. *41:2520-2532*.

Ermacorora D, Pesente S, Pascoli F, Raducci S, Mauro R, Rumeileh IA, Verhaegen F, Fontanarosa D. Automated Computed Tomography-Ultrasound Cross-Modality 3-D Contouring Algorithm for Prostate. *41:2646-2662*.

Yu S, Tan KK, Sng BL, Li S, Sia ATH. Lumbar Ultrasound Image Feature Extraction and Classification with Support Vector Machine. *41:2677-2689*.

Image registration

Synonyms: correlation, recorrelation, fusion

Scopus Search: registration OR *correlation OR fusion

See also: **image processing**

Rivaz H, Collins DL. Near Real-Time Robust Non-rigid Registration of Volumetric Ultrasound Images for Neurosurgery. *41:574-587*.

Brounstein A, Hacıhaliloglu I, Guy P, Hodgson A, Abugharbieh R. Fast and Accurate Data Extraction for Near Real-Time

Registration of 3-D Ultrasound and Computed Tomography in Orthopedic Surgery. *41:3194-3204*.

Image segmentation

Synonyms: Partitioning Clustering

Scopus Search: segmentation OR Partitioning OR Clustering

See also: **computer aided diagnosis, image processing**

Rodrigues R, Braz R, Pereira M, Moutinho J, Pinheiro AMG. A Two-Step Segmentation Method for Breast Ultrasound Masses Based on Multi-resolution Analysis. *41:1737-1748*.

In memoriam

Feleppa EJ. In Memoriam: Hector Lopez (1947-2014). *41:1499*.

Dunn A, Dunn R, O'Brien B. In Memoriam: Floyd Dunn (1924-2015). *41:1799-1800*.

Intravascular ultrasound

Synonyms: IVUS

Scopus Search: intravascular OR IVUS

See also: **blood vessels**

Richards MS, Perucchio R, Doyley MM. Visualizing the Stress Distribution Within Vascular Tissues Using Intravascular Ultrasound Elastography: A Preliminary Investigation. *41:1616-1631*.

Gao Z, Hau WK, Lu M, Huang W, Zhang H, Wu W, Liu X, Zhang Y-T. Automated Framework for Detecting Lumen and Media-Adventitia Borders in Intravascular Ultrasound Images. *41:2001-2021*.

Ischemia

Synonyms: ischaemia

Scopus Search: isch*emia OR isch*emic

See also: **thrombolysis, atherosclerosis**

Mestre XM, Coll RV, Villegas AR, Rico CM. Role of Contrast-Enhanced Ultrasound Arterial Mapping in Surgical Planning for Patients with Critical Limb Ischemia. *41:1570-1576*.

K

Kidney

Synonyms: nephrology, renal

Scopus Search: kidney OR neph* OR renal

Bota S, Bob F, Sporea I, Şirli R, Popescu A. Factors that Influence Kidney Shear Wave Speed Assessed by Acoustic Radiation Force Impulse Elastography in Patients without Kidney Pathology. *41:1-6*.

Conti F, Ceccarelli F, Gigante A, Perricone C, Barbano B, Massaro L, Spinelli FR, Alessandri C, Valesini G, Cianci R. Ultrasonographic Evaluation of Resistive Index and Renal Artery Stenosis in Patients with Anti-Phospholipid Syndrome: Two Distinct Mechanisms? *41:1814-1820*.

Gao J, Rubin JM, Weitzel W, Lee J, Dadhanian D, Kapur S, Min R. Comparison of Ultrasound Corticomedullary Strain with Doppler Parameters in Assessment of Renal Allograft Interstitial Fibrosis/Tubular Atrophy. [41:2631-2639](#).

Wang G, Zhuo Z, Yang B, Wu S, Xu Y, Liu Z, Tan K, Xia H, Wang X, Zou L, Gan L, Gao Y. Enhanced Homing Ability and Retention of Bone Marrow Stromal Cells to Diabetic Nephropathy by Microbubble-Mediated Diagnostic Ultrasound Irradiation. [41:2977-2989](#).

Li F, Bai M, Wu Y, He Y, Gu J, Xing J, Du L. Comparative Diagnostic Performance of Contrast-Enhanced ultrasound versus Baseline Ultrasound for Renal Pelvis Lesions. [41:3109-3119](#).

L

Letters to the editor

Mauri G, Solbiati L. Virtual Navigation and Fusion Imaging in Percutaneous Ablations in the Neck. [41:898](#).

Orlandi D, Turtulici G. Reply Regarding Virtual Navigation and Fusion Imaging in Percutaneous Ablations in the Neck. [41:899](#).

Sabour S. Reliability of Automatic Vibratory Equipment for Ultrasonic Strain Measurement of the Median Nerve: Common Mistake. [41:1119-1120](#).

Yoshii Y. Reply to Reliability of Automatic Vibratory Equipment for Ultrasonic Strain Measurement of the Median Nerve: Common Mistake. [41:1120](#).

Ozkan F, Yildiz S, Menzilcioglu MS, Duymus M, Avcu S. Do Not Forget to Calculate the Mean Shear Wave Speed as Assessed by Acoustic Radiation Force Impulse Elastography as a Harmonic Mean, Not an Arithmetical Mean. [41:1493](#).

Bota S, Bob F. Reply to the Letter to the Editor Regarding do Not Forget to Calculate the Mean Shear Wave Speed as Assessed by Acoustic Radiation Force Impulse Elastography as a Harmonic Mean, Not an Arithmetical Mean. [41:1493-1494](#).

Liver

Synonyms: hepatic

Scopus Search: [Liver OR hepat*](#)

Zhang D, Chen M, Wang R, Liu Y, Zhang D, Liu L, Zhou G. Comparison of Acoustic Radiation Force Impulse Imaging and Transient Elastography for Non-invasive Assessment of Liver Fibrosis in Patients with Chronic Hepatitis B. [41:7-14](#).

Dudea M, Clichici S, Olteanu DE, Nagy A, Cucoş M, Dudea S. Usefulness of Real-Time Elastography Strain Ratio in the Assessment of Bile Duct Ligation-Induced Liver Injury and the Hepatoprotective Effect of Chitosan: An Experimental Animal Study. [41:114-123](#).

Wang B, Ye Z, Chen Y, Zhao Q, Huang M, Chen F, Li Y, Jiang Ta. Hepatic Angiomyolipomas: Ultrasonic Characteristics of 25 Patients from a Single Center. [41:393-400](#).

Liao L-Y, Kuo K-L, Chiang H-S, Lin C-Z, Lin Y-P, Lin C-L. Acoustic Radiation Force Impulse Elastography of the Liver in Healthy Patients: Test Location, Reference Range and Influence of Gender and Body Mass Index. [41:698-704](#).

Tzschätzsch H, Ipek-Ugay S, Nguyen Trong M, Guo J, Eggers J, Gentz E, Fischer T, Schultz M, Braun J, Sack I. Multifrequency Time-Harmonic Elastography for the Measurement of Liver Viscoelasticity in Large Tissue Windows. [41:724-733](#).

Pellot-Barakat C, Lefort M, Chami L, Labit M, Frouin F, Lucidarme O. Automatic Assessment of Shear Wave Elastography Quality and Measurement Reliability in the Liver. [41:936-943](#).

Kong W-T, Wang W-P, Huang B-J, Ding H, Mao F, Si Q. Contrast-Enhanced Ultrasound in Combination with Color Doppler Ultrasound Can Improve the Diagnostic Performance of Focal Nodular Hyperplasia and Hepatocellular Adenoma. [41:944-951](#).

Kunze G, Staritz M, Köhler M. Contrast-Enhanced Ultrasound in Different Stages of Pyogenic Liver Abscess. [41:952-959](#).

Wang Z, Liu G, Lu M-D, Xie X, Kuang M, Wang W, Xu Z, Lin M, Chen L. Role of Portal Vein Tumor Thrombosis in Quantitative Perfusion Analysis of Contrast-Enhanced Ultrasound of Hepatocellular Carcinoma. [41:1277-1286](#).

Corvino A, Catalano O, Setola SV, Sandomenico F, Corvino F, Petrillo A. Contrast-Enhanced Ultrasound in the Characterization of Complex Cystic Focal Liver Lesions. [41:1301-1310](#).

Parker KJ, Partin A, Rubens DJ. What Do We Know About Shear Wave Dispersion in Normal and Steatotic Livers? [41:1481-1487](#).

Hu Z, Li Y, Li C, Huang C, Ou Z, Guo J, Luo H, Tang X. Using Ultrasonic Transient Elastometry (FibroScan) to Predict Esophageal Varices in Patients with Viral Liver Cirrhosis. [41:1530-1537](#).

Zeng X, Xu C, He D, Zhang H, Xia J, Shi D, Kong L, He X, Wang Y. Influence of Hepatic Inflammation on FibroScan Findings in Diagnosing Fibrosis in Patients with Chronic Hepatitis B. [41:1538-1544](#).

Soresi M, Giannitrapani L, Noto D, Terranova A, Campagna ME, Cefalù AB, Giammanco A, Montalto G. Effects of Steatosis on Hepatic Hemodynamics in Patients with Metabolic Syndrome. [41:1545-1552](#).

Feng Y, Qin X-C, Luo Y, Li Y-Z, Zhou X. Efficacy of Contrast-Enhanced Ultrasound Washout Rate in Predicting Hepatocellular Carcinoma Differentiation. [41:1553-1560](#).

Sekimoto T, Maruyama H, Kiyono S, Kondo T, Shimada T, Takahashi M, Yokosuka O, Yamaguchi T. Liver Stiffness: A Significant Relationship with the Waveform Pattern in the Hepatic Vein. [41:1801-1807](#).

- Deng Y, Palmeri ML, Rouze NC, Rosenzweig SJ, Abdelmalek MF, Nightingale KR. Analyzing the Impact of Increasing Mechanical Index and Energy Deposition on Shear Wave Speed Reconstruction in Human Liver. [41:1948-1957](#).
- Cai S-f, Gai Y-h, Ma S, Liang B, Wang G-c, Liu Q-w. Ultrasonographic Visualization of Accessory Hepatic Veins and Their Lesions in Budd–Chiari Syndrome. [41:2091-2098](#).
- Bota S, Paternostro R, Etschmaier A, Schwarzer R, Salzl P, Mandorfer M, Kienbacher C, Ferlitsch M, Reiberger T, Trauner M, Peck-Radosavljevic M, Ferlitsch A. Performance of 2-D Shear Wave Elastography in Liver Fibrosis Assessment Compared with Serologic Tests and Transient Elastography in Clinical Routine. [41:2340-2349](#).
- Gerber L, Kasper D, Fitting D, Knop V, Vermehren A, Sprinzl K, Hansmann ML, Herrmann E, Bojunga J, Albert J, Sarrazin C, Zeuzem S, Friedrich-Rust M. Assessment of Liver Fibrosis with 2-D Shear Wave Elastography in Comparison to Transient Elastography and Acoustic Radiation Force Impulse Imaging in Patients with Chronic Liver Disease. [41:2350-2359](#).
- Huang Y, Liu G-J, Liao B, Huang G-L, Liang J-Y, Zhou L-Y, Wang F, Li W, Xie X-Y, Wang W, Lu M-D. Impact Factors and the Optimal Parameter of Acoustic Structure Quantification in the Assessment of Liver Fibrosis. [41:2360-2367](#).
- Brandt AH, Hemmsen MC, Hansen PM, Madsen SS, Krohn PS, Lange T, Hansen KL, Jensen JA, Nielsen MB. Clinical Evaluation of Synthetic Aperture Harmonic Imaging for Scanning Focal Malignant Liver Lesions. [41:2368-2375](#).
- Zhang T-T, Luo H-C, Cui X, Zhang W, Zhang L-Y, Chen X-P, Li K-Y. Ultrasound-Guided Percutaneous Microwave Ablation Treatment of Initial Recurrent Hepatocellular Carcinoma after Hepatic Resection: Long-Term Outcomes. [41:2391-2399](#).
- Du J, Li H-L, Zhai B, Chang S, Li F-H. Radiofrequency Ablation for Hepatocellular Carcinoma: Utility of Conventional Ultrasound and Contrast-Enhanced Ultrasound in Guiding and Assessing Early Therapeutic Response and Short-Term Follow-Up Results. [41:2400-2411](#).
- Zou R-H, Lin Q-G, Huang W, Li X-L, Cao Y, Zhang J, Zhou J-H, Li A-H, Beretta L, Qian C-N. Quantitative Contrast-Enhanced Ultrasonic Imaging Reflects Microvascularization in Hepatocellular Carcinoma and Prognosis after Resection. [41:2621-2630](#).
- Taimr P, Jongerius VL, Pek CJ, Krak NC, Hansen BE, Janssen HLA, Metselaar HJ, van Eijck CHJ. Liver Contrast-Enhanced Ultrasound Improves Detection of Liver Metastases in Patients with Pancreatic or Periampullary Cancer. [41:3063-3069](#).
- Tada T, Kumada T, Toyoda H, Ito T, Sone Y, Kaneoka Y, Maeda A, Okuda S, Otobe K, Takahashi K. Utility of Contrast-enhanced Ultrasonography with Perflubutane for Determining Histologic Grade in Hepatocellular Carcinoma. [41:3070-3078](#).
- Kondo T, Maruyama H, Kiyono S, Sekimoto T, Shimada T, Takahashi M, Ogasawara S, Suzuki E, Ooka Y, Tawada A, Chiba T, Kanai F, Yokosuka O. Intensity-Based Assessment of Microbubble-Enhanced Ultrasonography: Phase-Related Diagnostic Ability for Cellular Differentiation of Hepatocellular Carcinoma. [41:3079-3087](#).
- Han J, Liu Y, Han F, Li Q, Yan C, Zheng W, Wang J, Guo Z, Wang J, Li A, Zhou J. The Degree of Contrast Washout on Contrast-Enhanced Ultrasound in Distinguishing Intrahepatic Cholangiocarcinoma from Hepatocellular Carcinoma. [41:3088-3095](#).
- Kang B-K, Lee SS, Cheong H, Hong SM, Jang K, Lee M-G. Shear Wave Elastography for Assessment of Steatohepatitis and Hepatic Fibrosis in Rat Models of Non-Alcoholic Fatty Liver Disease. [41:3205-3215](#).
- Low intensity ultrasound**
Synonyms: Low intensity pulsed ultrasound, LIPUS, LIFU
Scopus Search: “low*intensity ultrasound” OR LIPUS OR LIFU
- Zortéa D, Silveira PCL, Souza PS, Fidelis GSP, Paganini CS, Pozzi BG, Tuon T, De Souza CT, Paula MMS, Pinho RA. Effects of Phonophoresis and Gold Nanoparticles in Experimental Model of Muscle Overuse: Role of Oxidative Stress. [41:151-162](#).
- Hu B, Cai X-Z, Shi Z-L, Chen Y-L, Zhao X, Zhu H-X, Yan S-G. Microbubble Injection Enhances Inhibition of Low-Intensity Pulsed Ultrasound on Debris-Induced Periprosthetic Osteolysis in Rabbit Model. [41:177-186](#).
- Jung YJ, Kim R, Ham H-J, Park SI, Lee MY, Kim J, Hwang J, Park M-S, Yoo S-S, Maeng L-S, Chang W, Chung Y-A. Focused Low-Intensity Pulsed Ultrasound Enhances Bone Regeneration in Rat Calvarial Bone Defect through Enhancement of Cell Proliferation. [41:999-1007](#).
- Kim NK, Kim CY, Choi MJ, Park SR, Choi BH. Effects of Low-Intensity Ultrasound on Oxidative Damage in Retinal Pigment Epithelial Cells in vitro. [41:1363-1371](#).
- Xia P, Ren S, Lin Q, Cheng K, Shen S, Gao M, Li X. Low-Intensity Pulsed Ultrasound Affects Chondrocyte Extracellular Matrix Production via an Integrin-Mediated p38 MAPK Signaling Pathway. [41:1690-1700](#).
- Chiu C-Y, Tsai T-L, Vanderby Jr R, Bradica G, Lou S-L, Li W-J. Osteoblastogenesis of Mesenchymal Stem Cells in 3-D Culture Enhanced by Low-Intensity Pulsed Ultrasound through Soluble Receptor Activator of Nuclear Factor Kappa B Ligand. [41:1842-1852](#).
- Zou R-H, Lin Q-G, Huang W, Li X-L, Cao Y, Zhang J, Zhou J-H, Li A-H, Beretta L, Qian C-N. Quantitative Contrast-Enhanced Ultrasonic Imaging Reflects Microvascularization in Hepatocellular Carcinoma and Prognosis after Resection. [41:2621-2630](#).

Lymphatic system**Synonyms:** lymph nodes**Scopus Search:** lymph*

Kato S, Shirai Y, Kanzaki H, Sakamoto M, Mori S, Kodama T. Delivery of Molecules to the Lymph Node via Lymphatic Vessels Using Ultrasound and Nano/Microbubbles. [41:1411-1421](#).

Zhang Y-N, Wang C-J, Xu Y, Zhu Q-L, Zhou Y-D, Zhang J, Mao F, Jiang Y-X, Sun Q. Sensitivity, Specificity and Accuracy of Ultrasound in Diagnosis of Breast Cancer Metastasis to the Axillary Lymph Nodes in Chinese Patients. [41:1835-1841](#).

Qu E, Dai Z, Liang X, Qian Y, Wang S, Ke H, Wang J. Detection and Pathologic Evaluation of Sentinel Lymph Nodes in the VX2 Tumor Model Using a Novel Ultrasound/Near-Infrared Dual-Modality Contrast Agent. [41:1905-1912](#).

Chmielewski A, Dufort P, Scaranelo AM. A Computerized System to Assess Axillary Lymph Node Malignancy from Sonographic Images. [41:2690-2699](#).

Park KN, Kang KY, Hong HS, Jeong H-S, Lee SW. Predictive Value of Estimated Tumor Volume Measured by Ultrasonography for Occult Central Lymph Node Metastasis in Papillary Thyroid Carcinoma. [41:2849-2854](#).

Li Y, Wang Y, Wu Q, Hu B. Transforming Growth Factor β 1 Could Influence Thyroid Nodule Elasticity and Also Improve Cervical Lymph Node Metastasis in Papillary Thyroid Carcinoma. [41:2866-2872](#).

M**Modelling****Synonyms:** simulations, theory, mathematical, in silico**Scopus Search:** Modelling OR simulation* OR theor* OR mathemat* OR "in silico"

Lin D, French BA, Xu Y, Hossack JA, Holmes JW. An Ultrasound-Driven Kinematic Model for Deformation of the Infarcted Mouse Left Ventricle Incorporating a Near-Incompressibility Constraint. [41:532-541](#).

Guntur SR, Choi MJ. Influence of Temperature-Dependent Thermal Parameters on Temperature Elevation of Tissue Exposed to High-Intensity Focused Ultrasound: Numerical Simulation. [41:806-813](#).

Gélat P, Shaw A. Relationship between Acoustic Power and Acoustic Radiation Force on Absorbing and Reflecting Targets for Spherically Focusing Radiators. [41:832-844](#).

Najafi M, Afsham N, Abolmaesumi P, Rohling R. A Closed-Form Differential Formulation for Ultrasound Spatial Calibration: Single Wall Phantom. [41:1079-1094](#).

Parker KJ. Could Linear Hysteresis Contribute to Shear Wave Losses in Tissues? [41:1100-1104](#).

Louw TM, Subramanian A, Viljoen HJ. Theoretical Evaluation of the Acoustic Field in an Ultrasonic Bioreactor. [41:1766-1778](#).

Vafaeian B, Al-Daghreer S, El-Rich M, Adeeb S, El-Bialy T. Simulation of Low-Intensity Ultrasound Propagating in a Beagle Dog Dentoalveolar Structure to Investigate the Relations between Ultrasonic Parameters and Cementum Regeneration. [41:2173-2190](#).

Kozinszky Z, Surányi A, Péics H, Molnár A, Pál A. Placental Volumetry by 2-D Sonography with a New Mathematical Formula: Prospective Study on the Shell of a Spherical Sector Model. [41:2252-2258](#).

Molecular imaging**Synonyms:** molecular tagging, targeted imaging, biomarkers**Scopus Search:** "molecular imaging" OR "molecular tagging" OR "targeted imaging" OR bio*markers

Leguerney I, Scoazec J-Y, Gadot N, Robin N, Pénault-Llorca F, Victorin S, Lassau N. Molecular Ultrasound Imaging Using Contrast Agents Targeting Endoglin, Vascular Endothelial Growth Factor Receptor 2 and Integrin. [41:197-207](#).

Wang S, Mauldin Jr FW, Klivanov AL, Hossack JA. Ultrasound-Based Measurement of Molecular Marker Concentration in Large Blood Vessels: A Feasibility Study. [41:222-234](#).

Saffari H, Kennedy A, Peterson KA, Gleich GJ, Pease Iii LF. Non-invasive Ultrasound to Identify Eosinophil Granule Proteins in Eosinophilic Esophagitis. [41:884-889](#).

Kim H, Kee PH, Rim Y, Moody MR, Klegeman ME, Vela D, Huang S-L, McPherson DD, Laing ST. Nitric Oxide-Enhanced Molecular Imaging of Atheroma using Vascular Cellular Adhesion Molecule 1-Targeted Echogenic Immunoliposomes. [41:1701-1710](#).

Payen T, Dizeux A, Baldini C, Le Guillou-Buffello D, Lamuraglia M, Comperat E, Lucidarme O, Bridal SL. VEGFR2-Targeted Contrast-Enhanced Ultrasound to Distinguish between Two Anti-Angiogenic Treatments. [41:2202-2211](#).

Yeh JS-M, Sennoga CA, McConnell E, Eckersley R, Tang M-X, Nourshargh S, Seddon JM, Haskard DO, Nihoyannopoulos P. Quantitative Ultrasound Molecular Imaging. [41:2478-2496](#).

Yan F, Xu X, Chen Y, Deng Z, Liu H, Xu J, Zhou J, Tan G, Wu J, Zheng H. A Lipopeptide-Based α v β 3 Integrin-Targeted Ultrasound Contrast Agent for Molecular Imaging of Tumor Angiogenesis. [41:2765-2773](#).

Musculoskeletal**Synonyms:** Sonomyography**Scopus Search:** Musc* OR Sonomyography OR Joint*

Ooi CC, Schneider ME, Malliaras P, Chadwick M, Connell DA. Diagnostic Performance of Axial-Strain Sonoelastography in Confirming Clinically Diagnosed Achilles Tendinopathy: Comparison with B-Mode Ultrasound and Color Doppler Imaging. [41:15-25](#).

- Thomas KN, Cotter JD, Lucas SJE, Hill BG, van Rij AM. Reliability of Contrast-Enhanced Ultrasound for the Assessment of Muscle Perfusion in Health and Peripheral Arterial Disease. *41:26-34*.
- Cheng E, Mabee M, Swami VG, Pi Y, Thompson R, Dulai S, Jaremko JL. Ultrasound Quantification of Acetabular Rounding in Hip Dysplasia: Reliability and Correlation to Treatment Decisions in a Retrospective Study. *41:56-63*.
- Zortéa D, Silveira PCL, Souza PS, Fidelis GSP, Paganini CS, Pozzi BG, Tuon T, De Souza CT, Paula MMS, Pinho RA. Effects of Phonophoresis and Gold Nanoparticles in Experimental Model of Muscle Overuse: Role of Oxidative Stress. *41:151-162*.
- Fournier J. Musculoskeletal Ultrasound. *41:623*.
- Abe T, Loenneke JP, Young KC, Thiebaud RS, Nahar VK, Hollaway KM, Stover CD, Ford MA, Bass MA, Loftin M. Validity of Ultrasound Prediction Equations for Total and Regional Muscularity in Middle-aged and Older Men and Women. *41:557-564*.
- Roll SC, Rana M, Sigward SM, Yani MS, Kirages DJ, Kutch JJ. Reliability of Superficial Male Pelvic Floor Structural Measurements Using Linear-Array Transperineal Sonography. *41:610-617*.
- Ryan ED, Rosenberg JG, Scharville MJ, Sobolewski EJ, Tweedell AJ, Kleinberg CR. Pennation Angle Does Not Influence the Age-Related Differences in Echo Intensity of the Medial Gastrocnemius. *41:618-621*.
- Palmer TB, Akehi K, Thiele RM, Smith DB, Thompson BJ. Reliability of Panoramic Ultrasound Imaging in Simultaneously Examining Muscle Size and Quality of the Hamstring Muscles in Young, Healthy Males and Females. *41:675-684*.
- Rossato DD, Lago PD, Hentschke VS, Rucatti AL, Signori LU, Silveira MN, Méa Plentz RD. Ultrasound Modulates Skeletal Muscle Cytokine Levels in Rats with Heart Failure. *41:797-805*.
- Machado FS, Furtado RNV, Takahashi RD, de Buosi ALP, Natour J. Sonographic Cutoff Values for Detection of Abnormalities in Small, Medium and Large Joints: A Comparative Study Between Patients with Rheumatoid Arthritis and Healthy Volunteers. *41:989-998*.
- Jung YJ, Kim R, Ham H-J, Park SI, Lee MY, Kim J, Hwang J, Park M-S, Yoo S-S, Maeng L-S, Chang W, Chung Y-A. Focused Low-Intensity Pulsed Ultrasound Enhances Bone Regeneration in Rat Calvarial Bone Defect through Enhancement of Cell Proliferation. *41:999-1007*.
- Liu D, Huang Y, Tian D, Yin J. Quantitative Ultrasound Assessment of the Facet Joint in the Lumbar Spine: A Feasibility Study. *41:1226-1232*.
- Jenkins NDM, Miller JM, Buckner SL, Cochrane KC, Bergstrom HC, Hill EC, Smith CM, Housh TJ, Cramer JT. Test-Retest Reliability of Single Transverse versus Panoramic Ultrasound Imaging for Muscle Size and Echo Intensity of the Biceps Brachii. *41:1584-1591*.
- Teggeler M, Schmitz M, Fink A, Jansen JACG, Pisters MF. Reliability and Agreement of Ultrasonographic Thickness Measurements of the Common Lateral Extensors of the Elbow. *41:1592-1598*.
- Dan J, Sun X, Li W, Zhang Y, Li X, Xu H, Li Z, Tian Z, Guo S, Yao J, Gao W, Tian Y. 5-Aminolevulinic Acid-Mediated Sonodynamic Therapy Promotes Phenotypic Switching from Dedifferentiated to Differentiated Phenotype via Reactive Oxygen Species and p38 Mitogen-Activated Protein Kinase in Vascular Smooth Muscle Cells. *41:1681-1689*.
- Xia P, Ren S, Lin Q, Cheng K, Shen S, Gao M, Li X. Low-Intensity Pulsed Ultrasound Affects Chondrocyte Extracellular Matrix Production via an Integrin-Mediated p38 MAPK Signaling Pathway. *41:1690-1700*.
- Watanabe T, Terabayashi N, Fukuoka D, Murakami H, Ito H, Matsuoka T, Seishima M. A Pilot Study to Assess Fatty Infiltration of the Supraspinatus in Patients with Rotator Cuff Tears: Comparison with Magnetic Resonance Imaging. *41:1779-1783*.
- Remijn L, Weijers G, Nijhuis-van der Sanden MWG, Groen BE, de Korte CL. Ultrasound Imaging for Analyzing Lateral Tongue Movements during Mastication in Adults with Cerebral Palsy Compared with Adults without Oral Motor Disabilities. *41:1784-1793*.
- Papatzika F, Papandreou M, Ekizos A, Panteli C, Arampatzis A. Reliability and Limits of Agreement of the Supraspinatus Muscle Anatomical Cross-Sectional Area Assessment by Ultrasonography. *41:1821-1826*.
- Inkinen SI, Liukkonen J, Tiitu V, Virén T, Jurvelin JS, Töyräs J. Ultrasound Backscattering Is Anisotropic in Bovine Articular Cartilage. *41:1958-1966*.
- Cuesta-Vargas AI. Development of a New Ultrasound-Based System for Tracking Motion of the Human Lumbar Spine: Reliability, Stability and Repeatability during Forward Bending Movement Trials. *41:2049-2056*.
- Paquette P, Lamontagne M, Higgins J, Gagnon DH. Repeatability and Minimal Detectable Change in Longitudinal Median Nerve Excursion Measures During Upper Limb Neurodynamic Techniques in a Mixed Population: A Pilot Study Using Musculoskeletal Ultrasound Imaging. *41:2082-2086*.
- Abe T, Counts BR, Barnett BE, Dankel SJ, Lee K, Loenneke JP. Associations between Handgrip Strength and Ultrasound-Measured Muscle Thickness of the Hand and Forearm in Young Men and Women. *41:2125-2130*.
- Nieminen HJ, Ylitalo T, Suuronen J-P, Rahunen K, Salmi A, Saarakkala S, Serimaa R, Hæggström E. Delivering Agents Locally into Articular Cartilage by Intense MHz Ultrasound. *41:2259-2265*.

- Akagi R, Kusama S. Comparison Between Neck and Shoulder Stiffness Determined by Shear Wave Ultrasound Elastography and a Muscle Hardness Meter. [41:2266-2271](#).
- Rahmani N, Mohseni-Bandpei MA, Vameghi R, Salavati M, Abdollahi I. Application of Ultrasonography in the Assessment of Skeletal Muscles in Children with and without Neuromuscular Disorders: A Systematic Review. [41:2275-2283](#).
- Dubois G, Kheireddine W, Vergari C, Bonneau D, Thoreux P, Rouch P, Tanter M, Gennisson J-L, Skalli W. Reliable Protocol for Shear Wave Elastography of Lower Limb Muscles at Rest and During Passive Stretching. [41:2284-2291](#).
- Gellhorn AC, Gillenwater C, Mourad PD. Intense Focused Ultrasound Stimulation of the Rotator Cuff: Evaluation of the Source of Pain in Rotator Cuff Tears and Tendinopathy. [41:2412-2419](#).
- Molinari F, Caresio C, Acharya UR, Mookiah MRK, Minetto MA. Advances in Quantitative Muscle Ultrasonography Using Texture Analysis of Ultrasound Images. [41:2520-2532](#).
- Taniguchi M, Fukumoto Y, Kobayashi M, Kawasaki T, Maegawa S, Ibuki S, Ichihashi N. Quantity and Quality of the Lower Extremity Muscles in Women with Knee Osteoarthritis. [41:2567-2574](#).
- Fujimoto K, Kanchiku T, Kido K, Imajo Y, Funaba M, Taguchi T. Diagnosis of Severe Carpal Tunnel Syndrome Using Nerve Conduction Study and Ultrasonography. [41:2575-2580](#).
- Ríos-Díaz J, Martínez-Payá JJ, del Baño-Aledo ME, de Groot-Ferrando A, Botía-Castillo P, Fernández-Rodríguez D. Sonoelastography of Plantar Fascia: Reproducibility and Pattern Description in Healthy Subjects and Symptomatic Subjects. [41:2605-2613](#).
- Martin JA, Biedrzycki AH, Lee KS, DeWall RJ, Brounts SH, Murphy WL, Markel MD, Thelen DG. In Vivo Measures of Shear Wave Speed as a Predictor of Tendon Elasticity and Strength. [41:2722-2730](#).
- Lin C-Y, Lin C-C, Chou Y-C, Chen P-Y, Wang C-L. Heel Pad Stiffness in Plantar Heel Pain by Shear Wave Elastography. [41:2890-2898](#).
- Hsiao M-Y, Chen Y-C, Lin C-Y, Chen W-S, Wang T-G. Reduced Patellar Tendon Elasticity with Aging: In Vivo Assessment by Shear Wave Elastography. [41:2899-2905](#).
- Akagi R, Yamashita Y, Ueyasu Y. Age-Related Differences in Muscle Shear Moduli in the Lower Extremity. [41:2906-2912](#).
- Fukumoto Y, Ikezoe T, Yamada Y, Tsukagoshi R, Nakamura M, Takagi Y, Kimura M, Ichihashi N. Age-Related Ultrasound Changes in Muscle Quantity and Quality in Women. [41:3013-3017](#).
- Bühler M, Johnson G, Meikle G. Longitudinal In Vivo Ultrasound Observations of the Surgically Repaired Zone II Flexor Digitorum Profundus Tendon. [41:3018-3022](#).
- Brounstein A, Hacıhaliloglu I, Guy P, Hodgson A, Abugharbich R. Fast and Accurate Data Extraction for Near Real-Time Registration of 3-D Ultrasound and Computed Tomography in Orthopedic Surgery. [41:3194-3204](#).
- N**
- Nervous system**
Synonyms: neurology
Scopus Search: *Neuro** OR *nerv**
- Chang JW, Min B-K, Kim B-S, Chang WS, Lee Y-H. Neurophysiologic Correlates of Sonication Treatment in Patients with Essential Tremor. [41:124-131](#).
- Lee Y-F, Lin C-C, Cheng J-S, Chen G-S. High-Intensity Focused Ultrasound Attenuates Neural Responses of Sciatic Nerves Isolated from Normal or Neuropathic Rats. [41:132-142](#).
- Chen Y-W, Tzeng J-I, Huang P-C, Hung C-H, Shao D-Z, Wang J-J. Therapeutic Ultrasound Suppresses Neuropathic Pain and Upregulation of Substance P and Neurokinin-1 Receptor in Rats after Peripheral Nerve Injury. [41:143-150](#).
- Yoshii Y, Ishii T, Tanaka T, Tung W-I, Sakai S. Detecting Median Nerve Strain Changes with Cyclic Compression Apparatus: A Comparison of Carpal Tunnel Syndrome Patients and Healthy Controls. [41:669-674](#).
- Lee J-H, Kim S-G. Effects of Extracorporeal Shock Wave Therapy on Functional Recovery and Neurotrophin-3 Expression in the Spinal Cord after Crushed Sciatic Nerve Injury in Rats. [41:790-796](#).
- Kim M-S, Yoon KB, Yoon DM, Kim D-H. Effect of Cervical Sympathetic Block on Optic Nerve Sheath Diameter Measured by Ultrasonography. [41:1599-1604](#).
- Haji Hasani M, Gharibzadeh S, Farjami Y, Tavakkoli J. Investigating the Effect of Thermal Stress on Nerve Action Potential Using the Soliton Model. [41:1668-1680](#).
- Paquette P, Lamontagne M, Higgins J, Gagnon DH. Repeatability and Minimal Detectable Change in Longitudinal Median Nerve Excursion Measures During Upper Limb Neurodynamic Techniques in a Mixed Population: A Pilot Study Using Musculoskeletal Ultrasound Imaging. [41:2082-2086](#).
- Meng S, Tinhofer I, Grisold W, Weninger WJ. Ultrasound-Guided Perineural Injection at Guyon's Tunnel: An Anatomic Feasibility Study. [41:2119-2124](#).
- “Erratum to: “Prenatal exposure to ultrasound affects learning and memory in young rats,” by Li Ping, Wang pei-jun, Zhang Wei. *Ultrasound Med Biol* 2015;41:644-653. [41:2784](#).
- Ebadi H, Siddiqui H, Ebadi S, Ngo M, Breiner A, Bril V. Peripheral Nerve Ultrasound in Small Fiber Polyneuropathy. [41:2820-2826](#).

Elsaman AMMY, Thabit MN, Radwan ARA-A, Ohrndorf S. Idiopathic Carpal Tunnel Syndrome: Evaluation of the Depth of the Carpal Tunnel by Ultrasonography. [41:2827-2835](#).

O

Obstetrics

Synonyms: prenatal, fetal, gynaecology, foetal, FBM, FHR
Scopus Search: [obstetric*](#) OR [gynaecolog*](#) OR [gynecolog*](#) OR [pre*natal](#)

See also: [uterus](#)

Nemescu D, Berescu A. Acoustic Output Measured by Thermal and Mechanical Indices during Fetal Echocardiography at the Time of the First Trimester Scan. [41:35-39](#).

Guang Y, Wang X, Cai A-L, Xie L-M, Ding H-L, Meng X-Y. Evaluation of the Development of the Fetal Anal Sphincter with Tomography Ultrasonography Imaging. [41:40-46](#).

Aye CYL, Stevenson GN, Impey L, Collins SL. Comparison of 2-D and 3-D Estimates of Placental Volume in Early Pregnancy. [41:734-740](#).

Wu Y, Peng H, Zhao X. Diagnostic Performance of Contrast-Enhanced Ultrasound for Ovarian Cancer: A Meta-Analysis. [41:967-974](#).

Hashima JN, Rogers V, Langley SM, Ashraf M, Sahn DJ, Ohtonen P, Davis LE, Hohimer AR, Rasanen J. Fetal Ventricular Interactions and Wall Mechanics During Ductus Arteriosus Occlusion in a Sheep Model. [41:1020-1028](#).

Tonni G, Martins WP, Guimarães Filho H, Araujo Júnior E. Role of 3-D Ultrasound in Clinical Obstetric Practice: Evolution Over 20 Years. [41:1180-1211](#).

Miyashita S, Murotsuki J, Muramoto J, Ozawa K, Yaegashi N, Hasegawa H, Kanai H. Measurement of Internal Diameter Changes and Pulse Wave Velocity in Fetal Descending Aorta Using the Ultrasonic Phased-Tracking Method in Normal and Growth-Restricted Fetuses. [41:1311-1319](#).

Han X-S, Ning C-P, Sun L-T, Li X-Y, Peng Y-Q, Dang M-Z. Three-Dimensional Transvaginal Tomographic Ultrasound Imaging for Cervical Cancer Staging. [41:2303-2309](#).

McFarlin BL, Balash J, Kumar V, Bigelow TA, Pombar X, Abramowicz JS, O'Brien Jr WD. Development of an Ultrasonic Method to Detect Cervical Remodeling in Vivo in Full-Term Pregnant Women. [41:2533-2539](#).

Dimassi K, Douik F, Ajroudi M, Triki A, Gara MF. Ultrasound Fetal Weight Estimation: How Accurate Are We Now Under Emergency Conditions? [41:2562-2566](#).

Muller M, Ait-Belkacem D, Hessabi M, Gennisson J-L, Grangé G, Goffinet F, Lecarpentier E, Cabrol D, Tanter M, Tsatsaris V. Assessment of the Cervix in Pregnant Women Using Shear Wave Elastography: A Feasibility Study. [41:2789-2797](#).

McFarlin BL, Kumar V, Bigelow TA, Simpson DG, White-Traut RC, Abramowicz JS, O'Brien Jr WD. Beyond Cervical

Length: A Pilot Study of Ultrasonic Attenuation for Early Detection of Preterm Birth Risk. [41:3023-3029](#).

Ribes S, Girault J-M, Perrotin F, Kouamé D. Multidimensional Ultrasound Doppler Signal Analysis for Fetal Activity Monitoring. [41:3172-3181](#).

Stevenson GN, Collins SL, Ding J, Impey L, Noble JA. 3-D Ultrasound Segmentation of the Placenta Using the Random Walker Algorithm: Reliability and Agreement. [41:3182-3193](#).

Optoacoustic

See [Photoacoustic](#)

Orthopedic

See [Musculoskeletal, Bone](#)

Oral

Synonyms: mouth

Scopus Search: [Oral](#) OR [Mouth](#) OR [Saliva*](#) OR [Tongue](#) OR [Lingua*](#)

See also: [dental](#)

Remijn L, Weijers G, Nijhuis-van der Sanden MWG, Groen BE, de Korte CL. Ultrasound Imaging for Analyzing Lateral Tongue Movements during Mastication in Adults with Cerebral Palsy Compared with Adults without Oral Motor Disabilities. [41:1784-1793](#).

Mantsopoulos K, Klintworth N, Iro H, Bozzato A. Applicability of Shear Wave Elastography of the Major Salivary Glands: Values in Healthy Patients and Effects of Gender, Smoking and Pre-Compression. [41:2310-2318](#).

P

Pancreas

Synonyms: pancreatic, gastrointestinal

Scopus Search: [pancrea*](#) OR [gastrointestinal](#)

See also: [Gastroenterology](#)

Wei Y, Yu X-L, Liang P, Cheng Z-G, Han Z-Y, Liu F-Y, Yu J. Guiding and Controlling Percutaneous Pancreas Biopsies with Contrast-Enhanced Ultrasound: Target Lesions Are Not Localized on B-Mode Ultrasound. [41:1561-1569](#).

Taimr P, Jongerius VL, Pek CJ, Krak NC, Hansen BE, Janssen HLA, Metselaar HJ, van Eijck CHJ. Liver Contrast-Enhanced Ultrasound Improves Detection of Liver Metastases in Patients with Pancreatic or Periapillary Cancer. [41:3063-3069](#).

Pediatrics

Synonyms: children, infants, neonates

Scopus Search: [Pediatrics](#) OR [child*](#) OR [infant*](#) OR [neonat*](#) OR [neo-nat*](#)

Qiu W, Yuan J, Kishimoto J, McLeod J, Chen Y, de Ribaupierre S, Fenster A. User-Guided Segmentation of Preterm Neonate Ventricular System from 3-D Ultrasound Images Using Convex Optimization. [41:542-556](#).

Piskunowicz M, Kosiak W, Batko T, Piankowski A, Połczyńska K, Adamkiewicz-Drożyńska E. Safety of Intravenous Application of Second-Generation Ultrasound Contrast Agent in Children: Prospective Analysis. [41:1095-1099](#).

Parker KJ. Could Linear Hysteresis Contribute to Shear Wave Losses in Tissues? [41:1100-1104](#).

Mantsopoulos K, Wurm J, Iro H, Zenk J. Role of Ultrasonography in the Detection of a Subperiosteal Abscess Secondary to Mastoiditis in Pediatric Patients. [41:1612-1615](#).

Rahmani N, Mohseni-Bandpei MA, Vameghi R, Salavati M, Abdollahi I. Application of Ultrasonography in the Assessment of Skeletal Muscles in Children with and without Neuromuscular Disorders: A Systematic Review. [41:2275-2283](#).

Sawires HK, Abdel Ghany EA, Hussein NF, Seif HM. Use of Lung Ultrasound in Detection of Complications of Respiratory Distress Syndrome. [41:2319-2325](#).

Phantoms

Synonyms: mimics, tissue-mimicking, gel phantom, gelatine, agarose, tofu, polyacrylamide, urethane foam, flow model, flow cell

Scopus Search: phantom* OR mimic* OR tissue-mimic* OR Gel* OR agar* OR polyacrylamide OR urethane OR “flow cell*” OR “flow model*”

Rajagopal S, Sadhoo N, Zeqiri B. Reference Characterisation of Sound Speed and Attenuation of the IEC Agar-Based Tissue-Mimicking Material Up to a Frequency of 60 MHz. [41:317-333](#).

Kenwright DA, Laverick N, Anderson T, Moran CM, Hoskins PR. Wall-less Flow Phantom for High-Frequency Ultrasound Applications. [41:890-897](#).

Photoacoustic

Synonyms: optoacoustic, ultrasound light modulation, laser ultrasonic

Scopus Search: Optoacoustic OR photoacoustic OR “ultrasound light modulation” OR “laser ultraso*”

Xu G, Fowlkes JB, Tao C, Liu X, Wang X. Photoacoustic Spectrum Analysis for Microstructure Characterization in Biological Tissue: Analytical Model. [41:1473-1480](#).

Prostate

Synonyms: prostate gland

Scopus Search: prostate OR transrectal OR endorectal OR TRUS

See also: **genitourinary**

Mischi M, Demi L, Smeenge M, Kuenen MPJ, Postema AW, de la Rosette JJMCH, Wijkstra H. Transabdominal Contrast-Enhanced Ultrasound Imaging of the Prostate. [41:1112-1118](#).

Ermacorra D, Pesente S, Pascoli F, Raducci S, Mauro R, Rumeileh IA, Verhaegen F, Fontanarosa D. Automated

Computed Tomography–Ultrasound Cross-Modality 3-D Contouring Algorithm for Prostate. [41:2646-2662](#).

Koh J, Jung DC, Oh YT, Yoo MG, Noh S, Han KH, Rha K-H, Choi YD, Hong SJ. Additional Targeted Biopsy in Clinically Suspected Prostate Cancer: Prospective Randomized Comparison between Contrast-Enhanced Ultrasound and Sonoelastography Guidance. [41:2836-2841](#).

Q

Quantitative ultrasound

Synonyms: QUS, quantification, quantitation

Scopus Search: Quantit* OR QUS

Conversano F, Franchini R, Greco A, Soloperto G, Chiriaco F, Casciaro E, Avenaggiato M, Renna MD, Pisani P, Di Paola M, Grimaldi A, Quarta L, Quarta E, Muratore M, Laugier P, Casciaro S. A Novel Ultrasound Methodology for Estimating Spine Mineral Density. [41:281-300](#).

Sindi KH, Bubb NL, Gutteridge DL, Evans JA. In Vitro Enamel Thickness Measurements with Ultrasound. [41:301-308](#).

Roggen I, Louis O, Van Biervliet S, Van Daele S, Robberecht E, De Wachter E, Malfroot A, De Waele K, Gies I, Vanbesien J, De Schepper J. Quantitative Bone Ultrasound at the Distal Radius in Adults with Cystic Fibrosis. [41:334-338](#).

Zhang Q, Xiao Y, Chen S, Wang C, Zheng H. Quantification of Elastic Heterogeneity Using Contourlet-Based Texture Analysis in Shear-Wave Elastography for Breast Tumor Classification. [41:588-600](#).

Aye CYL, Stevenson GN, Impey L, Collins SL. Comparison of 2-D and 3-D Estimates of Placental Volume in Early Pregnancy. [41:734-740](#).

Mesin L, Pasquero P, Albani S, Porta M, Roatta S. Semi-automated Tracking and Continuous Monitoring of Inferior Vena Cava Diameter in Simulated and Experimental Ultrasound Imaging. [41:845-857](#).

Daugochies M, Brixen K, Hermann P, Rohde K, Glüer C-C, Barkmann R. Quantitative Ultrasound Measurements at the Heel: Improvement of Short- and Mid-Term Speed of Sound Precision. [41:858-870](#).

Pellot-Barakat C, Lefort M, Chami L, Labit M, Frouin F, Lucidarme O. Automatic Assessment of Shear Wave Elastography Quality and Measurement Reliability in the Liver. [41:936-943](#).

Shi XQ, Li JL, Wan WB, Huang Y. A Set of Shear Wave Elastography Quantitative Parameters Combined with Ultrasound BI-RADS to Assess Benign and Malignant Breast Lesions. [41:960-966](#).

Sultan LR, Xiong H, Zafar HM, Schultz SM, Langer JE, Sehgal CM. Vascularity Assessment of Thyroid Nodules by Quantitative Color Doppler Ultrasound. [41:1287-1293](#).

- Zhang X, Yin Y, Guo Y, Fan N, Lin H, Liu F, Diao X, Dong C, Chen X, Wang T, Chen S. Measurement of Quantitative Viscoelasticity of Bovine Corneas Based on Lamb Wave Dispersion Properties. [41:1461-1472](#).
- Xu G, Fowlkes JB, Tao C, Liu X, Wang X. Photoacoustic Spectrum Analysis for Microstructure Characterization in Biological Tissue: Analytical Model. [41:1473-1480](#).
- Jenkins NDM, Miller JM, Buckner SL, Cochrane KC, Bergstrom HC, Hill EC, Smith CM, Housh TJ, Cramer JT. Test–Retest Reliability of Single Transverse versus Panoramic Ultrasound Imaging for Muscle Size and Echo Intensity of the Biceps Brachii. [41:1584-1591](#).
- Teggeler M, Schmitz M, Fink A, Jansen JACG, Pisters MF. Reliability and Agreement of Ultrasonographic Thickness Measurements of the Common Lateral Extensors of the Elbow. [41:1592-1598](#).
- Cheung WK, Gujral DM, Shah BN, Chahal NS, Bhattacharyya S, Cosgrove DO, Eckersley RJ, Harrington KJ, Senior R, Nutting CM, Tang M-X. Attenuation Correction and Normalisation for Quantification of Contrast Enhancement in Ultrasound Images of Carotid Arteries. [41:1876-1883](#).
- Shelton SE, Lee YZ, Lee M, Cherin E, Foster FS, Aylward SR, Dayton PA. Quantification of Microvascular Tortuosity during Tumor Evolution Using Acoustic Angiography. [41:1896-1904](#).
- Yildiz YO, Eckersley RJ, Senior R, Lim AKP, Cosgrove D, Tang M-X. Correction of Non-Linear Propagation Artifact in Contrast-Enhanced Ultrasound Imaging of Carotid Arteries: Methods and in Vitro Evaluation. [41:1938-1947](#).
- Cuesta-Vargas AI. Development of a New Ultrasound-Based System for Tracking Motion of the Human Lumbar Spine: Reliability, Stability and Repeatability during Forward Bending Movement Trials. [41:2049-2056](#).
- Yeh JS-M, Sennoga CA, McConnell E, Eckersley R, Tang M-X, Nourshargh S, Seddon JM, Haskard DO, Nihoyannopoulos P. Quantitative Ultrasound Molecular Imaging. [41:2478-2496](#).
- Garcia-Duitama J, Chayer B, Han A, Garcia D, Oelze ML, Cloutier G. Experimental Application of Ultrafast Imaging to Spectral Tissue Characterization. [41:2506-2519](#).
- Molinari F, Caresio C, Acharya UR, Mookiah MRK, Minetto MA. Advances in Quantitative Muscle Ultrasonography Using Texture Analysis of Ultrasound Images. [41:2520-2532](#).
- Bota S, Bob F, Sporea I, Şirli R, Popescu A. Factors that Influence Kidney Shear Wave Speed Assessed by Acoustic Radiation Force Impulse Elastography in Patients without Kidney Pathology. [41:1-6](#).
- Wang S, Mauldin Jr FW, Klibanov AL, Hossack JA. Ultrasound-Based Measurement of Molecular Marker Concentration in Large Blood Vessels: A Feasibility Study. [41:222-234](#).
- Zhang D, Chen M, Wang R, Liu Y, Zhang D, Liu L, Zhou G. Comparison of Acoustic Radiation Force Impulse Imaging and Transient Elastography for Non-invasive Assessment of Liver Fibrosis in Patients with Chronic Hepatitis B. [41:7-14](#).
- Wang S, Mauldin Jr FW, Klibanov AL, Hossack JA. Ultrasound-Based Measurement of Molecular Marker Concentration in Large Blood Vessels: A Feasibility Study. [41:222-234](#).
- Mino K, Imura M, Koyama D, Omori M, Kawarabata S, Sato M, Watanabe Y. Meshless Bubble Filter Using Ultrasound for Extracorporeal Circulation and its Effect on Blood. [41:465-471](#).
- Church CC, Labuda C, Nightingale K. A Theoretical Study of Inertial Cavitation from Acoustic Radiation Force Impulse Imaging and Implications for the Mechanical Index I. [41:472-485](#).
- Zhu Y, Dong C, Yin Y, Chen X, Guo Y, Zheng Y, Shen Y, Wang T, Zhang X, Chen S. The Role of Viscosity Estimation for Oil-in-gelatin Phantom in Shear Wave Based Ultrasound Elastography. [41:601-609](#).
- Czernuszewicz TJ, Homeister JW, Caughey MC, Farber MA, Fulton JJ, Ford PF, Marston WA, Vallabhaneni R, Nichols TC, Gallippi CM. Non-invasive in Vivo Characterization of Human Carotid Plaques with Acoustic Radiation Force Impulse Ultrasound: Comparison with Histology after Endarterectomy. [41:685-697](#).
- Liao L-Y, Kuo K-L, Chiang H-S, Lin C-Z, Lin Y-P, Lin C-L. Acoustic Radiation Force Impulse Elastography of the Liver in Healthy Patients: Test Location, Reference Range and Influence of Gender and Body Mass Index. [41:698-704](#).
- Urbanczyk CA, Palmeri ML, Bass CR. Material Characterization of in Vivo and in Vitro Porcine Brain Using Shear Wave Elasticity. [41:713-723](#).
- Tzschätzsch H, Ipek-Ugay S, Nguyen Trong M, Guo J, Eggers J, Gentz E, Fischer T, Schultz M, Braun J, Sack I. Multifrequency Time-Harmonic Elastography for the Measurement of Liver Viscoelasticity in Large Tissue Windows. [41:724-733](#).
- Gélat P, Shaw A. Relationship between Acoustic Power and Acoustic Radiation Force on Absorbing and Reflecting Targets for Spherically Focusing Radiators. [41:832-844](#).
- Hollender PJ, Rosenzweig SJ, Nightingale KR, Trahey GE. Single- and Multiple-Track-Location Shear Wave and Acoustic Radiation Force Impulse Imaging: Matched Comparison of Contrast, Contrast-to-Noise Ratio and Resolution. [41:1043-1057](#).

R

Radiation force

Synonyms: Bjerknes force, Acoustic Radiation Force Impulse Ultrasound (ARFI), acoustic tweezers, ultrasound tweezers, acoustic remote palpation, acoustic trapping

Scopus Search: “radiation force” OR ARFI OR Bjerknes OR “acoustic tweezers” OR “ultrason* tweezers” OR ARP OR trap*

See also: **elastography, shear waves**

Deng Y, Palmeri ML, Rouze NC, Rosenzweig SJ, Abdelmalek MF, Nightingale KR. Analyzing the Impact of Increasing Mechanical Index and Energy Deposition on Shear Wave Speed Reconstruction in Human Liver. *41:1948-1957*.

Zhang Y-F, Xu H-X, Xu J-M, Liu C, Guo L-H, Liu L-N, Zhang J, Xu X-H, Qu S, Xing M. Acoustic Radiation Force Impulse Elastography in the Diagnosis of Thyroid Nodules: Useful or Not Useful? *41:2581-2593*.

Lee SY, Cardones AR, Doherty J, Nightingale K, Palmeri M. Preliminary Results on the Feasibility of Using ARFI/SWEI to Assess Cutaneous Sclerotic Diseases. *41:2806-2819*.

Liu B-J, Li D-D, Xu H-X, Guo L-H, Zhang Y-F, Xu J-M, Liu C, Liu L-N, Li X-L, Xu X-H, Qu S, Xing M. Quantitative Shear Wave Velocity Measurement on Acoustic Radiation Force Impulse Elastography for Differential Diagnosis between Benign and Malignant Thyroid Nodules: A Meta-analysis. *41:3035-3043*.

Suomi V, Edwards D, Cleveland R. Optical Quantification of Harmonic Acoustic Radiation Force Excitation in a Tissue-Mimicking Phantom. *41:3216-3232*.

Respiratory system

Synonyms: diaphragm, thoracic

Scopus Search: respirator* OR thora* OR diaphragm*

Dietrich CF, Mathis G, Cui X-W, Ignee A, Hocke M, Hirche TO. Ultrasound of the Pleurae and Lungs. *41:351-365*.

Wang X, Liu D, He H, Du W, Zhang H, Liu Y, Chai W, Zhang Q, Zhou X. Using Critical Care Chest Ultrasonic Examination in Emergency Consultation: A Pilot Study. *41:401-406*.

Miller DL, Dou C, Raghavendran K. Dependence of Thresholds for Pulmonary Capillary Hemorrhage on Diagnostic Ultrasound Frequency. *41:1640-1650*.

Sawires HK, Abdel Ghany EA, Hussein NF, Seif HM. Use of Lung Ultrasound in Detection of Complications of Respiratory Distress Syndrome. *41:2319-2325*.

Review

Dietrich CF, Mathis G, Cui X-W, Ignee A, Hocke M, Hirche TO. Ultrasound of the Pleurae and Lungs. *41:351-365*.

Mele D, Rizzo P, Pollina AV, Fiorencis A, Ferrari R. Cancer Therapy-Induced Cardiotoxicity: Role of Ultrasound Deformation Imaging as an Aid to Early Diagnosis. *41:627-643*.

Li P, Wang P-j, Zhang W. Prenatal Exposure to Ultrasound Affects Learning and Memory in Young Rats. *41:644-653*.

Wood AKW, Sehgal CM. A Review of Low-Intensity Ultrasound for Cancer Therapy. *41:905-928*.

Tonni G, Martins WP, Guimarães Filho H, Araujo Júnior E. Role of 3-D Ultrasound in Clinical Obstetric Practice: Evolution Over 20 Years. *41:1180-1211*.

Hoogenboom M, Eikelenboom D, den Brok MH, Heerschap A, Fütterer JJ, Adema GJ. Mechanical High-Intensity Focused Ultrasound Destruction of Soft Tissue: Working Mechanisms and Physiologic Effects. *41:1500-1517*.

Rahmani N, Mohseni-Bandpei MA, Vameghi R, Salavati M, Abdollahi I. Application of Ultrasonography in the Assessment of Skeletal Muscles in Children with and without Neuromuscular Disorders: A Systematic Review. *41:2275-2283*.

Wongwaisayawan S, Suwannanon R, Prachanukool T, Sricharoen P, Saksobhavit N, Kaewlai R. Trauma Ultrasound. *41:2543-2561*.

Liu B-J, Li D-D, Xu H-X, Guo L-H, Zhang Y-F, Xu J-M, Liu C, Liu L-N, Li X-L, Xu X-H, Qu S, Xing M. Quantitative Shear Wave Velocity Measurement on Acoustic Radiation Force Impulse Elastography for Differential Diagnosis between Benign and Malignant Thyroid Nodules: A Meta-analysis. *41:3035-3043*.

De Luca V, Székely G, Tanner C. Estimation of Large-Scale Organ Motion in B-Mode Ultrasound Image Sequences: A Survey. *41:3044-3062*.

S

Shear waves

Scopus Search: "Shear Wave*"

See also: elastography, radiation force

Dobruch-Sobczak K, Nowicki A. Role of Shear Wave Sonoelastography in Differentiation Between Focal Breast Lesions. *41:366-374*.

Zhang Q, Xiao Y, Chen S, Wang C, Zheng H. Quantification of Elastic Heterogeneity Using Contourlet-Based Texture Analysis in Shear-Wave Elastography for Breast Tumor Classification. *41:588-600*.

Zhu Y, Dong C, Yin Y, Chen X, Guo Y, Zheng Y, Shen Y, Wang T, Zhang X, Chen S. The Role of Viscosity Estimation for Oil-in-gelatin Phantom in Shear Wave Based Ultrasound Elastography. *41:601-609*.

Liao L-Y, Kuo K-L, Chiang H-S, Lin C-Z, Lin Y-P, Lin C-L. Acoustic Radiation Force Impulse Elastography of the Liver in Healthy Patients: Test Location, Reference Range and Influence of Gender and Body Mass Index. *41:698-704*.

Urbanczyk CA, Palmeri ML, Bass CR. Material Characterization of in Vivo and in Vitro Porcine Brain Using Shear Wave Elasticity. *41:713-723*.

Pellot-Barakat C, Lefort M, Chami L, Labit M, Frouin F, Lucidarme O. Automatic Assessment of Shear Wave Elastography Quality and Measurement Reliability in the Liver. *41:936-943*.

Shi XQ, Li JL, Wan WB, Huang Y. A Set of Shear Wave Elastography Quantitative Parameters Combined with Ultrasound BI-RADS to Assess Benign and Malignant Breast Lesions. *41:960-966*.

Hollender PJ, Rosenzweig SJ, Nightingale KR, Trahey GE. Single- and Multiple-Track-Location Shear Wave and Acoustic Radiation Force Impulse Imaging: Matched Comparison of Contrast, Contrast-to-Noise Ratio and Resolution. *41:1043-1057*.

Liu B-J, Li D-D, Xu H-X, Guo L-H, Zhang Y-F, Xu J-M, Liu C, Liu L-N, Li X-L, Xu X-H, Qu S, Xing M. Quantitative Shear Wave Velocity Measurement on Acoustic Radiation Force Impulse Elastography for Differential Diagnosis between Benign and Malignant Thyroid Nodules: A Meta-analysis. *41:3035-3043*.

Li X, Wang J-N, Fan Z-Y, Kang S, Liu Y-J, Zhang Y-X, Wang X-M. Determination of the Elasticity of Breast Tissue during the Menstrual Cycle Using Real-Time Shear Wave Elastography. *41:3140-3147*.

Kang B-K, Lee SS, Cheong H, Hong SM, Jang K, Lee M-G. Shear Wave Elastography for Assessment of Steatohepatitis and Hepatic Fibrosis in Rat Models of Non-Alcoholic Fatty Liver Disease. *41:3205-3215*.

Shock waves

Synonyms: shock-wave, shockwave, extracorporeal shock-wave (ESW) therapy, shock-wave lithotripsy

Scopus Search: *shock** OR *ESW*

Fischer S, Mueller W, Schulte M, Kiefer J, Hirche C, Heimer S, Köllensperger E, Germann G, Reichenberger MA. Multiple Extracorporeal Shock Wave Therapy Degrades Capsular Fibrosis after Insertion of Silicone Implants. *41:781-789*.

Lee J-H, Kim S-G. Effects of Extracorporeal Shock Wave Therapy on Functional Recovery and Neurotrophin-3 Expression in the Spinal Cord after Crushed Sciatic Nerve Injury in Rats. *41:790-796*.

Signal processing

Synonyms: waveform analysis

Scopus Search: “signal processing” OR “waveform analysis”

See also: **image processing**

Agnew CE, Hamilton PK, McCann AJ, McGivern RC, McVeigh GE. Wavelet Entropy of Doppler Ultrasound Blood Velocity Flow Waveforms Distinguishes Nitric Oxide-Modulated States. *41:1320-1327*.

Chen S-P, Hu Y-P. Waveform Patterns and Peak Reversed Velocity in Vertebral Arteries Predict Severe Subclavian Artery Stenosis and Occlusion. *41:1328-1333*.

Sisini F, Tessari M, Gadda G, Di Domenico G, Taibi A, Menegatti E, Gambaccini M, Zamboni P. An

Ultrasonographic Technique to Assess the Jugular Venous Pulse: A Proof of Concept. *41:1334-1341*.

Skin

Synonyms: dermal, transdermal, cutaneous, transcutaneous, subcutaneous

Scopus Search: *skin* OR *dermal* OR *transdermal* OR *cutaneous* OR *transcutaneous* OR *subcutaneous*

Piotrkowska-Wroblewska H, Litniewski J, Szymanska E, Nowicki A. Quantitative Sonography of Basal Cell Carcinoma. *41:748-759*.

Suehiro K, Morikage N, Murakami M, Yamashita O, Harada T, Ueda K, Samura M, Tanaka Y, Nakamura K, Hamano K. Skin and Subcutaneous Tissue Strain in Legs with Lymphedema and Lipodermatosclerosis. *41:1577-1583*.

Lee SY, Cardones AR, Doherty J, Nightingale K, Palmeri M. Preliminary Results on the Feasibility of Using ARFI/SWEI to Assess Cutaneous Sclerotic Diseases. *41:2806-2819*.

Sonodynamic therapy

Synonyms: sonochemistry

Scopus Search: *sonodynamic* OR *sonochemi**

Dan J, Sun X, Li W, Zhang Y, Li X, Xu H, Li Z, Tian Z, Guo S, Yao J, Gao W, Tian Y. 5-Aminolevulinic Acid-Mediated Sonodynamic Therapy Promotes Phenotypic Switching from Dedifferentiated to Differentiated Phenotype via Reactive Oxygen Species and p38 Mitogen-Activated Protein Kinase in Vascular Smooth Muscle Cells. *41:1681-1689*.

Endo S, Kudo N, Yamaguchi S, Sumiyoshi K, Motegi H, Kobayashi H, Terasaka S, Houkin K. Porphyrin Derivatives-Mediated Sonodynamic Therapy for Malignant Gliomas In Vitro. *41:2458-2465*.

Wang X, Jia Y, Su X, Wang P, Zhang K, Feng X, Liu Q. Combination of Protoporphyrin IX-mediated Sonodynamic Treatment with Doxorubicin Synergistically Induced Apoptotic Cell Death of a Multidrug-Resistant Leukemia K562/DOX Cell Line. *41:2731-2739*.

Sonoporation

Synonyms: sonophoresis, phonophoresis, cell membrane permeabilisation, permeability enhancement, molecular delivery, poration, enhanced uptake

Scopus Search: *Sonoporation* OR *Sonophoresis* OR *Phonophoresis* OR *permeabilisation* OR “*enhance** permeability” OR “*molecular delivery*” OR *poration* OR “*enhance** uptake”

See also: **cavitation, drug delivery, gene therapy**

Muleki Seya P, Fouqueray M, Ngo J, Poizat A, Inserra C, Béra J-C. Sonoporation of Adherent Cells under Regulated Ultrasound Cavitation Conditions. *41:1008-1019*.

Burgess MT, Porter TM. Acoustic Cavitation-Mediated Delivery of Small Interfering Ribonucleic Acids with Phase-Shift Nano-Emulsions. *41:2191-2201*.

Speckle

Synonyms: interference pattern, noise

Scopus Search: speckle OR noise OR interference

See also: **image artifacts, image processing**

Widman E, Caidahl K, Heyde B, D'hooge J, Larsson M. Ultrasound Speckle Tracking Strain Estimation of in Vivo Carotid Artery Plaque with in Vitro Sonomicrometry Validation. *41:77-88*.

Zuo H, Yan J, Zeng H, Li W, Li P, Liu Z, Cui G, Lv J, Wang D, Wang H. Diagnostic Power of Longitudinal Strain at Rest for the Detection of Obstructive Coronary Artery Disease in Patients with Type 2 Diabetes Mellitus. *41:89-98*.

Gao H, Bijnens N, Coisne D, Lugiez M, Rutten M, D'Hooge J. 2-D Left Ventricular Flow Estimation by Combining Speckle Tracking With Navier–Stokes-Based Regularization: An In Silico, In Vitro and In Vivo Study. *41:99-113*.

Nguyen BL, Capotosto L, Persi A, Placanica A, Rafique A, Piccirillo G, Gaudio C, Gang ES, Siegel RJ, Vitarelli A. Global and Regional Left Ventricular Strain Indices in Post-Myocardial Infarction Patients with Ventricular Arrhythmias and Moderately Abnormal Ejection Fraction. *41:407-417*.

Mele D, Rizzo P, Pollina AV, Fiorencis A, Ferrari R. Cancer Therapy-Induced Cardiotoxicity: Role of Ultrasound Deformation Imaging as an Aid to Early Diagnosis. *41:627-643*.

Yap CH, Park DW, Dutta D, Simon M, Kim K. Methods for Using 3-D Ultrasound Speckle Tracking in Biaxial Mechanical Testing of Biological Tissue Samples. *41:1029-1042*.

Nahiyan A, Hasan MK. Hybrid Algorithm for Elastography to Visualize Both Solid and Fluid-Filled Lesions. *41:1058-1078*.

Standing wave

Synonyms: stationary wave, acoustic trapping, ultrasound trapping, acoustic tweezers

Scopus Search: “Standing wave” OR “stationary wave” OR trap* OR USWT

See also: **radiation force**

Mino K, Imura M, Koyama D, Omori M, Kawarabata S, Sato M, Watanabe Y. Meshless Bubble Filter Using Ultrasound for Extracorporeal Circulation and its Effect on Blood. *41:465-471*.

Stroke

Synonyms: cerebrovascular accident (CVA), thrombus, thrombosis, clot

Scopus Search: Stroke OR “cerebrovascular accident” OR CVA OR thromb*

See also: **emboli detection, thrombolysis**

Papavasileiou V, Milionis H, Hirt L, Michel P. Strokes and TIAs during and after Carotid Artery Doppler: Cause or Coincidence? *41:418-422*.

Czernuszewicz TJ, Homeister JW, Caughey MC, Farber MA, Fulton JJ, Ford PF, Marston WA, Vallabhaneni R, Nichols TC, Gallippi CM. Non-invasive in Vivo Characterization of Human Carotid Plaques with Acoustic Radiation Force Impulse Ultrasound: Comparison with Histology after Endarterectomy. *41:685-697*.

Gómez-Choco M, Schreiber SJ, Weih M, Doepp F, Valdeuz JM. Delayed Transcranial Echo-Contrast Bolus Arrival in Unilateral Internal Carotid Artery Stenosis and Occlusion. *41:1827-1834*.

T

Technical note

Zahnd G, Balocco S, Sérusclat A, Moulin P, Orkisz M, Vray D. Progressive Attenuation of the Longitudinal Kinetics in the Common Carotid Artery: Preliminary in Vivo Assessment. *41:339-345*.

Ryan ED, Rosenberg JG, Scharville MJ, Sobolewski EJ, Tweedell AJ, Kleinberg CR. Pennation Angle Does Not Influence the Age-Related Differences in Echo Intensity of the Medial Gastrocnemius. *41:618-621*.

Kenwright DA, Laverick N, Anderson T, Moran CM, Hoskins PR. Wall-less Flow Phantom for High-Frequency Ultrasound Applications. *41:890-897*.

Parker KJ. Could Linear Hysteresis Contribute to Shear Wave Losses in Tissues? *41:1100-1104*.

Tuckett AZ, Zakrzewski JL, Li D, van den Brink MRM, Thornton RH. Free-hand Ultrasound Guidance Permits Safe and Efficient Minimally Invasive Intrathymic Injections in Both Young and Aged Mice. *41:1105-1111*.

Mischi M, Demi L, Smeenge M, Kuenen MPJ, Postema AW, de la Rosette JJMCH, Wijkstra H. Transabdominal Contrast-Enhanced Ultrasound Imaging of the Prostate. *41:1112-1118*.

Parker KJ, Partin A, Rubens DJ. What Do We Know About Shear Wave Dispersion in Normal and Steatotic Livers? *41:1481-1487*.

Remijn L, Weijers G, Nijhuis-van der Sanden MWG, Groen BE, de Korte CL. Ultrasound Imaging for Analyzing Lateral Tongue Movements during Mastication in Adults with Cerebral Palsy Compared with Adults without Oral Motor Disabilities. *41:1784-1793*.

Paquette P, Lamontagne M, Higgins J, Gagnon DH. Repeatability and Minimal Detectable Change in Longitudinal Median Nerve Excursion Measures During Upper Limb Neurodynamic Techniques in a Mixed Population: A Pilot Study Using Musculoskeletal Ultrasound Imaging. *41:2082-2086*.

- Nieminen HJ, Ylitalo T, Suuronen J-P, Rahunen K, Salmi A, Saarakkala S, Serimaa R, Hægström E. Delivering Agents Locally into Articular Cartilage by Intense MHz Ultrasound. [41:2259-2265](#).
- Akagi R, Kusama S. Comparison Between Neck and Shoulder Stiffness Determined by Shear Wave Ultrasound Elastography and a Muscle Hardness Meter. [41:2266-2271](#).
- McFarlin BL, Balash J, Kumar V, Bigelow TA, Pombar X, Abramowicz JS, O'Brien Jr WD. Development of an Ultrasonic Method to Detect Cervical Remodeling in Vivo in Full-Term Pregnant Women. [41:2533-2539](#).
- Acconcia C, Leung BYC, Manjunath A, Goertz DE. The Effect of Short Duration Ultrasound Pulses on the Interaction Between Individual Microbubbles and Fibrin Clots. [41:2774-2782](#).
- McFarlin BL, Kumar V, Bigelow TA, Simpson DG, White-Traut RC, Abramowicz JS, O'Brien Jr WD. Beyond Cervical Length: A Pilot Study of Ultrasonic Attenuation for Early Detection of Preterm Birth Risk. [41:3023-3029](#).
- Owen J, Stride E. Technique for the Characterization of Phospholipid Microbubbles Coatings by Transmission Electron Microscopy. [41:3253-3258](#).
- Tendon**
Synonyms: Collagen, Connective tissue
Scopus Search: tendon OR "connective tissue" OR collagen
 Cortes DH, Suydam SM, Silbernagel KG, Buchanan TS, Elliott DM. Continuous Shear Wave Elastography: A New Method to Measure Viscoelastic Properties of Tendons in Vivo. [41:1518-1529](#).
- Therapeutic Applications of Ultrasound**
Synonyms: ultrasound therapy, sonotherapy
Scopus Search: Therap* OR Sonotherap*
See also: **drug delivery, healing, high intensity focused ultrasound, thrombolysis**
- Chang JW, Min B-K, Kim B-S, Chang WS, Lee Y-H. Neuropathologic Correlates of Sonication Treatment in Patients with Essential Tremor. [41:124-131](#).
- Lee Y-F, Lin C-C, Cheng J-S, Chen G-S. High-Intensity Focused Ultrasound Attenuates Neural Responses of Sciatic Nerves Isolated from Normal or Neuropathic Rats. [41:132-142](#).
- Chen Y-W, Tzeng J-I, Huang P-C, Hung C-H, Shao D-Z, Wang J-J. Therapeutic Ultrasound Suppresses Neuropathic Pain and Upregulation of Substance P and Neurokinin-1 Receptor in Rats after Peripheral Nerve Injury. [41:143-150](#).
- Kwekkeboom RFJ, Lei Z, Bogaards SJP, Aiazian E, Kamp O, Paulus WJ, Sluijter JPG, Musters RJP. Ultrasound and Microbubble-Induced Local Delivery of MicroRNA-Based Therapeutics. [41:163-176](#).
- Fischer S, Mueller W, Schulte M, Kiefer J, Hirche C, Heimer S, Köllensperger E, Germann G, Reichenberger MA. Multiple Extracorporeal Shock Wave Therapy Degrades Capsular Fibrosis after Insertion of Silicone Implants. [41:781-789](#).
- Lee J-H, Kim S-G. Effects of Extracorporeal Shock Wave Therapy on Functional Recovery and Neurotrophin-3 Expression in the Spinal Cord after Crushed Sciatic Nerve Injury in Rats. [41:790-796](#).
- Rossato DD, Lago PD, Hentschke VS, Rucatti AL, Signori LU, Silveira MN, Méa Plentz RD. Ultrasound Modulates Skeletal Muscle Cytokine Levels in Rats with Heart Failure. [41:797-805](#).
- Wood AKW, Sehgal CM. A Review of Low-Intensity Ultrasound for Cancer Therapy. [41:905-928](#).
- Jung YJ, Kim R, Ham H-J, Park SI, Lee MY, Kim J, Hwang J, Park M-S, Yoo S-S, Maeng L-S, Chang W, Chung Y-A. Focused Low-Intensity Pulsed Ultrasound Enhances Bone Regeneration in Rat Calvarial Bone Defect through Enhancement of Cell Proliferation. [41:999-1007](#).
- Muleki Seya P, Fouqueray M, Ngo J, Poizat A, Inserra C, Béra J-C. Sonoporation of Adherent Cells under Regulated Ultrasound Cavitation Conditions. [41:1008-1019](#).
- Kim NK, Kim CY, Choi MJ, Park SR, Choi BH. Effects of Low-Intensity Ultrasound on Oxidative Damage in Retinal Pigment Epithelial Cells in vitro. [41:1363-1371](#).
- Chiu C-Y, Tsai T-L, Vanderby Jr R, Bradica G, Lou S-L, Li W-J. Osteoblastogenesis of Mesenchymal Stem Cells in 3-D Culture Enhanced by Low-Intensity Pulsed Ultrasound through Soluble Receptor Activator of Nuclear Factor Kappa B Ligand. [41:1842-1852](#).
- Miller DL, Dou C, Lu X, Zhu YI, Fabiilli ML, Owens GE, Kripfgans OD. Use of Theranostic Strategies in Myocardial Cavitation-Enabled Therapy. [41:1865-1875](#).
- Delalande A, Leduc C, Midoux P, Postema M, Pichon C. Efficient Gene Delivery by Sonoporation Is Associated with Microbubble Entry into Cells and the Clathrin-Dependent Endocytosis Pathway. [41:1913-1926](#).
- Carugo D, Owen J, Crake C, Lee JY, Stride E. Biologically and Acoustically Compatible Chamber for Studying Ultrasound-Mediated Delivery of Therapeutic Compounds. [41:1927-1937](#).
- Gellhorn AC, Gillenwater C, Mourad PD. Intense Focused Ultrasound Stimulation of the Rotator Cuff: Evaluation of the Source of Pain in Rotator Cuff Tears and Tendinopathy. [41:2412-2419](#).
- Shamout FE, Pouliopoulos AN, Lee P, Bonaccorsi S, Towhidi L, Krams R, Choi JJ. Enhancement of Non-Invasive Trans-Membrane Drug Delivery Using Ultrasound and Microbubbles During Physiologically Relevant Flow. [41:2435-2448](#).

Cohen G, Natsheh H, Sunny Y, Bawiec CR, Toutou E, Lerman MA, Lazarovici P, Lewin PA. Enhanced Therapeutic Anti-Inflammatory Effect of Betamethasone on Topical Administration with Low-Frequency, Low-Intensity (20 kHz, 100 mW/cm²) Ultrasound Exposure on Carrageenan-Induced Arthritis in a Mouse Model. [41:2449-2457](#).

Endo S, Kudo N, Yamaguchi S, Sumiyoshi K, Motegi H, Kobayashi H, Terasaka S, Houkin K. Porphyrin Derivatives-Mediated Sonodynamic Therapy for Malignant Gliomas In Vitro. [41:2458-2465](#).

Wang G, Zhuo Z, Yang B, Wu S, Xu Y, Liu Z, Tan K, Xia H, Wang X, Zou L, Gan L, Gao Y. Enhanced Homing Ability and Retention of Bone Marrow Stromal Cells to Diabetic Nephropathy by Microbubble-Mediated Diagnostic Ultrasound Irradiation. [41:2977-2989](#).

Thermal effects

Synonyms: ultrasound heating, tissue heating

Scopus Search: "Thermal effects" OR heating

See also: **high intensity focused ultrasound, therapeutic effects**

Guntur SR, Choi MJ. Influence of Temperature-Dependent Thermal Parameters on Temperature Elevation of Tissue Exposed to High-Intensity Focused Ultrasound: Numerical Simulation. [41:806-813](#).

Vlaisavljevich E, Xu Z, Arvidson A, Jin L, Roberts W, Cain C. Effects of Thermal Preconditioning on Tissue Susceptibility to Histotripsy. [41:2938-2954](#).

Thrombolysis

Synonyms: sonothrombolysis, recanalisation, clot busting

Scopus Search: Thromb* OR sonothrombolysis OR stroke OR clot OR recanalisation

Bader KB, Gruber MJ, Holland CK. Shaken and Stirred: Mechanisms of Ultrasound-Enhanced Thrombolysis. [41:187-196](#).

Pacella JJ, Brands J, Schnatz FG, Black JJ, Chen X, Villanueva FS. Treatment of Microvascular Micro-embolization Using Microbubbles and Long-Tone-Burst Ultrasound: An in Vivo Study. [41:456-464](#).

Fang J, Chen C-K, Peng J-Y, Hsu C-H, Jeng Y-M, Lee Y-H, Lin J-J, Tsui P-H. Changes in Backscattered Ultrasonic Envelope Statistics as a Function of Thrombus Age: An in Vitro Study. [41:498-508](#).

Zhang X, Miller RM, Lin K-W, Levin AM, Owens GE, Gurm HS, Cain CA, Xu Z. Real-Time Feedback of Histotripsy Thrombolysis Using Bubble-Induced Color Doppler. [41:1386-1401](#).

Petit B, Bohren Y, Gaud E, Bussat P, Arditì M, Yan F, Tranquart F, Allémann E. Sonothrombolysis: The Contribution of Stable and Inertial Cavitation to Clot Lysis. [41:1402-1410](#).

Acconcia C, Leung BYC, Manjunath A, Goertz DE. The Effect of Short Duration Ultrasound Pulses on the Interaction Between Individual Microbubbles and Fibrin Clots. [41:2774-2782](#).

Roessler FC, Wang Z, Schumacher S, Ohlrich M, Kaps M, Menciassi A, Eggers J. In Vitro Examination of the Thrombolytic Efficacy of Desmoteplase and Therapeutic Ultrasound Compared with rt-PA. [41:3233-3240](#).

Thyroid

Synonyms: Thyroid gland

Scopus Search: Thyroid* OR goitre

Li T, Zhou P, Zhang X, Ding M, Yuchi M, Li Y. Diagnosis of Thyroid Nodules Using Virtual Touch Tissue Quantification Value and Anteroposterior/Transverse Diameter Ratio. [41:384-392](#).

Sultan LR, Xiong H, Zafar HM, Schultz SM, Langer JE, Sehgal CM. Vascularity Assessment of Thyroid Nodules by Quantitative Color Doppler Ultrasound. [41:1287-1293](#).

Lee YJ, Kim DW, Park HK, Kim DH, Jung SJ, Oh M, Bae SK. Pre-operative Ultrasound Diagnosis of Nodal Metastasis in Papillary Thyroid Carcinoma Patients According to Nodal Compartment. [41:1294-1300](#).

Fukuhara T, Matsuda E, Endo Y, Takenobu M, Izawa S, Fujiwara K, Kitano H. Correlation between Quantitative Shear Wave Elastography and Pathologic Structures of Thyroid Lesions. [41:2326-2332](#).

Kim M-H, Luo S, Ko SH, Bae J-S, Lim J, Lim D-J, Kim Y. Thyroid Nodule Parameters Influencing Performance of Ultrasound Elastography Using Intrinsic Compression. [41:2333-2339](#).

Zhang Y-F, Xu H-X, Xu J-M, Liu C, Guo L-H, Liu L-N, Zhang J, Xu X-H, Qu S, Xing M. Acoustic Radiation Force Impulse Elastography in the Diagnosis of Thyroid Nodules: Useful or Not Useful? [41:2581-2593](#).

Kim DW. Ultrasonographic Features of the Major Salivary Glands after Radioactive Iodine Ablation in Patients with Papillary Thyroid Carcinoma. [41:2640-2645](#).

Park KN, Kang KY, Hong HS, Jeong H-S, Lee SW. Predictive Value of Estimated Tumor Volume Measured by Ultrasonography for Occult Central Lymph Node Metastasis in Papillary Thyroid Carcinoma. [41:2849-2854](#).

Azizi G, Keller JM, Mayo ML, Piper K, Puett D, Earp KM, Malchoff CD. Thyroid Nodules and Shear Wave Elastography: A New Tool in Thyroid Cancer Detection. [41:2855-2865](#).

Li Y, Wang Y, Wu Q, Hu B. Transforming Growth Factor β 1 Could Influence Thyroid Nodule Elasticity and Also Improve Cervical Lymph Node Metastasis in Papillary Thyroid Carcinoma. [41:2866-2872](#).

Yoon JH, Shin HJ, Kim E-K, Moon HJ, Roh YH, Kwak JY. Quantitative Evaluation of Vascularity Using 2-D Power Doppler Ultrasonography May Not Identify Malignancy of the Thyroid. *41:2873-2883*.

Yang Z, Zhang H, Wang K, Cui G, Fu F. Assessment of Diffuse Thyroid Disease by Strain Ratio in Ultrasound Elastography. *41:2884-2889*.

Liu B-J, Li D-D, Xu H-X, Guo L-H, Zhang Y-F, Xu J-M, Liu C, Liu L-N, Li X-L, Xu X-H, Qu S, Xing M. Quantitative Shear Wave Velocity Measurement on Acoustic Radiation Force Impulse Elastography for Differential Diagnosis between Benign and Malignant Thyroid Nodules: A Meta-analysis. *41:3035-3043*.

Li W-B, Zhang B, Zhu Q-L, Jiang Y-X, Sun J, Yang M, Li J-C. Comparison between Thin-Slice 3-D Volumetric Ultrasound and Conventional Ultrasound in the Differentiation of Benign and Malignant Thyroid Lesions. *41:3096-3101*.

Zhao R-N, Zhang B, Yang X, Jiang Y-X, Lai X-J, Zhang X-Y. Logistic Regression Analysis of Contrast-Enhanced Ultrasound and Conventional Ultrasound Characteristics of Sub-centimeter Thyroid Nodules. *41:3102-3108*.

Tissue characterization

Synonyms: tissue identification, tissue differentiation, histoscanning

Scopus Search: tissue AND characteri*ation OR identification OR differentiation OR histoscanning
Shankar PM. Statistics of Boundaries in Ultrasonic B-Scan Images. *41:268-280*.

Fang J, Chen C-K, Peng J-Y, Hsu C-H, Jeng Y-M, Lee Y-H, Lin J-J, Tsui P-H. Changes in Backscattered Ultrasonic Envelope Statistics as a Function of Thrombus Age: An in Vitro Study. *41:498-508*.

Zhu Y, Dong C, Yin Y, Chen X, Guo Y, Zheng Y, Shen Y, Wang T, Zhang X, Chen S. The Role of Viscosity Estimation for Oil-in-gelatin Phantom in Shear Wave Based Ultrasound Elastography. *41:601-609*.

Czernuszewicz TJ, Homeister JW, Caughey MC, Farber MA, Fulton JJ, Ford PF, Marston WA, Vallabhaneni R, Nichols TC, Gallippi CM. Non-invasive in Vivo Characterization of Human Carotid Plaques with Acoustic Radiation Force Impulse Ultrasound: Comparison with Histology after Endarterectomy. *41:685-697*.

Liu F, Yong Q, Zhang Q, Liu P, Yang Y. Real-Time Tissue Elastography for the Detection of Vulnerable Carotid Plaques in Patients Undergoing Endarterectomy: A Pilot Study. *41:705-712*.

Urbanczyk CA, Palmeri ML, Bass CR. Material Characterization of in Vivo and in Vitro Porcine Brain Using Shear Wave Elasticity. *41:713-723*.

Piotrkowska-Wroblewska H, Litniewski J, Szymanska E, Nowicki A. Quantitative Sonography of Basal Cell Carcinoma. *41:748-759*.

Nahiyan A, Hasan MK. Hybrid Algorithm for Elastography to Visualize Both Solid and Fluid-Filled Lesions. *41:1058-1078*.

Zhang X, Yin Y, Guo Y, Fan N, Lin H, Liu F, Diao X, Dong C, Chen X, Wang T, Chen S. Measurement of Quantitative Viscoelasticity of Bovine Corneas Based on Lamb Wave Dispersion Properties. *41:1461-1472*.

Xu G, Fowlkes JB, Tao C, Liu X, Wang X. Photoacoustic Spectrum Analysis for Microstructure Characterization in Biological Tissue: Analytical Model. *41:1473-1480*.

Parker KJ, Partin A, Rubens DJ. What Do We Know About Shear Wave Dispersion in Normal and Steatotic Livers? *41:1481-1487*.

Cortes DH, Suydam SM, Silbernagel KG, Buchanan TS, Elliott DM. Continuous Shear Wave Elastography: A New Method to Measure Viscoelastic Properties of Tendons in Vivo. *41:1518-1529*.

Tsui P-H, Wan Y-L, Tai D-I, Shu Y-C. Effects of Estimators on Ultrasound Nakagami Imaging in Visualizing the Change in the Backscattered Statistics from a Rayleigh Distribution to a Pre-Rayleigh Distribution. *41:2240-2251*.

Garcia-Duitama J, Chayer B, Han A, Garcia D, Oelze ML, Cloutier G. Experimental Application of Ultrafast Imaging to Spectral Tissue Characterization. *41:2506-2519*.

Molinari F, Caresio C, Acharya UR, Mookiah MRK, Minetto MA. Advances in Quantitative Muscle Ultrasonography Using Texture Analysis of Ultrasound Images. *41:2520-2532*.

Tissue Elasticity

Synonyms: Young's modulus, elastic modulus, stiffness

Scopus Search: Tissue AND Elasticity OR "Young's modulus" OR "elastic modulus" OR elasticity OR compliance OR stiffness

See also: tissue characterization, elastography

Tissue Engineering

Synonyms: tissue synthesis, remodelling, prostheses

Scopus Search: Tissue AND Engineer*

Louw TM, Subramanian A, Viljoen HJ. Theoretical Evaluation of the Acoustic Field in an Ultrasonic Bioreactor. *41:1766-1778*.

Transcranial ultrasound

Synonyms: TCS, TCD

Scopus Search: Transcranial OR TCD OR skull

See also: Doppler

Zhang Y, Aubry J-F, Zhang J, Wang Y, Roy J, Mata JF, Miller W, Dumont E, Xie M, Lee K, Zuo Z, Wintermark M. Defining the Optimal Age for Focal Lesioning in a Rat Model of Transcranial HIFU. *41:449-455*.

- Wu C-T, Han K, Guo Z-N, Yang Y, Gao Y-S, Bai J, Xing Y-Q. Effects of Patient Position on Right-to-Left Shunt Detection by Contrast Transcranial Doppler. [41:654-658](#).
- Pavlovic AM, Stevic Z, Pekmezovic T, Mijajlovic M, Jovanovic Z, Lavrnjic D. Increased Frequency of Pathologic Findings on Transcranial B-Mode Parenchymal Sonography in Patients with Sporadic Amyotrophic Lateral Sclerosis. [41:982-988](#).
- López-Hernández N, García-Escrivá A, Ballenilla F, Gallego-Leon JI. Hemodynamic Effects of Proximal Supra-aortic Artery Stenosis on Anterior Cerebral Artery. [41:1488-1492](#).
- Bazan R, Braga GP, Luvizutto GJ, Hueb JC, Hokama NK, Zanati Bazan SG, de Carvalho Nunes HR, Leite JP, Pontes-Neto OM. Evaluation of the Temporal Acoustic Window for Transcranial Doppler in a Multi-Ethnic Population in Brazil. [41:2131-2134](#).
- Han K, Xing Y, Yang Y, Chao AC, Sheng W-Y, Hu H-H, Wu J. Body Positions in the Diagnosis of Right-to-Left Shunt by Contrast Transcranial Doppler. [41:2376-2381](#).
- U**
- Ultrasound guided surgery**
Synonyms: intraoperative imaging, ultrasonic guidance, image guided surgery
Scopus Search: "Ultraso* guid* surgery" OR "ultraso* treatment monitoring" OR "intraoperative imaging" OR "image*guid*" OR "intraoperative guid*"
 Rivaz H, Collins DL. Near Real-Time Robust Non-rigid Registration of Volumetric Ultrasound Images for Neurosurgery. [41:574-587](#).
- Youk JH, Kim H, Kim E-k, Son EJ, Kim MJ, Kim J-A. Phyllodes Tumor Diagnosed after Ultrasound-Guided Vacuum-Assisted Excision: Should It Be Followed by Surgical Excision? [41:741-747](#).
- Liu Y, Zhou H, Chen C, Cui C, Liu X, Liu Q, Ye M, Wang J. Assessment of the Safety and Efficacy of Bedside Ultrasound Guidance for Inferior Vena Cava Filter Placement in Critically Ill Intensive Care Unit Patients. [41:929-935](#).
- Tuckett AZ, Zakrzewski JL, Li D, van den Brink MRM, Thornton RH. Free-hand Ultrasound Guidance Permits Safe and Efficient Minimally Invasive Intrathymic Injections in Both Young and Aged Mice. [41:1105-1111](#).
- Zhou Z-f, Xia C-z, Wu M, Yu L-n, Yan G-z, Ren Q-s, Hu C-x, Yan M. Comparison of Three Methods for the Confirmation of Laryngeal Mask Airway Placement in Female Patients Undergoing Gynecologic Surgery. [41:1212-1220](#).
- Beigi P, Rohling R, Salcudean T, Lessoway VA, Ng GC. Needle Trajectory and Tip Localization in Real-Time 3-D Ultrasound Using a Moving Stylus. [41:2057-2070](#).
- Rafii-Tari H, Lessoway VA, Kamani AA, Abolmaesumi P, Rohling R. Panorama Ultrasound for Navigation and Guidance of Epidural Anesthesia. [41:2220-2231](#).
- Zhang T-T, Luo H-C, Cui X, Zhang W, Zhang L-Y, Chen X-P, Li K-Y. Ultrasound-Guided Percutaneous Microwave Ablation Treatment of Initial Recurrent Hepatocellular Carcinoma after Hepatic Resection: Long-Term Outcomes. [41:2391-2399](#).
- Du J, Li H-L, Zhai B, Chang S, Li F-H. Radiofrequency Ablation for Hepatocellular Carcinoma: Utility of Conventional Ultrasound and Contrast-Enhanced Ultrasound in Guiding and Assessing Early Therapeutic Response and Short-Term Follow-Up Results. [41:2400-2411](#).
- Najafi M, Abolmaesumi P, Rohling R. Single-Camera Closed-Form Real-Time Needle Tracking for Ultrasound-Guided Needle Insertion. [41:2663-2676](#).
- Yu S, Tan KK, Sng BL, Li S, Sia ATH. Lumbar Ultrasound Image Feature Extraction and Classification with Support Vector Machine. [41:2677-2689](#).
- Koh J, Jung DC, Oh YT, Yoo MG, Noh S, Han KH, Rha K-H, Choi YD, Hong SJ. Additional Targeted Biopsy in Clinically Suspected Prostate Cancer: Prospective Randomized Comparison between Contrast-Enhanced Ultrasound and Sonoelastography Guidance. [41:2836-2841](#).
- De Luca V, Székely G, Tanner C. Estimation of Large-Scale Organ Motion in B-Mode Ultrasound Image Sequences: A Survey. [41:3044-3062](#).
- Uterus**
Synonyms: womb
Scopus Search: Uter* OR Cervi* OR Womb
 See also: **obstetrics**
- Zhao W-P, Chen J-Y, Chen W-Z. Effect of Biological Characteristics of Different Types of Uterine Fibroids, as Assessed with T2-Weighted Magnetic Resonance Imaging, on Ultrasound-Guided High-Intensity Focused Ultrasound Ablation. [41:423-431](#).
- Han X-S, Ning C-P, Sun L-T, Li X-Y, Peng Y-Q, Dang M-Z. Three-Dimensional Transvaginal Tomographic Ultrasound Imaging for Cervical Cancer Staging. [41:2303-2309](#).
- McFarlin BL, Balash J, Kumar V, Bigelow TA, Pombar X, Abramowicz JS, O'Brien Jr WD. Development of an Ultrasonic Method to Detect Cervical Remodeling in Vivo in Full-Term Pregnant Women. [41:2533-2539](#).
- Polanski LT, Baumgarten MN, Brosens JJ, Quenby SM, Campbell BK, Martins WP, Raine-Fenning NJ. 4-D Assessment of Endometrial Vascularity Using Spatiotemporal Image Correlation: A Study Comparing Spherical Sampling and Whole-Tissue Analysis. [41:2798-2805](#).

Ultrafast imaging

Synonyms: high speed, plane wave

Scopus Search: ultrafast OR ultra-fast

Garcia-Duitama J, Chayer B, Han A, Garcia D, Oelze ML, Cloutier G. Experimental Application of Ultrafast Imaging to Spectral Tissue Characterization. [41:2506-2519](#).

Leow CH, Bazigou E, Eckersley RJ, Yu ACH, Weinberg PD, Tang M-X. Flow Velocity Mapping Using Contrast Enhanced High-Frame-Rate Plane Wave Ultrasound and Image Tracking: Methods and Initial in Vitro and in Vivo Evaluation. [41:2913-2925](#).

Leow CH, Iori F, Corbett R, Duncan N, Caro C, Vincent P, Tang M-X. Microbubble Void Imaging: A Non-invasive Technique for Flow Visualisation and Quantification of Mixing in Large Vessels Using Plane Wave Ultrasound and Controlled Microbubble Contrast Agent Destruction. [41:2926-2937](#).

V**Velocity**

Synonyms: speed of sound, acoustic velocity

Scopus Search: velocity OR speed OR “phase velocity” OR “group velocity” OR “transmission measurements”

See also: **tissue characterisation**

Jaeger M, Held G, Peeters S, Preisser S, Grünig M, Frenz M. Computed Ultrasound Tomography in Echo Mode for Imaging Speed of Sound Using Pulse-Echo Sonography: Proof of Principle. [41:235-250](#).

Rajagopal S, Sadhoo N, Zeqiri B. Reference Characterisation of Sound Speed and Attenuation of the IEC Agar-Based Tissue-Mimicking Material Up to a Frequency of 60 MHz. [41:317-333](#).