

● Subject Index to Volume 42

For a version of the subject index with embedded hyperlinks,
please see <http://www.umbjournal.org/content/indices>

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

Chen R, Wu X, Jin H, Wang B, Ma M, Zhao B. Assessment of
Left Atrial Appendage Morphology and Function in Patients
with Non-valvular Paroxysmal Atrial Fibrillation with
Different Rhythms Using Real-Time 3D Transesophageal
Echocardiography. [42:118-124](#).

Nillesen MM, van Dijk APJ, Duijnhouwer AL, Thijssen JM, de
Korte CL. Automated Assessment of Right Ventricular
Volumes and Function Using Three-Dimensional
Transesophageal Echocardiography. [42:596-606](#).

Milne ML, Singh GK, Miller JG, Wallace KD, Holland MR.
Toward 3-D Echocardiographic Determination of Regional
Myofiber Structure. [42:607-618](#).

Passmore E, Pandey MG, Graham HK, Sangeux M. Measuring
Femoral Torsion In Vivo Using Freehand 3-D Ultrasound
Imaging. [42:619-623](#).

Wang H-Y, Jiang Y-X, Zhu Q-L, Zhang J, Xiao M-S, Liu H, Dai
Q, Li J-C, Sun Q. Automated Breast Volume Scanning:
Identifying 3-D Coronal Plane Imaging Features May Help
Categorize Complex Cysts. [42:689-698](#).

Jiang W-W, Li C, Li A-H, Zheng Y-P. Clinical Evaluation of a 3-
D Automatic Annotation Method for Breast Ultrasound
Imaging. [42:870-881](#).

Li Z, Tian J, Wang X, Wang Y, Wang Z, Zhang L, Jing H, Wu T.
Differences in Multi-Modal Ultrasound Imaging between
Triple Negative and Non-Triple Negative Breast Cancer.
[42:882-890](#).

Kishimoto J, Fenster A, Lee DSC, de Ribaupierre S. In Vivo
Validation of a 3-D Ultrasound System for Imaging the
Lateral Ventricles of Neonates. [42:971-979](#).

Zhu M, Ashraf M, Tam L, Streiff C, Kimura S, Shimada E, Sahn
DJ. Quantification of Shunt Volume Through Ventricular
Septal Defect by Real-Time 3-D Color Doppler
Echocardiography: An in Vitro Study. [42:1193-1200](#).

Lo C-M, Chan S-W, Yang Y-W, Chang Y-C, Huang C-S, Jou
Y-S, Chang R-F. Feasibility Testing: Three-dimensional
Tumor Mapping in Different Orientations of Automated
Breast Ultrasound. [42:1201-1210](#).

Chen J-H, Lee Y-W, Chan S-W, Yeh D-C, Chang R-F. Breast
Density Analysis with Automated Whole-Breast Ultrasound:
Comparison with 3-D Magnetic Resonance Imaging.
[42:1211-1220](#).

van den Hoorn W, Coppieters MW, van Dieën JH, Hodges PW.
Development and Validation of a Method to Measure
Lumbosacral Motion Using Ultrasound Imaging.
[42:1221-1229](#).

Palmeri ML, Glass TJ, Miller ZA, Rosenzweig SJ, Buck A,
Polascik TJ, Gupta RT, Brown AF, Madden J, Nightingale
KR. Identifying Clinically Significant Prostate Cancers
using 3-D In Vivo Acoustic Radiation Force Impulse
Imaging with Whole-Mount Histology Validation.
[42:1251-1262](#).

Buisman WJ, Mauritz FA, Westerhuis WE, Gilja OH, van der
Zee DC, van Herwaarden-Lindeboom MYA. Evaluation of
Gastric Volumes: Comparison of 3-D Ultrasound and
Magnetic Resonance Imaging. [42:1423-1430](#).

Wang Q, Li M, Lou EHM, Chu WCW, Lam T-p, Cheng JCY,
Wong M-s. Validity Study of Vertebral Rotation
Measurement Using 3-D Ultrasound in Adolescent Idiopathic
Scoliosis. [42:1473-1481](#).

Li K, Su Z, Xu E, Guan P, Li L-J, Zheng R. Computer-Assisted
Hepatocellular Carcinoma Ablation Planning Based on 3-D
Ultrasound Imaging. [42:1951-1957](#).

Punithakumar K, Hareendranathan AR, McNulty A, Biamonte
M, He A, Noga M, Boulanger P, Becher H. Multiview 3-D
Echocardiography Fusion with Breath-Hold Position
Tracking Using an Optical Tracking System. [42:1998-2009](#).

Brekken R, Iversen DH, Tangen GA, Dahl T. Registration of
Real-Time 3-D Ultrasound to Tomographic Images of the
Abdominal Aorta. [42:2026-2032](#).

Larson ED, Lee W-M, Roubidoux MA, Goodsitt MM,
Lashbrook C, Zafar F, Kripfgans OD, Thomenius K, Carson
PL. Automated Breast Ultrasound: Dual-Sided Compared
with Single-Sided Imaging. [42:2072-2082](#).

Xu C, Wei S, Xie Y, Guan X, Yang B. Three-Dimensional
Assessment of Automated Breast Volume Scanner Compared
with Handheld Ultrasound in Pre-Operative Breast Invasive
Ductal Carcinomas: A Pilot Study of 51 Cases. [42:2089-2096](#).

Diederichs C, Heath A, Hareendranathan AR, Zonoobi D,
Kuntze G, Dulai S, Mabee MG, Ronsky JL, Jaremko JL.
Cross-Modality Validation of Acetabular Surface Models
Using 3-D Ultrasound Versus Magnetic Resonance
Imaging in Normal and Dysplastic Infant Hips.
[42:2308-2314](#).

Wang Z, Challoo R, Peng H, Leung CS, Witte RS. Complementary Detection of Multiple Electrical Sources in Tissue Using Acoustoelectric Effects. [42:2323-2333](#).

Holländer B, Hendriks GAGM, Mann RM, Hansen HHG, de Korte CL. Plane-Wave Compounding in Automated Breast Volume Scanning: A Phantom-Based Study. [42:2493-2503](#).

Oeri M, Bost W, Tretbar S, Fournelle M. Calibrated Linear Array-Driven Photoacoustic/Ultrasound Tomography. [42:2697-2707](#).

Stachs A, Pandjaitan A, Martin A, Stubert J, Hartmann S, Gerber B, Glass Ä. Accuracy of Tumor Sizing in Breast Cancer: A Comparison of Strain Elastography, 3-D Ultrasound and Conventional B-Mode Ultrasound with and without Compound Imaging. [42:2758-2765](#).

Soares CAM, Pavaz TZ, Miyague AH, Kudla M, Martins WP. Influence of Pulse Repetition Frequency on 3-D Power Doppler Quantification. [42:2887-2892](#).

4D

Synonyms: 4-D, four dimensional, four-dimensional, 4-dimensional

Scopus Search: 4D OR 4-D OR “four dimensional” OR four-dimensional OR 4-dimensional

Kudla MJ, Los A, Alcazar JL. Are Results of 4-D Ultrasound Angiography Examinations Dependent on the Doppler Technology Applied? Comparison of Results Obtained from an In Vivo Model. [42:447-450](#).

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

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

Wang Z, Liu N, Zhang L, Li X, Han X, Peng Y, Dang M, Sun L, Tian J. Real-Time Elastography Visualization and Histopathological Characterization of Rabbit Atherosclerotic Carotid Arteries. [42:176-184](#).

Cariás M, Hynynen K. Combined Therapeutic and Monitoring Ultrasonic Catheter for Cardiac Ablation Therapies. [42:196-207](#).

Jia L, Chen J, Wang Y, Zhang Y, Chen W. Focused Low-intensity Pulsed Ultrasound Affects Extracellular Matrix

Degradation via Decreasing Chondrocyte Apoptosis and Inflammatory Mediators in a Surgically Induced Osteoarthritic Rabbit Model. [42:208-219](#).

Lafond M, Mestas J-L, Prieur F, Chettab K, Geraci S, Clézardin P, Lafon C. Unseeded Inertial Cavitation for Enhancing the Delivery of Chemotherapies: A Safety Study. [42:220-231](#).

Hynes MB, Bujak MC, Chérin E, Sade S, Foster FS. Design of a Subtarsal Ultrasonic Transducer for Mild Hyperthermia Treatment of Dry Eye Disease. [42:232-242](#).

Sun Q-W, Zhen L, Wang Q, Sun Y, Yang J, Li Y-J, Li R-J, Ma N, Li Z-A, Wang L-Y, Nie S-P, Yang Y. Assessment of Retrograde Coronary Venous Infusion of Mesenchymal Stem Cells Combined with Basic Fibroblast Growth Factor in Canine Myocardial Infarction Using Strain Values Derived from Speckle-Tracking Echocardiography. [42:272-281](#).

Tang WB, Xu QH, Jiao ZY, Wu R, Song Q, Luo YK. Effect of Pressure on Liver Stiffness During the Development of Liver Fibrosis in Rabbits. [42:282-289](#).

Wang Q, Liu Z, Wang Y, Pan Q, Feng Q, Huang Q, Chen W. Quantitative Ultrasound Assessment of Cartilage Degeneration in Ovariectomized Rats with Low Estrogen Levels. [42:290-298](#).

Nguyen K-CT, Le LH, Kaipatur NR, Major PW. Imaging the Cemento-Enamel Junction Using a 20-MHz Ultrasonic Transducer. [42:333-338](#).

Barral M, Raballand A, Dohan A, Soyer P, Pocard M, Bonnin P. Preclinical Assessment of the Efficacy of Anti-Angiogenic Therapies in Hepatocellular Carcinoma. [42:438-446](#).

Kudla MJ, Los A, Alcazar JL. Are Results of 4-D Ultrasound Angiography Examinations Dependent on the Doppler Technology Applied? Comparison of Results Obtained from an In Vivo Model. [42:447-450](#).

Lee W, Lee SD, Park MY, Foley L, Purcell-Estabrook E, Kim H, Fischer K, Maeng L-S, Yoo S-S. Image-Guided Focused Ultrasound-Mediated Regional Brain Stimulation in Sheep. [42:459-470](#).

Kobus T, Vykhodtseva N, Pilatou M, Zhang Y, McDannold N. Safety Validation of Repeated Blood–Brain Barrier Disruption Using Focused Ultrasound. [42:481-492](#).

Kang KL, Kim E-C, Park JB, Heo JS, Choi Y. High-Frequency, Low-Intensity Pulsed Ultrasound Enhances Alveolar Bone Healing of Extraction Sockets in Rats: A Pilot Study. [42:493-502](#).

Haworth KJ, Raymond JL, Radhakrishnan K, Moody MR, Huang S-L, Peng T, Shekhar H, Klegerman ME, Kim H, McPherson DD, Holland CK. Trans-Stent B-Mode Ultrasound and Passive Cavitation Imaging. [42:518-527](#).

Wang G, Zhang Q, Zhuo Z, Wu S, Xu Y, Zou L, Gan L, Tan K, Xia H, Liu Z, Gao Y. Enhanced Homing of CXCR-4 Modified Bone Marrow–Derived Mesenchymal Stem Cells to Acute Kidney Injury Tissues by Micro-Bubble–Mediated Ultrasound Exposure. [42:539-548](#).

- Ren S-T, Shen S, He X-Y, Liao Y-R, Sun P-F, Wang B, Zhao W-B, Han S-P, Wang Y-L, Tian T. The Effect of Docetaxel-Loaded Micro-Bubbles Combined with Low-Frequency Ultrasound in H22 Hepatocellular Carcinoma-Bearing Mice. [42:549-560](#).
- Shelton SE, Lindsey BD, Tsuruta JK, Foster FS, Dayton PA. Molecular Acoustic Angiography: A New Technique for High-resolution Superharmonic Ultrasound Molecular Imaging. [42:769-781](#).
- Sheeran PS, Daghighi Y, Yoo K, Williams R, Cherin E, Foster FS, Burns PN. Image-Guided Ultrasound Characterization of Volatile Sub-Micron Phase-Shift Droplets in the 20–40 MHz Frequency Range. [42:795-807](#).
- Dahhas FY, El-Bialy T, Afify AR, Hassan AH. Effects of Low-Intensity Pulsed Ultrasound on Orthodontic Tooth Movement and Orthodontically Induced Inflammatory Root Resorption in Ovariectomized Osteoporotic Rats. [42:808-814](#).
- Chamming's F, Le-Frère-Belda M-A, Latorre-Ossa H, Fitoussi V, Redheuil A, Assayag F, Pidial L, Gennisson J-L, Tanter M, Cuénod C-A, Fournier LS. Supersonic Shear Wave Elastography of Response to Anti-cancer Therapy in a Xenograft Tumor Model. [42:924-930](#).
- Jeong H-S, Hwang H, Oh P-S, Kim E-M, Lee TK, Kim M, Kim HS, Lim ST, Sohn M-H, Jeong H-J. Effect of High-Intensity Focused Ultrasound on Drug Release from Doxorubicin-Loaded PEGylated Liposomes and Therapeutic Effect in Colorectal Cancer Murine Models. [42:947-955](#).
- Miller DL, Dou C, Dong Z, Raghavendran K. The Influence of Dexmedetomidine on Ultrasound-induced Pulmonary Capillary Hemorrhage in Rats. [42:964-970](#).
- Lenzarini F, Di Lascio N, Stea F, Kusmic C, Faita F. Time Course of Isoflurane-Induced Vasodilation: A Doppler Ultrasound Study of the Left Coronary Artery in Mice. [42:999-1009](#).
- Healey AJ, Sontum PC, Kvåle S, Eriksen M, Bendiksen R, Tornes A, Østensen J. Acoustic Cluster Therapy: In Vitro and Ex Vivo Measurement of Activated Bubble Size Distribution and Temporal Dynamics. [42:1145-1166](#).
- Oishi Y, Kakimoto T, Yuan W, Kuno S, Yamashita H, Chiba T. Fetal Gene Therapy for Ornithine Transcarbamylase Deficiency by Intrahepatic Plasmid DNA-Micro-Bubble Injection Combined with Hepatic Ultrasound Insonation. [42:1357-1361](#).
- Xie X, Lin W, Li M, Yang Y, Deng J, Liu H, Chen Y, Fu X, Liu H, Yang Y. Efficient siRNA Delivery Using Novel Cell-Penetrating Peptide-siRNA Conjugate-Loaded Nanobubbles and Ultrasound. [42:1362-1374](#).
- Swillens A, Shcherbakova D, Trachet B, Segers P. Pitfalls of Doppler Measurements for Arterial Blood Flow Quantification in Small Animal Research: A Study Based on Virtual Ultrasound Imaging. [42:1399-1411](#).
- Shen Y, Guo J, Chen G, Chin CT, Chen X, Chen J, Wang F, Chen S, Dan G. Delivery of Liposomes with Different Sizes to Mice Brain after Sonication by Focused Ultrasound in the Presence of Microbubbles. [42:1499-1511](#).
- Ye PP, Brown JR, Pauly KB. Frequency Dependence of Ultrasound Neurostimulation in the Mouse Brain. [42:1512-1530](#).
- Porter TR, Radio S, Lof J, Everbach C, Powers JE, Vignon F, Shi WT, Xie F. Diagnostic Ultrasound High Mechanical Index Impulses Restore Microvascular Flow in Peripheral Arterial Thromboembolism. [42:1531-1540](#).
- Lu X, Miller DL, Dou C, Zhu YI, Fabiilli ML, Owens GE, Kripfgans OD. Maturation of Lesions Induced by Myocardial Cavitation-Enabled Therapy. [42:1541-1550](#).
- Li C, Zhang C, Li J, Cao X, Song D. An Experimental Study of the Potential Biological Effects Associated with 2-D Shear Wave Elastography on the Neonatal Brain. [42:1551-1559](#).
- Zhang Q, Yu Z, Xu Y, Zeng S, Zhang Z, Xue W, Wang W, Zhang X, Hu X. Use of Contrast-Enhanced Ultrasonography to Evaluate Chronic Allograft Nephropathy in Rats and Correlations between Time-Intensity Curve Parameters and Allograft Fibrosis. [42:1574-1583](#).
- Wang D, Zong Y, Yang X, Hu H, Wan J, Zhang L, Bouakaz A, Wan M. Ultrasound Contrast Plane Wave Imaging Based on Bubble Wavelet Transform: In Vitro and In Vivo Validations. [42:1584-1597](#).
- Prieur F, Pillon A, Mestas J-L, Cartron V, Cèbe P, Chansard N, Lafond M, Lafon C. Enhancement of Fluorescent Probe Penetration into Tumors In Vivo Using Unseeded Inertial Cavitation. [42:1706-1713](#).
- Darvas F, Mehić E, Caler CJ, Ojemann JG, Mourad PD. Toward Deep Brain Monitoring with Superficial EEG Sensors Plus Neuromodulatory Focused Ultrasound. [42:1834-1847](#).
- Bessiere F, N'Djin WA, Colas EC, Chavier F, Greillier P, Chapelon JY, Chevalier P, Lafon C. Ultrasound-Guided Transesophageal High-Intensity Focused Ultrasound Cardiac Ablation in a Beating Heart: A Pilot Feasibility Study in Pigs. [42:1848-1861](#).
- Vlaisavljevich E, Greve J, Cheng X, Ives K, Shi J, Jin L, Arvidson A, Hall T, Welling TH, Owens G, Roberts W, Xu Z. Non-Invasive Ultrasound Liver Ablation Using Histotripsy: Chronic Study in an In Vivo Rodent Model. [42:1890-1902](#).
- Roos ST, Juffermans LJM, van Royen N, van Rossum AC, Xie F, Appelman Y, Porter TR, Kamp O. Unexpected High Incidence of Coronary Vasoconstriction in the Reduction of Microvascular Injury Using Sonolysis (ROMIUS) Trial. [42:1919-1928](#).
- Miller DL, Lu X, Fabiilli M, Fields K, Dou C. Frequency Dependence of Petechial Hemorrhage and Cardiomyocyte Injury Induced during Myocardial Contrast Echocardiography. [42:1929-1941](#).

- Miller DL, Dong Z, Dou C, Raghavendran K. Influence of Scan Duration on Pulmonary Capillary Hemorrhage Induced by Diagnostic Ultrasound. *42:1942-1950*.
- Pahk KJ, Mohammad GH, Malago M, Saffari N, Dhar DK. A Novel Approach to Ultrasound-Mediated Tissue Decellularization and Intra-Hepatic Cell Delivery in Rats. *42:1958-1967*.
- Liao A-H, Chung H-Y, Chen W-S, Yeh M-K. Efficacy of Combined Ultrasound-and-Microbubbles-Mediated Diclofenac Gel Delivery to Enhance Transdermal Permeation in Adjuvant-Induced Rheumatoid Arthritis in the Rat. *42:1976-1985*.
- Zhang Y, Tan H, Bertram EH, Aubry J-F, Lopes M-B, Roy J, Dumont E, Xie M, Zuo Z, Klibanov AL, Lee KS, Wintermark M. Non-Invasive, Focal Disconnection of Brain Circuitry Using Magnetic Resonance-Guided Low-Intensity Focused Ultrasound to Deliver a Neurotoxin. *42:2261-2269*.
- Olumolade OO, Wang S, Samiotaki G, Konofagou EE. Longitudinal Motor and Behavioral Assessment of Blood-Brain Barrier Opening with Transcranial Focused Ultrasound. *42:2270-2282*.
- Daeichin V, Kooiman K, Skachkov I, Bosch JG, Theelen TL, Steiger K, Needles A, Janssen BJ, Daemen MJAP, van der Steen AFW, de Jong N, Sluimer JC. Quantification of Endothelial $\alpha v\beta 3$ Expression with High-Frequency Ultrasound and Targeted Microbubbles: In Vitro and In Vivo Studies. *42:2283-2293*.
- Martin KH, Lindsey BD, Ma J, Nichols TC, Jiang X, Dayton PA. Ex Vivo Porcine Arterial and Chorioallantoic Membrane Acoustic Angiography Using Dual-Frequency Intravascular Ultrasound Probes. *42:2294-2307*.
- Grisey A, Heidmann M, Letort V, Lafitte P, Yon S. Influence of Skin and Subcutaneous Tissue on High-Intensity Focused Ultrasound Beam: Experimental Quantification and Numerical Modeling. *42:2457-2465*.
- Rubin JM, Horowitz JC, Sisson TH, Kim K, Ortiz LA, Hamilton JD. Ultrasound Strain Measurements for Evaluating Local Pulmonary Ventilation. *42:2525-2531*.
- Bhide A, Vuolteenaho O, Haapsamo M, Erkinaro T, Rasanen J, Acharya G. Effect of Hypoxemia with or without Increased Placental Vascular Resistance on Fetal Left and Right Ventricular Myocardial Performance Index in Chronically Instrumented Sheep. *42:2589-2598*.
- Lin M-X, Kuang M, Xu M, Zhuang B-W, Tian W-S, Ye J-Y, Xie X-H, Xie X-Y. Ultrasound and Contrast-Enhanced Ultrasound for Evaluation of Irreversible Electroporation Ablation: In Vivo Proof of Concept in Normal Porcine Liver. *42:2639-2649*.
- Keravnou CP, De Cock I, Lentacker I, Izamis M-L, Averkiou MA. Microvascular Injury and Perfusion Changes Induced by Ultrasound and Microbubbles in a Machine-Perfused Pig Liver. *42:2676-2686*.
- de Magalhães Gomes R, Soletti RC, Soldan M, Madi K, Foster FS, Machado JC. In Vivo Endoluminal Ultrasound Biomicroscopy and Endoscopy of Inflamed Rat Esophagus. *42:2687-2696*.
- Oeri M, Bost W, Tretbar S, Fournelle M. Calibrated Linear Array-Driven Photoacoustic/Ultrasound Tomography. *42:2697-2707*.
- Yamaguchi S, Aoyama T, Ito A, Nagai M, Iijima H, Tajino J, Zhang X, Wataru K, Kuroki H. Effect of Low-Intensity Pulsed Ultrasound after Mesenchymal Stromal Cell Injection to Treat Osteochondral Defects: An In Vivo Study. *42:2903-2913*.
- Wei S, Xu C, Rychak JJ, Luong A, Sun Y, Yang Z, Li M, Liu C, Fu N, Yang B. Short Hairpin RNA Knockdown of Connective Tissue Growth Factor by Ultrasound-Targeted Microbubble Destruction Improves Renal Fibrosis. *42:2926-2937*.
- Chongsatiantam A, Yimlamai T. Therapeutic Pulsed Ultrasound Promotes Revascularization and Functional Recovery of Rat Skeletal Muscle after Contusion Injury. *42:2938-2949*.
- Podkowa A, Miller RJ, Motl RW, Fish R, Oelze ML. Focused Ultrasound Treatment of Cervical Lymph Nodes in Rats with EAE: A Pilot Study. *42:2957-2964*.
- Putz R, Albers J, Kadow-Romacker A, Geissler S, Raum K. Influence of Donor Age and Stimulation Intensity on Osteogenic Differentiation of Rat Mesenchymal Stromal Cells in Response to Focused Low-Intensity Pulsed Ultrasound. *42:2965-2974*.
- Kraemer R, Sorg H, Forstmeier V, Knobloch K, Liadaki E, Stang FH, Mailaender P, Kisch T. Immediate Dose-Response Effect of High-Energy Versus Low-Energy Extracorporeal Shock Wave Therapy on Cutaneous Microcirculation. *42:2975-2982*.
- Chan KOW, Tong HHY, Ng GYF. Topical Fish Oil Application Coupling with Therapeutic Ultrasound Improves Tendon Healing. *42:2983-2989*.
- Jørgensen AS, Schmidt SE, Staalsen N-H, Østergaard LR. An Improved Algorithm for Coronary Bypass Anastomosis Segmentation in Epicardial Ultrasound Sequences. *42:3010-3021*.
- Crake C, Owen J, Smart S, Coviello C, Coussios C-C, Carlisle R, Stride E. Enhancement and Passive Acoustic Mapping of Cavitation from Fluorescently Tagged Magnetic Resonance-Visible Magnetic Microbubbles In Vivo. *42:3022-3036*.

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**

- Lechareas S, Yanni AE, Golemati S, Chatziioannou A, Perrea D. Ultrasound and Biochemical Diagnostic Tools for the Characterization of Vulnerable Carotid Atherosclerotic Plaque. *42:31-43*.
- Wang Z, Liu N, Zhang L, Li X, Han X, Peng Y, Dang M, Sun L, Tian J. Real-Time Elastography Visualization and Histopathological Characterization of Rabbit Atherosclerotic Carotid Arteries. *42:176-184*.
- Muraki M, Mikami T, Yoshimoto T, Fujimoto S, Kitaguchi M, Kaga S, Sugawara T, Tokuda K, Kaneko S, Kashiwaba T. Sonographic Detection of Abnormal Plaque Motion of the Carotid Artery: Its Usefulness in Diagnosing High-Risk Lesions Ranging from Plaque Rupture to Ulcer Formation. *42:358-364*.
- Huang C, Pan X, He Q, Huang M, Huang L, Zhao X, Yuan C, Bai J, Luo J. Ultrasound-Based Carotid Elastography for Detection of Vulnerable Atherosclerotic Plaques Validated by Magnetic Resonance Imaging. *42:365-377*.
- Steinbuch J, Hoeks APG, Hermeling E, Truijman MTB, Schreuder FHBM, Mess WH. Standard B-Mode Ultrasound Measures Local Carotid Artery Characteristics as Reliably as Radiofrequency Phase Tracking in Symptomatic Carotid Artery Patients. *42:586-595*.
- Xu C, Yuan C, Stutzman E, Canton G, Comess KA, Beach KW. Quest for the Vulnerable Atheroma: Carotid Stenosis and Diametric Strain—A Feasibility Study. *42:699-716*.
- Tacheau A, Le Floc'h S, Finet G, Doyley MM, Pettigrew RI, Cloutier G, Ohayon J. The Imaging Modulography Technique Revisited for High-Definition Intravascular Ultrasound: Theoretical Framework. *42:727-741*.
- Hansen KL, Møller-Sørensen H, Kjaergaard J, Jensen MB, Lund JT, Pedersen MM, Lange T, Jensen JA, Nielsen MB. Analysis of Systolic Backflow and Secondary Helical Blood Flow in the Ascending Aorta Using Vector Flow Imaging. *42:899-908*.
- Wang X, Jackson DC, Mitchell CC, Varghese T, Wilbrand SM, Rocque BG, Hermann BP, Dempsey RJ. Classification of Symptomatic and Asymptomatic Patients with and without Cognitive Decline Using Non-invasive Carotid Plaque Strain Indices as Biomarkers. *42:909-918*.
- Morreale M, Mulè G, Ferrante A, D'Ignoto F, Cottone S. Association of Renal Resistive Index with Markers of Extrarenal Vascular Changes in Patients with Systemic Lupus Erythematosus. *42:1103-1110*.
- Huntzicker S, Shekhar H, Doyley MM. Contrast-Enhanced Quantitative Intravascular Elastography: The Impact of Microvasculature on Model-Based Elastography. *42:1167-1181*.
- Ding X, Nguyen MM, James IB, Marra KG, Rubin JP, Leers SA, Kim K. Improved Estimation of Ultrasound Thermal Strain Using Pulse Inversion Harmonic Imaging. *42:1182-1192*.
- Meiburger KM, Molinari F, Wong J, Aguilar L, Gallo D, Steinman DA, Morbiducci U. Validation of the Carotid Intima–Media Thickness Variability: Can Manual Segmentations Be Trusted as Ground Truth? *42:1598-1611*.
- Daeichin V, Wu M, De Jong N, van der Steen AFW, van Soest G. Frequency Analysis of the Photoacoustic Signal Generated by Coronary Atherosclerotic Plaque. *42:2017-2025*.
- Tat J, Psaromiligkos IN, Daskalopoulou SS. Carotid Atherosclerotic Plaque Alters the Direction of Longitudinal Motion in the Artery Wall. *42:2114-2122*.
- Daeichin V, Kooiman K, Skachkov I, Bosch JG, Theelen TL, Steiger K, Needles A, Janssen BJ, Daemen MJAP, van der Steen AFW, de Jong N, Sluimer JC. Quantification of Endothelial $\alpha v\beta 3$ Expression with High-Frequency Ultrasound and Targeted Microbubbles: In Vitro and In Vivo Studies. *42:2283-2293*.
- Martin KH, Lindsey BD, Ma J, Nichols TC, Jiang X, Dayton PA. Ex Vivo Porcine Arterial and Chorioallantoic Membrane Acoustic Angiography Using Dual-Frequency Intravascular Ultrasound Probes. *42:2294-2307*.
- Widman E, Maksuti E, Amador C, Urban MW, Caidahl K, Larsson M. Shear Wave Elastography Quantifies Stiffness in Ex Vivo Porcine Artery with Stiffened Arterial Region. *42:2423-2435*.

B**Bacteria***Synonyms:* biofilms, infection*Scopus Search:* Bacteria* OR biofilm OR bio-film OR infectio*

Liu X, Yin H, Weng C-X, Cai Y. Low-Frequency Ultrasound Enhances Antimicrobial Activity of Colistin–Vancomycin Combination against Pan-Resistant Biofilm of *Acinetobacter baumannii*. *42:1968-1975*.

Qi X, Zhao Y, Zhang J, Han D, Chen C, Huang Y, Chen X, Zhang X, Wang T, Li X. Increased Effects of Extracorporeal Shock Waves Combined with Gentamicin against *Staphylococcus aureus* Biofilms In Vitro and In Vivo. *42:2245-2252*.

Biological effects*Synonyms:* Bioeffects, Biochemical effect*Scopus Search:* Bioeffect* OR Bio-effect* OR “Bio effect”*See also:* **therapeutic effects of ultrasound, thermal effects**

Carstensen EL, Parker KJ, Dalecki D, Hocking DC. Biological Effects of Low-Frequency Shear Strain: Physical Descriptors. *42:1-15*.

Harris GR, Church CC, Dalecki D, Ziskin MC, Bagley JE. Comparison of Thermal Safety Practice Guidelines for Diagnostic Ultrasound Exposures. *42:345-357*.

- Kobus T, Vykhodtseva N, Pilatou M, Zhang Y, McDannold N. Safety Validation of Repeated Blood–Brain Barrier Disruption Using Focused Ultrasound. *42:481-492*.
- Miller DL, Dou C, Dong Z, Raghavendran K. The Influence of Dexmedetomidine on Ultrasound-induced Pulmonary Capillary Hemorrhage in Rats. *42:964-970*.
- Schneider ME, Lombardo P. Brain Surface Heating After Exposure to Ultrasound: An Analysis Using Thermography. *42:1138-1144*.
- Church CC, Miller DL. A Two-Criterion Model for Microvascular Bio-Effects Induced In Vivo by Contrast Microbubbles Exposed to Medical Ultrasound. *42:1385-1398*.
- Li C, Zhang C, Li J, Cao X, Song D. An Experimental Study of the Potential Biological Effects Associated with 2-D Shear Wave Elastography on the Neonatal Brain. *42:1551-1559*.
- Azagury A, Amar-Lewis E, Yudilevitch Y, Isaacson C, Laster B, Kost J. Ultrasound Effect on Cancerous versus Non-Cancerous Cells. *42:1560-1567*.
- Roos ST, Juffermans LJM, van Royen N, van Rossum AC, Xie F, Appelman Y, Porter TR, Kamp O. Unexpected High Incidence of Coronary Vasoconstriction in the Reduction of Microvascular Injury Using Sonolysis (ROMIUS) Trial. *42:1919-1928*.
- Miller DL, Lu X, Fabiilli M, Fields K, Dou C. Frequency Dependence of Petechial Hemorrhage and Cardiomyocyte Injury Induced during Myocardial Contrast Echocardiography. *42:1929-1941*.
- Miller DL, Dong Z, Dou C, Raghavendran K. Influence of Scan Duration on Pulmonary Capillary Hemorrhage Induced by Diagnostic Ultrasound. *42:1942-1950*.
- Olumolade OO, Wang S, Samiotaki G, Konofagou EE. Longitudinal Motor and Behavioral Assessment of Blood–Brain Barrier Opening with Transcranial Focused Ultrasound. *42:2270-2282*.
- Keravnou CP, De Cock I, Lentacker I, Izamis M-L, Averkiou MA. Microvascular Injury and Perfusion Changes Induced by Ultrasound and Microbubbles in a Machine-Perfused Pig Liver. *42:2676-2686*.
- Miller DL. Mechanisms for Induction of Pulmonary Capillary Hemorrhage by Diagnostic Ultrasound: Review and Consideration of Acoustical Radiation Surface Pressure. *42:2743-2757*.
- Bailey NW, Lewis PM, Thomson RHS, Maller JJ, Junor P, Fitzgerald PB. Does Exposure to Diagnostic Ultrasound Modulate Human Nerve Responses to Magnetic Stimulation? *42:2950-2956*.
- Blood flow**
Synonyms: haemodynamics, venous reflux
Scopus Search: “Blood flow” OR “h*emodynamic*(s)” OR “venous reflux” OR “flow index”
- See also: Doppler*
- Zhou Y, Hua Y, Jia L, Wang L, Liu B, Duan C, Jiao L. Evaluation of Interventional Therapy for Patients with Intracranial Vertebral Artery Stenosis by Transcranial Color-Coded Sonography. *42:44-50*.
- Hou Y, Sun D-D, Yuan L-J, Zhu X-Y, Shang F-J, Hou C-J, Duan Y-Y. Clinical Application of Superior Vena Cava Spectra in Evaluation of Pulmonary Hypertension: A Comparative Echocardiography and Catheterization Study. *42:110-117*.
- Maconi G, Asthana AK, Bolzacchini E, Dell’Era A, Furfaro F, Bezzio C, Salvatore V, Maier JAM. Splanchnic Hemodynamics and Intestinal Vascularity in Crohn’s Disease: An In Vivo Evaluation Using Doppler and Contrast-Enhanced Ultrasound and Biochemical Parameters. *42:150-158*.
- Shen Q, Li J, Zheng D, Lv L, Yang G, He Q. Doppler Characteristics of Caverosal–Spongiosal Communications in Patients with Erectile Dysfunction. *42:159-166*.
- Tang WB, Xu QH, Jiao ZY, Wu R, Song Q, Luo YK. Effect of Pressure on Liver Stiffness During the Development of Liver Fibrosis in Rabbits. *42:282-289*.
- Xu C, Yuan C, Stutzman E, Canton G, Comess KA, Beach KW. Quest for the Vulnerable Atheroma: Carotid Stenosis and Diametric Strain—A Feasibility Study. *42:699-716*.
- Gao M, Zhao X, Tao Y, Wang L, Xia M, Tong Z, Hou C, Hua Y. Incidence and Predictors of In-stent Re-Stenosis in the Superficial Femoral Artery: Evaluation of Long-Term Outcomes by Color Duplex Ultrasound. *42:717-726*.
- Atri M, Hudson JM, Sinaei M, Williams R, Milot L, Moshonov H, Burns PN, Bjarnason GA. Impact of Acquisition Method and Region of Interest Placement on Inter-observer Agreement and Measurement of Tumor Response to Targeted Therapy Using Dynamic Contrast-Enhanced Ultrasound. *42:763-768*.
- Zhou X, Xia C, Khan F, Corner GA, Huang Z, Hoskins PR. Investigation of Ultrasound-Measured Flow Rate and Wall Shear Rate in Wrist Arteries Using Flow Phantoms. *42:815-823*.
- Hansen KL, Møller-Sørensen H, Kjaergaard J, Jensen MB, Lund JT, Pedersen MM, Lange T, Jensen JA, Nielsen MB. Analysis of Systolic Backflow and Secondary Helical Blood Flow in the Ascending Aorta Using Vector Flow Imaging. *42:899-908*.
- Morreale M, Mulè G, Ferrante A, D’Ignoto F, Cottone S. Association of Renal Resistive Index with Markers of Extrarenal Vascular Changes in Patients with Systemic Lupus Erythematosus. *42:1103-1110*.
- Hong-xia Z, Wen H, Ling-gang C, Wen-jia C, Shuo L, Li-juan D, Hai-man S, Yang Z. A New Method for Discriminating between Bronchial and Pulmonary Arterial Phases using Contrast-Enhanced Ultrasound. *42:1441-1449*.

- Wang Y, Ma R, Ding G, Hou D, Li Z, Yin L, Zhang M. Left Ventricular Energy Loss Assessed by Vector Flow Mapping in Patients with Prediabetes and Type 2 Diabetes Mellitus. [42:1730-1740](#).
- Sisini F, Tessari M, Menegatti E, Vannini ME, Giancesini S, Tavoni V, Gadda G, Gambaccini M, Taibi A, Zamboni P. Clinical Applicability of Assessment of Jugular Flow over the Individual Cardiac Cycle Compared with Current Ultrasound Methodology. [42:1750-1763](#).
- Nakamura K, Qian K, Ando T, Inokuchi R, Doi K, Kobayashi E, Sakuma I, Nakajima S, Yahagi N. Cardiac Variation of Internal Jugular Vein for the Evaluation of Hemodynamics. [42:1764-1770](#).
- Ying M, Cheng SCH, Ahuja AT. Diagnostic Accuracy of Computer-Aided Assessment of Intranodal Vascularity in Distinguishing Different Causes of Cervical Lymphadenopathy. [42:2010-2016](#).
- D'Abate F, Ramachandran V, Young MA, Farrah J, Ahmed MH, Jones K, Hinchliffe RJ. B-Flow Imaging in Lower Limb Peripheral Arterial Disease and Bypass Graft Ultrasonography. [42:2345-2351](#).
- Hansen KL, Møller-Sørensen H, Kjaergaard J, Jensen MB, Lund JT, Pedersen MM, Lange T, Jensen JA, Nielsen MB. Intra-Operative Vector Flow Imaging Using Ultrasound of the Ascending Aorta among 40 Patients with Normal, Stenotic and Replaced Aortic Valves. [42:2414-2422](#).
- Bhide A, Vuolteenaho O, Haapsamo M, Erkinaro T, Rasanen J, Acharya G. Effect of Hypoxemia with or without Increased Placental Vascular Resistance on Fetal Left and Right Ventricular Myocardial Performance Index in Chronically Instrumented Sheep. [42:2589-2598](#).
- Nestaas E, Støylen A, Fugelseth D. Speckle Tracking Using Gray-Scale Information from Tissue Doppler Recordings versus Regular Gray-Scale Recordings in Term Neonates. [42:2599-2605](#).
- Bilotta F, Robba C, Santoro A, Delfini R, Rosa G, Agati L. Contrast-Enhanced Ultrasound Imaging in Detection of Changes in Cerebral Perfusion. [42:2708-2716](#).
- Yeh S-J, Tang S-C, Tsai L-K, Chen Y-F, Liu H-M, Chen Y-A, Hsieh Y-L, Yang S-H, Tien Y-H, Yang C-C, Kuo M-F, Jeng J-S. Ultrasonographic Changes after Indirect Revascularization Surgery in Pediatric Patients with Moyamoya Disease. [42:2844-2851](#).
- Soares CAM, Pavaz TZ, Miyague AH, Kudla M, Martins WP. Influence of Pulse Repetition Frequency on 3-D Power Doppler Quantification. [42:2887-2892](#).
- Kraemer R, Sorg H, Forstmeier V, Knobloch K, Liodaki E, Stang FH, Mailaender P, Kisch T. Immediate Dose-Response Effect of High-Energy Versus Low-Energy Extracorporeal Shock Wave Therapy on Cutaneous Microcirculation. [42:2975-2982](#).
- Blood vessel**
Synonyms: artery, vein, capillary, vascular
Scopus Search: "blood vessel" OR artery OR vein OR capillary OR vascular
- Geijer JR, Evanoff NG, Kelly AS, Chernin MA, Stoltman MG, Dengel DR. Reproducibility of Brachial Vascular Changes with Alterations in End-Tidal Carbon Dioxide. [42:1450-1456](#).
- Keravnou CP, De Cock I, Lentacker I, Izamis M-L, Averkiou MA. Microvascular Injury and Perfusion Changes Induced by Ultrasound and Microbubbles in a Machine-Perfused Pig Liver. [42:2676-2686](#).
- Hedman K, Nylander E, Henriksson J, Bjarnegård N, Brudin L, Tamás É. Echocardiographic Characterization of the Inferior Vena Cava in Trained and Untrained Females. [42:2794-2802](#).
- Martí-Fàbregas J, Figueroa S, Martínez-Lizana E, Zubizarreta I, Carrera D, Martínez-Domeño A, Prats-Sánchez L, Camps-Renom P, Jiménez-Xarrié E, Delgado-Mederos R. Total Cerebral Blood Flow in Patients with Cardioembolic Stroke: Is It Clinically Meaningful? [42:2826-2833](#).
- Bone**
Synonyms: osteo-
Scopus Search: bone OR trabecular OR cortical OR osteo*
- Jia L, Chen J, Wang Y, Zhang Y, Chen W. Focused Low-intensity Pulsed Ultrasound Affects Extracellular Matrix Degradation via Decreasing Chondrocyte Apoptosis and Inflammatory Mediators in a Surgically Induced Osteoarthritic Rabbit Model. [42:208-219](#).
- Kang KL, Kim E-C, Park JB, Heo JS, Choi Y. High-Frequency, Low-Intensity Pulsed Ultrasound Enhances Alveolar Bone Healing of Extraction Sockets in Rats: A Pilot Study. [42:493-502](#).
- Zhai L, Sun N, Zhang B, Liu S-T, Zhao Z, Jin H-C, Ma X-L, Xing G-Y. Effects of Focused Extracorporeal Shock Waves on Bone Marrow Mesenchymal Stem Cells in Patients with Avascular Necrosis of the Femoral Head. [42:753-762](#).
- Rovella MS, Martins GLP, Cavalcanti CFA, Bor-Seng-Shu E, Camargo OP, Cerri GG, Menezes MR. Magnetic Resonance-Guided High-Intensity Focused Ultrasound Ablation of Osteoid Osteoma: A Case Series Report. [42:919-923](#).
- Casciaro S, Peccarisi M, Pisani P, Franchini R, Greco A, De Marco T, Grimaldi A, Quarta L, Quarta E, Muratore M, Conversano F. An Advanced Quantitative Echosound Methodology for Femoral Neck Densitometry. [42:1337-1356](#).
- Baptista F, Rebocho LM, Cardadeiro G, Zymbal V, Rosati N. Sex- and Maturity-Related Differences in Cortical Bone at the Distal Radius and Midshaft Tibia Evaluated by Quantitative Ultrasonography. [42:2043-2049](#).

- Mortazavi SMJ, Mortazavi G, Paknahad M. Letter to the Editor regarding “High-Frequency, Low-Intensity Pulsed Ultrasound Enhances Alveolar Bone Healing of Extraction Sockets in Rats: A Pilot Study”. *42:2518*.
- Kang KL. Reply to a Letter to the Editor regarding “High-Frequency, Low-Intensity Pulsed Ultrasound Enhances Alveolar Bone Healing of Extraction Sockets in Rats: A Pilot Study”. *42:2518-2519*.
- Yamaguchi S, Aoyama T, Ito A, Nagai M, Iijima H, Tajino J, Zhang X, Wataru K, Kuroki H. Effect of Low-Intensity Pulsed Ultrasound after Mesenchymal Stromal Cell Injection to Treat Osteochondral Defects: An In Vivo Study. *42:2903-2913*.
- Puts R, Albers J, Kadow-Romacker A, Geissler S, Raum K. Influence of Donor Age and Stimulation Intensity on Osteogenic Differentiation of Rat Mesenchymal Stromal Cells in Response to Focused Low-Intensity Pulsed Ultrasound. *42:2965-2974*.
- Book review**
- Tranquart F. Radiosensitizers and Radiochemotherapy in the Treatment of Cancer. *42:631*.
- Brain**
- Synonyms:** cerebral, cerebrovascular, cerebrum
Scopus Search: Brain OR cerebr* OR neurosurgery
- Sakalauskas A, Laučkaitė K, Lukoševičius A, Rastenytė D. Computer-Aided Segmentation of the Mid-Brain in Transcranial Ultrasound Images. *42:322-332*.
- Lee W, Lee SD, Park MY, Foley L, Purcell-Estabrook E, Kim H, Fischer K, Maeng L-S, Yoo S-S. Image-Guided Focused Ultrasound-Mediated Regional Brain Stimulation in Sheep. *42:459-470*.
- Kobus T, Vykhodtseva N, Pilatou M, Zhang Y, McDannold N. Safety Validation of Repeated Blood–Brain Barrier Disruption Using Focused Ultrasound. *42:481-492*.
- Kishimoto J, Fenster A, Lee DSC, de Ribaupierre S. In Vivo Validation of a 3-D Ultrasound System for Imaging the Lateral Ventricles of Neonates. *42:971-979*.
- Schneider ME, Lombardo P. Brain Surface Heating After Exposure to Ultrasound: An Analysis Using Thermography. *42:1138-1144*.
- Shen Y, Guo J, Chen G, Chin CT, Chen X, Chen J, Wang F, Chen S, Dan G. Delivery of Liposomes with Different Sizes to Mice Brain after Sonication by Focused Ultrasound in the Presence of Microbubbles. *42:1499-1511*.
- Ye PP, Brown JR, Pauly KB. Frequency Dependence of Ultrasound Neurostimulation in the Mouse Brain. *42:1512-1530*.
- Li C, Zhang C, Li J, Cao X, Song D. An Experimental Study of the Potential Biological Effects Associated with 2-D Shear Wave Elastography on the Neonatal Brain. *42:1551-1559*.
- Darvas F, Mehić E, Caler CJ, Ojemann JG, Mourad PD. Toward Deep Brain Monitoring with Superficial EEG Sensors Plus Neuromodulatory Focused Ultrasound. *42:1834-1847*.
- Zhang Y, Tan H, Bertram EH, Aubry J-F, Lopes M-B, Roy J, Dumont E, Xie M, Zuo Z, Klivanov AL, Lee KS, Wintermark M. Non-Invasive, Focal Disconnection of Brain Circuitry Using Magnetic Resonance-Guided Low-Intensity Focused Ultrasound to Deliver a Neurotoxin. *42:2261-2269*.
- Olumolade OO, Wang S, Samiotaki G, Konofagou EE. Longitudinal Motor and Behavioral Assessment of Blood–Brain Barrier Opening with Transcranial Focused Ultrasound. *42:2270-2282*.
- Bilotta F, Robba C, Santoro A, Delfini R, Rosa G, Agati L. Contrast-Enhanced Ultrasound Imaging in Detection of Changes in Cerebral Perfusion. *42:2708-2716*.
- Breast**
- Synonyms:** mammary glands
Scopus Search: Breast OR Mamm*
- Mele D, Malagutti P, Indelli M, Ferrari L, Casadei F, Da Ros L, Pollina A, Fiorencis A, Frassoldati A, Ferrari R. Reversibility of Left Ventricle Longitudinal Strain Alterations Induced by Adjuvant Therapy in Early Breast Cancer Patients. *42:125-132*.
- Wang H-Y, Jiang Y-X, Zhu Q-L, Zhang J, Xiao M-S, Liu H, Dai Q, Li J-C, Sun Q. Automated Breast Volume Scanning: Identifying 3-D Coronal Plane Imaging Features May Help Categorize Complex Cysts. *42:689-698*.
- Liu B, Zheng Y, Huang G, Lin M, Shan Q, Lu Y, Tian W, Xie X. Breast Lesions: Quantitative Diagnosis Using Ultrasound Shear Wave Elastography - A Systematic Review and Meta-Analysis. *42:835-847*.
- Jiang W-W, Li C, Li A-H, Zheng Y-P. Clinical Evaluation of a 3-D Automatic Annotation Method for Breast Ultrasound Imaging. *42:870-881*.
- Li Z, Tian J, Wang X, Wang Y, Wang Z, Zhang L, Jing H, Wu T. Differences in Multi-Modal Ultrasound Imaging between Triple Negative and Non-Triple Negative Breast Cancer. *42:882-890*.
- Chamming's F, Le-Frère-Belda M-A, Latorre-Ossa H, Fitoussi V, Redheuil A, Assayag F, Pidial L, Gennisson J-L, Tanter M, Cuénod C-A, Fournier LS. Supersonic Shear Wave Elastography of Response to Anti-cancer Therapy in a Xenograft Tumor Model. *42:924-930*.
- Shan J, Alam SK, Garra B, Zhang Y, Ahmed T. Computer-Aided Diagnosis for Breast Ultrasound Using Computerized BI-RADS Features and Machine Learning Methods. *42:980-988*.
- Masumoto N, Kadoya T, Amioka A, Kajitani K, Shigematsu H, Emi A, Matsuura K, Arihiro K, Okada M. Evaluation of Malignancy Grade of Breast Cancer Using Perflubutane-Enhanced Ultrasonography. *42:1049-1057*.

- Lo C-M, Chan S-W, Yang Y-W, Chang Y-C, Huang C-S, Jou Y-S, Chang R-F. Feasibility Testing: Three-dimensional Tumor Mapping in Different Orientations of Automated Breast Ultrasound. *42:1201-1210*.
- Chen J-H, Lee Y-W, Chan S-W, Yeh D-C, Chang R-F. Breast Density Analysis with Automated Whole-Breast Ultrasound: Comparison with 3-D Magnetic Resonance Imaging. *42:1211-1220*.
- Kim S-Y, Kim E-K, Moon HJ, Yoon JH, Kim MJ. Is Pre-Operative Axillary Staging with Ultrasound and Ultrasound-Guided Fine-Needle Aspiration Reliable in Invasive Lobular Carcinoma of the Breast? *42:1263-1272*.
- Ahn HS, Jang M, Kim SM, Yun BL, Kim S-W, Kang EY, Park SY. Diagnosis of Columnar Cell Lesions and Atypical Ductal Hyperplasia by Ultrasound-Guided Core Biopsy: Findings Associated with Underestimation of Breast Carcinoma. *42:1457-1463*.
- Zhou J, Yang Z, Zhan W, Zhang J, Hu N, Dong Y, Wang Y. Breast Lesions Evaluated by Color-Coded Acoustic Radiation Force Impulse (ARFI) Imaging. *42:1464-1472*.
- Gómez-Flores W, Ruiz-Ortega BA. New Fully Automated Method for Segmentation of Breast Lesions on Ultrasound Based on Texture Analysis. *42:1637-1650*.
- Yoon JH, Song MK, Kim E-K. Semi-Quantitative Strain Ratio in the Differential Diagnosis of Breast Masses: Measurements Using One Region-of-Interest. *42:1800-1806*.
- Li X-L, Xu H-X, Bo X-W, Liu B-J, Huang X, Li D-D, Guo L-H, Xu J-M, Sun L-P, Fang L, Xu X-H. Value of Virtual Touch Tissue Imaging Quantification for Evaluation of Ultrasound Breast Imaging-Reporting and Data System Category 4 Lesions. *42:2050-2057*.
- Tsai W-C, Wei H-K, Hung C-F, Kwang-Jane Lin C, Hung-Chun Cheng S, Chen C-M, Wang YA. Better Overall Survival for Breast Cancer Patients by Adding Breast Ultrasound to Follow-Up Examinations for Early Detection of Locoregional Recurrence—A Survival Impact Study. *42:2058-2064*.
- Zou X, Wang J, Lan X, Lin Q, Han F, Liu L, Li A. Assessment of Diagnostic Accuracy and Efficiency of Categories 4 and 5 of the Second Edition of the BI-RADS Ultrasound Lexicon in Diagnosing Breast Lesions. *42:2065-2071*.
- Larson ED, Lee W-M, Roubidoux MA, Goodsitt MM, Lashbrook C, Zafar F, Kripfgans OD, Thomenius K, Carson PL. Automated Breast Ultrasound: Dual-Sided Compared with Single-Sided Imaging. *42:2072-2082*.
- Youk JH, Jung I, Yoon JH, Kim SH, Kim YM, Lee EH, Jeong SH, Kim MJ. Comparison of Inter-Observer Variability and Diagnostic Performance of the Fifth Edition of BI-RADS for Breast Ultrasound of Static versus Video Images. *42:2083-2088*.
- Xu C, Wei S, Xie Y, Guan X, Yang B. Three-Dimensional Assessment of Automated Breast Volume Scanner Compared with Handheld Ultrasound in Pre-Operative Breast Invasive Ductal Carcinomas: A Pilot Study of 51 Cases. *42:2089-2096*.
- Yongfeng Z, Ping Z, Wengang L, Yang S, Shuangming T. Application of a Novel Microvascular Imaging Technique in Breast Lesion Evaluation. *42:2097-2105*.
- Park VY, Kim E-K, Kim MJ, Yoon JH, Moon HJ. Mammographically Occult Asymptomatic Radial Scars/Complex Sclerosing Lesions at Ultrasonography-Guided Core Needle Biopsy: Follow-Up Can Be Recommended. *42:2367-2371*.
- Zhou J, Yang Z, Zhan W, Dong Y, Zhou C. Anisotropic Properties of Breast Tissue Measured by Acoustic Radiation Force Impulse Quantification. *42:2372-2382*.
- Holländer B, Hendriks GAGM, Mann RM, Hansen HHG, de Korte CL. Plane-Wave Compounding in Automated Breast Volume Scanning: A Phantom-Based Study. *42:2493-2503*.
- Hou X-Y, Niu H-Y, Huang X-L, Gao Y. Correlation of Breast Ultrasound Classifications with Breast Cancer in Chinese Women. *42:2616-2621*.
- Schwab F, Redling K, Siebert M, Schötzau A, Schoenenberger C-A, Zanetti-Dällenbach R. Inter- and Intra-Observer Agreement in Ultrasound BI-RADS Classification and Real-Time Elastography Tsukuba Score Assessment of Breast Lesions. *42:2622-2629*.
- Xiao X, Dong L, Jiang Q, Guan X, Wu H, Luo B. Incorporating Contrast-Enhanced Ultrasound into the BI-RADS Scoring System Improves Accuracy in Breast Tumor Diagnosis: A Preliminary Study in China. *42:2630-2638*.
- Stachs A, Pandjaitan A, Martin A, Stubert J, Hartmann S, Gerber B, Glass Ä. Accuracy of Tumor Sizing in Breast Cancer: A Comparison of Strain Elastography, 3-D Ultrasound and Conventional B-Mode Ultrasound with and without Compound Imaging. *42:2758-2765*.
- Kim S-Y, Lee HS, Kim E-K, Kim MJ, Moon HJ, Yoon JH. Effect of Background Parenchymal Enhancement on Pre-operative Breast Magnetic Resonance Imaging: How It Affects Interpretation and the Role of Second-Look Ultrasound in Patient Management. *42:2766-2774*.

C

Calibration

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

Scopus Search: calibration OR standard* OR metrology OR quality assurance

See also: **dosimetry, instrumentation**

Costa RM, Alvarenga AV, Costa-Felix RPB, Omena TP, von Krüger MA, Pereira WCA. Thermochromic Phantom and Measurement Protocol for Qualitative Analysis of Ultrasound Physiotherapy Systems. *42:299-307*.

Hsiao Y-S, Deng CX. Calibration and Evaluation of Ultrasound Thermography Using Infrared Imaging. *42:503-517*.

Zhou X, Xia C, Khan F, Corner GA, Huang Z, Hoskins PR. Investigation of Ultrasound-Measured Flow Rate and Wall Shear Rate in Wrist Arteries Using Flow Phantoms. *42:815-823*.

Oeri M, Bost W, Tretbar S, Fournelle M. Calibrated Linear Array-Driven Photoacoustic/Ultrasound Tomography. *42:2697-2707*.

Jørgensen AS, Schmidt SE, Staalsen N-H, Østergaard LR. An Improved Algorithm for Coronary Bypass Anastomosis Segmentation in Epicardial Ultrasound Sequences. *42:3010-3021*.

Cancer

Synonyms: tumor

Scopus Search: cancer*

Chiorean L, Barr RG, Braden B, Jenssen C, Cui X-W, Hocke M, Schuler A, Dietrich CF. Transcutaneous Ultrasound: Elastographic Lymph Node Evaluation. Current Clinical Applications and Literature Review. *42:16-30*.

Koh J, Moon HJ, Park JS, Kim SJ, Kim HY, Kim E-K, Kwak JY. Variability in Interpretation of Ultrasound Elastography and Gray-Scale Ultrasound in Assessing Thyroid Nodules. *42:51-59*.

English C, Casey R, Bell M, Bergin D, Murphy J. The Sonographic Features of the Thyroid Gland After Treatment with Radioiodine Therapy in Patients with Graves' Disease. *42:60-67*.

Du J, Bai X, Lu Y, Wang H, Zhao J, Liu J, Wang H, Sui X, Fang Q. Diagnostic Efficacy of Ultrasonographic Characteristics of Thyroid Carcinoma in Predicting Cervical Lymph Node Metastasis. *42:68-74*.

Lai X-J, Zhang B, Jiang Y-X, Li J-C, Zhao R-N, Yang X, Zhang Q, Zhang X-Y, Li W-B, Zhu S-L. High Risk of Lateral Nodal Metastasis in Lateral Solitary Solid Papillary Thyroid Cancer. *42:75-81*.

Yang W, Yan K, Wang S, Dai Y, Wu W, Yin S-S, Chen M-H. Differential Diagnosis of Arterial Phase Enhanced Hepatic Inflammatory Lesions and Hepatocellular Carcinomas with Contrast-enhanced Ultrasound. *42:82-91*.

Mele D, Malagutti P, Indelli M, Ferrari L, Casadei F, Da Ros L, Pollina A, Fiorencis A, Frassoldati A, Ferrari R. Reversibility of Left Ventricle Longitudinal Strain Alterations Induced by Adjuvant Therapy in Early Breast Cancer Patients. *42:125-132*.

Lafond M, Mestas J-L, Prieur F, Chettab K, Geraci S, Clézardin P, Lafon C. Unseeded Inertial Cavitation for Enhancing the Delivery of Chemotherapies: A Safety Study. *42:220-231*.

Cheng KL, Choi YJ, Shim WH, Lee JH, Baek JH. Virtual Touch Tissue Imaging Quantification Shear Wave Elastography: Prospective Assessment of Cervical Lymph Nodes. *42:378-386*.

Desmots F, Fakhry N, Mancini J, Reyre A, Vidal V, Jacquier A, Santini L, Moulin G, Varoquaux A. Shear Wave Elastography in Head and Neck Lymph Node Assessment: Image Quality and Diagnostic Impact Compared with B-Mode and Doppler Ultrasonography. *42:387-398*.

Park VY, Kim E-K, Kwak JY, Yoon JH, Kim MJ, Moon HJ. Thyroid Imaging Reporting and Data System and Ultrasound Elastography: Diagnostic Accuracy as a Tool in Recommending Repeat Fine-Needle Aspiration for Solid Thyroid Nodules with Non-Diagnostic Fine-Needle Aspiration Cytology. *42:399-406*.

Barral M, Raballand A, Dohan A, Soyer P, Pocard M, Bonnin P. Preclinical Assessment of the Efficacy of Anti-Angiogenic Therapies in Hepatocellular Carcinoma. *42:438-446*.

Ren S-T, Shen S, He X-Y, Liao Y-R, Sun P-F, Wang B, Zhao W-B, Han S-P, Wang Y-L, Tian T. The Effect of Docetaxel-Loaded Micro-Bubbles Combined with Low-Frequency Ultrasound in H22 Hepatocellular Carcinoma-Bearing Mice. *42:549-560*.

Wang H-Y, Jiang Y-X, Zhu Q-L, Zhang J, Xiao M-S, Liu H, Dai Q, Li J-C, Sun Q. Automated Breast Volume Scanning: Identifying 3-D Coronal Plane Imaging Features May Help Categorize Complex Cysts. *42:689-698*.

Aramendía-Vidaurreta V, Cabeza R, Villanueva A, Navallas J, Alcázar JL. Ultrasound Image Discrimination between Benign and Malignant Adnexal Masses Based on a Neural Network Approach. *42:742-752*.

Atri M, Hudson JM, Sinaei M, Williams R, Milot L, Moshonov H, Burns PN, Bjarnason GA. Impact of Acquisition Method and Region of Interest Placement on Inter-observer Agreement and Measurement of Tumor Response to Targeted Therapy Using Dynamic Contrast-Enhanced Ultrasound. *42:763-768*.

Liu B, Zheng Y, Huang G, Lin M, Shan Q, Lu Y, Tian W, Xie X. Breast Lesions: Quantitative Diagnosis Using Ultrasound Shear Wave Elastography - A Systematic Review and Meta-Analysis. *42:835-847*.

Jiang W-W, Li C, Li A-H, Zheng Y-P. Clinical Evaluation of a 3-D Automatic Annotation Method for Breast Ultrasound Imaging. *42:870-881*.

Li Z, Tian J, Wang X, Wang Y, Wang Z, Zhang L, Jing H, Wu T. Differences in Multi-Modal Ultrasound Imaging between Triple Negative and Non-Triple Negative Breast Cancer. *42:882-890*.

Wang Y, Yan K, Fan Z, Sun L, Wu W, Yang W. Contrast-Enhanced Ultrasonography of Pancreatic Carcinoma: Correlation with Pathologic Findings. *42:891-898*.

Chamming's F, Le-Frère-Belda M-A, Latorre-Ossa H, Fitoussi V, Redheuil A, Assayag F, Pidial L, Gennisson J-L, Tanter M, Cuénod C-A, Fournier LS. Supersonic Shear Wave Elastography of Response to Anti-cancer Therapy in a Xenograft Tumor Model. *42:924-930*.

- Jeong H-S, Hwang H, Oh P-S, Kim E-M, Lee TK, Kim M, Kim HS, Lim ST, Sohn M-H, Jeong H-J. Effect of High-Intensity Focused Ultrasound on Drug Release from Doxorubicin-Loaded PEGylated Liposomes and Therapeutic Effect in Colorectal Cancer Murine Models. [42:947-955](#).
- Shan J, Alam SK, Garra B, Zhang Y, Ahmed T. Computer-Aided Diagnosis for Breast Ultrasound Using Computerized BI-RADS Features and Machine Learning Methods. [42:980-988](#).
- Wang Y, Liao J, Qi W, Xie L, Li Y. Predictive Value of Conventional Ultrasound and Contrast-Enhanced Ultrasound in Early Recurrence of Hepatocellular Carcinoma after Surgical Resection. [42:1042-1048](#).
- Masumoto N, Kadoya T, Amioka A, Kajitani K, Shigematsu H, Emi A, Matsuura K, Arihiro K, Okada M. Evaluation of Malignancy Grade of Breast Cancer Using Perflubutane-Enhanced Ultrasonography. [42:1049-1057](#).
- Kim GR, Kim E-K, Kwak JY, Yoon JH, Moon HJ. Association between Bethesda Categories and Ultrasound Features of Conventional Papillary Thyroid Carcinoma. [42:1066-1074](#).
- Lo C-M, Chan S-W, Yang Y-W, Chang Y-C, Huang C-S, Jou Y-S, Chang R-F. Feasibility Testing: Three-dimensional Tumor Mapping in Different Orientations of Automated Breast Ultrasound. [42:1201-1210](#).
- Palmeri ML, Glass TJ, Miller ZA, Rosenzweig SJ, Buck A, Polascik TJ, Gupta RT, Brown AF, Madden J, Nightingale KR. Identifying Clinically Significant Prostate Cancers using 3-D In Vivo Acoustic Radiation Force Impulse Imaging with Whole-Mount Histology Validation. [42:1251-1262](#).
- Kim S-Y, Kim E-K, Moon HJ, Yoon JH, Kim MJ. Is Pre-Operative Axillary Staging with Ultrasound and Ultrasound-Guided Fine-Needle Aspiration Reliable in Invasive Lobular Carcinoma of the Breast? [42:1263-1272](#).
- Azizi G, Keller JM, Mayo ML, Piper K, Puett D, Earp KM, Malchoff CD. Shear Wave Elastography and Cervical Lymph Nodes: Predicting Malignancy. [42:1273-1281](#).
- Lo GM, Al Zahrani H, Jang HJ, Menezes R, Hudson J, Burns P, McNamara MG, Kandel S, Khalili K, Knox J, Rogalla P, Kim TK. Detection of Early Tumor Response to Axitinib in Advanced Hepatocellular Carcinoma by Dynamic Contrast Enhanced Ultrasound. [42:1303-1311](#).
- Yan C, Bao X, Shentu W, Chen J, Liu C, Ye Q, Wang L, Tan Y, Huang P. Preoperative Gross Classification of Gastric Adenocarcinoma: Comparison of Double Contrast-Enhanced Ultrasound and Multi-Detector Row CT. [42:1431-1440](#).
- Hong-xia Z, Wen H, Ling-gang C, Wen-jia C, Shuo L, Li-juan D, Hai-man S, Yang Z. A New Method for Discriminating between Bronchial and Pulmonary Arterial Phases using Contrast-Enhanced Ultrasound. [42:1441-1449](#).
- Ahn HS, Jang M, Kim SM, Yun BL, Kim S-W, Kang EY, Park SY. Diagnosis of Columnar Cell Lesions and Atypical Ductal Hyperplasia by Ultrasound-Guided Core Biopsy: Findings Associated with Underestimation of Breast Carcinoma. [42:1457-1463](#).
- Zhou J, Yang Z, Zhan W, Zhang J, Hu N, Dong Y, Wang Y. Breast Lesions Evaluated by Color-Coded Acoustic Radiation Force Impulse (ARFI) Imaging. [42:1464-1472](#).
- Azagury A, Amar-Lewis E, Yudilevitch Y, Isaacson C, Laster B, Kost J. Ultrasound Effect on Cancerous versus Non-Cancerous Cells. [42:1560-1567](#).
- Gómez-Flores W, Ruiz-Ortega BA. New Fully Automated Method for Segmentation of Breast Lesions on Ultrasound Based on Texture Analysis. [42:1637-1650](#).
- Bhatia KSS, Lam ACL, Pang SWA, Wang D, Ahuja AT. Feasibility Study of Texture Analysis Using Ultrasound Shear Wave Elastography to Predict Malignancy in Thyroid Nodules. [42:1671-1680](#).
- Abhilash RH, Chauhan S, Che MV, Ooi C-C, Bakar RA, Lo RHG. Quantitative Study on the Effect of Abnormalities on Respiration-Induced Kidney Movement. [42:1681-1688](#).
- Prieur F, Pillon A, Mestas J-L, Cartron V, Cèbe P, Chansard N, Lafond M, Lafon C. Enhancement of Fluorescent Probe Penetration into Tumors In Vivo Using Unseeded Inertial Cavitation. [42:1706-1713](#).
- Yoon JH, Song MK, Kim E-K. Semi-Quantitative Strain Ratio in the Differential Diagnosis of Breast Masses: Measurements Using One Region-of-Interest. [42:1800-1806](#).
- Schröder C, Lock G, Schmidt C, Löning T, Dieckmann K-P. Real-Time Elastography and Contrast-Enhanced Ultrasonography in the Evaluation of Testicular Masses: A Comparative Prospective Study. [42:1807-1815](#).
- Song YS, Kim J-h, Na DG, Min HS, Won J-K, Yun TJ, Choi SH, Sohn C-H. Ultrasonographic Differentiation Between Nodular Hyperplasia and Neoplastic Follicular-Patterned Lesions of the Thyroid Gland. [42:1816-1824](#).
- Dou J-P, Yu J, Cheng Z-G, Han Z-Y, Liu F-Y, Yu X-L, Liang P. Ultrasound-Guided Percutaneous Microwave Ablation for Hepatocellular Carcinoma in the Caudate Lobe. [42:1825-1833](#).
- Vlaisavljevich E, Greve J, Cheng X, Ives K, Shi J, Jin L, Arvidson A, Hall T, Welling TH, Owens G, Roberts W, Xu Z. Non-Invasive Ultrasound Liver Ablation Using Histotripsy: Chronic Study in an In Vivo Rodent Model. [42:1890-1902](#).
- Li K, Su Z, Xu E, Guan P, Li L-J, Zheng R. Computer-Assisted Hepatocellular Carcinoma Ablation Planning Based on 3-D Ultrasound Imaging. [42:1951-1957](#).
- Li X-L, Xu H-X, Bo X-W, Liu B-J, Huang X, Li D-D, Guo L-H, Xu J-M, Sun L-P, Fang L, Xu X-H. Value of Virtual Touch Tissue Imaging Quantification for Evaluation of Ultrasound Breast Imaging-Reporting and Data System Category 4 Lesions. [42:2050-2057](#).

- Tsai W-C, Wei H-K, Hung C-F, Kwang-Jane Lin C, Hung-Chun Cheng S, Chen C-M, Wang YA. Better Overall Survival for Breast Cancer Patients by Adding Breast Ultrasound to Follow-Up Examinations for Early Detection of Locoregional Recurrence—A Survival Impact Study. [42:2058-2064](#).
- Zou X, Wang J, Lan X, Lin Q, Han F, Liu L, Li A. Assessment of Diagnostic Accuracy and Efficiency of Categories 4 and 5 of the Second Edition of the BI-RADS Ultrasound Lexicon in Diagnosing Breast Lesions. [42:2065-2071](#).
- Larson ED, Lee W-M, Roubidoux MA, Goodsitt MM, Lashbrook C, Zafar F, Kripfgans OD, Thomenius K, Carson PL. Automated Breast Ultrasound: Dual-Sided Compared with Single-Sided Imaging. [42:2072-2082](#).
- Youk JH, Jung I, Yoon JH, Kim SH, Kim YM, Lee EH, Jeong SH, Kim MJ. Comparison of Inter-Observer Variability and Diagnostic Performance of the Fifth Edition of BI-RADS for Breast Ultrasound of Static versus Video Images. [42:2083-2088](#).
- Xu C, Wei S, Xie Y, Guan X, Yang B. Three-Dimensional Assessment of Automated Breast Volume Scanner Compared with Handheld Ultrasound in Pre-Operative Breast Invasive Ductal Carcinomas: A Pilot Study of 51 Cases. [42:2089-2096](#).
- Yongfeng Z, Ping Z, Wengang L, Yang S, Shuangming T. Application of a Novel Microvascular Imaging Technique in Breast Lesion Evaluation. [42:2097-2105](#).
- Jin Z-Q, He W, Wu D-F, Lin M-Y, Jiang H-T. Color Doppler Ultrasound in Diagnosis and Assessment of Carotid Body Tumors: Comparison with Computed Tomography Angiography. [42:2106-2113](#).
- Dong Y, Zhan W, Zhou J, Song L, Ni X, Zhang B. Hyper-Echoic Rim in Thyroid Nodules: A New Ultrasonographic Feature for Malignancy Prediction. [42:2123-2129](#).
- Tian W-S, Lin M-X, Zhou L-Y, Pan F-S, Huang G-L, Wang W, Lu M-D, Xie X-Y. Maximum Value Measured by 2-D Shear Wave Elastography Helps in Differentiating Malignancy from Benign Focal Liver Lesions. [42:2156-2166](#).
- Ryoo I, Suh S, You S-H, Seol HY. Usefulness of Microvascular Ultrasonography in Differentiating Metastatic Lymphadenopathy from Tuberculous Lymphadenitis. [42:2189-2195](#).
- Weinberger V, Fischerova D, Semeradova I, Slama J, Dundr P, Dusek L, Cibula D, Zikan M. Prospective Evaluation of Ultrasound Accuracy in the Detection of Pelvic Carcinomatosis in Patients with Ovarian Cancer. [42:2196-2202](#).
- Ye Q, Meng C, Shen Y, Ji J, Wang X, Zhou S, Jia L, Wang Y. Caveolin-1 Mediates Low-Intensity Ultrasound-Induced Apoptosis via Downregulation of Signal Transducer and Activator of Transcription 3 Phosphorylation in Laryngeal Carcinoma Cells. [42:2253-2260](#).
- Park VY, Kim E-K, Kim MJ, Yoon JH, Moon HJ. Mammographically Occult Asymptomatic Radial Scars/Complex Sclerosing Lesions at Ultrasonography-Guided Core Needle Biopsy: Follow-Up Can Be Recommended. [42:2367-2371](#).
- Seong M, Shin JH, Hahn SY. Ultrasound Strain Elastography for Circumscribed Solid Thyroid Nodules without Malignant Features Categorized as Indeterminate by B-Mode Ultrasound. [42:2383-2390](#).
- Rim JH, Chong S, Ryu HS, Chung BM, Ahn HS. Feasibility Study of Ultrasonographic Criteria for Microscopic and Macroscopic Extra-Thyroidal Extension Based on Thyroid Capsular Continuity and Tumor Contour in Patients with Papillary Thyroid Carcinomas. [42:2391-2400](#).
- Vlaisavljevich E, Maxwell A, Mancía L, Johnsen E, Cain C, Xu Z. Visualizing the Histotripsy Process: Bubble Cloud-Cancer Cell Interactions in a Tissue-Mimicking Environment. [42:2466-2477](#).
- Jeong SH, Hong HS, Lee EH. Diagnostic Utility of Acoustic Structure Quantification for Evaluation of Radiation Sialadenitis after Radioactive Iodine Therapy. [42:2553-2561](#).
- Hou X-Y, Niu H-Y, Huang X-L, Gao Y. Correlation of Breast Ultrasound Classifications with Breast Cancer in Chinese Women. [42:2616-2621](#).
- Schwab F, Redling K, Siebert M, Schöttau A, Schoenenberger C-A, Zanetti-Dällenbach R. Inter- and Intra-Observer Agreement in Ultrasound BI-RADS Classification and Real-Time Elastography Tsukuba Score Assessment of Breast Lesions. [42:2622-2629](#).
- Xiao X, Dong L, Jiang Q, Guan X, Wu H, Luo B. Incorporating Contrast-Enhanced Ultrasound into the BI-RADS Scoring System Improves Accuracy in Breast Tumor Diagnosis: A Preliminary Study in China. [42:2630-2638](#).
- Catalano O, Sandomenico F, Vallone P, Setola SV, Granata V, Fusco R, Lastoria S, Mansi L, Petrillo A. Contrast-Enhanced Ultrasound in the Assessment of Patients with Indeterminate Abdominal Findings at Positron Emission Tomography Imaging. [42:2717-2723](#).
- Stachs A, Pandjaitan A, Martin A, Stubert J, Hartmann S, Gerber B, Glass Ä. Accuracy of Tumor Sizing in Breast Cancer: A Comparison of Strain Elastography, 3-D Ultrasound and Conventional B-Mode Ultrasound with and without Compound Imaging. [42:2758-2765](#).
- Kim S-Y, Lee HS, Kim E-K, Kim MJ, Moon HJ, Yoon JH. Effect of Background Parenchymal Enhancement on Pre-operative Breast Magnetic Resonance Imaging: How It Affects Interpretation and the Role of Second-Look Ultrasound in Patient Management. [42:2766-2774](#).
- Dobruch-Sobczak K, Zalewska EB, Gumińska A, Ślapia RZ, Młosek K, Wareluk P, Jakubowski W, Dedecjus M. Diagnostic Performance of Shear Wave Elastography Parameters Alone and in Combination with Conventional B-Mode Ultrasound Parameters for the Characterization of Thyroid Nodules: A Prospective, Dual-Center Study. [42:2803-2811](#).

- Andrėkutė K, Linkevičiūtė G, Raišutis R, Valiukevičienė S, Makštienė J. Automatic Differential Diagnosis of Melanocytic Skin Tumors Using Ultrasound Data. *42:2834-2843*.
- Koh J, Kim E-K, Kim J-Y, Kwak JY, Yoon JH, Moon HJ. Comparison of Ultrasound, Pathologic and Prognostic Characteristics of the Follicular Variant of Papillary Thyroid Cancer According to Fine-Needle Aspiration Cytology. *42:2864-2872*.
- Yang W, Ziemlewicz TJ, Varghese T, Alexander ML, Rubert N, Ingle AN, Lubner MG, Hinshaw JL, Wells SA, Lee Jr FT, Zagzebski JA. Post-procedure Evaluation of Microwave Ablations of Hepatocellular Carcinomas Using Electrode Displacement Elastography. *42:2893-2902*.
- Cardiology**
Synonyms: heart, cardiography
Scopus Search: *Cardi** OR *myocardi** OR *heart* OR *ECG* OR *ventricular* OR *atrial*
- See also: echocardiography*
- Hou Y, Sun D-D, Yuan L-J, Zhu X-Y, Shang F-J, Hou C-J, Duan Y-Y. Clinical Application of Superior Vena Cava Spectra in Evaluation of Pulmonary Hypertension: A Comparative Echocardiography and Catheterization Study. *42:110-117*.
- Chen R, Wu X, Jin H, Wang B, Ma M, Zhao B. Assessment of Left Atrial Appendage Morphology and Function in Patients with Non-valvular Paroxysmal Atrial Fibrillation with Different Rhythms Using Real-Time 3D Transesophageal Echocardiography. *42:118-124*.
- Mele D, Malagutti P, Indelli M, Ferrari L, Casadei F, Da Ros L, Pollina A, Fiorencis A, Frassoldati A, Ferrari R. Reversibility of Left Ventricle Longitudinal Strain Alterations Induced by Adjuvant Therapy in Early Breast Cancer Patients. *42:125-132*.
- Carias M, Hynynen K. Combined Therapeutic and Monitoring Ultrasonic Catheter for Cardiac Ablation Therapies. *42:196-207*.
- Ma H, Wu W-C, Xie R-A, Gao L-J, Wang H. Correlation of Global Strain Rate and Left Ventricular Filling Pressure in Patients with Coronary Artery Disease: A 2-D Speckle-Tracking Study. *42:413-420*.
- Li L, Deng Y-B, Liu K, Guo L-D, Liu H-Y, Zhou W, Tang Q-Y. Long-Term Effects of Pericardiectomy on Left Ventricular Mechanics Evaluated by Using Speckle Tracking Echocardiography in Patients with Constrictive Pericarditis. *42:421-429*.
- Nillesen MM, van Dijk APJ, Duijnhouwer AL, Thijssen JM, de Korte CL. Automated Assessment of Right Ventricular Volumes and Function Using Three-Dimensional Transesophageal Echocardiography. *42:596-606*.
- Milne ML, Singh GK, Miller JG, Wallace KD, Holland MR. Toward 3-D Echocardiographic Determination of Regional Myofiber Structure. *42:607-618*.
- Kowsari A-A, Hosseinsabet A. Evaluation of the Right Ventricular Function in Prediabetes: A 2-D Speckle Tracking Echocardiographic Study. *42:1321-1329*.
- Lu X, Miller DL, Dou C, Zhu YI, Fabiilli ML, Owens GE, Kripfgans OD. Maturation of Lesions Induced by Myocardial Cavitation-Enabled Therapy. *42:1541-1550*.
- Song P, Bi X, Mellema DC, Manduca A, Urban MW, Pellikka PA, Chen S, Greenleaf JF. Pediatric Cardiac Shear Wave Elastography for Quantitative Assessment of Myocardial Stiffness: A Pilot Study in Healthy Controls. *42:1719-1729*.
- Wang Y, Ma R, Ding G, Hou D, Li Z, Yin L, Zhang M. Left Ventricular Energy Loss Assessed by Vector Flow Mapping in Patients with Prediabetes and Type 2 Diabetes Mellitus. *42:1730-1740*.
- Wang Y, Li G, Sun Y, Shan G, Xu R, Guo L. Left Ventricular Strain and Rotation by 2-D Speckle Tracking Echocardiography Identify Early Alcoholic Cardiomyopathy. *42:1741-1749*.
- Nakamura K, Qian K, Ando T, Inokuchi R, Doi K, Kobayashi E, Sakuma I, Nakajima S, Yahagi N. Cardiac Variation of Internal Jugular Vein for the Evaluation of Hemodynamics. *42:1764-1770*.
- Bessiere F, N'Djin WA, Colas EC, Chavier F, Greillier P, Chapelon JY, Chevalier P, Lafon C. Ultrasound-Guided Transesophageal High-Intensity Focused Ultrasound Cardiac Ablation in a Beating Heart: A Pilot Feasibility Study in Pigs. *42:1848-1861*.
- Miller DL, Lu X, Fabiilli M, Fields K, Dou C. Frequency Dependence of Petechial Hemorrhage and Cardiomyocyte Injury Induced during Myocardial Contrast Echocardiography. *42:1929-1941*.
- Punthakumar K, Hareendranathan AR, McNulty A, Biamonte M, He A, Noga M, Boulanger P, Becher H. Multiview 3-D Echocardiography Fusion with Breath-Hold Position Tracking Using an Optical Tracking System. *42:1998-2009*.
- Hansen KL, Møller-Sørensen H, Kjaergaard J, Jensen MB, Lund JT, Pedersen MM, Lange T, Jensen JA, Nielsen MB. Intra-Operative Vector Flow Imaging Using Ultrasound of the Ascending Aorta among 40 Patients with Normal, Stenotic and Replaced Aortic Valves. *42:2414-2422*.
- Martí-Fàbregas J, Figueroa S, Martínez-Lizana E, Zubizarreta I, Carrera D, Martínez-Domeño A, Prats-Sánchez L, Camps-Renom P, Jiménez-Xarrié E, Delgado-Mederos R. Total Cerebral Blood Flow in Patients with Cardioembolic Stroke: Is It Clinically Meaningful? *42:2826-2833*.
- Yli-Ollila H, Tarvainen MP, Laitinen TP, Laitinen TM. Principal Component Analysis of the Longitudinal Carotid Wall Motion in Association with Vascular Stiffness: A Pilot Study. *42:2873-2886*.
- Jørgensen AS, Schmidt SE, Staalsen N-H, Østergaard LR. An Improved Algorithm for Coronary Bypass Anastomosis Segmentation in Epicardial Ultrasound Sequences. *42:3010-3021*.

Cavitation

Synonyms: bubble dynamics, acoustic cavitation, bubble collapse

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

See also: **contrast agents**

Lafond M, Mestas J-L, Prieur F, Chettab K, Geraci S, Clézardin P, Lafon C. Unseeded Inertial Cavitation for Enhancing the Delivery of Chemotherapies: A Safety Study. *42:220-231*.

Haworth KJ, Raymond JL, Radhakrishnan K, Moody MR, Huang S-L, Peng T, Shekhar H, Klegerman ME, Kim H, McPherson DD, Holland CK. Trans-Stent B-Mode Ultrasound and Passive Cavitation Imaging. *42:518-527*.

Chen X, Wang J, Pacella JJ, Villanueva FS. Dynamic Behavior of Microbubbles during Long Ultrasound Tone-Burst Excitation: Mechanistic Insights into Ultrasound-Microbubble Mediated Therapeutics Using High-Speed Imaging and Cavitation Detection. *42:528-538*.

Sheeran PS, Daghighi Y, Yoo K, Williams R, Cherin E, Foster FS, Burns PN. Image-Guided Ultrasound Characterization of Volatile Sub-Micron Phase-Shift Droplets in the 20–40 MHz Frequency Range. *42:795-807*.

Vlaisavljevich E, Aydin O, Durmaz YY, Lin K-W, Fowlkes B, Xu Z, ElSayed MEH. Effects of Droplet Composition on Nanodroplet-Mediated Histotripsy. *42:931-946*.

Ye PP, Brown JR, Pauly KB. Frequency Dependence of Ultrasound Neurostimulation in the Mouse Brain. *42:1512-1530*.

Lu X, Miller DL, Dou C, Zhu YI, Fabiilli ML, Owens GE, Kripfgans OD. Maturation of Lesions Induced by Myocardial Cavitation-Enabled Therapy. *42:1541-1550*.

Prieur F, Pillon A, Mestas J-L, Cartron V, Cèbe P, Chansard N, Lafond M, Lafon C. Enhancement of Fluorescent Probe Penetration into Tumors In Vivo Using Unseeded Inertial Cavitation. *42:1706-1713*.

Black JJ, Yu FTH, Schnatz RG, Chen X, Villanueva FS, Pacella JJ. Effect of Thrombus Composition and Viscosity on Sonoreperfusion Efficacy in a Model of Micro-Vascular Obstruction. *42:2220-2231*.

Guan Y, Lu M, Li Y, Liu F, Gao Y, Dong T, Wan M. Histotripsy Produced by Hundred-Microsecond-Long Focused Ultrasonic Pulses: A Preliminary Study. *42:2232-2244*.

Vlaisavljevich E, Maxwell A, Mancía L, Johnsen E, Cain C, Xu Z. Visualizing the Histotripsy Process: Bubble Cloud–Cancer Cell Interactions in a Tissue-Mimicking Environment. *42:2466-2477*.

Maciulevičius M, Tamošiūnas M, Jakštys B, Jurkonis R, Venslauskas MS, Šatkauskas S. Investigation of Microbubble Cavitation-Induced Calcein Release from Cells In Vitro. *42:2990-3000*.

Crake C, Owen J, Smart S, Coviello C, Coussios C-C, Carlisle R, Stride E. Enhancement and Passive Acoustic Mapping of Cavitation from Fluorescently Tagged Magnetic Resonance-Visible Magnetic Microbubbles In Vivo. *42:3022-3036*.

Clinical Applications of Ultrasound

Synonyms: Clinical study, clinical trial

Scopus Search: Clinical AND study OR trial

Chiorean L, Barr RG, Braden B, Jenssen C, Cui X-W, Hocke M, Schuler A, Dietrich CF. Transcutaneous Ultrasound: Elastographic Lymph Node Evaluation. Current Clinical Applications and Literature Review. *42:16-30*.

Zhou Y, Hua Y, Jia L, Wang L, Liu B, Duan C, Jiao L. Evaluation of Interventional Therapy for Patients with Intracranial Vertebral Artery Stenosis by Transcranial Color-Coded Sonography. *42:44-50*.

Koh J, Moon HJ, Park JS, Kim SJ, Kim HY, Kim E-K, Kwak JY. Variability in Interpretation of Ultrasound Elastography and Gray-Scale Ultrasound in Assessing Thyroid Nodules. *42:51-59*.

English C, Casey R, Bell M, Bergin D, Murphy J. The Sonographic Features of the Thyroid Gland After Treatment with Radioiodine Therapy in Patients with Graves' Disease. *42:60-67*.

Du J, Bai X, Lu Y, Wang H, Zhao J, Liu J, Wang H, Sui X, Fang Q. Diagnostic Efficacy of Ultrasonographic Characteristics of Thyroid Carcinoma in Predicting Cervical Lymph Node Metastasis. *42:68-74*.

Lai X-J, Zhang B, Jiang Y-X, Li J-C, Zhao R-N, Yang X, Zhang Q, Zhang X-Y, Li W-B, Zhu S-L. High Risk of Lateral Nodal Metastasis in Lateral Solitary Solid Papillary Thyroid Cancer. *42:75-81*.

Yang W, Yan K, Wang S, Dai Y, Wu W, Yin S-S, Chen M-H. Differential Diagnosis of Arterial Phase Enhanced Hepatic Inflammatory Lesions and Hepatocellular Carcinomas with Contrast-enhanced Ultrasound. *42:82-91*.

Sasso M, Audière S, Kemgang A, Gaouar F, Corpechot C, Chazouillères O, Fournier C, Golsztejn O, Prince S, Menu Y, Sandrin L, Miette V. Liver Steatosis Assessed by Controlled Attenuation Parameter (CAP) Measured with the XL Probe of the FibroScan: A Pilot Study Assessing Diagnostic Accuracy. *42:92-103*.

Buttacavoli M, Gruttad'Auria CI, Olivo M, Virdone R, Castrogiovanni A, Mazzuca E, Marotta AM, Marrone O, Madonia S, Bonsignore MR. Liver Steatosis and Fibrosis in OSA patients After Long-term CPAP Treatment: A Preliminary Ultrasound Study. *42:104-109*.

Hou Y, Sun D-D, Yuan L-J, Zhu X-Y, Shang F-J, Hou C-J, Duan Y-Y. Clinical Application of Superior Vena Cava Spectra in Evaluation of Pulmonary Hypertension: A Comparative Echocardiography and Catheterization Study. *42:110-117*.

- Chen R, Wu X, Jin H, Wang B, Ma M, Zhao B. Assessment of Left Atrial Appendage Morphology and Function in Patients with Non-valvular Paroxysmal Atrial Fibrillation with Different Rhythms Using Real-Time 3D Transesophageal Echocardiography. [42:118-124](#).
- Mele D, Malagutti P, Indelli M, Ferrari L, Casadei F, Da Ros L, Pollina A, Fiorencis A, Frassoldati A, Ferrari R. Reversibility of Left Ventricle Longitudinal Strain Alterations Induced by Adjuvant Therapy in Early Breast Cancer Patients. [42:125-132](#).
- Verbeek RJ, Sentner CP, Smit GPA, Maurits NM, Derks TGJ, van der Hoeven JH, Sival DA. Muscle Ultrasound in Patients with Glycogen Storage Disease Types I and III. [42:133-142](#).
- Carrié C, Bonnardel E, Vally R, Revel P, Marthan R, Biais M. Vital Capacity Impairment due to Neuromuscular Disease and its Correlation with Diaphragmatic Ultrasound: A Preliminary Study. [42:143-149](#).
- Maconi G, Asthana AK, Bolzacchini E, Dell’Era A, Furfaro F, Bezzio C, Salvatore V, Maier JAM. Splanchnic Hemodynamics and Intestinal Vascularity in Crohn’s Disease: An In Vivo Evaluation Using Doppler and Contrast-Enhanced Ultrasound and Biochemical Parameters. [42:150-158](#).
- Shen Q, Li J, Zheng D, Lv L, Yang G, He Q. Doppler Characteristics of Cavernosal–Spongiosal Communications in Patients with Erectile Dysfunction. [42:159-166](#).
- Saggini R, Saggini A, Spagnoli AM, Dodaj I, Cigna E, Maruccia M, Soda G, Bellomo RG, Scuderi N. Extracorporeal Shock Wave Therapy: An Emerging Treatment Modality for Retracting Scars of the Hands. [42:185-195](#).
- Muraki M, Mikami T, Yoshimoto T, Fujimoto S, Kitaguchi M, Kaga S, Sugawara T, Tokuda K, Kaneko S, Kashiwaba T. Sonographic Detection of Abnormal Plaque Motion of the Carotid Artery: Its Usefulness in Diagnosing High-Risk Lesions Ranging from Plaque Rupture to Ulcer Formation. [42:358-364](#).
- Huang C, Pan X, He Q, Huang M, Huang L, Zhao X, Yuan C, Bai J, Luo J. Ultrasound-Based Carotid Elastography for Detection of Vulnerable Atherosclerotic Plaques Validated by Magnetic Resonance Imaging. [42:365-377](#).
- Cheng KL, Choi YJ, Shim WH, Lee JH, Baek JH. Virtual Touch Tissue Imaging Quantification Shear Wave Elastography: Prospective Assessment of Cervical Lymph Nodes. [42:378-386](#).
- Desmots F, Fakhry N, Mancini J, Reyre A, Vidal V, Jacquier A, Santini L, Moulin G, Varoquaux A. Shear Wave Elastography in Head and Neck Lymph Node Assessment: Image Quality and Diagnostic Impact Compared with B-Mode and Doppler Ultrasonography. [42:387-398](#).
- Park VY, Kim E-K, Kwak JY, Yoon JH, Kim MJ, Moon HJ. Thyroid Imaging Reporting and Data System and Ultrasound Elastography: Diagnostic Accuracy as a Tool in Recommending Repeat Fine-Needle Aspiration for Solid Thyroid Nodules with Non-Diagnostic Fine-Needle Aspiration Cytology. [42:399-406](#).
- Tsai L-K, Yeh S-J, Tang S-C, Hsieh Y-L, Chen Y-A, Liu H-M, Jeng J-S. Validity of Carotid Duplex Sonography in Screening for Intracranial Dural Arteriovenous Fistula among Patients with Pulsatile Tinnitus. [42:407-412](#).
- Ma H, Wu W-C, Xie R-A, Gao L-J, Wang H. Correlation of Global Strain Rate and Left Ventricular Filling Pressure in Patients with Coronary Artery Disease: A 2-D Speckle-Tracking Study. [42:413-420](#).
- Li L, Deng Y-B, Liu K, Guo L-D, Liu H-Y, Zhou W, Tang Q-Y. Long-Term Effects of Pericardiectomy on Left Ventricular Mechanics Evaluated by Using Speckle Tracking Echocardiography in Patients with Constrictive Pericarditis. [42:421-429](#).
- Park J, Cho J, Kwon H, Kang M, Lee S, Roh Y-h, Kim KW, Lee SW. Liver Function Assessment Using Parenchyma-Specific Contrast-Enhanced Ultrasonography. [42:430-437](#).
- Windschall D, Pommerenke M, Haase R. Ultrasound Assessment of the Skeletal Development of the Proximal Tibial, Proximal Femoral, and Distal Femoral Epiphyses in Premature and Mature Newborns. [42:451-458](#).
- Cruz JM, Hauck M, Cardoso Pereira AP, Moraes MB, Martins CN, da Silva Paulitsch F, Della Méa Plentz R, Peres W, Vargas da Silva AM, Signori LU. Effects of Different Therapeutic Ultrasound Waveforms on Endothelial Function in Healthy Volunteers: A Randomized Clinical Trial. [42:471-480](#).
- Steinbuch J, Hoeks APG, Hermeling E, Truijman MTB, Schreuder FHBM, Mess WH. Standard B-Mode Ultrasound Measures Local Carotid Artery Characteristics as Reliably as Radiofrequency Phase Tracking in Symptomatic Carotid Artery Patients. [42:586-595](#).
- Passmore E, Pandy MG, Graham HK, Sangeux M. Measuring Femoral Torsion In Vivo Using Freehand 3-D Ultrasound Imaging. [42:619-623](#).
- Weijers G, Wanten G, Thijssen JM, van der Graaf M, de Korte CL. Quantitative Ultrasound for Staging of Hepatic Steatosis in Patients on Home Parenteral Nutrition Validated with Magnetic Resonance Spectroscopy: A Feasibility Study. [42:637-644](#).
- Chen M, He Y, Zhang P, Geng Q, Liu Q, Kong L, Chen Y, Wei Q, Liu J, Guo S, Liu H. Comparison of Uterine Receptivity between Fertile and Unexplained Infertile Women by Assessment of Endometrial and Subendometrial Perfusion Using Contrast-Enhanced Ultrasound: Which Index is Better—Peak Intensity or Area under the Curve? [42:654-663](#).
- Kulig K, Chang Y-J, Winiarski S, Bashford GR. Ultrasound-Based Tendon Micromorphology Predicts Mechanical Characteristics of Degenerated Tendons. [42:664-673](#).

- Wang L, Feng L, Yao Y, Deng F, Wang Y, Feng J, Xing Y. Ultrasonographic Evaluation of Optic Nerve Sheath Diameter among Healthy Chinese Adults. *42:683-688*.
- Wang H-Y, Jiang Y-X, Zhu Q-L, Zhang J, Xiao M-S, Liu H, Dai Q, Li J-C, Sun Q. Automated Breast Volume Scanning: Identifying 3-D Coronal Plane Imaging Features May Help Categorize Complex Cysts. *42:689-698*.
- Gao M, Zhao X, Tao Y, Wang L, Xia M, Tong Z, Hou C, Hua Y. Incidence and Predictors of In-stent Re-Stenosis in the Superficial Femoral Artery: Evaluation of Long-Term Outcomes by Color Duplex Ultrasound. *42:717-726*.
- Tacheau A, Le Floc'h S, Finet G, Doyley MM, Pettigrew RI, Cloutier G, Ohayon J. The Imaging Modulography Technique Revisited for High-Definition Intravascular Ultrasound: Theoretical Framework. *42:727-741*.
- Atri M, Hudson JM, Sinaei M, Williams R, Milot L, Moshonov H, Burns PN, Bjarnason GA. Impact of Acquisition Method and Region of Interest Placement on Inter-observer Agreement and Measurement of Tumor Response to Targeted Therapy Using Dynamic Contrast-Enhanced Ultrasound. *42:763-768*.
- Van Biervliet S, Verdieuvel H, Vande Velde S, De Bruyne R, De Looze D, Verhelst X, Geerts A, Robberecht E, Van Vlierberghe H. Longitudinal Transient Elastography Measurements Used in Follow-up for Patients with Cystic Fibrosis. *42:848-854*.
- Sconfienza LM, Cavallaro F, Colombi V, Pastorelli L, Tontini G, Pescatori L, Esseridou A, Savarino E, Messina C, Casale R, Di Leo G, Sardanelli F, Vecchi M. In-vivo Axial-strain Sonoelastography Helps Distinguish Acutely-inflamed from Fibrotic Terminal Ileum Strictures in Patients with Crohn's Disease: Preliminary Results. *42:855-863*.
- Inanc N, Ozen G, Aydin SZ, Kasapoglu-Gunal E, Direskeneli H. Ultrasonographic Assessment of Fifth Metatarsophalangeal Joint Erosion in Rheumatoid Arthritis: Which Aspect Is Better? *42:864-869*.
- Jiang W-W, Li C, Li A-H, Zheng Y-P. Clinical Evaluation of a 3-D Automatic Annotation Method for Breast Ultrasound Imaging. *42:870-881*.
- Li Z, Tian J, Wang X, Wang Y, Wang Z, Zhang L, Jing H, Wu T. Differences in Multi-Modal Ultrasound Imaging between Triple Negative and Non-Triple Negative Breast Cancer. *42:882-890*.
- Wang Y, Yan K, Fan Z, Sun L, Wu W, Yang W. Contrast-Enhanced Ultrasonography of Pancreatic Carcinoma: Correlation with Pathologic Findings. *42:891-898*.
- Hansen KL, Møller-Sørensen H, Kjaergaard J, Jensen MB, Lund JT, Pedersen MM, Lange T, Jensen JA, Nielsen MB. Analysis of Systolic Backflow and Secondary Helical Blood Flow in the Ascending Aorta Using Vector Flow Imaging. *42:899-908*.
- Wang X, Jackson DC, Mitchell CC, Varghese T, Wilbrand SM, Rocque BG, Hermann BP, Dempsey RJ. Classification of Symptomatic and Asymptomatic Patients with and without Cognitive Decline Using Non-invasive Carotid Plaque Strain Indices as Biomarkers. *42:909-918*.
- Rovella MS, Martins GLP, Cavalcanti CFA, Bor-Seng-Shu E, Camargo OP, Cerri GG, Menezes MR. Magnetic Resonance-Guided High-Intensity Focused Ultrasound Ablation of Osteoid Osteoma: A Case Series Report. *42:919-923*.
- Kishimoto J, Fenster A, Lee DSC, de Ribaupierre S. In Vivo Validation of a 3-D Ultrasound System for Imaging the Lateral Ventricles of Neonates. *42:971-979*.
- Amador C, Song P, Meixner DD, Chen S, Urban MW. Improvement of Shear Wave Motion Detection Using Harmonic Imaging in Healthy Human Liver. *42:1031-1041*.
- Wang Y, Liao J, Qi W, Xie L, Li Y. Predictive Value of Conventional Ultrasound and Contrast-Enhanced Ultrasound in Early Recurrence of Hepatocellular Carcinoma after Surgical Resection. *42:1042-1048*.
- Masumoto N, Kadoya T, Amioka A, Kajitani K, Shigematsu H, Emi A, Matsuura K, Arihiro K, Okada M. Evaluation of Malignancy Grade of Breast Cancer Using Perflubutane-Enhanced Ultrasonography. *42:1049-1057*.
- Zhao J, Qian L, Zu Y, Wei Y, Hu X. Efficacy of Ablation Therapy for Secondary Hyperparathyroidism by Ultrasound Guided Percutaneous Thermoablation. *42:1058-1065*.
- Kim GR, Kim E-K, Kwak JY, Yoon JH, Moon HJ. Association between Bethesda Categories and Ultrasound Features of Conventional Papillary Thyroid Carcinoma. *42:1066-1074*.
- Gao J, Du L-J, He W, Li S, Cheng L-G. Ultrasound Strain Elastography in Assessment of Muscle Stiffness in Acute Levodopa Challenge Test: A Feasibility Study. *42:1084-1089*.
- Peterson G, Nilsson D, Peterson S, Dederig Å, Trygg J, Wallman T, Peolsson A. Changes in Dorsal Neck Muscle Function in Individuals with Chronic Whiplash-Associated Disorders: A Real-Time Ultrasound Case-Control Study. *42:1090-1102*.
- Morreale M, Mulè G, Ferrante A, D'Ignoto F, Cottone S. Association of Renal Resistive Index with Markers of Extrarenal Vascular Changes in Patients with Systemic Lupus Erythematosus. *42:1103-1110*.
- Huang C, Su Y, Zhang H, Qian L-X, Luo J. Comparison of Different Pulse Waveforms for Local Pulse Wave Velocity Measurement in Healthy and Hypertensive Common Carotid Arteries in Vivo. *42:1111-1123*.
- Guo Y-Z, Gao Y-S, Guo Z-N, Niu P-P, Yang Y, Xing Y-Q. Comparison of Different Methods of Valsalva Maneuver for Right-to-left Shunt Detection by Contrast-Enhanced Transcranial Doppler. *42:1124-1129*.

- Aizawa K, Elyas S, Adingupu DD, Casanova F, Gooding KM, Shore AC, Strain WD, Gates PE. Echogenicity of the Common Carotid Artery Intima-Media Complex in Stroke. [42:1130-1137](#).
- Palmeri ML, Glass TJ, Miller ZA, Rosenzweig SJ, Buck A, Polascik TJ, Gupta RT, Brown AF, Madden J, Nightingale KR. Identifying Clinically Significant Prostate Cancers using 3-D In Vivo Acoustic Radiation Force Impulse Imaging with Whole-Mount Histology Validation. [42:1251-1262](#).
- Kim S-Y, Kim E-K, Moon HJ, Yoon JH, Kim MJ. Is Pre-Operative Axillary Staging with Ultrasound and Ultrasound-Guided Fine-Needle Aspiration Reliable in Invasive Lobular Carcinoma of the Breast? [42:1263-1272](#).
- Azizi G, Keller JM, Mayo ML, Piper K, Puett D, Earp KM, Malchoff CD. Shear Wave Elastography and Cervical Lymph Nodes: Predicting Malignancy. [42:1273-1281](#).
- Lo GM, Al Zahrani H, Jang HJ, Menezes R, Hudson J, Burns P, McNamara MG, Kandel S, Khalili K, Knox J, Rogalla P, Kim TK. Detection of Early Tumor Response to Axitinib in Advanced Hepatocellular Carcinoma by Dynamic Contrast Enhanced Ultrasound. [42:1303-1311](#).
- Lee C-m, Jeong WK, Lim S, Kim Y, Kim J, Kim TY, Sohn JH. Diagnosis of Clinically Significant Portal Hypertension in Patients with Cirrhosis: Splenic Arterial Resistive Index versus Liver Stiffness Measurement. [42:1312-1320](#).
- Kowsari A-A, Hosseinsabet A. Evaluation of the Right Ventricular Function in Prediabetes: A 2-D Speckle Tracking Echocardiographic Study. [42:1321-1329](#).
- Elsaman AM, Muhammad EMS, Pessler F. Sonographic Findings in Gouty Arthritis: Diagnostic Value and Association with Disease Duration. [42:1330-1336](#).
- Casciaro S, Peccarisi M, Pisani P, Franchini R, Greco A, De Marco T, Grimaldi A, Quarta L, Quarta E, Muratore M, Conversano F. An Advanced Quantitative Echosound Methodology for Femoral Neck Densitometry. [42:1337-1356](#).
- Buisman WJ, Mauritz FA, Westerhuis WE, Gilja OH, van der Zee DC, van Herwaarden-Lindeboom MYA. Evaluation of Gastric Volumes: Comparison of 3-D Ultrasound and Magnetic Resonance Imaging. [42:1423-1430](#).
- Yan C, Bao X, Shentu W, Chen J, Liu C, Ye Q, Wang L, Tan Y, Huang P. Preoperative Gross Classification of Gastric Adenocarcinoma: Comparison of Double Contrast-Enhanced Ultrasound and Multi-Detector Row CT. [42:1431-1440](#).
- Hong-xia Z, Wen H, Ling-gang C, Wen-jia C, Shuo L, Li-juan D, Hai-man S, Yang Z. A New Method for Discriminating between Bronchial and Pulmonary Arterial Phases using Contrast-Enhanced Ultrasound. [42:1441-1449](#).
- Geijer JR, Evanoff NG, Kelly AS, Chernin MA, Stoltman MG, Dengel DR. Reproducibility of Brachial Vascular Changes with Alterations in End-Tidal Carbon Dioxide. [42:1450-1456](#).
- Ahn HS, Jang M, Kim SM, Yun BL, Kim S-W, Kang EY, Park SY. Diagnosis of Columnar Cell Lesions and Atypical Ductal Hyperplasia by Ultrasound-Guided Core Biopsy: Findings Associated with Underestimation of Breast Carcinoma. [42:1457-1463](#).
- Zhou J, Yang Z, Zhan W, Zhang J, Hu N, Dong Y, Wang Y. Breast Lesions Evaluated by Color-Coded Acoustic Radiation Force Impulse (ARFI) Imaging. [42:1464-1472](#).
- Wang Q, Li M, Lou EHM, Chu WCW, Lam T-p, Cheng JCY, Wong M-s. Validity Study of Vertebral Rotation Measurement Using 3-D Ultrasound in Adolescent Idiopathic Scoliosis. [42:1473-1481](#).
- Spirig A, Juon B, Banz Y, Rieben R, Vögelin E. Correlation Between Sonographic and In Vivo Measurement of A1 Pulleys in Trigger Fingers. [42:1482-1490](#).
- Kim AY, Lee MW, Cha DI, Lim HK, Oh Y-T, Jeong J-Y, Chang J-W, Ryu J, Lee KJ, Kim J, Bang W-C, Shin DK, Choi SJ, Koh D, Seo BK, Kim K. Automatic Registration between Real-Time Ultrasonography and Pre-Procedural Magnetic Resonance Images: A Prospective Comparison between Two Registration Methods by Liver Surface and Vessel and by Liver Surface Only. [42:1627-1636](#).
- Bhatia KSS, Lam ACL, Pang SWA, Wang D, Ahuja AT. Feasibility Study of Texture Analysis Using Ultrasound Shear Wave Elastography to Predict Malignancy in Thyroid Nodules. [42:1671-1680](#).
- Abhilash RH, Chauhan S, Che MV, Ooi C-C, Bakar RA, Lo RHG. Quantitative Study on the Effect of Abnormalities on Respiration-Induced Kidney Movement. [42:1681-1688](#).
- Karamanidis K, Travlou A, Krauss P, Jaekel U. Use of a Lucas-Kanade-Based Template Tracking Algorithm to Examine In Vivo Tendon Excursion during Voluntary Contraction Using Ultrasonography. [42:1689-1700](#).
- Song P, Bi X, Mellema DC, Manduca A, Urban MW, Pellikka PA, Chen S, Greenleaf JF. Pediatric Cardiac Shear Wave Elastography for Quantitative Assessment of Myocardial Stiffness: A Pilot Study in Healthy Controls. [42:1719-1729](#).
- Wang Y, Ma R, Ding G, Hou D, Li Z, Yin L, Zhang M. Left Ventricular Energy Loss Assessed by Vector Flow Mapping in Patients with Prediabetes and Type 2 Diabetes Mellitus. [42:1730-1740](#).
- Wang Y, Li G, Sun Y, Shan G, Xu R, Guo L. Left Ventricular Strain and Rotation by 2-D Speckle Tracking Echocardiography Identify Early Alcoholic Cardiomyopathy. [42:1741-1749](#).
- Sisini F, Tessari M, Menegatti E, Vannini ME, Ganesini S, Tavoni V, Gadda G, Gambaccini M, Taibi A, Zamboni P. Clinical Applicability of Assessment of Jugular Flow over the Individual Cardiac Cycle Compared with Current Ultrasound Methodology. [42:1750-1763](#).

- Nakamura K, Qian K, Ando T, Inokuchi R, Doi K, Kobayashi E, Sakuma I, Nakajima S, Yahagi N. Cardiac Variation of Internal Jugular Vein for the Evaluation of Hemodynamics. [42:1764-1770](#).
- Nemati M, Hajalioghli P, Jahed S, Behzadmehr R, Rafeey M, Fouladi DF. Normal Values of Spleen Length and Volume: An Ultrasonographic Study in Children. [42:1771-1778](#).
- Akiyama K, Akagi R, Hirayama K, Hirose N, Takahashi H, Fukubayashi T. Shear Modulus of the Lower Leg Muscles in Patients with Medial Tibial Stress Syndrome. [42:1779-1783](#).
- Cheng W, Gao X, Wang W, Zhi M, Tang J, Wen Y-I, Yu J, Chen Y, Liu X, Yang C, Hu P, Liu G. Preliminary Analysis of Clinical Situations Involved in Quantification of Contrast-Enhanced Ultrasound in Crohn's Disease. [42:1784-1791](#).
- Kiyono S, Maruyama H, Kobayashi K, Kondo T, Sekimoto T, Shimada T, Yokosuka O, Yamaguchi T. Non-Invasive Diagnosis of Portal Hypertensive Gastropathy: Quantitative Analysis of Microbubble-Induced Stomach Wall Enhancement. [42:1792-1799](#).
- Yoon JH, Song MK, Kim E-K. Semi-Quantitative Strain Ratio in the Differential Diagnosis of Breast Masses: Measurements Using One Region-of-Interest. [42:1800-1806](#).
- Schröder C, Lock G, Schmidt C, Löning T, Dieckmann K-P. Real-Time Elastography and Contrast-Enhanced Ultrasonography in the Evaluation of Testicular Masses: A Comparative Prospective Study. [42:1807-1815](#).
- Song YS, Kim J-h, Na DG, Min HS, Won J-K, Yun TJ, Choi SH, Sohn C-H. Ultrasonographic Differentiation Between Nodular Hyperplasia and Neoplastic Follicular-Patterned Lesions of the Thyroid Gland. [42:1816-1824](#).
- Dou J-P, Yu J, Cheng Z-G, Han Z-Y, Liu F-Y, Yu X-L, Liang P. Ultrasound-Guided Percutaneous Microwave Ablation for Hepatocellular Carcinoma in the Caudate Lobe. [42:1825-1833](#).
- Dymarek R, Taradaj J, Rosińczuk J. The Effect of Radial Extracorporeal Shock Wave Stimulation on Upper Limb Spasticity in Chronic Stroke Patients: A Single-Blind, Randomized, Placebo-Controlled Study. [42:1862-1875](#).
- Roos ST, Juffermans LJM, van Royen N, van Rossum AC, Xie F, Appelman Y, Porter TR, Kamp O. Unexpected High Incidence of Coronary Vasoconstriction in the Reduction of Microvascular Injury Using Sonolysis (ROMIUS) Trial. [42:1919-1928](#).
- Baptista F, Rebocho LM, Cardadeiro G, Zymbal V, Rosati N. Sex- and Maturity-Related Differences in Cortical Bone at the Distal Radius and Midshaft Tibia Evaluated by Quantitative Ultrasonography. [42:2043-2049](#).
- Li X-L, Xu H-X, Bo X-W, Liu B-J, Huang X, Li D-D, Guo L-H, Xu J-M, Sun L-P, Fang L, Xu X-H. Value of Virtual Touch Tissue Imaging Quantification for Evaluation of Ultrasound Breast Imaging-Reporting and Data System Category 4 Lesions. [42:2050-2057](#).
- Tsai W-C, Wei H-K, Hung C-F, Kwang-Jane Lin C, Hung-Chun Cheng S, Chen C-M, Wang YA. Better Overall Survival for Breast Cancer Patients by Adding Breast Ultrasound to Follow-Up Examinations for Early Detection of Locoregional Recurrence—A Survival Impact Study. [42:2058-2064](#).
- Zou X, Wang J, Lan X, Lin Q, Han F, Liu L, Li A. Assessment of Diagnostic Accuracy and Efficiency of Categories 4 and 5 of the Second Edition of the BI-RADS Ultrasound Lexicon in Diagnosing Breast Lesions. [42:2065-2071](#).
- Larson ED, Lee W-M, Roubidoux MA, Goodsitt MM, Lashbrook C, Zafar F, Kripfgans OD, Thomenius K, Carson PL. Automated Breast Ultrasound: Dual-Sided Compared with Single-Sided Imaging. [42:2072-2082](#).
- Youk JH, Jung I, Yoon JH, Kim SH, Kim YM, Lee EH, Jeong SH, Kim MJ. Comparison of Inter-Observer Variability and Diagnostic Performance of the Fifth Edition of BI-RADS for Breast Ultrasound of Static versus Video Images. [42:2083-2088](#).
- Xu C, Wei S, Xie Y, Guan X, Yang B. Three-Dimensional Assessment of Automated Breast Volume Scanner Compared with Handheld Ultrasound in Pre-Operative Breast Invasive Ductal Carcinomas: A Pilot Study of 51 Cases. [42:2089-2096](#).
- Yongfeng Z, Ping Z, Wengang L, Yang S, Shuangming T. Application of a Novel Microvascular Imaging Technique in Breast Lesion Evaluation. [42:2097-2105](#).
- Jin Z-Q, He W, Wu D-F, Lin M-Y, Jiang H-T. Color Doppler Ultrasound in Diagnosis and Assessment of Carotid Body Tumors: Comparison with Computed Tomography Angiography. [42:2106-2113](#).
- Tat J, Psaromiligkos IN, Daskalopoulou SS. Carotid Atherosclerotic Plaque Alters the Direction of Longitudinal Motion in the Artery Wall. [42:2114-2122](#).
- Dong Y, Zhan W, Zhou J, Song L, Ni X, Zhang B. Hyper-Echoic Rim in Thyroid Nodules: A New Ultrasonographic Feature for Malignancy Prediction. [42:2123-2129](#).
- Hofauer B, Mansour N, Heiser C, Gahleitner C, Thuermel K, Bas M, Knopf A. Sonoelastographic Modalities in the Evaluation of Salivary Gland Characteristics in Sjögren's Syndrome. [42:2130-2139](#).
- Fan X-p, Zhu Q, Zhou Y-j, Ma T, Xia C-x, Huang H-l. Comparative Study of Three Regimens of Bowel Preparation Before Transabdominal Ultrasonography of the Colon. [42:2140-2145](#).
- Mjelle AB, Mulabecirovic A, Hausken T, Havre RF, Gilja OH, Vesterhus M. Ultrasound and Point Shear Wave Elastography in Livers of Patients with Primary Sclerosing Cholangitis. [42:2146-2155](#).
- Tian W-S, Lin M-X, Zhou L-Y, Pan F-S, Huang G-L, Wang W, Lu M-D, Xie X-Y. Maximum Value Measured by 2-D Shear Wave Elastography Helps in Differentiating Malignancy from Benign Focal Liver Lesions. [42:2156-2166](#).

- Cui X-W, Ignee A, Maros T, Straub B, Wen J-G, Dietrich CF. Feasibility and Usefulness of Intra-Cavitary Contrast-Enhanced Ultrasound in Percutaneous Nephrostomy. [42:2180-2188](#).
- Ryoo I, Suh S, You S-H, Seol HY. Usefulness of Microvascular Ultrasonography in Differentiating Metastatic Lymphadenopathy from Tuberculous Lymphadenitis. [42:2189-2195](#).
- Weinberger V, Fischerova D, Semeradova I, Slama J, Dundr P, Dusek L, Cibula D, Zikan M. Prospective Evaluation of Ultrasound Accuracy in the Detection of Pelvic Carcinomatosis in Patients with Ovarian Cancer. [42:2196-2202](#).
- Shinomiya R, Sunagawa T, Nakashima Y, Yoshizuka M, Adachi N. Impact of Corticosteroid Injection Site on the Treatment Success Rate of Trigger Finger: A Prospective Study Comparing Ultrasound-Guided True Intra-Sheath and True Extra-Sheath Injections. [42:2203-2208](#).
- Baik J, Lee KH, Ryu J, Kim O, Yoon J-H, Kim SH, Baek HJ. Role of Real-Time Elastography in the Evaluation of Cervical Lymph Nodes in Patients with Kikuchi Disease. [42:2334-2340](#).
- Abe T, Fujita E, Thiebaud RS, Loenneke JP, Akamine T. Ultrasound-Derived Forearm Muscle Thickness Is a Powerful Predictor for Estimating DXA-Derived Appendicular Lean Mass in Japanese Older Adults. [42:2341-2344](#).
- D'Abate F, Ramachandran V, Young MA, Farrah J, Ahmed MH, Jones K, Hinchliffe RJ. B-Flow Imaging in Lower Limb Peripheral Arterial Disease and Bypass Graft Ultrasonography. [42:2345-2351](#).
- Arányi Z, Csillik A, Böhm J, Schelle T. Ultrasonographic Identification of Fibromuscular Bands Associated with Neurogenic Thoracic Outlet Syndrome: The "Wedge-Sickle" Sign. [42:2357-2366](#).
- Park VY, Kim E-K, Kim MJ, Yoon JH, Moon HJ. Mammographically Occult Asymptomatic Radial Scars/Complex Sclerosing Lesions at Ultrasonography-Guided Core Needle Biopsy: Follow-Up Can Be Recommended. [42:2367-2371](#).
- Zhou J, Yang Z, Zhan W, Dong Y, Zhou C. Anisotropic Properties of Breast Tissue Measured by Acoustic Radiation Force Impulse Quantification. [42:2372-2382](#).
- Seong M, Shin JH, Hahn SY. Ultrasound Strain Elastography for Circumscribed Solid Thyroid Nodules without Malignant Features Categorized as Indeterminate by B-Mode Ultrasound. [42:2383-2390](#).
- Rim JH, Chong S, Ryu HS, Chung BM, Ahn HS. Feasibility Study of Ultrasonographic Criteria for Microscopic and Macroscopic Extra-Thyroidal Extension Based on Thyroid Capsular Continuity and Tumor Contour in Patients with Papillary Thyroid Carcinomas. [42:2391-2400](#).
- Sasso M, Liu Y, Aron-Wisniewsky J, Bouillot J-L, Abdenour M, Clet M, Sandrin L, le Naour G, Bedossa P, Tordjman J, Clément K, Miette V. AdipoScan: A Novel Transient Elastography-Based Tool Used to Non-Invasively Assess Subcutaneous Adipose Tissue Shear Wave Speed in Obesity. [42:2401-2413](#).
- Hansen KL, Møller-Sørensen H, Kjaergaard J, Jensen MB, Lund JT, Pedersen MM, Lange T, Jensen JA, Nielsen MB. Intra-Operative Vector Flow Imaging Using Ultrasound of the Ascending Aorta among 40 Patients with Normal, Stenotic and Replaced Aortic Valves. [42:2414-2422](#).
- Rubin JM, Horowitz JC, Sisson TH, Kim K, Ortiz LA, Hamilton JD. Ultrasound Strain Measurements for Evaluating Local Pulmonary Ventilation. [42:2525-2531](#).
- Marsico M, Gabbani T, Casseri T, Biagini MR. Factors Predictive of Improved Abdominal Ultrasound Visualization after Oral Administration of Simethicone. [42:2532-2537](#).
- Zhang H, Li Y, Shao J, Chen W, Wang Y. High-Resolution Ultrasound of Schwannomas of the Limbs: Analysis of 72 Cases. [42:2538-2544](#).
- Hofauer B, Mansour N, Heiser C, Wirth M, Straßen U, Loeffelbein D, Bas M, Knopf A. Reproducibility of Acoustic Radiation Force Impulse Imaging in Thyroid and Salivary Glands with Experienced and Inexperienced Examiners. [42:2545-2552](#).
- Jeong SH, Hong HS, Lee EH. Diagnostic Utility of Acoustic Structure Quantification for Evaluation of Radiation Sialadenitis after Radioactive Iodine Therapy. [42:2553-2561](#).
- Tzschätzsch H, Nguyen Trong M, Scheuermann T, Ipek-Ugay S, Fischer T, Schultz M, Braun J, Sack I. Two-Dimensional Time-Harmonic Elastography of the Human Liver and Spleen. [42:2562-2571](#).
- Nestaas E, Støylen A, Fugelseth D. Speckle Tracking Using Gray-Scale Information from Tissue Doppler Recordings versus Regular Gray-Scale Recordings in Term Neonates. [42:2599-2605](#).
- Andersen MV, Moore C, Arges K, Søgaaard P, Østergaard LR, Schmidt SE, Kisslo J, Von Ramm OT. High-Frame-Rate Deformation Imaging in Two Dimensions Using Continuous Speckle-Feature Tracking. [42:2606-2615](#).
- Hou X-Y, Niu H-Y, Huang X-L, Gao Y. Correlation of Breast Ultrasound Classifications with Breast Cancer in Chinese Women. [42:2616-2621](#).
- Schwab F, Redling K, Siebert M, Schötzu A, Schoenenberger C-A, Zanetti-Dällenbach R. Inter- and Intra-Observer Agreement in Ultrasound BI-RADS Classification and Real-Time Elastography Tsukuba Score Assessment of Breast Lesions. [42:2622-2629](#).
- Xiao X, Dong L, Jiang Q, Guan X, Wu H, Luo B. Incorporating Contrast-Enhanced Ultrasound into the BI-RADS Scoring System Improves Accuracy in Breast Tumor Diagnosis: A Preliminary Study in China. [42:2630-2638](#).

- Bilotta F, Robba C, Santoro A, Delfini R, Rosa G, Agati L. Contrast-Enhanced Ultrasound Imaging in Detection of Changes in Cerebral Perfusion. [42:2708-2716](#).
- Catalano O, Sandomenico F, Vallone P, Setola SV, Granata V, Fusco R, Lastoria S, Mansi L, Petrillo A. Contrast-Enhanced Ultrasound in the Assessment of Patients with Indeterminate Abdominal Findings at Positron Emission Tomography Imaging. [42:2717-2723](#).
- Stachs A, Pandjaitan A, Martin A, Stubert J, Hartmann S, Gerber B, Glass Ä. Accuracy of Tumor Sizing in Breast Cancer: A Comparison of Strain Elastography, 3-D Ultrasound and Conventional B-Mode Ultrasound with and without Compound Imaging. [42:2758-2765](#).
- Kim S-Y, Lee HS, Kim E-K, Kim MJ, Moon HJ, Yoon JH. Effect of Background Parenchymal Enhancement on Pre-operative Breast Magnetic Resonance Imaging: How It Affects Interpretation and the Role of Second-Look Ultrasound in Patient Management. [42:2766-2774](#).
- Yu X, Zhai Z, Zhao Y, Zhu Z, Tong J, Yan J, Ouyang W. Performance of Lung Ultrasound in Detecting Peri-operative Atelectasis after General Anesthesia. [42:2775-2784](#).
- Wang L, Wu W, Teng J, Zhong R, Han B, Sun J. Sonographic Features of Endobronchial Ultrasound in Differentiation of Benign Lymph Nodes. [42:2785-2793](#).
- Hedman K, Nylander E, Henriksson J, Bjarnegård N, Brudin L, Tamás É. Echocardiographic Characterization of the Inferior Vena Cava in Trained and Untrained Females. [42:2794-2802](#).
- Dobruć-Sobczak K, Zalewska EB, Gumińska A, Ślapa RZ, Mlosek K, Wareluk P, Jakubowski W, Dedecjus M. Diagnostic Performance of Shear Wave Elastography Parameters Alone and in Combination with Conventional B-Mode Ultrasound Parameters for the Characterization of Thyroid Nodules: A Prospective, Dual-Center Study. [42:2803-2811](#).
- Jing B, Tang S, Wu L, Wang S, Wan M. Visualizing the Vibration of Laryngeal Tissue during Phonation Using Ultrafast Plane Wave Ultrasonography. [42:2812-2825](#).
- Martí-Fàbregas J, Figueroa S, Martínez-Lizana E, Zubizarreta I, Carrera D, Martínez-Domeño A, Prats-Sánchez L, Camps-Renom P, Jiménez-Xarrié E, Delgado-Mederos R. Total Cerebral Blood Flow in Patients with Cardioembolic Stroke: Is It Clinically Meaningful? [42:2826-2833](#).
- Yeh S-J, Tang S-C, Tsai L-K, Chen Y-F, Liu H-M, Chen Y-A, Hsieh Y-L, Yang S-H, Tien Y-H, Yang C-C, Kuo M-F, Jeng J-S. Ultrasonographic Changes after Indirect Revascularization Surgery in Pediatric Patients with Moyamoya Disease. [42:2844-2851](#).
- Koh J, Kim E-K, Kim J-Y, Kwak JY, Yoon JH, Moon HJ. Comparison of Ultrasound, Pathologic and Prognostic Characteristics of the Follicular Variant of Papillary Thyroid Cancer According to Fine-Needle Aspiration Cytology. [42:2864-2872](#).
- Yang W, Ziemlewicz TJ, Varghese T, Alexander ML, Rubert N, Ingle AN, Lubner MG, Hinshaw JL, Wells SA, Lee Jr FT, Zagzebski JA. Post-procedure Evaluation of Microwave Ablations of Hepatocellular Carcinomas Using Electrode Displacement Elastography. [42:2893-2902](#).
- De Masi R, Orlando S, Conte A, Pasca S, Scarpello R, Spagnolo P, Muscella A, De Donno A. Transbulbar B-Mode Sonography in Multiple Sclerosis: Clinical and Biological Relevance. [42:3037-3042](#).
- Seitel A, Sojoudi S, Osborn J, Rasoulilian A, Nouranian S, Lessoway VA, Rohling RN, Abolmaesumi P. Ultrasound-Guided Spine Anesthesia: Feasibility Study of a Guidance System. [42:3043-3049](#).

Clinical note

Baik J, Lee KH, Ryu J, Kim O, Yoon J-H, Kim SH, Baek HJ. Role of Real-Time Elastography in the Evaluation of Cervical Lymph Nodes in Patients with Kikuchi Disease. [42:2334-2340](#).

Abe T, Fujita E, Thiebaud RS, Loenneke JP, Akamine T. Ultrasound-Derived Forearm Muscle Thickness Is a Powerful Predictor for Estimating DXA-Derived Appendicular Lean Mass in Japanese Older Adults. [42:2341-2344](#).

Bilotta F, Robba C, Santoro A, Delfini R, Rosa G, Agati L. Contrast-Enhanced Ultrasound Imaging in Detection of Changes in Cerebral Perfusion. [42:2708-2716](#).

Catalano O, Sandomenico F, Vallone P, Setola SV, Granata V, Fusco R, Lastoria S, Mansi L, Petrillo A. Contrast-Enhanced Ultrasound in the Assessment of Patients with Indeterminate Abdominal Findings at Positron Emission Tomography Imaging. [42:2717-2723](#).

De Masi R, Orlando S, Conte A, Pasca S, Scarpello R, Spagnolo P, Muscella A, De Donno A. Transbulbar B-Mode Sonography in Multiple Sclerosis: Clinical and Biological Relevance. [42:3037-3042](#).

Computed tomography

Synonyms: ultrasonic tomography, CT

Scopus Search: tomography OR CT

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

Sakalauskas A, Laučkaitė K, Lukoševičius A, Rastenytė D. Computer-Aided Segmentation of the Mid-Brain in Transcranial Ultrasound Images. [42:322-332](#).

- Weijers G, Wanten G, Thijssen JM, van der Graaf M, de Korte CL. Quantitative Ultrasound for Staging of Hepatic Steatosis in Patients on Home Parenteral Nutrition Validated with Magnetic Resonance Spectroscopy: A Feasibility Study. [42:637-644](#).
- Wang H-Y, Jiang Y-X, Zhu Q-L, Zhang J, Xiao M-S, Liu H, Dai Q, Li J-C, Sun Q. Automated Breast Volume Scanning: Identifying 3-D Coronal Plane Imaging Features May Help Categorize Complex Cysts. [42:689-698](#).
- Shan J, Alam SK, Garra B, Zhang Y, Ahmed T. Computer-Aided Diagnosis for Breast Ultrasound Using Computerized BI-RADS Features and Machine Learning Methods. [42:980-988](#).
- Lo C-M, Chan S-W, Yang Y-W, Chang Y-C, Huang C-S, Jou Y-S, Chang R-F. Feasibility Testing: Three-dimensional Tumor Mapping in Different Orientations of Automated Breast Ultrasound. [42:1201-1210](#).
- Ying M, Cheng SCH, Ahuja AT. Diagnostic Accuracy of Computer-Aided Assessment of Intranodal Vascularity in Distinguishing Different Causes of Cervical Lymphadenopathy. [42:2010-2016](#).
- Larson ED, Lee W-M, Roubidoux MA, Goodsitt MM, Lashbrook C, Zafar F, Kripfgans OD, Thomenius K, Carson PL. Automated Breast Ultrasound: Dual-Sided Compared with Single-Sided Imaging. [42:2072-2082](#).
- Xu C, Wei S, Xie Y, Guan X, Yang B. Three-Dimensional Assessment of Automated Breast Volume Scanner Compared with Handheld Ultrasound in Pre-Operative Breast Invasive Ductal Carcinomas: A Pilot Study of 51 Cases. [42:2089-2096](#).
- Chang R-F, Lee C-C, Lo C-M. Computer-Aided Diagnosis of Different Rotator Cuff Lesions Using Shoulder Musculoskeletal Ultrasound. [42:2315-2322](#).
- Akkus Z, Bayat M, Cheong M, Viksit K, Erickson BJ, Alizad A, Fatemi M. Fully Automated and Robust Tracking of Transient Waves in Structured Anatomies Using Dynamic Programming. [42:2504-2512](#).
- Andrėkutė K, Linkevičiūtė G, Raišutis R, Valiukevičienė S, Makštienė J. Automatic Differential Diagnosis of Melanocytic Skin Tumors Using Ultrasound Data. [42:2834-2843](#).
- Jørgensen AS, Schmidt SE, Staalsen N-H, Østergaard LR. An Improved Algorithm for Coronary Bypass Anastomosis Segmentation in Epicardial Ultrasound Sequences. [42:3010-3021](#).
- 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**
- Haworth KJ, Raymond JL, Radhakrishnan K, Moody MR, Huang S-L, Peng T, Shekhar H, Klegerman ME, Kim H, McPherson DD, Holland CK. Trans-Stent B-Mode Ultrasound and Passive Cavitation Imaging. [42:518-527](#).
- Chen X, Wang J, Pacella JJ, Villanueva FS. Dynamic Behavior of Microbubbles during Long Ultrasound Tone-Burst Excitation: Mechanistic Insights into Ultrasound-Microbubble Mediated Therapeutics Using High-Speed Imaging and Cavitation Detection. [42:528-538](#).
- Wang G, Zhang Q, Zhuo Z, Wu S, Xu Y, Zou L, Gan L, Tan K, Xia H, Liu Z, Gao Y. Enhanced Homing of CXCR-4 Modified Bone Marrow-Derived Mesenchymal Stem Cells to Acute Kidney Injury Tissues by Micro-Bubble-Mediated Ultrasound Exposure. [42:539-548](#).
- Ren S-T, Shen S, He X-Y, Liao Y-R, Sun P-F, Wang B, Zhao W-B, Han S-P, Wang Y-L, Tian T. The Effect of Docetaxel-Loaded Micro-Bubbles Combined with Low-Frequency Ultrasound in H22 Hepatocellular Carcinoma-Bearing Mice. [42:549-560](#).
- Wang D, Zhong H, Zhai Y, Hu H, Jin B, Wan M. Influence of Guided Waves in Tibia on Non-linear Scattering of Contrast Agents. [42:561-573](#).
- Manta S, Delalande A, Bessodes M, Bureau MF, Scherman D, Pichon C, Mignet N. Characterization of Positively Charged Lipid Shell Microbubbles with Tunable Resistive Pulse Sensing (TRPS) Method: A Technical Note. [42:624-630](#).
- Helfield B, Black JJ, Qin B, Pacella J, Chen X, Villanueva FS. Fluid Viscosity Affects the Fragmentation and Inertial Cavitation Threshold of Lipid-Encapsulated Microbubbles. [42:782-794](#).
- Sheeran PS, Daghighi Y, Yoo K, Williams R, Cherin E, Foster FS, Burns PN. Image-Guided Ultrasound Characterization of Volatile Sub-Micron Phase-Shift Droplets in the 20–40 MHz Frequency Range. [42:795-807](#).
- Vlaisavljevich E, Aydin O, Durmaz YY, Lin K-W, Fowlkes B, Xu Z, ElSayed MEH. Effects of Droplet Composition on Nanodroplet-Mediated Histotripsy. [42:931-946](#).
- Kumar KN, Sarkar K. Interfacial Rheological Properties of Contrast Microbubble Targestar P as a Function of Ambient Pressure. [42:1010-1017](#).
- Healey AJ, Sontum PC, Kvåle S, Eriksen M, Bendiksen R, Tørnes A, Østensen J. Acoustic Cluster Therapy: In Vitro and Ex Vivo Measurement of Activated Bubble Size Distribution and Temporal Dynamics. [42:1145-1166](#).
- Oishi Y, Kakimoto T, Yuan W, Kuno S, Yamashita H, Chiba T. Fetal Gene Therapy for Ornithine Transcarbamylase Deficiency by Intrahepatic Plasmid DNA-Micro-Bubble Injection Combined with Hepatic Ultrasound Insonation. [42:1357-1361](#).

- Xie X, Lin W, Li M, Yang Y, Deng J, Liu H, Chen Y, Fu X, Liu H, Yang Y. Efficient siRNA Delivery Using Novel Cell-Penetrating Peptide-siRNA Conjugate-Loaded Nanobubbles and Ultrasound. [42:1362-1374](#).
- Church CC, Miller DL. A Two-Criterion Model for Microvascular Bio-Effects Induced In Vivo by Contrast Microbubbles Exposed to Medical Ultrasound. [42:1385-1398](#).
- Harfield C, Fury CR, Memoli G, Jones P, Ovenden N, Stride E. Analysis of the Uncertainty in Microbubble Characterization. [42:1412-1418](#).
- Shen Y, Guo J, Chen G, Chin CT, Chen X, Chen J, Wang F, Chen S, Dan G. Delivery of Liposomes with Different Sizes to Mice Brain after Sonication by Focused Ultrasound in the Presence of Microbubbles. [42:1499-1511](#).
- Porter TR, Radio S, Lof J, Everbach C, Powers JE, Vignon F, Shi WT, Xie F. Diagnostic Ultrasound High Mechanical Index Impulses Restore Microvascular Flow in Peripheral Arterial Thromboembolism. [42:1531-1540](#).
- Lu X, Miller DL, Dou C, Zhu YI, Fabiilli ML, Owens GE, Kripfgans OD. Maturation of Lesions Induced by Myocardial Cavitation-Enabled Therapy. [42:1541-1550](#).
- Roos ST, Juffermans LJM, van Royen N, van Rossum AC, Xie F, Appelman Y, Porter TR, Kamp O. Unexpected High Incidence of Coronary Vasoconstriction in the Reduction of Microvascular Injury Using Sonolysis (ROMIUS) Trial. [42:1919-1928](#).
- Miller DL, Lu X, Fabiilli M, Fields K, Dou C. Frequency Dependence of Petechial Hemorrhage and Cardiomyocyte Injury Induced during Myocardial Contrast Echocardiography. [42:1929-1941](#).
- Liao A-H, Chung H-Y, Chen W-S, Yeh M-K. Efficacy of Combined Ultrasound-and-Microbubbles-Mediated Diclofenac Gel Delivery to Enhance Transdermal Permeation in Adjuvant-Induced Rheumatoid Arthritis in the Rat. [42:1976-1985](#).
- Black JJ, Yu FTH, Schnatz RG, Chen X, Villanueva FS, Pacella JJ. Effect of Thrombus Composition and Viscosity on Sonoreperfusion Efficacy in a Model of Micro-Vascular Obstruction. [42:2220-2231](#).
- Daeichin V, Kooiman K, Skachkov I, Bosch JG, Theelen TL, Steiger K, Needles A, Janssen BJ, Daemen MJAP, van der Steen AFW, de Jong N, Sluimer JC. Quantification of Endothelial $\alpha v \beta 3$ Expression with High-Frequency Ultrasound and Targeted Microbubbles: In Vitro and In Vivo Studies. [42:2283-2293](#).
- Martin KH, Lindsey BD, Ma J, Nichols TC, Jiang X, Dayton PA. Ex Vivo Porcine Arterial and Chorioallantoic Membrane Acoustic Angiography Using Dual-Frequency Intravascular Ultrasound Probes. [42:2294-2307](#).
- Marsico M, Gabbani T, Casseri T, Biagini MR. Factors Predictive of Improved Abdominal Ultrasound Visualization after Oral Administration of Simethicone. [42:2532-2537](#).
- Keravnou CP, De Cock I, Lentacker I, Izamis M-L, Averkiou MA. Microvascular Injury and Perfusion Changes Induced by Ultrasound and Microbubbles in a Machine-Perfused Pig Liver. [42:2676-2686](#).
- Wei S, Xu C, Rychak JJ, Luong A, Sun Y, Yang Z, Li M, Liu C, Fu N, Yang B. Short Hairpin RNA Knockdown of Connective Tissue Growth Factor by Ultrasound-Targeted Microbubble Destruction Improves Renal Fibrosis. [42:2926-2937](#).
- Maciulevičius M, Tamošiūnas M, Jakštys B, Jurkonis R, Venslauskas MS, Šatkauskas S. Investigation of Microbubble Cavitation-Induced Calcein Release from Cells In Vitro. [42:2990-3000](#).
- Roos ST, Yu FT, Kamp O, Chen X, Villanueva FS, Pacella JJ. Sonoreperfusion Therapy Kinetics in Whole Blood Using Ultrasound, Microbubbles and Tissue Plasminogen Activator. [42:3001-3009](#).
- Crake C, Owen J, Smart S, Coviello C, Coussios C-C, Carlisle R, Stride E. Enhancement and Passive Acoustic Mapping of Cavitation from Fluorescently Tagged Magnetic Resonance-Visible Magnetic Microbubbles In Vivo. [42:3022-3036](#).
- Contrast enhanced ultrasound**
Synonyms: contrast echocardiography, contrast ultrasound, contrast sonography, contrast-enhanced, CEUS
Scopus Search: “contrast enhanc*”
- See also: Doppler, contrast agents*
- Yang W, Yan K, Wang S, Dai Y, Wu W, Yin S-S, Chen M-H. Differential Diagnosis of Arterial Phase Enhanced Hepatic Inflammatory Lesions and Hepatocellular Carcinomas with Contrast-enhanced Ultrasound. [42:82-91](#).
- Maconi G, Asthana AK, Bolzacchini E, Dell’Era A, Furfaro F, Bezzio C, Salvatore V, Maier JAM. Splanchnic Hemodynamics and Intestinal Vascularity in Crohn’s Disease: An In Vivo Evaluation Using Doppler and Contrast-Enhanced Ultrasound and Biochemical Parameters. [42:150-158](#).
- Park J, Cho J, Kwon H, Kang M, Lee S, Roh Y-h, Kim KW, Lee SW. Liver Function Assessment Using Parenchyma-Specific Contrast-Enhanced Ultrasonography. [42:430-437](#).
- Chen M, He Y, Zhang P, Geng Q, Liu Q, Kong L, Chen Y, Wei Q, Liu J, Guo S, Liu H. Comparison of Uterine Receptivity between Fertile and Unexplained Infertile Women by Assessment of Endometrial and Subendometrial Perfusion Using Contrast-Enhanced Ultrasound: Which Index is Better—Peak Intensity or Area under the Curve? [42:654-663](#).
- Atri M, Hudson JM, Sinaei M, Williams R, Milot L, Moshonov H, Burns PN, Bjarnason GA. Impact of Acquisition Method and Region of Interest Placement on Inter-observer Agreement and Measurement of Tumor Response to Targeted Therapy Using Dynamic Contrast-Enhanced Ultrasound. [42:763-768](#).

- Shelton SE, Lindsey BD, Tsuruta JK, Foster FS, Dayton PA. Molecular Acoustic Angiography: A New Technique for High-resolution Superharmonic Ultrasound Molecular Imaging. *42:769-781*.
- Wang Y, Yan K, Fan Z, Sun L, Wu W, Yang W. Contrast-Enhanced Ultrasonography of Pancreatic Carcinoma: Correlation with Pathologic Findings. *42:891-898*.
- Wang Y, Liao J, Qi W, Xie L, Li Y. Predictive Value of Conventional Ultrasound and Contrast-Enhanced Ultrasound in Early Recurrence of Hepatocellular Carcinoma after Surgical Resection. *42:1042-1048*.
- Masumoto N, Kadoya T, Amioka A, Kajitani K, Shigematsu H, Emi A, Matsuura K, Arihiro K, Okada M. Evaluation of Malignancy Grade of Breast Cancer Using Perflubutane-Enhanced Ultrasonography. *42:1049-1057*.
- Guo Y-Z, Gao Y-S, Guo Z-N, Niu P-P, Yang Y, Xing Y-Q. Comparison of Different Methods of Valsalva Maneuver for Right-to-left Shunt Detection by Contrast-Enhanced Transcranial Doppler. *42:1124-1129*.
- Lo GM, Al Zahrani H, Jang HJ, Menezes R, Hudson J, Burns P, McNamara MG, Kandel S, Khalili K, Knox J, Rogalla P, Kim TK. Detection of Early Tumor Response to Axitinib in Advanced Hepatocellular Carcinoma by Dynamic Contrast Enhanced Ultrasound. *42:1303-1311*.
- Yan C, Bao X, Shentu W, Chen J, Liu C, Ye Q, Wang L, Tan Y, Huang P. Preoperative Gross Classification of Gastric Adenocarcinoma: Comparison of Double Contrast-Enhanced Ultrasound and Multi-Detector Row CT. *42:1431-1440*.
- Hong-xia Z, Wen H, Ling-gang C, Wen-jia C, Shuo L, Li-juan D, Hai-man S, Yang Z. A New Method for Discriminating between Bronchial and Pulmonary Arterial Phases using Contrast-Enhanced Ultrasound. *42:1441-1449*.
- Zhang Q, Yu Z, Xu Y, Zeng S, Zhang Z, Xue W, Wang W, Zhang X, Hu X. Use of Contrast-Enhanced Ultrasonography to Evaluate Chronic Allograft Nephropathy in Rats and Correlations between Time-Intensity Curve Parameters and Allograft Fibrosis. *42:1574-1583*.
- Wang D, Zong Y, Yang X, Hu H, Wan J, Zhang L, Bouakaz A, Wan M. Ultrasound Contrast Plane Wave Imaging Based on Bubble Wavelet Transform: In Vitro and In Vivo Validations. *42:1584-1597*.
- Cheng W, Gao X, Wang W, Zhi M, Tang J, Wen Y-l, Yu J, Chen Y, Liu X, Yang C, Hu P, Liu G. Preliminary Analysis of Clinical Situations Involved in Quantification of Contrast-Enhanced Ultrasound in Crohn's Disease. *42:1784-1791*.
- Kiyono S, Maruyama H, Kobayashi K, Kondo T, Sekimoto T, Shimada T, Yokosuka O, Yamaguchi T. Non-Invasive Diagnosis of Portal Hypertensive Gastropathy: Quantitative Analysis of Microbubble-Induced Stomach Wall Enhancement. *42:1792-1799*.
- Schröder C, Lock G, Schmidt C, Löning T, Dieckmann K-P. Real-Time Elastography and Contrast-Enhanced Ultrasonography in the Evaluation of Testicular Masses: A Comparative Prospective Study. *42:1807-1815*.
- Cui X-W, Ignee A, Maros T, Straub B, Wen J-G, Dietrich CF. Feasibility and Usefulness of Intra-Cavitary Contrast-Enhanced Ultrasound in Percutaneous Nephrostomy. *42:2180-2188*.
- Martin KH, Lindsey BD, Ma J, Nichols TC, Jiang X, Dayton PA. Ex Vivo Porcine Arterial and Chorioallantoic Membrane Acoustic Angiography Using Dual-Frequency Intravascular Ultrasound Probes. *42:2294-2307*.
- Xiao X, Dong L, Jiang Q, Guan X, Wu H, Luo B. Incorporating Contrast-Enhanced Ultrasound into the BI-RADS Scoring System Improves Accuracy in Breast Tumor Diagnosis: A Preliminary Study in China. *42:2630-2638*.
- Lin M-X, Kuang M, Xu M, Zhuang B-W, Tian W-S, Ye J-Y, Xie X-H, Xie X-Y. Ultrasound and Contrast-Enhanced Ultrasound for Evaluation of Irreversible Electroporation Ablation: In Vivo Proof of Concept in Normal Porcine Liver. *42:2639-2649*.
- Bilotta F, Robba C, Santoro A, Delfini R, Rosa G, Agati L. Contrast-Enhanced Ultrasound Imaging in Detection of Changes in Cerebral Perfusion. *42:2708-2716*.
- Catalano O, Sandomenico F, Vallone P, Setola SV, Granata V, Fusco R, Lastoria S, Mansi L, Petrillo A. Contrast-Enhanced Ultrasound in the Assessment of Patients with Indeterminate Abdominal Findings at Positron Emission Tomography Imaging. *42:2717-2723*.
- Saidov T, Heneweer C, Kuenen M, von Broich-Oppert J, Wijkstra H, Rosette Jdl, Mischi M. Fractal Dimension of Tumor Microvasculature by DCE-US: Preliminary Study in Mice. *42:2852-2863*.
- De Angelis C, Mauri G. Expanding Role of Contrast-Enhanced Ultrasound in Guidance and Monitoring of Percutaneous Thermal Ablation. *42:3051*.
- D**
- Dental**
- Synonyms:** teeth
- Scopus Search:** Dent* OR t*th OR enamel
- Nguyen K-CT, Le LH, Kaipatur NR, Major PW. Imaging the Cemento-Enamel Junction Using a 20-MHz Ultrasonic Transducer. *42:333-338*.
- Dahhas FY, El-Bialy T, Afify AR, Hassan AH. Effects of Low-Intensity Pulsed Ultrasound on Orthodontic Tooth Movement and Orthodontically Induced Inflammatory Root Resorption in Ovariectomized Osteoporotic Rats. *42:808-814*.
- Doppler ultrasound**
- Synonyms:**
- Scopus Search:** Doppler

- Du J, Bai X, Lu Y, Wang H, Zhao J, Liu J, Wang H, Sui X, Fang Q. Diagnostic Efficacy of Ultrasonographic Characteristics of Thyroid Carcinoma in Predicting Cervical Lymph Node Metastasis. *42:68-74*.
- Hou Y, Sun D-D, Yuan L-J, Zhu X-Y, Shang F-J, Hou C-J, Duan Y-Y. Clinical Application of Superior Vena Cava Spectra in Evaluation of Pulmonary Hypertension: A Comparative Echocardiography and Catheterization Study. *42:110-117*.
- Maconi G, Asthana AK, Bolzacchini E, Dell'Era A, Furfaro F, Bezzio C, Salvatore V, Maier JAM. Splanchnic Hemodynamics and Intestinal Vascularity in Crohn's Disease: An In Vivo Evaluation Using Doppler and Contrast-Enhanced Ultrasound and Biochemical Parameters. *42:150-158*.
- Shen Q, Li J, Zheng D, Lv L, Yang G, He Q. Doppler Characteristics of Cavemosal-Spongiosal Communications in Patients with Erectile Dysfunction. *42:159-166*.
- Desmots F, Fakhry N, Mancini J, Reyre A, Vidal V, Jacquier A, Santini L, Moulin G, Varoquaux A. Shear Wave Elastography in Head and Neck Lymph Node Assessment: Image Quality and Diagnostic Impact Compared with B-Mode and Doppler Ultrasonography. *42:387-398*.
- Tsai L-K, Yeh S-J, Tang S-C, Hsieh Y-L, Chen Y-A, Liu H-M, Jeng J-S. Validity of Carotid Duplex Sonography in Screening for Intracranial Dural Arteriovenous Fistula among Patients with Pulsatile Tinnitus. *42:407-412*.
- Barral M, Raballand A, Dohan A, Soyer P, Pocard M, Bonnin P. Preclinical Assessment of the Efficacy of Anti-Angiogenic Therapies in Hepatocellular Carcinoma. *42:438-446*.
- Kudla MJ, Los A, Alcazar JL. Are Results of 4-D Ultrasound Angiography Examinations Dependent on the Doppler Technology Applied? Comparison of Results Obtained from an In Vivo Model. *42:447-450*.
- Xu C, Yuan C, Stutzman E, Canton G, Comess KA, Beach KW. Quest for the Vulnerable Atheroma: Carotid Stenosis and Diametric Strain—A Feasibility Study. *42:699-716*.
- Gao M, Zhao X, Tao Y, Wang L, Xia M, Tong Z, Hou C, Hua Y. Incidence and Predictors of In-stent Re-Stenosis in the Superficial Femoral Artery: Evaluation of Long-Term Outcomes by Color Duplex Ultrasound. *42:717-726*.
- Zhou X, Xia C, Khan F, Corner GA, Huang Z, Hoskins PR. Investigation of Ultrasound-Measured Flow Rate and Wall Shear Rate in Wrist Arteries Using Flow Phantoms. *42:815-823*.
- Lenzarini F, Di Lascio N, Stea F, Kusmic C, Faita F. Time Course of Isoflurane-Induced Vasodilation: A Doppler Ultrasound Study of the Left Coronary Artery in Mice. *42:999-1009*.
- Guo Y-Z, Gao Y-S, Guo Z-N, Niu P-P, Yang Y, Xing Y-Q. Comparison of Different Methods of Valsalva Maneuver for Right-to-left Shunt Detection by Contrast-Enhanced Transcranial Doppler. *42:1124-1129*.
- Zhu M, Ashraf M, Tam L, Streiff C, Kimura S, Shimada E, Sahn DJ. Quantification of Shunt Volume Through Ventricular Septal Defect by Real-Time 3-D Color Doppler Echocardiography: An in Vitro Study. *42:1193-1200*.
- Lee C-m, Jeong WK, Lim S, Kim Y, Kim J, Kim TY, Sohn JH. Diagnosis of Clinically Significant Portal Hypertension in Patients with Cirrhosis: Splenic Arterial Resistive Index versus Liver Stiffness Measurement. *42:1312-1320*.
- Swillens A, Shcherbakova D, Trachet B, Segers P. Pitfalls of Doppler Measurements for Arterial Blood Flow Quantification in Small Animal Research: A Study Based on Virtual Ultrasound Imaging. *42:1399-1411*.
- Ying M, Cheng SCH, Ahuja AT. Diagnostic Accuracy of Computer-Aided Assessment of Intranodal Vascularity in Distinguishing Different Causes of Cervical Lymphadenopathy. *42:2010-2016*.
- Yongfeng Z, Ping Z, Wengang L, Yang S, Shuangming T. Application of a Novel Microvascular Imaging Technique in Breast Lesion Evaluation. *42:2097-2105*.
- Jin Z-Q, He W, Wu D-F, Lin M-Y, Jiang H-T. Color Doppler Ultrasound in Diagnosis and Assessment of Carotid Body Tumors: Comparison with Computed Tomography Angiography. *42:2106-2113*.
- Ryoo I, Suh S, You S-H, Seol HY. Usefulness of Microvascular Ultrasonography in Differentiating Metastatic Lymphadenopathy from Tuberculous Lymphadenitis. *42:2189-2195*.
- D'Abate F, Ramachandran V, Young MA, Farrah J, Ahmed MH, Jones K, Hinchliffe RJ. B-Flow Imaging in Lower Limb Peripheral Arterial Disease and Bypass Graft Ultrasonography. *42:2345-2351*.
- Bhide A, Vuolteenaho O, Haapsamo M, Erkinaro T, Rasanen J, Acharya G. Effect of Hypoxemia with or without Increased Placental Vascular Resistance on Fetal Left and Right Ventricular Myocardial Performance Index in Chronically Instrumented Sheep. *42:2589-2598*.
- Nestaas E, Støylen A, Fugelseth D. Speckle Tracking Using Gray-Scale Information from Tissue Doppler Recordings versus Regular Gray-Scale Recordings in Term Neonates. *42:2599-2605*.
- Martí-Fàbregas J, Figueroa S, Martínez-Lizana E, Zubizarreta I, Carrera D, Martínez-Domeño A, Prats-Sánchez L, Camps-Renom P, Jiménez-Xarrié E, Delgado-Mederos R. Total Cerebral Blood Flow in Patients with Cardioembolic Stroke: Is It Clinically Meaningful? *42:2826-2833*.
- Soares CAM, Pavaz TZ, Miyague AH, Kudla M, Martins WP. Influence of Pulse Repetition Frequency on 3-D Power Doppler Quantification. *42:2887-2892*.

Dosimetry

Synonyms: dose response, dosology

Scopus Search: Dos**See also: bioeffects, calibration*

Harris GR, Church CC, Dalecki D, Ziskin MC, Bagley JE. Comparison of Thermal Safety Practice Guidelines for Diagnostic Ultrasound Exposures. *42:345-357*.

Miloro P, Civale J, Rivens I, Shaw A. The Feasibility of Thermal Imaging as a Future Portal Imaging Device for Therapeutic Ultrasound. *42:2033-2038*.

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

Haworth KJ, Raymond JL, Radhakrishnan K, Moody MR, Huang S-L, Peng T, Shekhar H, Klegerman ME, Kim H, McPherson DD, Holland CK. Trans-Stent B-Mode Ultrasound and Passive Cavitation Imaging. *42:518-527*.

Ren S-T, Shen S, He X-Y, Liao Y-R, Sun P-F, Wang B, Zhao W-B, Han S-P, Wang Y-L, Tian T. The Effect of Docetaxel-Loaded Micro-Bubbles Combined with Low-Frequency Ultrasound in H22 Hepatocellular Carcinoma-Bearing Mice. *42:549-560*.

Jeong H-S, Hwang H, Oh P-S, Kim E-M, Lee TK, Kim M, Kim HS, Lim ST, Sohn M-H, Jeong H-J. Effect of High-Intensity Focused Ultrasound on Drug Release from Doxorubicin-Loaded PEGylated Liposomes and Therapeutic Effect in Colorectal Cancer Murine Models. *42:947-955*.

Zhou Y, Wang Y-N, Farr N, Zia J, Chen H, Ko BM, Khokhlova T, Li T, Hwang JH. Enhancement of Small Molecule Delivery by Pulsed High-Intensity Focused Ultrasound: A Parameter Exploration. *42:956-963*.

Shen Y, Guo J, Chen G, Chin CT, Chen X, Chen J, Wang F, Chen S, Dan G. Delivery of Liposomes with Different Sizes to Mice Brain after Sonication by Focused Ultrasound in the Presence of Microbubbles. *42:1499-1511*.

Prieur F, Pillon A, Mestas J-L, Cartron V, Cèbe P, Chansard N, Lafond M, Lafon C. Enhancement of Fluorescent Probe Penetration into Tumors In Vivo Using Unseeded Inertial Cavitation. *42:1706-1713*.

Liao A-H, Chung H-Y, Chen W-S, Yeh M-K. Efficacy of Combined Ultrasound-and-Microbubbles-Mediated Diclofenac Gel Delivery to Enhance Transdermal Permeation in Adjuvant-Induced Rheumatoid Arthritis in the Rat. *42:1976-1985*.

Zhang Y, Tan H, Bertram EH, Aubry J-F, Lopes M-B, Roy J, Dumont E, Xie M, Zuo Z, Klivanov AL, Lee KS, Wintermark M. Non-Invasive, Focal Disconnection of Brain Circuitry Using Magnetic Resonance-Guided Low-Intensity Focused Ultrasound to Deliver a Neurotoxin. *42:2261-2269*.

Nwokeoha S, Carlisle R, Cleveland RO. The Application of Clinical Lithotripter Shock Waves to RNA Nucleotide Delivery to Cells. *42:2478-2492*.

Suen W-LL, Jiang J, Wong HS, Qu J, Chau Y. Examination of Effects of Low-Frequency Ultrasound on Scleral Permeability and Collagen Network. *42:2650-2661*.

Keravnou CP, De Cock I, Lentacker I, Izamis M-L, Averkiou MA. Microvascular Injury and Perfusion Changes Induced by Ultrasound and Microbubbles in a Machine-Perfused Pig Liver. *42:2676-2686*.

Wei S, Xu C, Rychak JJ, Luong A, Sun Y, Yang Z, Li M, Liu C, Fu N, Yang B. Short Hairpin RNA Knockdown of Connective Tissue Growth Factor by Ultrasound-Targeted Microbubble Destruction Improves Renal Fibrosis. *42:2926-2937*.

Maciulevičius M, Tamošiūnas M, Jakštys B, Jurkonis R, Venslauskas MS, Satkauskas S. Investigation of Microbubble Cavitation-Induced Calcein Release from Cells In Vitro. *42:2990-3000*.

Crake C, Owen J, Smart S, Coviello C, Coussios C-C, Carlisle R, Stride E. Enhancement and Passive Acoustic Mapping of Cavitation from Fluorescently Tagged Magnetic Resonance-Visible Magnetic Microbubbles In Vivo. *42:3022-3036*.

E**Echocardiography**

Synonyms: cardiac imaging, sonocardiography

Scopus Search: echocard* OR “card* imaging” OR “card* ultraso*” OR sonocard*

See also: cardiology, contrast enhanced ultrasound

Chen R, Wu X, Jin H, Wang B, Ma M, Zhao B. Assessment of Left Atrial Appendage Morphology and Function in Patients with Non-valvular Paroxysmal Atrial Fibrillation with Different Rhythms Using Real-Time 3D Transesophageal Echocardiography. *42:118-124*.

Sun Q-W, Zhen L, Wang Q, Sun Y, Yang J, Li Y-J, Li R-J, Ma N, Li Z-A, Wang L-Y, Nie S-P, Yang Y. Assessment of Retrograde Coronary Venous Infusion of Mesenchymal Stem Cells Combined with Basic Fibroblast Growth Factor in Canine Myocardial Infarction Using Strain Values Derived from Speckle-Tracking Echocardiography. *42:272-281*.

Zhu M, Ashraf M, Tam L, Streiff C, Kimura S, Shimada E, Sahn DJ. Quantification of Shunt Volume Through Ventricular Septal Defect by Real-Time 3-D Color Doppler Echocardiography: An in Vitro Study. *42:1193-1200*.

Khan U, Hjertaas JJ, Greve G, Matre K. Optimal Acquisition Settings for Speckle Tracking Echocardiography-Derived Strains in Infants: An In Vitro Study. *42:1660-1670*.

Nestaas E, Støylen A, Fugelseth D. Speckle Tracking Using Gray-Scale Information from Tissue Doppler Recordings versus Regular Gray-Scale Recordings in Term Neonates. *42:2599-2605*.

Andersen MV, Moore C, Arges K, Søggaard P, Østergaard LR, Schmidt SE, Kisslo J, Von Ramm OT. High-Frame-Rate Deformation Imaging in Two Dimensions Using Continuous Speckle-Feature Tracking. *42:2606-2615*.

Hedman K, Nylander E, Henriksson J, Bjarnegård N, Brudin L, Tamás É. Echocardiographic Characterization of the Inferior Vena Cava in Trained and Untrained Females. *42:2794-2802*.

Elastography

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

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

Chiorean L, Barr RG, Braden B, Jenssen C, Cui X-W, Hocke M, Schuler A, Dietrich CF. Transcutaneous Ultrasound: Elastographic Lymph Node Evaluation. Current Clinical Applications and Literature Review. *42:16-30*.

Koh J, Moon HJ, Park JS, Kim SJ, Kim HY, Kim E-K, Kwak JY. Variability in Interpretation of Ultrasound Elastography and Gray-Scale Ultrasound in Assessing Thyroid Nodules. *42:51-59*.

Wang Z, Liu N, Zhang L, Li X, Han X, Peng Y, Dang M, Sun L, Tian J. Real-Time Elastography Visualization and Histopathological Characterization of Rabbit Atherosclerotic Carotid Arteries. *42:176-184*.

Maksuti E, Widman E, Larsson D, Urban MW, Larsson M, Bjällmark A. Arterial Stiffness Estimation by Shear Wave Elastography: Validation in Phantoms with Mechanical Testing. *42:308-321*.

Huang C, Pan X, He Q, Huang M, Huang L, Zhao X, Yuan C, Bai J, Luo J. Ultrasound-Based Carotid Elastography for Detection of Vulnerable Atherosclerotic Plaques Validated by Magnetic Resonance Imaging. *42:365-377*.

Cheng KL, Choi YJ, Shim WH, Lee JH, Baek JH. Virtual Touch Tissue Imaging Quantification Shear Wave Elastography: Prospective Assessment of Cervical Lymph Nodes. *42:378-386*.

Desmots F, Fakhry N, Mancini J, Reyre A, Vidal V, Jacquier A, Santini L, Moulin G, Varoquaux A. Shear Wave Elastography in Head and Neck Lymph Node Assessment: Image Quality and Diagnostic Impact Compared with B-Mode and Doppler Ultrasonography. *42:387-398*.

Park VY, Kim E-K, Kwak JY, Yoon JH, Kim MJ, Moon HJ. Thyroid Imaging Reporting and Data System and Ultrasound Elastography: Diagnostic Accuracy as a Tool in Recommending Repeat Fine-Needle Aspiration for Solid Thyroid Nodules with Non-Diagnostic Fine-Needle Aspiration Cytology. *42:399-406*.

Boekhoven RW, Peters MFJ, Rutten MCM, van Sambeek MR, van de Vosse FN, Lopata RGP. Inflation and Bi-Axial Tensile Testing of Healthy Porcine Carotid Arteries. *42:574-585*.

Yoshitake Y, Miyamoto N, Taniguchi K, Katayose M, Kanehisa H. The Skin Acts to Maintain Muscle Shear Modulus. *42:674-682*.

Tacheau A, Le Floc’h S, Finet G, Doyley MM, Pettigrew RI, Cloutier G, Ohayon J. The Imaging Modulography Technique Revisited for High-Definition Intravascular Ultrasound: Theoretical Framework. *42:727-741*.

Liu B, Zheng Y, Huang G, Lin M, Shan Q, Lu Y, Tian W, Xie X. Breast Lesions: Quantitative Diagnosis Using Ultrasound Shear Wave Elastography - A Systematic Review and Meta-Analysis. *42:835-847*.

Van Biervliet S, Verdier H, Vande Velde S, De Bruyne R, De Looze D, Verhelst X, Geerts A, Robberecht E, Van Vlierberghe H. Longitudinal Transient Elastography Measurements Used in Follow-up for Patients with Cystic Fibrosis. *42:848-854*.

Sconfienza LM, Cavallaro F, Colombi V, Pastorelli L, Tontini G, Pescatori L, Esseridou A, Savarino E, Messina C, Casale R, Di Leo G, Sardanelli F, Vecchi M. In-vivo Axial-strain Sonoelastography Helps Distinguish Acutely-inflamed from Fibrotic Terminal Ileum Strictures in Patients with Crohn’s Disease: Preliminary Results. *42:855-863*.

Li Z, Tian J, Wang X, Wang Y, Wang Z, Zhang L, Jing H, Wu T. Differences in Multi-Modal Ultrasound Imaging between Triple Negative and Non-Triple Negative Breast Cancer. *42:882-890*.

Wang X, Jackson DC, Mitchell CC, Varghese T, Wilbrand SM, Rocque BG, Hermann BP, Dempsey RJ. Classification of Symptomatic and Asymptomatic Patients with and without Cognitive Decline Using Non-invasive Carotid Plaque Strain Indices as Biomarkers. *42:909-918*.

Chamming’s F, Le-Frère-Belda M-A, Latorre-Ossa H, Fitoussi V, Redheuil A, Assayag F, Pidial L, Gennisson J-L, Tanter M, Cuénod C-A, Fournier LS. Supersonic Shear Wave Elastography of Response to Anti-cancer Therapy in a Xenograft Tumor Model. *42:924-930*.

MacDonald D, Wan A, McPhee M, Tucker K, Hug F. Reliability of Abdominal Muscle Stiffness Measured Using Elastography during Trunk Rehabilitation Exercises. *42:1018-1025*.

Ozturker C, Karagoz E. Acoustic Radiation Force Impulse Imaging or Transient Elastography in Chronic Hepatitis B? *42:1026*.

Zhang D, Chen M, Zhou G. The Clinical Application of Acoustic Radiation Force Impulse Imaging and Transient Elastography in Chronic Hepatitis B. *42:1026*.

Amador C, Song P, Meixner DD, Chen S, Urban MW. Improvement of Shear Wave Motion Detection Using Harmonic Imaging in Healthy Human Liver. *42:1031-1041*.

Gao J, Du L-J, He W, Li S, Cheng L-G. Ultrasound Strain Elastography in Assessment of Muscle Stiffness in Acute Levodopa Challenge Test: A Feasibility Study. *42:1084-1089*.

- Huang C, Su Y, Zhang H, Qian L-X, Luo J. Comparison of Different Pulse Waveforms for Local Pulse Wave Velocity Measurement in Healthy and Hypertensive Common Carotid Arteries in Vivo. [42:1111-1123](#).
- Huntzicker S, Shekhar H, Doyley MM. Contrast-Enhanced Quantitative Intravascular Elastography: The Impact of Microvasculature on Model-Based Elastography. [42:1167-1181](#).
- Ding X, Nguyen MM, James IB, Marra KG, Rubin JP, Leers SA, Kim K. Improved Estimation of Ultrasound Thermal Strain Using Pulse Inversion Harmonic Imaging. [42:1182-1192](#).
- Chaudhry A, Yazdi IK, Kongari R, Tasciotti E, Righetti R. A New Class of Phantom Materials for Poroelastography Imaging Techniques. [42:1230-1238](#).
- Azizi G, Keller JM, Mayo ML, Piper K, Puett D, Earp KM, Malchoff CD. Shear Wave Elastography and Cervical Lymph Nodes: Predicting Malignancy. [42:1273-1281](#).
- McAleavey SA, Parker KJ, Ormachea J, Wood RW, Stodgell CJ, Katzman PJ, Pressman EK, Miller RK. Shear Wave Elastography in the Living, Perfused, Post-Delivery Placenta. [42:1282-1288](#).
- Ipek-Ugay S, Tzschätzsch H, Hudert C, Marticorena Garcia SR, Fischer T, Braun J, Althoff C, Sack I. Time Harmonic Elastography Reveals Sensitivity of Liver Stiffness to Water Ingestion. [42:1289-1294](#).
- Gersak MM, Badea R, Lenghel LM, Vasilescu D, Botar-Jid C, Duda SM. Influence of Food Intake on 2-D Shear Wave Elastography Assessment of Liver Stiffness in Healthy Subjects. [42:1295-1302](#).
- Zhou J, Yang Z, Zhan W, Zhang J, Hu N, Dong Y, Wang Y. Breast Lesions Evaluated by Color-Coded Acoustic Radiation Force Impulse (ARFI) Imaging. [42:1464-1472](#).
- Li C, Zhang C, Li J, Cao X, Song D. An Experimental Study of the Potential Biological Effects Associated with 2-D Shear Wave Elastography on the Neonatal Brain. [42:1551-1559](#).
- Bhatia KSS, Lam ACL, Pang SWA, Wang D, Ahuja AT. Feasibility Study of Texture Analysis Using Ultrasound Shear Wave Elastography to Predict Malignancy in Thyroid Nodules. [42:1671-1680](#).
- Song P, Bi X, Mellema DC, Manduca A, Urban MW, Pellikka PA, Chen S, Greenleaf JF. Pediatric Cardiac Shear Wave Elastography for Quantitative Assessment of Myocardial Stiffness: A Pilot Study in Healthy Controls. [42:1719-1729](#).
- Akiyama K, Akagi R, Hirayama K, Hirose N, Takahashi H, Fukubayashi T. Shear Modulus of the Lower Leg Muscles in Patients with Medial Tibial Stress Syndrome. [42:1779-1783](#).
- Yoon JH, Song MK, Kim E-K. Semi-Quantitative Strain Ratio in the Differential Diagnosis of Breast Masses: Measurements Using One Region-of-Interest. [42:1800-1806](#).
- Schröder C, Lock G, Schmidt C, Löning T, Dieckmann K-P. Real-Time Elastography and Contrast-Enhanced Ultrasonography in the Evaluation of Testicular Masses: A Comparative Prospective Study. [42:1807-1815](#).
- Dumont DM, Walsh KM, Byram BC. Improving Displacement Signal-to-Noise Ratio for Low-Signal Radiation Force Elasticity Imaging Using Bayesian Techniques. [42:1986-1997](#).
- Li X-L, Xu H-X, Bo X-W, Liu B-J, Huang X, Li D-D, Guo L-H, Xu J-M, Sun L-P, Fang L, Xu X-H. Value of Virtual Touch Tissue Imaging Quantification for Evaluation of Ultrasound Breast Imaging-Reporting and Data System Category 4 Lesions. [42:2050-2057](#).
- Hofauer B, Mansour N, Heiser C, Gahleitner C, Thuermel K, Bas M, Knopf A. Sonoelastographic Modalities in the Evaluation of Salivary Gland Characteristics in Sjögren's Syndrome. [42:2130-2139](#).
- Mjelle AB, Mulabecirovic A, Hausken T, Havre RF, Gilja OH, Vesterhus M. Ultrasound and Point Shear Wave Elastography in Livers of Patients with Primary Sclerosing Cholangitis. [42:2146-2155](#).
- Tian W-S, Lin M-X, Zhou L-Y, Pan F-S, Huang G-L, Wang W, Lu M-D, Xie X-Y. Maximum Value Measured by 2-D Shear Wave Elastography Helps in Differentiating Malignancy from Benign Focal Liver Lesions. [42:2156-2166](#).
- Yang C, Jin Y, Wu S, Li L, Hu M, Xu M, Rong R, Zhu T, He W. Prediction of Renal Allograft Acute Rejection Using a Novel Non-Invasive Model Based on Acoustic Radiation Force Impulse. [42:2167-2179](#).
- Pitre Jr JJ, Koziol LB, Kruger GH, Vollmer A, Ophir J, Ammann J-J, Weitzel WF, Bull JL. Design and Testing of a Single-Element Ultrasound Viscoelastography System for Point-of-Care Edema Quantification. [42:2209-2219](#).
- Baik J, Lee KH, Ryu J, Kim O, Yoon J-H, Kim SH, Baek HJ. Role of Real-Time Elastography in the Evaluation of Cervical Lymph Nodes in Patients with Kikuchi Disease. [42:2334-2340](#).
- Zhou J, Yang Z, Zhan W, Dong Y, Zhou C. Anisotropic Properties of Breast Tissue Measured by Acoustic Radiation Force Impulse Quantification. [42:2372-2382](#).
- Seong M, Shin JH, Hahn SY. Ultrasound Strain Elastography for Circumscribed Solid Thyroid Nodules without Malignant Features Categorized as Indeterminate by B-Mode Ultrasound. [42:2383-2390](#).
- Sasso M, Liu Y, Aron-Wisnewsky J, Bouillot J-L, Abdennour M, Clet M, Sandrin L, le Naour G, Bedossa P, Tordjman J, Clément K, Miette V. AdipoScan: A Novel Transient Elastography-Based Tool Used to Non-Invasively Assess Subcutaneous Adipose Tissue Shear Wave Speed in Obesity. [42:2401-2413](#).
- Widman E, Maksud E, Amador C, Urban MW, Caidahl K, Larsson M. Shear Wave Elastography Quantifies Stiffness in Ex Vivo Porcine Artery with Stiffened Arterial Region. [42:2423-2435](#).

Rubin JM, Horowitz JC, Sisson TH, Kim K, Ortiz LA, Hamilton JD. Ultrasound Strain Measurements for Evaluating Local Pulmonary Ventilation. *42:2525-2531*.

Tzschätzsch H, Nguyen Trong M, Scheuermann T, Ipek-Ugay S, Fischer T, Schultz M, Braun J, Sack I. Two-Dimensional Time-Harmonic Elastography of the Human Liver and Spleen. *42:2562-2571*.

Mulabecirovic A, Vesterhus M, Gilja OH, Havre RF. In Vitro Comparison of Five Different Elastography Systems for Clinical Applications, Using Strain and Shear Wave Technology. *42:2572-2588*.

Schwab F, Redling K, Siebert M, Schötzu A, Schoenenberger C-A, Zanetti-Dällenbach R. Inter- and Intra-Observer Agreement in Ultrasound BI-RADS Classification and Real-Time Elastography Tsukuba Score Assessment of Breast Lesions. *42:2622-2629*.

Stachs A, Pandjaitan A, Martin A, Stubert J, Hartmann S, Gerber B, Glass Ä. Accuracy of Tumor Sizing in Breast Cancer: A Comparison of Strain Elastography, 3-D Ultrasound and Conventional B-Mode Ultrasound with and without Compound Imaging. *42:2758-2765*.

Dobruch-Sobczak K, Zalewska EB, Gumińska A, Słapa RZ, Mlosek K, Wareluk P, Jakubowski W, Dedecjus M. Diagnostic Performance of Shear Wave Elastography Parameters Alone and in Combination with Conventional B-Mode Ultrasound Parameters for the Characterization of Thyroid Nodules: A Prospective, Dual-Center Study. *42:2803-2811*.

Yang W, Ziemlewicz TJ, Varghese T, Alexander ML, Rubert N, Ingle AN, Lubner MG, Hinshaw JL, Wells SA, Lee Jr FT, Zagzebski JA. Post-procedure Evaluation of Microwave Ablations of Hepatocellular Carcinomas Using Electrode Displacement Elastography. *42:2893-2902*.

Ozturker C, Karagoz E, Incedayi M. Non-invasive Evaluation of Liver Fibrosis: 2-D Shear Wave Elastography, Transient Elastography or Acoustic Radiation Force Impulse Imaging? *42:3052*.

Gerber L, Friedrich-Rust M. Re: Non-invasive Evaluation of Liver Fibrosis: 2-D Shear Wave Elastography, Transient Elastography or Acoustic Radiation Force Impulse Imaging? *42:3053*.

Endoscopic ultrasonography

Synonyms: EUS

Scopus Search: “Endoscopic” OR “EUS”

See also: **intravascular ultrasound**

Errata

Wongwaisayawan S, Suwannanon R, Prachanukool T, Sricharoen P, Saksobhavit N, Kaewlai R. Erratum to:

“Trauma Ultrasound” in *Ultrasound Med Biol* 2015;41(10):2543–2561. *42:339*.

Erratum to: “The Significance of the Ultrasound Diagnostics in Evaluation of the Embologenic Pathogenesis of Transient Ischemic Attacks.” *Ultrasound Med Biol* 2013;39(4):597–603. *42:632*.

Haworth KJ, Raymond JL, Radhakrishnan K, Moody MR, Huang S-I, Peng T, Shekhar H, Klegerman ME, Kim H, McPherson DD, Holland CK. Erratum to: “Trans-stent B-mode Ultrasound and Passive Cavitation Imaging” in *Ultrasound Med Biol* 2016;42(2):518–527. *42:1244*.

Eyes

Synonyms: ocular, retinal, cornea

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

Hynes MB, Bujak MC, Chérin E, Sade S, Foster FS. Design of a Subtarsal Ultrasonic Transducer for Mild Hyperthermia Treatment of Dry Eye Disease. *42:232-242*.

Wang L, Feng L, Yao Y, Deng F, Wang Y, Feng J, Xing Y. Ultrasonographic Evaluation of Optic Nerve Sheath Diameter among Healthy Chinese Adults. *42:683-688*.

Caixinha M, Santos M, Santos J. Automatic Cataract Hardness Classification Ex Vivo by Ultrasound Techniques. *42:989-998*.

Suen W-LL, Jiang J, Wong HS, Qu J, Chau Y. Examination of Effects of Low-Frequency Ultrasound on Scleral Permeability and Collagen Network. *42:2650-2661*.

G

Gastroenterology

Synonyms: Gastrointestinal Tract, gastric, digestive system, oesophageal

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

See also: **liver, pancreas**

Maconi G, Asthana AK, Bolzacchini E, Dell’Era A, Furfaro F, Bezzio C, Salvatore V, Maier JAM. Splanchnic Hemodynamics and Intestinal Vascularity in Crohn’s Disease: An In Vivo Evaluation Using Doppler and Contrast-Enhanced Ultrasound and Biochemical Parameters. *42:150-158*.

Sconfienza LM, Cavallaro F, Colombi V, Pastorelli L, Tontini G, Pescatori L, Esseridou A, Savarino E, Messina C, Casale R, Di Leo G, Sardanelli F, Vecchi M. In-vivo Axial-strain Sonoelastography Helps Distinguish Acutely-inflamed from Fibrotic Terminal Ileum Strictures in Patients with Crohn’s Disease: Preliminary Results. *42:855-863*.

Buisman WJ, Mauritz FA, Westerhuis WE, Gilja OH, van der Zee DC, van Herwaarden-Lindeboom MYA. Evaluation of Gastric Volumes: Comparison of 3-D Ultrasound and Magnetic Resonance Imaging. *42:1423-1430*.

Yan C, Bao X, Shentu W, Chen J, Liu C, Ye Q, Wang L, Tan Y, Huang P. Preoperative Gross Classification of Gastric Adenocarcinoma: Comparison of Double Contrast-Enhanced Ultrasound and Multi-Detector Row CT. *42:1431-1440*.

Cheng W, Gao X, Wang W, Zhi M, Tang J, Wen Y-l, Yu J, Chen Y, Liu X, Yang C, Hu P, Liu G. Preliminary Analysis of Clinical Situations Involved in Quantification of Contrast-Enhanced Ultrasound in Crohn's Disease. *42:1784-1791*.

Kiyono S, Maruyama H, Kobayashi K, Kondo T, Sekimoto T, Shimada T, Yokosuka O, Yamaguchi T. Non-Invasive Diagnosis of Portal Hypertensive Gastropathy: Quantitative Analysis of Microbubble-Induced Stomach Wall Enhancement. *42:1792-1799*.

Fan X-p, Zhu Q, Zhou Y-j, Ma T, Xia C-x, Huang H-l. Comparative Study of Three Regimens of Bowel Preparation Before Transabdominal Ultrasonography of the Colon. *42:2140-2145*.

Atkinson NSS, Bryant RV, Dong Y, Maaser C, Kucharzik T, Maconi G, Asthana AK, Blaivas M, Goudie A, Gilja OH, Nolsøe C, Nürnberg D, Dietrich CF. WFUMB Position Paper. Learning Gastrointestinal Ultrasound: Theory and Practice. *42:2732-2742*.

Gene therapy

Synonyms: gene delivery, Gene transfection, Gene transfer
Scopus Search: *gene AND therapy OR transfection OR transfer*

Oishi Y, Kakimoto T, Yuan W, Kuno S, Yamashita H, Chiba T. Fetal Gene Therapy for Ornithine Transcarbamylase Deficiency by Intrahepatic Plasmid DNA-Micro-Bubble Injection Combined with Hepatic Ultrasound Insonation. *42:1357-1361*.

Xie X, Lin W, Li M, Yang Y, Deng J, Liu H, Chen Y, Fu X, Liu H, Yang Y. Efficient siRNA Delivery Using Novel Cell-Penetrating Peptide-siRNA Conjugate-Loaded Nanobubbles and Ultrasound. *42:1362-1374*.

Nwokeoha S, Carlisle R, Cleveland RO. The Application of Clinical Lithotripter Shock Waves to RNA Nucleotide Delivery to Cells. *42:2478-2492*.

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**

Shen Q, Li J, Zheng D, Lv L, Yang G, He Q. Doppler Characteristics of Cavernal-Spongiosal Communications in Patients with Erectile Dysfunction. *42:159-166*.

Schröder C, Lock G, Schmidt C, Löning T, Dieckmann K-P. Real-Time Elastography and Contrast-Enhanced

Ultrasonography in the Evaluation of Testicular Masses: A Comparative Prospective Study. *42:1807-1815*.

Akkus Z, Bayat M, Cheong M, Viksit K, Erickson BJ, Alizad A, Fatemi M. Fully Automated and Robust Tracking of Transient Waves in Structured Anatomies Using Dynamic Programming. *42:2504-2512*.

Guidelines

Atkinson NSS, Bryant RV, Dong Y, Maaser C, Kucharzik T, Maconi G, Asthana AK, Blaivas M, Goudie A, Gilja OH, Nolsøe C, Nürnberg D, Dietrich CF. WFUMB Position Paper. Learning Gastrointestinal Ultrasound: Theory and Practice. *42:2732-2742*.

H

High frequency ultrasound

Synonyms: high resolution

Scopus Search: *“high frequency” OR “high resolution”*

Nguyen K-CT, Le LH, Kaipatur NR, Major PW. Imaging the Cemento-Enamel Junction Using a 20-MHz Ultrasonic Transducer. *42:333-338*.

Sheeran PS, Daghighi Y, Yoo K, Williams R, Cherin E, Foster FS, Burns PN. Image-Guided Ultrasound Characterization of Volatile Sub-Micron Phase-Shift Droplets in the 20–40 MHz Frequency Range. *42:795-807*.

Yang T-H, Lin Y-H, Chuang B-I, Chen H-C, Lin W, Jr., Yang D-S, Wang S-H, Sun Y-N, Jou IM, Kuo L-C, Su F-C. Identification of the Position and Thickness of the First Annular Pulley in Sonographic Images. *42:1075-1083*.

Männicke N, Schöne M, Liukkonen J, Facht D, Inkinen S, Malo MK, Oelze ML, Töyräs J, Jurvelin JS, Raum K. Species-Independent Modeling of High-Frequency Ultrasound Backscatter in Hyaline Cartilage. *42:1375-1384*.

Jimenez X, Shukla SK, Ortega I, Illana FJ, Castro-González C, Marti-Fuster B, Butterworth I, Arroyo M, Anthony B, Elvira L. Quantification of Very Low Concentrations of Leukocyte Suspensions In Vitro by High-Frequency Ultrasound. *42:1568-1573*.

Daeichin V, Kooiman K, Skachkov I, Bosch JG, Theelen TL, Steiger K, Needles A, Janssen BJ, Daemen MJAP, van der Steen AFW, de Jong N, Sluimer JC. Quantification of Endothelial $\alpha v \beta 3$ Expression with High-Frequency Ultrasound and Targeted Microbubbles: In Vitro and In Vivo Studies. *42:2283-2293*.

Martin KH, Lindsey BD, Ma J, Nichols TC, Jiang X, Dayton PA. Ex Vivo Porcine Arterial and Chorioallantoic Membrane Acoustic Angiography Using Dual-Frequency Intravascular Ultrasound Probes. *42:2294-2307*.

Mortazavi SMJ, Mortazavi G, Paknahad M. Letter to the Editor regarding “High-Frequency, Low-Intensity Pulsed Ultrasound Enhances Alveolar Bone Healing of Extraction Sockets in Rats: A Pilot Study”. *42:2518*.

Kang KL. Reply to a Letter to the Editor regarding “High-Frequency, Low-Intensity Pulsed Ultrasound Enhances Alveolar Bone Healing of Extraction Sockets in Rats: A Pilot Study”. [42:2518-2519](#).

Zhang H, Li Y, Shao J, Chen W, Wang Y. High-Resolution Ultrasound of Schwannomas of the Limbs: Analysis of 72 Cases. [42:2538-2544](#).

de Magalhães Gomes R, Soletti RC, Soldan M, Madi K, Foster FS, Machado JC. In Vivo Endoluminal Ultrasound Biomicroscopy and Endoscopy of Inflamed Rat Esophagus. [42:2687-2696](#).

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**

Yeshurun L, Azhari H. Non-invasive Measurement of Thermal Diffusivity Using High-Intensity Focused Ultrasound and Through-Transmission Ultrasonic Imaging. [42:243-256](#).

Hsiao Y-S, Deng CX. Calibration and Evaluation of Ultrasound Thermography Using Infrared Imaging. [42:503-517](#).

Rovella MS, Martins GLP, Cavalcanti CFA, Bor-Seng-Shu E, Camargo OP, Cerri GG, Menezes MR. Magnetic Resonance-Guided High-Intensity Focused Ultrasound Ablation of Osteoid Osteoma: A Case Series Report. [42:919-923](#).

Jeong H-S, Hwang H, Oh P-S, Kim E-M, Lee TK, Kim M, Kim HS, Lim ST, Sohn M-H, Jeong H-J. Effect of High-Intensity Focused Ultrasound on Drug Release from Doxorubicin-Loaded PEGylated Liposomes and Therapeutic Effect in Colorectal Cancer Murine Models. [42:947-955](#).

Zhou Y, Wang Y-N, Farr N, Zia J, Chen H, Ko BM, Khokhlova T, Li T, Hwang JH. Enhancement of Small Molecule Delivery by Pulsed High-Intensity Focused Ultrasound: A Parameter Exploration. [42:956-963](#).

Khokhlova TD, Monsky WL, Haider YA, Maxwell AD, Wang Y-N, Matula TJ. Histotripsy Liquefaction of Large Hematomas. [42:1491-1498](#).

Bessiere F, N'Djin WA, Colas EC, Chavier F, Greillier P, Chapelon JY, Chevalier P, Lafon C. Ultrasound-Guided Transesophageal High-Intensity Focused Ultrasound Cardiac Ablation in a Beating Heart: A Pilot Feasibility Study in Pigs. [42:1848-1861](#).

Pahk KJ, Mohammad GH, Malago M, Saffari N, Dhar DK. A Novel Approach to Ultrasound-Mediated Tissue Decellularization and Intra-Hepatic Cell Delivery in Rats. [42:1958-1967](#).

Miloro P, Civale J, Rivens I, Shaw A. The Feasibility of Thermal Imaging as a Future Portal Imaging Device for Therapeutic Ultrasound. [42:2033-2038](#).

Grisey A, Heidmann M, Letort V, Lafitte P, Yon S. Influence of Skin and Subcutaneous Tissue on High-Intensity Focused Ultrasound Beam: Experimental Quantification and Numerical Modeling. [42:2457-2465](#).

Podkowa A, Miller RJ, Motl RW, Fish R, Oelze ML. Focused Ultrasound Treatment of Cervical Lymph Nodes in Rats with EAE: A Pilot Study. [42:2957-2964](#).

Histotripsy

Synonyms: pulsed ultrasound cavitation therapy

Scopus Search: Histotripsy OR “cav* therapy”

See also: **Cavitation**

Vlaisavljevich E, Aydin O, Durmaz YY, Lin K-W, Fowlkes B, Xu Z, ElSayed MEH. Effects of Droplet Composition on Nanodroplet-Mediated Histotripsy. [42:931-946](#).

Khokhlova TD, Monsky WL, Haider YA, Maxwell AD, Wang Y-N, Matula TJ. Histotripsy Liquefaction of Large Hematomas. [42:1491-1498](#).

Lu X, Miller DL, Dou C, Zhu YI, Fabiilli ML, Owens GE, Kripfgans OD. Maturation of Lesions Induced by Myocardial Cavitation-Enabled Therapy. [42:1541-1550](#).

Bader KB, Crowe MJ, Raymond JL, Holland CK. Effect of Frequency-Dependent Attenuation on Predicted Histotripsy Waveforms in Tissue-Mimicking Phantoms. [42:1701-1705](#).

Vlaisavljevich E, Greve J, Cheng X, Ives K, Shi J, Jin L, Arvidson A, Hall T, Welling TH, Owens G, Roberts W, Xu Z. Non-Invasive Ultrasound Liver Ablation Using Histotripsy: Chronic Study in an In Vivo Rodent Model. [42:1890-1902](#).

Zhang X, Owens GE, Cain CA, Gurm HS, Macoskey J, Xu Z. Histotripsy Thrombolysis on Retracted Clots. [42:1903-1918](#).

Pahk KJ, Mohammad GH, Malago M, Saffari N, Dhar DK. A Novel Approach to Ultrasound-Mediated Tissue Decellularization and Intra-Hepatic Cell Delivery in Rats. [42:1958-1967](#).

Guan Y, Lu M, Li Y, Liu F, Gao Y, Dong T, Wan M. Histotripsy Produced by Hundred-Microsecond-Long Focused Ultrasonic Pulses: A Preliminary Study. [42:2232-2244](#).

Vlaisavljevich E, Maxwell A, Mancía L, Johnsen E, Cain C, Xu Z. Visualizing the Histotripsy Process: Bubble Cloud–Cancer Cell Interactions in a Tissue-Mimicking Environment. [42:2466-2477](#).

I

Image artifacts

Synonyms: artefacts, shadowing, imaging errors, defocusing, aliasing, distortion, afterglow, duplication

Scopus Search: artifacts OR artefacts OR shadow*

See also: **image processing**

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**

Aramendía-Vidaurreta V, Cabeza R, Villanueva A, Navallas J, Alcázar JL. Ultrasound Image Discrimination between Benign and Malignant Adnexal Masses Based on a Neural Network Approach. *42:742-752*.

Punithakumar K, Hareendranathan AR, McNulty A, Biamonte M, He A, Noga M, Boulanger P, Becher H. Multiview 3-D Echocardiography Fusion with Breath-Hold Position Tracking Using an Optical Tracking System. *42:1998-2009*.

Ying M, Cheng SCH, Ahuja AT. Diagnostic Accuracy of Computer-Aided Assessment of Intranodal Vascularity in Distinguishing Different Causes of Cervical Lymphadenopathy. *42:2010-2016*.

Jeong SH, Hong HS, Lee EH. Diagnostic Utility of Acoustic Structure Quantification for Evaluation of Radiation Sialadenitis after Radioactive Iodine Therapy. *42:2553-2561*.

Saidov T, Heneweer C, Kuenen M, von Broich-Oppert J, Wijkstra H, Rosette Jdl, Mischi M. Fractal Dimension of Tumor Microvasculature by DCE-US: Preliminary Study in Mice. *42:2852-2863*.

Yli-Ollila H, Tarvainen MP, Laitinen TP, Laitinen TM. Principal Component Analysis of the Longitudinal Carotid Wall Motion in Association with Vascular Stiffness: A Pilot Study. *42:2873-2886*.

Image registration

Synonyms: correlation, recorelation, fusion

Scopus Search: registration OR *correlation OR fusion

See also: **image processing**

Kim AY, Lee MW, Cha DI, Lim HK, Oh Y-T, Jeong J-Y, Chang J-W, Ryu J, Lee KJ, Kim J, Bang W-C, Shin DK, Choi SJ, Koh D, Seo BK, Kim K. Automatic Registration between Real-Time Ultrasonography and Pre-Procedural Magnetic Resonance Images: A Prospective Comparison between Two Registration Methods by Liver Surface and Vessel and by Liver Surface Only. *42:1627-1636*.

Brekken R, Iversen DH, Tangen GA, Dahl T. Registration of Real-Time 3-D Ultrasound to Tomographic Images of the Abdominal Aorta. *42:2026-2032*.

Image segmentation

Synonyms: Partitioning Clustering

Scopus Search: segmentation OR Partitioning OR Clustering

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

Sakalauskas A, Laučkaitė K, Lukoševičius A, Rastenytė D. Computer-Aided Segmentation of the Mid-Brain in Transcranial Ultrasound Images. *42:322-332*.

Gómez-Flores W, Ruiz-Ortega BA. New Fully Automated Method for Segmentation of Breast Lesions on Ultrasound Based on Texture Analysis. *42:1637-1650*.

Jørgensen AS, Schmidt SE, Staalsen N-H, Østergaard LR. An Improved Algorithm for Coronary Bypass Anastomosis Segmentation in Epicardial Ultrasound Sequences. *42:3010-3021*.

In memoriam

Kossoff G. In Memoriam: Dr. William John Garrett, AM. *42:1249-1250*.

Hans Henrik Holm, MD DMSc, 1931–2016, Father of Interventional Ultrasound and Pioneer of Danish Ultrasound. *42:2729-2731*.

Instrumentation

Synonyms: scanning systems, imaging hardware

Scopus Search: instrument* OR scann* OR hardware

Hynes MB, Bujak MC, Chérin E, Sade S, Foster FS. Design of a Subtarsal Ultrasonic Transducer for Mild Hyperthermia Treatment of Dry Eye Disease. *42:232-242*.

Daeichin V, Chen C, Ding Q, Wu M, Beurskens R, Springeling G, Noothout E, Verweij MD, van Dongen KWA, Bosch JG, van der Steen AFW, de Jong N, Pertijs M, van Soest G. A Broadband Polyvinylidene Difluoride-Based Hydrophone with Integrated Readout Circuit for Intravascular Photoacoustic Imaging. *42:1239-1243*.

Pitre Jr JJ, Koziol LB, Kruger GH, Vollmer A, Ophir J, Ammann J-J, Weitzel WF, Bull JL. Design and Testing of a Single-Element Ultrasound Viscoelastography System for Point-of-Care Edema Quantification. *42:2209-2219*.

Intravascular ultrasound

Synonyms: IVUS

Scopus Search: intravascular OR IVUS

See also: **blood vessels**

Tacheau A, Le Floc'h S, Finet G, Doyley MM, Pettigrew RI, Cloutier G, Ohayon J. The Imaging Modulography Technique Revisited for High-Definition Intravascular Ultrasound: Theoretical Framework. *42:727-741*.

Daeichin V, Chen C, Ding Q, Wu M, Beurskens R, Springeling G, Noothout E, Verweij MD, van Dongen KWA, Bosch JG, van der Steen AFW, de Jong N, Pertijs M, van Soest G. A Broadband Polyvinylidene Difluoride-Based Hydrophone with Integrated Readout Circuit for Intravascular Photoacoustic Imaging. *42:1239-1243*.

Martin KH, Lindsey BD, Ma J, Nichols TC, Jiang X, Dayton PA. Ex Vivo Porcine Arterial and Chorioallantoic Membrane Acoustic Angiography Using Dual-Frequency Intravascular Ultrasound Probes. [42:2294-2307](#).

Ischemia

Synonyms: ischaemia

Scopus Search: [isch*emia OR isch*emic](#)

See also: **thrombolysis, atherosclerosis**

K

Kidney

Synonyms: nephrology, renal

Scopus Search: [kidney OR nephr* OR renal](#)

Atri M, Hudson JM, Sinaei M, Williams R, Milot L, Moshonov H, Burns PN, Bjarnason GA. Impact of Acquisition Method and Region of Interest Placement on Inter-observer Agreement and Measurement of Tumor Response to Targeted Therapy Using Dynamic Contrast-Enhanced Ultrasound. [42:763-768](#).

Morreale M, Mulè G, Ferrante A, D'Ignoto F, Cottone S. Association of Renal Resistive Index with Markers of Extrarenal Vascular Changes in Patients with Systemic Lupus Erythematosus. [42:1103-1110](#).

Zhang Q, Yu Z, Xu Y, Zeng S, Zhang Z, Xue W, Wang W, Zhang X, Hu X. Use of Contrast-Enhanced Ultrasonography to Evaluate Chronic Allograft Nephropathy in Rats and Correlations between Time-Intensity Curve Parameters and Allograft Fibrosis. [42:1574-1583](#).

Abhilash RH, Chauhan S, Che MV, Ooi C-C, Bakar RA, Lo RHG. Quantitative Study on the Effect of Abnormalities on Respiration-Induced Kidney Movement. [42:1681-1688](#).

Yang C, Jin Y, Wu S, Li L, Hu M, Xu M, Rong R, Zhu T, He W. Prediction of Renal Allograft Acute Rejection Using a Novel Non-Invasive Model Based on Acoustic Radiation Force Impulse. [42:2167-2179](#).

Cui X-W, Ignee A, Maros T, Straub B, Wen J-G, Dietrich CF. Feasibility and Usefulness of Intra-Cavitary Contrast-Enhanced Ultrasound in Percutaneous Nephrostomy. [42:2180-2188](#).

Pitre Jr JJ, Koziol LB, Kruger GH, Vollmer A, Ophir J, Ammann J-J, Weitzel WF, Bull JL. Design and Testing of a Single-Element Ultrasound Viscoelastography System for Point-of-Care Edema Quantification. [42:2209-2219](#).

Wei S, Xu C, Rychak JJ, Luong A, Sun Y, Yang Z, Li M, Liu C, Fu N, Yang B. Short Hairpin RNA Knockdown of Connective Tissue Growth Factor by Ultrasound-Targeted Microbubble Destruction Improves Renal Fibrosis. [42:2926-2937](#).

L

Letters to the editor

Ozturker C, Karagoz E. Acoustic Radiation Force Impulse Imaging or Transient Elastography in Chronic Hepatitis B? [42:1026](#).

Zhang D, Chen M, Zhou G. The Clinical Application of Acoustic Radiation Force Impulse Imaging and Transient Elastography in Chronic Hepatitis B. [42:1026](#).

Prieur F, Pillon A, Mestas J-L, Cartron V, Cèbe P, Chansard N, Lafond M, Lafon C. Enhancement of Fluorescent Probe Penetration into Tumors In Vivo Using Unseeded Inertial Cavitation. [42:1706-1713](#).

Mortazavi SMJ, Mortazavi G, Paknahad M. Letter to the Editor regarding "High-Frequency, Low-Intensity Pulsed Ultrasound Enhances Alveolar Bone Healing of Extraction Sockets in Rats: A Pilot Study". [42:2518](#).

Kang KL. Reply to a Letter to the Editor regarding "High-Frequency, Low-Intensity Pulsed Ultrasound Enhances Alveolar Bone Healing of Extraction Sockets in Rats: A Pilot Study". [42:2518-2519](#).

Jenkins NDM. Are Resistance Training-Mediated Decreases in Ultrasound Echo Intensity Caused by Changes in Muscle Composition, or Is There an Alternative Explanation? [42:3050](#).

De Angelis C, Mauri G. Expanding Role of Contrast-Enhanced Ultrasound in Guidance and Monitoring of Percutaneous Thermal Ablation. [42:3051](#).

Ozturker C, Karagoz E, Incedayi M. Non-invasive Evaluation of Liver Fibrosis: 2-D Shear Wave Elastography, Transient Elastography or Acoustic Radiation Force Impulse Imaging? [42:3052](#).

Gerber L, Friedrich-Rust M. Re: Non-invasive Evaluation of Liver Fibrosis: 2-D Shear Wave Elastography, Transient Elastography or Acoustic Radiation Force Impulse Imaging? [42:3053](#).

Liver

Synonyms: hepatic

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

Yang W, Yan K, Wang S, Dai Y, Wu W, Yin S-S, Chen M-H. Differential Diagnosis of Arterial Phase Enhanced Hepatic Inflammatory Lesions and Hepatocellular Carcinomas with Contrast-enhanced Ultrasound. [42:82-91](#).

Sasso M, Audière S, Kemgang A, Gaouar F, Corpechot C, Chazouillères O, Fournier C, Golsztein O, Prince S, Menu Y, Sandrin L, Miette V. Liver Steatosis Assessed by Controlled Attenuation Parameter (CAP) Measured with the XL Probe of the FibroScan: A Pilot Study Assessing Diagnostic Accuracy. [42:92-103](#).

- Buttacavoli M, Gruttadauria CI, Olivo M, Virdone R, Castrogiovanni A, Mazzuca E, Marotta AM, Marrone O, Madonia S, Bonsignore MR. Liver Steatosis and Fibrosis in OSA patients After Long-term CPAP Treatment: A Preliminary Ultrasound Study. *42:104-109.*
- Tang WB, Xu QH, Jiao ZY, Wu R, Song Q, Luo YK. Effect of Pressure on Liver Stiffness During the Development of Liver Fibrosis in Rabbits. *42:282-289.*
- Park J, Cho J, Kwon H, Kang M, Lee S, Roh Y-h, Kim KW, Lee SW. Liver Function Assessment Using Parenchyma-Specific Contrast-Enhanced Ultrasonography. *42:430-437.*
- Barral M, Raballand A, Dohan A, Soyer P, Pocard M, Bonnin P. Preclinical Assessment of the Efficacy of Anti-Angiogenic Therapies in Hepatocellular Carcinoma. *42:438-446.*
- Weijers G, Wanten G, Thijssen JM, van der Graaf M, de Korte CL. Quantitative Ultrasound for Staging of Hepatic Steatosis in Patients on Home Parenteral Nutrition Validated with Magnetic Resonance Spectroscopy: A Feasibility Study. *42:637-644.*
- Van Biervliet S, Verdier H, Vande Velde S, De Bruyne R, De Looze D, Verhelst X, Geerts A, Robberecht E, Van Vlierberghe H. Longitudinal Transient Elastography Measurements Used in Follow-up for Patients with Cystic Fibrosis. *42:848-854.*
- Ozturker C, Karagoz E. Acoustic Radiation Force Impulse Imaging or Transient Elastography in Chronic Hepatitis B? *42:1026.*
- Zhang D, Chen M, Zhou G. The Clinical Application of Acoustic Radiation Force Impulse Imaging and Transient Elastography in Chronic Hepatitis B. *42:1026.*
- Amador C, Song P, Meixner DD, Chen S, Urban MW. Improvement of Shear Wave Motion Detection Using Harmonic Imaging in Healthy Human Liver. *42:1031-1041.*
- Wang Y, Liao J, Qi W, Xie L, Li Y. Predictive Value of Conventional Ultrasound and Contrast-Enhanced Ultrasound in Early Recurrence of Hepatocellular Carcinoma after Surgical Resection. *42:1042-1048.*
- Ipek-Ugay S, Tzschätzsch H, Hudert C, Marticorena Garcia SR, Fischer T, Braun J, Althoff C, Sack I. Time Harmonic Elastography Reveals Sensitivity of Liver Stiffness to Water Ingestion. *42:1289-1294.*
- Gersak MM, Badea R, Lenghel LM, Vasilescu D, Botar-Jid C, Dudea SM. Influence of Food Intake on 2-D Shear Wave Elastography Assessment of Liver Stiffness in Healthy Subjects. *42:1295-1302.*
- Lo GM, Al Zahrani H, Jang HJ, Menezes R, Hudson J, Burns P, McNamara MG, Kandel S, Khalili K, Knox J, Rogalla P, Kim TK. Detection of Early Tumor Response to Axitinib in Advanced Hepatocellular Carcinoma by Dynamic Contrast Enhanced Ultrasound. *42:1303-1311.*
- Lee C-m, Jeong WK, Lim S, Kim Y, Kim J, Kim TY, Sohn JH. Diagnosis of Clinically Significant Portal Hypertension in Patients with Cirrhosis: Splenic Arterial Resistive Index versus Liver Stiffness Measurement. *42:1312-1320.*
- Al-Kadi OS, Chung DYF, Coussios CC, Noble JA. Heterogeneous Tissue Characterization Using Ultrasound: A Comparison of Fractal Analysis Backscatter Models on Liver Tumors. *42:1612-1626.*
- Kim AY, Lee MW, Cha DI, Lim HK, Oh Y-T, Jeong J-Y, Chang J-W, Ryu J, Lee KJ, Kim J, Bang W-C, Shin DK, Choi SJ, Koh D, Seo BK, Kim K. Automatic Registration between Real-Time Ultrasonography and Pre-Operational Magnetic Resonance Images: A Prospective Comparison between Two Registration Methods by Liver Surface and Vessel and by Liver Surface Only. *42:1627-1636.*
- Kiyono S, Maruyama H, Kobayashi K, Kondo T, Sekimoto T, Shimada T, Yokosuka O, Yamaguchi T. Non-Invasive Diagnosis of Portal Hypertensive Gastropathy: Quantitative Analysis of Microbubble-Induced Stomach Wall Enhancement. *42:1792-1799.*
- Dou J-P, Yu J, Cheng Z-G, Han Z-Y, Liu F-Y, Yu X-L, Liang P. Ultrasound-Guided Percutaneous Microwave Ablation for Hepatocellular Carcinoma in the Caudate Lobe. *42:1825-1833.*
- Vlaisavljevich E, Greve J, Cheng X, Ives K, Shi J, Jin L, Arvidson A, Hall T, Welling TH, Owens G, Roberts W, Xu Z. Non-Invasive Ultrasound Liver Ablation Using Histotripsy: Chronic Study in an In Vivo Rodent Model. *42:1890-1902.*
- Li K, Su Z, Xu E, Guan P, Li L-J, Zheng R. Computer-Assisted Hepatocellular Carcinoma Ablation Planning Based on 3-D Ultrasound Imaging. *42:1951-1957.*
- Pahk KJ, Mohammad GH, Malago M, Saffari N, Dhar DK. A Novel Approach to Ultrasound-Mediated Tissue Decellularization and Intra-Hepatic Cell Delivery in Rats. *42:1958-1967.*
- Mjelle AB, Mulabecirovic A, Hausken T, Havre RF, Gilja OH, Vesterhus M. Ultrasound and Point Shear Wave Elastography in Livers of Patients with Primary Sclerosing Cholangitis. *42:2146-2155.*
- Tian W-S, Lin M-X, Zhou L-Y, Pan F-S, Huang G-L, Wang W, Lu M-D, Xie X-Y. Maximum Value Measured by 2-D Shear Wave Elastography Helps in Differentiating Malignancy from Benign Focal Liver Lesions. *42:2156-2166.*
- Tzschätzsch H, Nguyen Trong M, Scheuermann T, Ipek-Ugay S, Fischer T, Schultz M, Braun J, Sack I. Two-Dimensional Time-Harmonic Elastography of the Human Liver and Spleen. *42:2562-2571.*
- Kervanou CP, De Cock I, Lentacker I, Izamis M-L, Averkiou MA. Microvascular Injury and Perfusion Changes Induced by Ultrasound and Microbubbles in a Machine-Perfused Pig Liver. *42:2676-2686.*

Catalano O, Sandomenico F, Vallone P, Setola SV, Granata V, Fusco R, Lastoria S, Mansi L, Petrillo A. Contrast-Enhanced Ultrasound in the Assessment of Patients with Indeterminate Abdominal Findings at Positron Emission Tomography Imaging. [42:2717-2723](#).

Yang W, Ziemlewicz TJ, Varghese T, Alexander ML, Rubert N, Ingle AN, Lubner MG, Hinshaw JL, Wells SA, Lee Jr FT, Zagzebski JA. Post-procedure Evaluation of Microwave Ablations of Hepatocellular Carcinomas Using Electrode Displacement Elastography. [42:2893-2902](#).

Ozturker C, Karagoz E, Incedayi M. Non-invasive Evaluation of Liver Fibrosis: 2-D Shear Wave Elastography, Transient Elastography or Acoustic Radiation Force Impulse Imaging? [42:3052](#).

Gerber L, Friedrich-Rust M. Re: Non-invasive Evaluation of Liver Fibrosis: 2-D Shear Wave Elastography, Transient Elastography or Acoustic Radiation Force Impulse Imaging? [42:3053](#).

Low intensity ultrasound

Synonyms: Low intensity pulsed ultrasound, LIPUS, LIFU
Scopus Search: “low*intensity ultrasound” OR LIPUS OR LIFU

Jia L, Chen J, Wang Y, Zhang Y, Chen W. Focused Low-intensity Pulsed Ultrasound Affects Extracellular Matrix Degradation via Decreasing Chondrocyte Apoptosis and Inflammatory Mediators in a Surgically Induced Osteoarthritic Rabbit Model. [42:208-219](#).

Kang KL, Kim E-C, Park JB, Heo JS, Choi Y. High-Frequency, Low-Intensity Pulsed Ultrasound Enhances Alveolar Bone Healing of Extraction Sockets in Rats: A Pilot Study. [42:493-502](#).

Dahhas FY, El-Bialy T, Afify AR, Hassan AH. Effects of Low-Intensity Pulsed Ultrasound on Orthodontic Tooth Movement and Orthodontically Induced Inflammatory Root Resorption in Ovariectomized Osteoporotic Rats. [42:808-814](#)

Ye Q, Meng C, Shen Y, Ji J, Wang X, Zhou S, Jia L, Wang Y. Caveolin-1 Mediates Low-Intensity Ultrasound-Induced Apoptosis via Downregulation of Signal Transducer and Activator of Transcription 3 Phosphorylation in Laryngeal Carcinoma Cells. [42:2253-2260](#).

Mortazavi SMJ, Mortazavi G, Paknahad M. Letter to the Editor regarding “High-Frequency, Low-Intensity Pulsed Ultrasound Enhances Alveolar Bone Healing of Extraction Sockets in Rats: A Pilot Study”. [42:2518](#).

Kang KL. Reply to a Letter to the Editor regarding “High-Frequency, Low-Intensity Pulsed Ultrasound Enhances Alveolar Bone Healing of Extraction Sockets in Rats: A Pilot Study”. [42:2518-2519](#).

Suen W-LL, Jiang J, Wong HS, Qu J, Chau Y. Examination of Effects of Low-Frequency Ultrasound on Scleral Permeability and Collagen Network. [42:2650-2661](#).

Yamaguchi S, Aoyama T, Ito A, Nagai M, Iijima H, Tajino J, Zhang X, Wataru K, Kuroki H. Effect of Low-Intensity Pulsed Ultrasound after Mesenchymal Stromal Cell Injection to Treat Osteochondral Defects: An In Vivo Study. [42:2903-2913](#).

Zhao L, Feng Y, Hu H, Shi A, Zhang L, Wan M. Low-Intensity Pulsed Ultrasound Enhances Nerve Growth Factor-Induced Neurite Outgrowth through Mechanotransduction-Mediated ERK1/2–CREB–Trx-1 Signaling. [42:2914-2925](#).

Puts R, Albers J, Kadow-Romacker A, Geissler S, Raum K. Influence of Donor Age and Stimulation Intensity on Osteogenic Differentiation of Rat Mesenchymal Stromal Cells in Response to Focused Low-Intensity Pulsed Ultrasound. [42:2965-2974](#).

Lymphatic system

Synonyms: lymph nodes

Scopus Search: lymph*

Chiorean L, Barr RG, Braden B, Jenssen C, Cui X-W, Hocke M, Schuler A, Dietrich CF. Transcutaneous Ultrasound: Elastographic Lymph Node Evaluation. Current Clinical Applications and Literature Review. [42:16-30](#).

Du J, Bai X, Lu Y, Wang H, Zhao J, Liu J, Wang H, Sui X, Fang Q. Diagnostic Efficacy of Ultrasonographic Characteristics of Thyroid Carcinoma in Predicting Cervical Lymph Node Metastasis. [42:68-74](#).

Cheng KL, Choi YJ, Shim WH, Lee JH, Baek JH. Virtual Touch Tissue Imaging Quantification Shear Wave Elastography: Prospective Assessment of Cervical Lymph Nodes. [42:378-386](#).

Desmots F, Fakhry N, Mancini J, Reyre A, Vidal V, Jacquier A, Santini L, Moulin G, Varoquaux A. Shear Wave Elastography in Head and Neck Lymph Node Assessment: Image Quality and Diagnostic Impact Compared with B-Mode and Doppler Ultrasonography. [42:387-398](#).

Azizi G, Keller JM, Mayo ML, Piper K, Puett D, Earp KM, Malchoff CD. Shear Wave Elastography and Cervical Lymph Nodes: Predicting Malignancy. [42:1273-1281](#).

Ying M, Cheng SCH, Ahuja AT. Diagnostic Accuracy of Computer-Aided Assessment of Intranodal Vascularity in Distinguishing Different Causes of Cervical Lymphadenopathy. [42:2010-2016](#).

Ryoo I, Suh S, You S-H, Seol HY. Usefulness of Microvascular Ultrasonography in Differentiating Metastatic Lymphadenopathy from Tuberculous Lymphadenitis. [42:2189-2195](#).

Baik J, Lee KH, Ryu J, Kim O, Yoon J-H, Kim SH, Baek HJ. Role of Real-Time Elastography in the Evaluation of Cervical Lymph Nodes in Patients with Kikuchi Disease. [42:2334-2340](#).

Wang L, Wu W, Teng J, Zhong R, Han B, Sun J. Sonographic Features of Endobronchial Ultrasound in Differentiation of Benign Lymph Nodes. [42:2785-2793](#).

M

Modelling

Synonyms: simulations, theory, mathematical, in silico

Scopus Search: Modelling OR simulation* OR theor* OR mathemat* OR “in silico”

Harfield C, Fury CR, Memoli G, Jones P, Ovenden N, Stride E. Analysis of the Uncertainty in Microbubble Characterization. [42:1412-1418](#).

Grisey A, Heidmann M, Letort V, Lafitte P, Yon S. Influence of Skin and Subcutaneous Tissue on High-Intensity Focused Ultrasound Beam: Experimental Quantification and Numerical Modeling. [42:2457-2465](#).

Molecular imaging

Synonyms: molecular tagging, targeted imaging, biomarkers

Scopus Search: “molecular imaging” OR “molecular tagging” OR “targeted imaging” OR bio*markers

Shelton SE, Lindsey BD, Tsuruta JK, Foster FS, Dayton PA. Molecular Acoustic Angiography: A New Technique for High-resolution Superharmonic Ultrasound Molecular Imaging. [42:769-781](#).

Daeichin V, Kooiman K, Skachkov I, Bosch JG, Theelen TL, Steiger K, Needles A, Janssen BJ, Daemen MJAP, van der Steen AFW, de Jong N, Sluimer JC. Quantification of Endothelial $\alpha v\beta 3$ Expression with High-Frequency Ultrasound and Targeted Microbubbles: In Vitro and In Vivo Studies. [42:2283-2293](#).

Musculoskeletal

Synonyms: Sonomyography

Scopus Search: Musc* OR Sonomyography OR Joint*

Verbeek RJ, Sentner CP, Smit GPA, Maurits NM, Derks TGI, van der Hoeven JH, Sival DA. Muscle Ultrasound in Patients with Glycogen Storage Disease Types I and III. [42:133-142](#).

Carrié C, Bonnardel E, Vally R, Revel P, Marthan R, Biais M. Vital Capacity Impairment due to Neuromuscular Disease and its Correlation with Diaphragmatic Ultrasound: A Preliminary Study. [42:143-149](#).

Wang Q, Liu Z, Wang Y, Pan Q, Feng Q, Huang Q, Chen W. Quantitative Ultrasound Assessment of Cartilage Degeneration in Ovariectomized Rats with Low Estrogen Levels. [42:290-298](#).

Windschall D, Pommerenke M, Haase R. Ultrasound Assessment of the Skeletal Development of the Proximal Tibial, Proximal Femoral, and Distal Femoral Epiphyses in Premature and Mature Newborns. [42:451-458](#).

Passmore E, Pandy MG, Graham HK, Sangeux M. Measuring Femoral Torsion In Vivo Using Freehand 3-D Ultrasound Imaging. [42:619-623](#).

Kulig K, Chang Y-J, Winiarski S, Bashford GR. Ultrasound-Based Tendon Micromorphology Predicts Mechanical Characteristics of Degenerated Tendons. [42:664-673](#).

Yoshitake Y, Miyamoto N, Taniguchi K, Katayose M, Kanehisa H. The Skin Acts to Maintain Muscle Shear Modulus. [42:674-682](#).

Inanc N, Ozen G, Aydin SZ, Kasapoglu-Gunal E, Direskeneli H. Ultrasonographic Assessment of Fifth Metatarsophalangeal Joint Erosion in Rheumatoid Arthritis: Which Aspect Is Better? [42:864-869](#).

MacDonald D, Wan A, McPhee M, Tucker K, Hug F. Reliability of Abdominal Muscle Stiffness Measured Using Elastography during Trunk Rehabilitation Exercises. [42:1018-1025](#).

Yang T-H, Lin Y-H, Chuang B-I, Chen H-C, Lin W, Jr., Yang D-S, Wang S-H, Sun Y-N, Jou IM, Kuo L-C, Su F-C. Identification of the Position and Thickness of the First Annular Pulley in Sonographic Images. [42:1075-1083](#).

Gao J, Du L-J, He W, Li S, Cheng L-G. Ultrasound Strain Elastography in Assessment of Muscle Stiffness in Acute Levodopa Challenge Test: A Feasibility Study. [42:1084-1089](#).

Peterson G, Nilsson D, Peterson S, Dederig Å, Trygg J, Wallman T, Peolsson A. Changes in Dorsal Neck Muscle Function in Individuals with Chronic Whiplash-Associated Disorders: A Real-Time Ultrasound Case-Control Study. [42:1090-1102](#).

van den Hoom W, Coppieters MW, van Dieën JH, Hodges PW. Development and Validation of a Method to Measure Lumbosacral Motion Using Ultrasound Imaging. [42:1221-1229](#).

Elsaman AM, Muhammad EMS, Pessler F. Sonographic Findings in Gouty Arthritis: Diagnostic Value and Association with Disease Duration. [42:1330-1336](#).

Männicke N, Schöne M, Liukkonen J, Facht D, Inkinen S, Malo MK, Oelze ML, Töyräs J, Jurvelin JS, Raum K. Species-Independent Modeling of High-Frequency Ultrasound Backscatter in Hyaline Cartilage. [42:1375-1384](#).

Wang Q, Li M, Lou EHM, Chu WCW, Lam T-p, Cheng JCY, Wong M-s. Validity Study of Vertebral Rotation Measurement Using 3-D Ultrasound in Adolescent Idiopathic Scoliosis. [42:1473-1481](#).

Spirig A, Juon B, Banz Y, Rieben R, Vögelin E. Correlation Between Sonographic and In Vivo Measurement of A1 Pulleys in Trigger Fingers. [42:1482-1490](#).

Karamanidis K, Travlou A, Krauss P, Jaekel U. Use of a Lucas-Kanade-Based Template Tracking Algorithm to Examine In Vivo Tendon Excursion during Voluntary Contraction Using Ultrasonography. [42:1689-1700](#).

Akiyama K, Akagi R, Hirayama K, Hirose N, Takahashi H, Fukubayashi T. Shear Modulus of the Lower Leg Muscles in Patients with Medial Tibial Stress Syndrome. [42:1779-1783](#).

- Shinomiya R, Sunagawa T, Nakashima Y, Yoshizuka M, Adachi N. Impact of Corticosteroid Injection Site on the Treatment Success Rate of Trigger Finger: A Prospective Study Comparing Ultrasound-Guided True Intra-Sheath and True Extra-Sheath Injections. [42:2203-2208](#).
- Diederichs C, Heath A, Hareendranathan AR, Zonoobi D, Kuntze G, Dulai S, Mabee MG, Ronsky JL, Jaremko JL. Cross-Modality Validation of Acetabular Surface Models Using 3-D Ultrasound Versus Magnetic Resonance Imaging in Normal and Dysplastic Infant Hips. [42:2308-2314](#).
- Chang R-F, Lee C-C, Lo C-M. Computer-Aided Diagnosis of Different Rotator Cuff Lesions Using Shoulder Musculoskeletal Ultrasound. [42:2315-2322](#).
- Abe T, Fujita E, Thiebaud RS, Loenneke JP, Akamine T. Ultrasound-Derived Forearm Muscle Thickness Is a Powerful Predictor for Estimating DXA-Derived Appendicular Lean Mass in Japanese Older Adults. [42:2341-2344](#).
- Sconfienza LM, Mauri G, Messina C, Aliprandi A, Secchi F, Sardanelli F, Randelli PS. Ultrasound-Guided Percutaneous Tenotomy of Biceps Tendon: Technical Feasibility on Cadavers. [42:2513-2517](#).
- Chongsatiantam A, Yimlamai T. Therapeutic Pulsed Ultrasound Promotes Revascularization and Functional Recovery of Rat Skeletal Muscle after Contusion Injury. [42:2938-2949](#).
- Seitel A, Sojoudi S, Osborn J, Rasouljan A, Nouranian S, Lessoway VA, Rohling RN, Abolmaesumi P. Ultrasound-Guided Spine Anesthesia: Feasibility Study of a Guidance System. [42:3043-3049](#).
- Jenkins NDM. Are Resistance Training-Mediated Decreases in Ultrasound Echo Intensity Caused by Changes in Muscle Composition, or Is There an Alternative Explanation? [42:3050](#).
- N**
- Nervous system**
Synonyms: neurology
Scopus Search: [Neuro*](#) OR [nerv*](#)
- Rovella MS, Martins GLP, Cavalcanti CFA, Bor-Seng-Shu E, Camargo OP, Cerri GG, Menezes MR. Magnetic Resonance-Guided High-Intensity Focused Ultrasound Ablation of Osteoid Osteoma: A Case Series Report. [42:919-923](#).
- Ye PP, Brown JR, Pauly KB. Frequency Dependence of Ultrasound Neurostimulation in the Mouse Brain. [42:1512-1530](#).
- Kasehagen B, Ellis R, Mawston G, Allen S, Hing W. Assessing the Reliability of Ultrasound Imaging to Examine Radial Nerve Excursion. [42:1651-1659](#).
- Darvas F, Mehić E, Caler CJ, Ojemann JG, Mourad PD. Toward Deep Brain Monitoring with Superficial EEG Sensors Plus Neuromodulatory Focused Ultrasound. [42:1834-1847](#).
- Zhang Y, Tan H, Bertram EH, Aubry J-F, Lopes M-B, Roy J, Dumont E, Xie M, Zuo Z, Klivanov AL, Lee KS, Wintermark M. Non-Invasive, Focal Disconnection of Brain Circuitry Using Magnetic Resonance-Guided Low-Intensity Focused Ultrasound to Deliver a Neurotoxin. [42:2261-2269](#).
- Olumolade OO, Wang S, Samiotaki G, Konofagou EE. Longitudinal Motor and Behavioral Assessment of Blood-Brain Barrier Opening with Transcranial Focused Ultrasound. [42:2270-2282](#).
- Wang Z, Challoo R, Peng H, Leung CS, Witte RS. Complementary Detection of Multiple Electrical Sources in Tissue Using Acoustoelectric Effects. [42:2323-2333](#).
- Arányi Z, Csillik A, Böhm J, Schelle T. Ultrasonographic Identification of Fibromuscular Bands Associated with Neurogenic Thoracic Outlet Syndrome: The “Wedge-Sickle” Sign. [42:2357-2366](#).
- Zhang H, Li Y, Shao J, Chen W, Wang Y. High-Resolution Ultrasound of Schwannomas of the Limbs: Analysis of 72 Cases. [42:2538-2544](#).
- Zhao L, Feng Y, Hu H, Shi A, Zhang L, Wan M. Low-Intensity Pulsed Ultrasound Enhances Nerve Growth Factor-Induced Neurite Outgrowth through Mechanotransduction-Mediated ERK1/2-CREB-Trx-1 Signaling. [42:2914-2925](#).
- Bailey NW, Lewis PM, Thomson RHS, Maller JJ, Junor P, Fitzgerald PB. Does Exposure to Diagnostic Ultrasound Modulate Human Nerve Responses to Magnetic Stimulation? [42:2950-2956](#).
- De Masi R, Orlando S, Conte A, Pasca S, Scarpello R, Spagnolo P, Muscella A, De Donno A. Transbulbar B-Mode Sonography in Multiple Sclerosis: Clinical and Biological Relevance. [42:3037-3042](#).
- O**
- Obstetrics**
Synonyms: prenatal, fetal, gynaecology, foetal, FBM, FHR
Scopus Search: [obstetric*](#) OR [gynaecolog*](#) OR [gynecolog*](#) OR [pre*natal](#)
- See also:* [uterus](#)
- Chen M, He Y, Zhang P, Geng Q, Liu Q, Kong L, Chen Y, Wei Q, Liu J, Guo S, Liu H. Comparison of Uterine Receptivity between Fertile and Unexplained Infertile Women by Assessment of Endometrial and Subendometrial Perfusion Using Contrast-Enhanced Ultrasound: Which Index is Better—Peak Intensity or Area under the Curve? [42:654-663](#).
- McAleavey SA, Parker KJ, Ormachea J, Wood RW, Stodgell CJ, Katzman PJ, Pressman EK, Miller RK. Shear Wave Elastography in the Living, Perfused, Post-Delivery Placenta. [42:1282-1288](#).

Weinberger V, Fischerova D, Semeradova I, Slama J, Dundr P, Dusek L, Cibula D, Zikan M. Prospective Evaluation of Ultrasound Accuracy in the Detection of Pelvic Carcinomatosis in Patients with Ovarian Cancer. [42:2196-2202](#).

Bhide A, Vuolteenaho O, Haapsamo M, Erkinaro T, Rasanen J, Acharya G. Effect of Hypoxemia with or without Increased Placental Vascular Resistance on Fetal Left and Right Ventricular Myocardial Performance Index in Chronically Instrumented Sheep. [42:2589-2598](#).

Optoacoustic

See **Photoacoustic**

Orthopedic

See **Musculoskeletal, Bone**

Oral

Synonyms: mouth

Scopus Search: Oral OR Mouth OR Saliva* OR Tongue OR Lingua*

See also: **dental**

Li W, Xie X-Y, Su J-Z, Hong X, Chen Y, Gao Y, Zhang Z-Y, Yu G-Y. Ultrasonographic Features of Immunoglobulin G4-Related Sialadenitis. [42:167-175](#).

Zhang S, Zhu J, Zhang X, He J, Li J. Assessment of the Stiffness of Major Salivary Glands in Primary Sjögren's Syndrome through Quantitative Acoustic Radiation Force Impulse Imaging. [42:645-653](#).

Hofauer B, Mansour N, Heiser C, Gahleitner C, Thuermel K, Bas M, Knopf A. Sonoelastographic Modalities in the Evaluation of Salivary Gland Characteristics in Sjögren's Syndrome. [42:2130-2139](#).

Hofauer B, Mansour N, Heiser C, Wirth M, Straßen U, Loeffelbein D, Bas M, Knopf A. Reproducibility of Acoustic Radiation Force Impulse Imaging in Thyroid and Salivary Glands with Experienced and Inexperienced Examiners. [42:2545-2552](#).

P

Pancreas

Synonyms: pancreatic, gastrointestinal

Scopus Search: pancrea* OR gastrointestinal

See also: **Gastroenterology**

Wang Y, Yan K, Fan Z, Sun L, Wu W, Yang W. Contrast-Enhanced Ultrasonography of Pancreatic Carcinoma: Correlation with Pathologic Findings. [42:891-898](#).

Marsico M, Gabbani T, Casseri T, Biagini MR. Factors Predictive of Improved Abdominal Ultrasound Visualization after Oral Administration of Simethicone. [42:2532-2537](#).

Pediatrics

Synonyms: children, infants, neonates

Scopus Search: Pediatrics OR child* or infant* OR neonat* OR neo-nat*

Windschall D, Pommerenke M, Haase R. Ultrasound Assessment of the Skeletal Development of the Proximal Tibial, Proximal Femoral, and Distal Femoral Epiphyses in Premature and Mature Newborns. [42:451-458](#).

Kishimoto J, Fenster A, Lee DSC, de Ribaupierre S. In Vivo Validation of a 3-D Ultrasound System for Imaging the Lateral Ventricles of Neonates. [42:971-979](#).

Song P, Bi X, Mellema DC, Manduca A, Urban MW, Pellikka PA, Chen S, Greenleaf JF. Pediatric Cardiac Shear Wave Elastography for Quantitative Assessment of Myocardial Stiffness: A Pilot Study in Healthy Controls. [42:1719-1729](#).

Nemati M, Hajalioghli P, Jahed S, Behzadmehr R, Rafeey M, Fouladi DF. Normal Values of Spleen Length and Volume: An Ultrasonographic Study in Children. [42:1771-1778](#).

Baptista F, Rebocho LM, Cardadeiro G, Zymbal V, Rosati N. Sex- and Maturity-Related Differences in Cortical Bone at the Distal Radius and Midshaft Tibia Evaluated by Quantitative Ultrasonography. [42:2043-2049](#).

Diederichs C, Heath A, Hareendranathan AR, Zonoobi D, Kuntze G, Dulai S, Mabee MG, Ronsky JL, Jaremko JL. Cross-Modality Validation of Acetabular Surface Models Using 3-D Ultrasound Versus Magnetic Resonance Imaging in Normal and Dysplastic Infant Hips. [42:2308-2314](#).

Nestaas E, Støylen A, Fugelseth D. Speckle Tracking Using Gray-Scale Information from Tissue Doppler Recordings versus Regular Gray-Scale Recordings in Term Neonates. [42:2599-2605](#).

Yeh S-J, Tang S-C, Tsai L-K, Chen Y-F, Liu H-M, Chen Y-A, Hsieh Y-L, Yang S-H, Tien Y-H, Yang C-C, Kuo M-F, Jeng J-S. Ultrasonographic Changes after Indirect Revascularization Surgery in Pediatric Patients with Moyamoya Disease. [42:2844-2851](#).

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*"

Costa RM, Alvarenga AV, Costa-Felix RPB, Omena TP, von Krüger MA, Pereira WCA. Thermochromic Phantom and Measurement Protocol for Qualitative Analysis of Ultrasound Physiotherapy Systems. [42:299-307](#).

Chaudhry A, Yazdi IK, Kongari R, Tasciotti E, Righetti R. A New Class of Phantom Materials for Poroelelastography Imaging Techniques. [42:1230-1238](#).

Photoacoustic

Synonyms: optoacoustic, ultrasound light modulation, laser ultrasonic

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

Daeichin V, Chen C, Ding Q, Wu M, Beurskens R, Springeling G, Noothout E, Verweij MD, van Dongen KWA, Bosch JG, van der Steen AFW, de Jong N, Pertijs M, van Soest G. A Broadband Polyvinylidene Difluoride-Based Hydrophone with Integrated Readout Circuit for Intravascular Photoacoustic Imaging. *42:1239-1243*.

Daeichin V, Wu M, De Jong N, van der Steen AFW, van Soest G. Frequency Analysis of the Photoacoustic Signal Generated by Coronary Atherosclerotic Plaque. *42:2017-2025*.

Oeri M, Bost W, Tretbar S, Fournelle M. Calibrated Linear Array-Driven Photoacoustic/Ultrasound Tomography. *42:2697-2707*.

Prostate

Synonyms: prostate gland

Scopus Search: prostate OR transrectal OR endorectal OR TRUS

See also: **genitourinary**

Palmeri ML, Glass TJ, Miller ZA, Rosenzweig SJ, Buck A, Polascik TJ, Gupta RT, Brown AF, Madden J, Nightingale KR. Identifying Clinically Significant Prostate Cancers using 3-D In Vivo Acoustic Radiation Force Impulse Imaging with Whole-Mount Histology Validation. *42:1251-1262*.

Q**Quantitative ultrasound**

Synonyms: QUS, quantification, quantitation

Scopus Search: Quantit* OR QUS

Wang Q, Liu Z, Wang Y, Pan Q, Feng Q, Huang Q, Chen W. Quantitative Ultrasound Assessment of Cartilage Degeneration in Ovariectomized Rats with Low Estrogen Levels. *42:290-298*.

Weijers G, Wanten G, Thijssen JM, van der Graaf M, de Korte CL. Quantitative Ultrasound for Staging of Hepatic Steatosis in Patients on Home Parenteral Nutrition Validated with Magnetic Resonance Spectroscopy: A Feasibility Study. *42:637-644*.

Zhang S, Zhu J, Zhang X, He J, Li J. Assessment of the Stiffness of Major Salivary Glands in Primary Sjögren's Syndrome through Quantitative Acoustic Radiation Force Impulse Imaging. *42:645-653*.

Liu B, Zheng Y, Huang G, Lin M, Shan Q, Lu Y, Tian W, Xie X. Breast Lesions: Quantitative Diagnosis Using Ultrasound Shear Wave Elastography - A Systematic Review and Meta-Analysis. *42:835-847*.

Casciaro S, Peccarisi M, Pisani P, Franchini R, Greco A, De Marco T, Grimaldi A, Quarta L, Quarta E, Muratore M, Conversano F. An Advanced Quantitative Echound Methodology for Femoral Neck Densitometry. *42:1337-1356*.

Männicke N, Schöne M, Liukkonen J, Facht D, Inkinen S, Malo MK, Oelze ML, Töyräs J, Jurvelin JS, Raum K. Species-Independent Modeling of High-Frequency Ultrasound Backscatter in Hyaline Cartilage. *42:1375-1384*.

Buisman WJ, Mauritz FA, Westerhuis WE, Gilja OH, van der Zee DC, van Herwaarden-Lindeboom MYA. Evaluation of Gastric Volumes: Comparison of 3-D Ultrasound and Magnetic Resonance Imaging. *42:1423-1430*.

Jimenez X, Shukla SK, Ortega I, Illana FJ, Castro-González C, Marti-Fuster B, Butterworth I, Arroyo M, Anthony B, Elvira L. Quantification of Very Low Concentrations of Leukocyte Suspensions In Vitro by High-Frequency Ultrasound. *42:1568-1573*.

Meiburger KM, Molinari F, Wong J, Aguilar L, Gallo D, Steinman DA, Morbiducci U. Validation of the Carotid Intima-Media Thickness Variability: Can Manual Segmentations Be Trusted as Ground Truth? *42:1598-1611*.

Abhilash RH, Chauhan S, Che MV, Ooi C-C, Bakar RA, Lo RHG. Quantitative Study on the Effect of Abnormalities on Respiration-Induced Kidney Movement. *42:1681-1688*.

Wang Y, Ma R, Ding G, Hou D, Li Z, Yin L, Zhang M. Left Ventricular Energy Loss Assessed by Vector Flow Mapping in Patients with Prediabetes and Type 2 Diabetes Mellitus. *42:1730-1740*.

Sisini F, Tessari M, Menegatti E, Vannini ME, Giancesini S, Tavoni V, Gadda G, Gambaccini M, Taibi A, Zamboni P. Clinical Applicability of Assessment of Jugular Flow over the Individual Cardiac Cycle Compared with Current Ultrasound Methodology. *42:1750-1763*.

Nemati M, Hajalioghli P, Jahed S, Behzadmehr R, Rafeey M, Fouladi DF. Normal Values of Spleen Length and Volume: An Ultrasonographic Study in Children. *42:1771-1778*.

Akiyama K, Akagi R, Hirayama K, Hirose N, Takahashi H, Fukubayashi T. Shear Modulus of the Lower Leg Muscles in Patients with Medial Tibial Stress Syndrome. *42:1779-1783*.

Cheng W, Gao X, Wang W, Zhi M, Tang J, Wen Y-l, Yu J, Chen Y, Liu X, Yang C, Hu P, Liu G. Preliminary Analysis of Clinical Situations Involved in Quantification of Contrast-Enhanced Ultrasound in Crohn's Disease. *42:1784-1791*.

Kiyono S, Maruyama H, Kobayashi K, Kondo T, Sekimoto T, Shimada T, Yokosuka O, Yamaguchi T. Non-Invasive Diagnosis of Portal Hypertensive Gastropathy: Quantitative Analysis of Microbubble-Induced Stomach Wall Enhancement. *42:1792-1799*.

Yoon JH, Song MK, Kim E-K. Semi-Quantitative Strain Ratio in the Differential Diagnosis of Breast Masses: Measurements Using One Region-of-Interest. *42:1800-1806*.

- Schröder C, Lock G, Schmidt C, Löning T, Dieckmann K-P. Real-Time Elastography and Contrast-Enhanced Ultrasonography in the Evaluation of Testicular Masses: A Comparative Prospective Study. [42:1807-1815](#).
- Baptista F, Rebocho LM, Cardadeiro G, Zymbal V, Rosati N. Sex- and Maturity-Related Differences in Cortical Bone at the Distal Radius and Midshaft Tibia Evaluated by Quantitative Ultrasonography. [42:2043-2049](#).
- Widman E, Maksuti E, Amador C, Urban MW, Caidahl K, Larsson M. Shear Wave Elastography Quantifies Stiffness in Ex Vivo Porcine Artery with Stiffened Arterial Region. [42:2423-2435](#).
- Stachs A, Pandjaitan A, Martin A, Stubert J, Hartmann S, Gerber B, Glass Ä. Accuracy of Tumor Sizing in Breast Cancer: A Comparison of Strain Elastography, 3-D Ultrasound and Conventional B-Mode Ultrasound with and without Compound Imaging. [42:2758-2765](#).
- Hedman K, Nylander E, Henriksson J, Bjarnegård N, Brudin L, Tamás É. Echocardiographic Characterization of the Inferior Vena Cava in Trained and Untrained Females. [42:2794-2802](#).
- Yli-Ollila H, Tarvainen MP, Laitinen TP, Laitinen TM. Principal Component Analysis of the Longitudinal Carotid Wall Motion in Association with Vascular Stiffness: A Pilot Study. [42:2873-2886](#).
- Soares CAM, Pavaz TZ, Miyague AH, Kudla M, Martins WP. Influence of Pulse Repetition Frequency on 3-D Power Doppler Quantification. [42:2887-2892](#).
- De Masi R, Orlando S, Conte A, Pasca S, Scarpello R, Spagnolo P, Muscella A, De Donno A. Transbulbar B-Mode Sonography in Multiple Sclerosis: Clinical and Biological Relevance. [42:3037-3042](#).
- 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 “ultraso* tweezers” OR ARP OR trap*
See also: **elastography, shear waves**
- Zhang S, Zhu J, Zhang X, He J, Li J. Assessment of the Stiffness of Major Salivary Glands in Primary Sjögren’s Syndrome through Quantitative Acoustic Radiation Force Impulse Imaging. [42:645-653](#).
- Ozturker C, Karagoz E. Acoustic Radiation Force Impulse Imaging or Transient Elastography in Chronic Hepatitis B? [42:1026](#).
- Zhang D, Chen M, Zhou G. The Clinical Application of Acoustic Radiation Force Impulse Imaging and Transient Elastography in Chronic Hepatitis B. [42:1026](#).
- Palmeri ML, Glass TJ, Miller ZA, Rosenzweig SJ, Buck A, Polascik TJ, Gupta RT, Brown AF, Madden J, Nightingale KR. Identifying Clinically Significant Prostate Cancers using 3-D In Vivo Acoustic Radiation Force Impulse Imaging with Whole-Mount Histology Validation. [42:1251-1262](#).
- Zhou J, Yang Z, Zhan W, Zhang J, Hu N, Dong Y, Wang Y. Breast Lesions Evaluated by Color-Coded Acoustic Radiation Force Impulse (ARFI) Imaging. [42:1464-1472](#).
- Ye PP, Brown JR, Pauly KB. Frequency Dependence of Ultrasound Neurostimulation in the Mouse Brain. [42:1512-1530](#).
- Li X-L, Xu H-X, Bo X-W, Liu B-J, Huang X, Li D-D, Guo L-H, Xu J-M, Sun L-P, Fang L, Xu X-H. Value of Virtual Touch Tissue Imaging Quantification for Evaluation of Ultrasound Breast Imaging-Reporting and Data System Category 4 Lesions. [42:2050-2057](#).
- Yang C, Jin Y, Wu S, Li L, Hu M, Xu M, Rong R, Zhu T, He W. Prediction of Renal Allograft Acute Rejection Using a Novel Non-Invasive Model Based on Acoustic Radiation Force Impulse. [42:2167-2179](#).
- Zhou J, Yang Z, Zhan W, Dong Y, Zhou C. Anisotropic Properties of Breast Tissue Measured by Acoustic Radiation Force Impulse Quantification. [42:2372-2382](#).
- Hofauer B, Mansour N, Heiser C, Wirth M, Straßen U, Loeffelbein D, Bas M, Knopf A. Reproducibility of Acoustic Radiation Force Impulse Imaging in Thyroid and Salivary Glands with Experienced and Inexperienced Examiners. [42:2545-2552](#).
- Miller DL. Mechanisms for Induction of Pulmonary Capillary Hemorrhage by Diagnostic Ultrasound: Review and Consideration of Acoustical Radiation Surface Pressure. [42:2743-2757](#).
- Ozturker C, Karagoz E, Incedayi M. Non-invasive Evaluation of Liver Fibrosis: 2-D Shear Wave Elastography, Transient Elastography or Acoustic Radiation Force Impulse Imaging? [42:3052](#).
- Gerber L, Friedrich-Rust M. Re: Non-invasive Evaluation of Liver Fibrosis: 2-D Shear Wave Elastography, Transient Elastography or Acoustic Radiation Force Impulse Imaging? [42:3053](#).
- Respiratory system**
Synonyms: diaphragm, thoracic
Scopus Search: respirator* OR thora* OR diaphragm*
- Hong-xia Z, Wen H, Ling-gang C, Wen-jia C, Shuo L, Li-juan D, Hai-man S, Yang Z. A New Method for Discriminating between Bronchial and Pulmonary Arterial Phases using Contrast-Enhanced Ultrasound. [42:1441-1449](#).
- Miller DL, Dong Z, Dou C, Raghavendran K. Influence of Scan Duration on Pulmonary Capillary Hemorrhage Induced by Diagnostic Ultrasound. [42:1942-1950](#).

Rubin JM, Horowitz JC, Sisson TH, Kim K, Ortiz LA, Hamilton JD. Ultrasound Strain Measurements for Evaluating Local Pulmonary Ventilation. *42:2525-2531*.

Miller DL. Mechanisms for Induction of Pulmonary Capillary Hemorrhage by Diagnostic Ultrasound: Review and Consideration of Acoustical Radiation Surface Pressure. *42:2743-2757*.

Yu X, Zhai Z, Zhao Y, Zhu Z, Tong J, Yan J, Ouyang W. Performance of Lung Ultrasound in Detecting Peri-operative Atelectasis after General Anesthesia. *42:2775-2784*.

Wang L, Wu W, Teng J, Zhong R, Han B, Sun J. Sonographic Features of Endobronchial Ultrasound in Differentiation of Benign Lymph Nodes. *42:2785-2793*.

Jing B, Tang S, Wu L, Wang S, Wan M. Visualizing the Vibration of Laryngeal Tissue during Phonation Using Ultrafast Plane Wave Ultrasonography. *42:2812-2825*.

Review

Carstensen EL, Parker KJ, Dalecki D, Hocking DC. Biological Effects of Low-Frequency Shear Strain: Physical Descriptors. *42:1-15*.

Chiorean L, Barr RG, Braden B, Jenssen C, Cui X-W, Hocke M, Schuler A, Dietrich CF. Transcutaneous Ultrasound: Elastographic Lymph Node Evaluation. Current Clinical Applications and Literature Review. *42:16-30*.

Lechareas S, Yanni AE, Golemati S, Chatziioannou A, Perrea D. Ultrasound and Biochemical Diagnostic Tools for the Characterization of Vulnerable Carotid Atherosclerotic Plaque. *42:31-43*.

Harris GR, Church CC, Dalecki D, Ziskin MC, Bagley JE. Comparison of Thermal Safety Practice Guidelines for Diagnostic Ultrasound Exposures. *42:345-357*.

Liu B, Zheng Y, Huang G, Lin M, Shan Q, Lu Y, Tian W, Xie X. Breast Lesions: Quantitative Diagnosis Using Ultrasound Shear Wave Elastography - A Systematic Review and Meta-Analysis. *42:835-847*.

Atkinson NSS, Bryant RV, Dong Y, Maaser C, Kucharzik T, Maconi G, Asthana AK, Blaivas M, Goudie A, Gilja OH, Nolsøe C, Nürnberg D, Dietrich CF. WFUMB Position Paper. Learning Gastrointestinal Ultrasound: Theory and Practice. *42:2732-2742*.

Miller DL. Mechanisms for Induction of Pulmonary Capillary Hemorrhage by Diagnostic Ultrasound: Review and Consideration of Acoustical Radiation Surface Pressure. *42:2743-2757*.

S

Shear waves

Synonyms:

Scopus Search: "Shear Wave*"

See also: **elastography, radiation force**

Amador C, Song P, Meixner DD, Chen S, Urban MW. Improvement of Shear Wave Motion Detection Using Harmonic Imaging in Healthy Human Liver. *42:1031-1041*.

McAleavey SA, Parker KJ, Ormachea J, Wood RW, Stodgell CJ, Katzman PJ, Pressman EK, Miller RK. Shear Wave Elastography in the Living, Perfused, Post-Delivery Placenta. *42:1282-1288*.

Gersak MM, Badea R, Lenghel LM, Vasilescu D, Botar-Jid C, Dudea SM. Influence of Food Intake on 2-D Shear Wave Elastography Assessment of Liver Stiffness in Healthy Subjects. *42:1295-1302*.

Song P, Bi X, Mellema DC, Manduca A, Urban MW, Pelligka PA, Chen S, Greenleaf JF. Pediatric Cardiac Shear Wave Elastography for Quantitative Assessment of Myocardial Stiffness: A Pilot Study in Healthy Controls. *42:1719-1729*.

Dumont DM, Walsh KM, Byram BC. Improving Displacement Signal-to-Noise Ratio for Low-Signal Radiation Force Elasticity Imaging Using Bayesian Techniques. *42:1986-1997*.

Yang C, Jin Y, Wu S, Li L, Hu M, Xu M, Rong R, Zhu T, He W. Prediction of Renal Allograft Acute Rejection Using a Novel Non-Invasive Model Based on Acoustic Radiation Force Impulse. *42:2167-2179*.

Sasso M, Liu Y, Aron-Wisnewsky J, Bouillot J-L, Abdenour M, Clet M, Sandrin L, le Naour G, Bedossa P, Tordjman J, Clément K, Miette V. AdipoScan: A Novel Transient Elastography-Based Tool Used to Non-Invasively Assess Subcutaneous Adipose Tissue Shear Wave Speed in Obesity. *42:2401-2413*.

Widman E, Maksuti E, Amador C, Urban MW, Caidahl K, Larsson M. Shear Wave Elastography Quantifies Stiffness in Ex Vivo Porcine Artery with Stiffened Arterial Region. *42:2423-2435*.

Hofauer B, Mansour N, Heiser C, Wirth M, Straßen U, Loeffelbein D, Bas M, Knopf A. Reproducibility of Acoustic Radiation Force Impulse Imaging in Thyroid and Salivary Glands with Experienced and Inexperienced Examiners. *42:2545-2552*.

Ozturker C, Karagoz E, Incedayi M. Non-invasive Evaluation of Liver Fibrosis: 2-D Shear Wave Elastography, Transient Elastography or Acoustic Radiation Force Impulse Imaging? *42:3052*.

Gerber L, Friedrich-Rust M. Re: Non-invasive Evaluation of Liver Fibrosis: 2-D Shear Wave Elastography, Transient Elastography or Acoustic Radiation Force Impulse Imaging? *42:3053*.

Dobruch-Sobczak K, Zalewska EB, Gumińska A, Słapa RZ, Mlosek K, Wareluk P, Jakubowski W, Dedecjus M. Diagnostic Performance of Shear Wave Elastography Parameters Alone and in Combination with Conventional B-Mode Ultrasound Parameters for the Characterization of Thyroid Nodules: A Prospective, Dual-Center Study. *42:2803-2811*.

Shock waves

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

Scopus Search: shock* OR ESW

Zhai L, Sun N, Zhang B, Liu S-T, Zhao Z, Jin H-C, Ma X-L, Xing G-Y. Effects of Focused Extracorporeal Shock Waves on Bone Marrow Mesenchymal Stem Cells in Patients with Avascular Necrosis of the Femoral Head. *42:753-762*.

Bader KB, Crowe MJ, Raymond JL, Holland CK. Effect of Frequency-Dependent Attenuation on Predicted Histotripsy Waveforms in Tissue-Mimicking Phantoms. *42:1701-1705*.

Dymarek R, Taradaj J, Rosińczuk J. The Effect of Radial Extracorporeal Shock Wave Stimulation on Upper Limb Spasticity in Chronic Stroke Patients: A Single-Blind, Randomized, Placebo-Controlled Study. *42:1862-1875*.

Wang J-C, Zhou Y. Shifting the Split Reflectors to Enhance Stone Fragmentation of Shock Wave Lithotripsy. *42:1876-1889*.

Guan Y, Lu M, Li Y, Liu F, Gao Y, Dong T, Wan M. Histotripsy Produced by Hundred-Microsecond-Long Focused Ultrasonic Pulses: A Preliminary Study. *42:2232-2244*.

Qi X, Zhao Y, Zhang J, Han D, Chen C, Huang Y, Chen X, Zhang X, Wang T, Li X. Increased Effects of Extracorporeal Shock Waves Combined with Gentamicin against Staphylococcus aureus Biofilms In Vitro and In Vivo. *42:2245-2252*.

Nwokeoha S, Carlisle R, Cleveland RO. The Application of Clinical Lithotripter Shock Waves to RNA Nucleotide Delivery to Cells. *42:2478-2492*.

Zhang Y, Nault I, Mitran S, Iversen ES, Zhong P. Effects of Stone Size on the Comminution Process and Efficiency in Shock Wave Lithotripsy. *42:2662-2675*.

Kraemer R, Sorg H, Forstmeier V, Knobloch K, Liadaki E, Stang FH, Mailaender P, Kisch T. Immediate Dose-Response Effect of High-Energy Versus Low-Energy Extracorporeal Shock Wave Therapy on Cutaneous Microcirculation. *42:2975-2982*.

Signal processing

Synonyms: waveform analysis

Scopus Search: "signal processing" OR "waveform analysis"

See also: **image processing**

Wang D, Zong Y, Yang X, Hu H, Wan J, Zhang L, Bouakaz A, Wan M. Ultrasound Contrast Plane Wave Imaging Based on Bubble Wavelet Transform: In Vitro and In Vivo Validations. *42:1584-1597*.

Al-Kadi OS, Chung DYF, Coussios CC, Noble JA. Heterogeneous Tissue Characterization Using Ultrasound: A Comparison of Fractal Analysis Backscatter Models on Liver Tumors. *42:1612-1626*.

Khan U, Hjertaas JJ, Greve G, Matre K. Optimal Acquisition Settings for Speckle Tracking Echocardiography-Derived Strains in Infants: An In Vitro Study. *42:1660-1670*.

Dumont DM, Walsh KM, Byram BC. Improving Displacement Signal-to-Noise Ratio for Low-Signal Radiation Force Elasticity Imaging Using Bayesian Techniques. *42:1986-1997*.

Skin

Synonyms: dermal, transdermal, cutaneous, transcutaneous, subcutaneous

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

Saggini R, Saggini A, Spagnoli AM, Dodaj I, Cigna E, Maruccia M, Soda G, Bellomo RG, Scuderi N. Extracorporeal Shock Wave Therapy: An Emerging Treatment Modality for Retracting Scars of the Hands. *42:185-195*.

Liao A-H, Chung H-Y, Chen W-S, Yeh M-K. Efficacy of Combined Ultrasound-and-Microbubbles-Mediated Diclofenac Gel Delivery to Enhance Transdermal Permeation in Adjuvant-Induced Rheumatoid Arthritis in the Rat. *42:1976-1985*.

Andrėkutė K, Linkeviciūtė G, Raišutis R, Valiukevičienė S, Makštienė J. Automatic Differential Diagnosis of Melanocytic Skin Tumors Using Ultrasound Data. *42:2834-2843*.

Speckle

Synonyms: interference pattern, noise

Scopus Search: speckle OR noise OR interference

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

Ma H, Wu W-C, Xie R-A, Gao L-J, Wang H. Correlation of Global Strain Rate and Left Ventricular Filling Pressure in Patients with Coronary Artery Disease: A 2-D Speckle-Tracking Study. *42:413-420*.

Li L, Deng Y-B, Liu K, Guo L-D, Liu H-Y, Zhou W, Tang Q-Y. Long-Term Effects of Pericardiectomy on Left Ventricular Mechanics Evaluated by Using Speckle Tracking Echocardiography in Patients with Constrictive Pericarditis. *42:421-429*.

Gao J, Du L-J, He W, Li S, Cheng L-G. Ultrasound Strain Elastography in Assessment of Muscle Stiffness in Acute Levodopa Challenge Test: A Feasibility Study. *42:1084-1089*.

Kowsari A-A, Hosseinsabet A. Evaluation of the Right Ventricular Function in Prediabetes: A 2-D Speckle Tracking Echocardiographic Study. *42:1321-1329*.

Wang Y, Li G, Sun Y, Shan G, Xu R, Guo L. Left Ventricular Strain and Rotation by 2-D Speckle Tracking Echocardiography Identify Early Alcoholic Cardiomyopathy. *42:1741-1749*.

- Tat J, Psaromiligkos IN, Daskalopoulou SS. Carotid Atherosclerotic Plaque Alters the Direction of Longitudinal Motion in the Artery Wall. *42:2114-2122*.
- Pitre Jr JJ, Koziol LB, Kruger GH, Vollmer A, Ophir J, Ammann J-J, Weitzel WF, Bull JL. Design and Testing of a Single-Element Ultrasound Viscoelastography System for Point-of-Care Edema Quantification. *42:2209-2219*.
- Pitre Jr JJ, Koziol LB, Kruger GH, Vollmer A, Ophir J, Ammann J-J, Weitzel WF, Bull JL. Design and Testing of a Single-Element Ultrasound Viscoelastography System for Point-of-Care Edema Quantification. *42:2209-2219*.
- Li H, Guo Y, Lee W-N. Systematic Performance Evaluation of a Cross-Correlation-Based Ultrasound Strain Imaging Method. *42:2436-2456*.
- Nestaas E, Støylen A, Fugelseth D. Speckle Tracking Using Gray-Scale Information from Tissue Doppler Recordings versus Regular Gray-Scale Recordings in Term Neonates. *42:2599-2605*.
- Andersen MV, Moore C, Arges K, Søgaaard P, Østergaard LR, Schmidt SE, Kisslo J, Von Ramm OT. High-Frame-Rate Deformation Imaging in Two Dimensions Using Continuous Speckle-Feature Tracking. *42:2606-2615*.
- Yli-Ollila H, Tarvainen MP, Laitinen TP, Laitinen TM. Principal Component Analysis of the Longitudinal Carotid Wall Motion in Association with Vascular Stiffness: A Pilot Study. *42:2873-2886*.

Spleen

Synonyms: splenic

Scopus Search: spleen OR splen*

- Nemati M, Hajalioghli P, Jahed S, Behzadmehr R, Rafeey M, Fouladi DF. Normal Values of Spleen Length and Volume: An Ultrasonographic Study in Children. *42:1771-1778*.
- Tzschätzsch H, Nguyen Trong M, Scheuermann T, Ipek-Ugay S, Fischer T, Schultz M, Braun J, Sack I. Two-Dimensional Time-Harmonic Elastography of the Human Liver and Spleen. *42:2562-2571*.
- Mulabecirovic A, Vesterhus M, Gilja OH, Havre RF. In Vitro Comparison of Five Different Elastography Systems for Clinical Applications, Using Strain and Shear Wave Technology. *42:2572-2588*.

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**

Stroke

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

Scopus Search: Stroke OR "cerebrovascular accident" OR CVA OR thromb* See also: emboli detection, thrombolysis

- Aizawa K, Elyas S, Adingupu DD, Casanova F, Gooding KM, Shore AC, Strain WD, Gates PE. Echogenicity of the Common Carotid Artery Intima-Media Complex in Stroke. *42:1130-1137*.
- Dymarek R, Taradaj J, Rosińczuk J. The Effect of Radial Extracorporeal Shock Wave Stimulation on Upper Limb Spasticity in Chronic Stroke Patients: A Single-Blind, Randomized, Placebo-Controlled Study. *42:1862-1875*.
- Martí-Fàbregas J, Figueroa S, Martínez-Lizana E, Zubizarreta I, Carrera D, Martínez-Domeño A, Prats-Sánchez L, Camps-Renom P, Jiménez-Xarrié E, Delgado-Mederos R. Total Cerebral Blood Flow in Patients with Cardioembolic Stroke: Is It Clinically Meaningful? *42:2826-2833*.
- Yeh S-J, Tang S-C, Tsai L-K, Chen Y-F, Liu H-M, Chen Y-A, Hsieh Y-L, Yang S-H, Tien Y-H, Yang C-C, Kuo M-F, Jeng J-S. Ultrasonographic Changes after Indirect Revascularization Surgery in Pediatric Patients with Moyamoya Disease. *42:2844-2851*.

T

Technical note

- Nguyen K-CT, Le LH, Kaipatur NR, Major PW. Imaging the Cemento-Enamel Junction Using a 20-MHz Ultrasonic Transducer. *42:333-338*.
- Passmore E, Pandey MG, Graham HK, Sangeux M. Measuring Femoral Torsion In Vivo Using Freehand 3-D Ultrasound Imaging. *42:619-623*.
- Manta S, Delalande A, Bessodes M, Bureau MF, Scherman D, Pichon C, Mignet N. Characterization of Positively Charged Lipid Shell Microbubbles with Tunable Resistive Pulse Sensing (TRPS) Method: A Technical Note. *42:624-630*.
- Zhou X, Xia C, Khan F, Corner GA, Huang Z, Hoskins PR. Investigation of Ultrasound-Measured Flow Rate and Wall Shear Rate in Wrist Arteries Using Flow Phantoms. *42:815-823*.
- Fabiilli ML, Phanse RA, Moncion A, Fowlkes JB, Franceschi RT. Use of Hydroxyapatite Doping to Enhance Responsiveness of Heat-Inducible Gene Switches to Focused Ultrasound. *42:824-830*.
- Kumar KN, Sarkar K. Interfacial Rheological Properties of Contrast Microbubble Targestar P as a Function of Ambient Pressure. *42:1010-1017*.
- MacDonald D, Wan A, McPhee M, Tucker K, Hug F. Reliability of Abdominal Muscle Stiffness Measured Using Elastography during Trunk Rehabilitation Exercises. *42:1018-1025*.

- Daeichin V, Chen C, Ding Q, Wu M, Beurskens R, Springeling G, Noothout E, Verweij MD, van Dongen KWA, Bosch JG, van der Steen AFW, de Jong N, Pertjjs M, van Soest G. A Broadband Polyvinylidene Difluoride-Based Hydrophone with Integrated Readout Circuit for Intravascular Photoacoustic Imaging. [42:1239-1243](#).
- Harfield C, Fury CR, Memoli G, Jones P, Ovenden N, Stride E. Analysis of the Uncertainty in Microbubble Characterization. [42:1412-1418](#).
- Bader KB, Crowe MJ, Raymond JL, Holland CK. Effect of Frequency-Dependent Attenuation on Predicted Histotripsy Waveforms in Tissue-Mimicking Phantoms. [42:1701-1705](#).
- Brekken R, Iversen DH, Tangen GA, Dahl T. Registration of Real-Time 3-D Ultrasound to Tomographic Images of the Abdominal Aorta. [42:2026-2032](#).
- Miloro P, Civale J, Rivens I, Shaw A. The Feasibility of Thermal Imaging as a Future Portal Imaging Device for Therapeutic Ultrasound. [42:2033-2038](#).
- D'Abate F, Ramachandran V, Young MA, Farrah J, Ahmed MH, Jones K, Hinchliffe RJ. B-Flow Imaging in Lower Limb Peripheral Arterial Disease and Bypass Graft Ultrasonography. [42:2345-2351](#).
- Sconfienza LM, Mauri G, Messina C, Aliprandi A, Secchi F, Sardanelli F, Randelli PS. Ultrasound-Guided Percutaneous Tenotomy of Biceps Tendon: Technical Feasibility on Cadavers. [42:2513-2517](#).
- Seitel A, Sojoudi S, Osborn J, Rasouljan A, Nouranian S, Lessoway VA, Rohling RN, Abolmaesumi P. Ultrasound-Guided Spine Anesthesia: Feasibility Study of a Guidance System. [42:3043-3049](#).
- Tendon**
Synonyms: Collagen, Connective tissue
Scopus Search: tendon OR "connective tissue" OR collagen
- Chan KOW, Tong HHY, Ng GYF. Topical Fish Oil Application Coupling with Therapeutic Ultrasound Improves Tendon Healing. [42:2983-2989](#).
- Therapeutic Applications of Ultrasound**
Synonyms: ultrasound therapy, sonotherapy
Scopus Search: Therap* OR Sonotherap*
- See also: drug delivery, healing, high intensity focused ultrasound, thrombolysis**
- Carias M, Hynynen K. Combined Therapeutic and Monitoring Ultrasonic Catheter for Cardiac Ablation Therapies. [42:196-207](#).
- Jia L, Chen J, Wang Y, Zhang Y, Chen W. Focused Low-intensity Pulsed Ultrasound Affects Extracellular Matrix Degradation via Decreasing Chondrocyte Apoptosis and Inflammatory Mediators in a Surgically Induced Osteoarthritic Rabbit Model. [42:208-219](#).
- Lafond M, Mestas J-L, Prieur F, Chettab K, Geraci S, Clézardin P, Lafon C. Unseeded Inertial Cavitation for Enhancing the Delivery of Chemotherapies: A Safety Study. [42:220-231](#).
- Hynes MB, Bujak MC, Chérin E, Sade S, Foster FS. Design of a Subtarsal Ultrasonic Transducer for Mild Hyperthermia Treatment of Dry Eye Disease. [42:232-242](#).
- Lee W, Lee SD, Park MY, Foley L, Purcell-Estabrook E, Kim H, Fischer K, Maeng L-S, Yoo S-S. Image-Guided Focused Ultrasound-Mediated Regional Brain Stimulation in Sheep. [42:459-470](#).
- Cruz JM, Hauck M, Cardoso Pereira AP, Moraes MB, Martins CN, da Silva Paulitsch F, Della Méa Plentz R, Peres W, Vargas da Silva AM, Signori LU. Effects of Different Therapeutic Ultrasound Waveforms on Endothelial Function in Healthy Volunteers: A Randomized Clinical Trial. [42:471-480](#).
- Kang KL, Kim E-C, Park JB, Heo JS, Choi Y. High-Frequency, Low-Intensity Pulsed Ultrasound Enhances Alveolar Bone Healing of Extraction Sockets in Rats: A Pilot Study. [42:493-502](#).
- Wang G, Zhang Q, Zhuo Z, Wu S, Xu Y, Zou L, Gan L, Tan K, Xia H, Liu Z, Gao Y. Enhanced Homing of CXCR-4 Modified Bone Marrow-Derived Mesenchymal Stem Cells to Acute Kidney Injury Tissues by Micro-Bubble-Mediated Ultrasound Exposure. [42:539-548](#).
- Zhai L, Sun N, Zhang B, Liu S-T, Zhao Z, Jin H-C, Ma X-L, Xing G-Y. Effects of Focused Extracorporeal Shock Waves on Bone Marrow Mesenchymal Stem Cells in Patients with Avascular Necrosis of the Femoral Head. [42:753-762](#).
- Dahhas FY, El-Bialy T, Afify AR, Hassan AH. Effects of Low-Intensity Pulsed Ultrasound on Orthodontic Tooth Movement and Orthodontically Induced Inflammatory Root Resorption in Ovariectomized Osteoporotic Rats. [42:808-814](#).
- Fabiilli ML, Phanse RA, Moncion A, Fowlkes JB, Franceschi RT. Use of Hydroxyapatite Doping to Enhance Responsiveness of Heat-Inducible Gene Switches to Focused Ultrasound. [42:824-830](#).
- Rovella MS, Martins GLP, Cavalcanti CFA, Bor-Seng-Shu E, Camargo OP, Cerri GG, Menezes MR. Magnetic Resonance-Guided High-Intensity Focused Ultrasound Ablation of Osteoid Osteoma: A Case Series Report. [42:919-923](#).
- Shen Y, Guo J, Chen G, Chin CT, Chen X, Chen J, Wang F, Chen S, Dan G. Delivery of Liposomes with Different Sizes to Mice Brain after Sonication by Focused Ultrasound in the Presence of Microbubbles. [42:1499-1511](#).
- Lu X, Miller DL, Dou C, Zhu YI, Fabiilli ML, Owens GE, Kripfgans OD. Maturation of Lesions Induced by Myocardial Cavitation-Enabled Therapy. [42:1541-1550](#).
- Prieur F, Pillon A, Mestas J-L, Cartron V, Cèbe P, Chansard N, Lafond M, Lafon C. Enhancement of Fluorescent Probe Penetration into Tumors In Vivo Using Unseeded Inertial Cavitation. [42:1706-1713](#).

- Darvas F, Mehić E, Caler CJ, Ojemann JG, Mourad PD. Toward Deep Brain Monitoring with Superficial EEG Sensors Plus Neuromodulatory Focused Ultrasound. [42:1834-1847](#).
- Bessiere F, N'Djin WA, Colas EC, Chavrier F, Greillier P, Chapelon JY, Chevalier P, Lafon C. Ultrasound-Guided Transesophageal High-Intensity Focused Ultrasound Cardiac Ablation in a Beating Heart: A Pilot Feasibility Study in Pigs. [42:1848-1861](#).
- Dymarek R, Taradaj J, Rosińczuk J. The Effect of Radial Extracorporeal Shock Wave Stimulation on Upper Limb Spasticity in Chronic Stroke Patients: A Single-Blind, Randomized, Placebo-Controlled Study. [42:1862-1875](#).
- Wang J-C, Zhou Y. Shifting the Split Reflectors to Enhance Stone Fragmentation of Shock Wave Lithotripsy. [42:1876-1889](#).
- Vlaisavljevich E, Greve J, Cheng X, Ives K, Shi J, Jin L, Arvidson A, Hall T, Welling TH, Owens G, Roberts W, Xu Z. Non-Invasive Ultrasound Liver Ablation Using Histotripsy: Chronic Study in an In Vivo Rodent Model. [42:1890-1902](#).
- Pahk KJ, Mohammad GH, Malago M, Saffari N, Dhar DK. A Novel Approach to Ultrasound-Mediated Tissue Decellularization and Intra-Hepatic Cell Delivery in Rats. [42:1958-1967](#).
- Ye Q, Meng C, Shen Y, Ji J, Wang X, Zhou S, Jia L, Wang Y. Caveolin-1 Mediates Low-Intensity Ultrasound-Induced Apoptosis via Downregulation of Signal Transducer and Activator of Transcription 3 Phosphorylation in Laryngeal Carcinoma Cells. [42:2253-2260](#).
- Zhang Y, Tan H, Bertram EH, Aubry J-F, Lopes M-B, Roy J, Dumont E, Xie M, Zuo Z, Klibanov AL, Lee KS, Wintermark M. Non-Invasive, Focal Disconnection of Brain Circuitry Using Magnetic Resonance-Guided Low-Intensity Focused Ultrasound to Deliver a Neurotoxin. [42:2261-2269](#).
- Suen W-LL, Jiang J, Wong HS, Qu J, Chau Y. Examination of Effects of Low-Frequency Ultrasound on Scleral Permeability and Collagen Network. [42:2650-2661](#).
- Yamaguchi S, Aoyama T, Ito A, Nagai M, Iijima H, Tajino J, Zhang X, Wataru K, Kuroki H. Effect of Low-Intensity Pulsed Ultrasound after Mesenchymal Stromal Cell Injection to Treat Osteochondral Defects: An In Vivo Study. [42:2903-2913](#).
- Zhao L, Feng Y, Hu H, Shi A, Zhang L, Wan M. Low-Intensity Pulsed Ultrasound Enhances Nerve Growth Factor-Induced Neurite Outgrowth through Mechanotransduction-Mediated ERK1/2-CREB-Trx-1 Signaling. [42:2914-2925](#).
- Wei S, Xu C, Rychak JJ, Luong A, Sun Y, Yang Z, Li M, Liu C, Fu N, Yang B. Short Hairpin RNA Knockdown of Connective Tissue Growth Factor by Ultrasound-Targeted Microbubble Destruction Improves Renal Fibrosis. [42:2926-2937](#).
- Chongsatiantam A, Yimlamai T. Therapeutic Pulsed Ultrasound Promotes Revascularization and Functional Recovery of Rat Skeletal Muscle after Contusion Injury. [42:2938-2949](#).
- Podkowa A, Miller RJ, Motl RW, Fish R, Oelze ML. Focused Ultrasound Treatment of Cervical Lymph Nodes in Rats with EAE: A Pilot Study. [42:2957-2964](#).
- Putz R, Albers J, Kadow-Romacker A, Geissler S, Raum K. Influence of Donor Age and Stimulation Intensity on Osteogenic Differentiation of Rat Mesenchymal Stromal Cells in Response to Focused Low-Intensity Pulsed Ultrasound. [42:2965-2974](#).
- Kraemer R, Sorg H, Forstmeier V, Knobloch K, Liodaki E, Stang FH, Mailaender P, Kisch T. Immediate Dose-Response Effect of High-Energy Versus Low-Energy Extracorporeal Shock Wave Therapy on Cutaneous Microcirculation. [42:2975-2982](#).
- Chan KOW, Tong HHY, Ng GYF. Topical Fish Oil Application Coupling with Therapeutic Ultrasound Improves Tendon Healing. [42:2983-2989](#).
- Crake C, Owen J, Smart S, Coviello C, Coussios C-C, Carlisle R, Stride E. Enhancement and Passive Acoustic Mapping of Cavitation from Fluorescently Tagged Magnetic Resonance-Visible Magnetic Microbubbles In Vivo. [42:3022-3036](#).

Thermal effects

Synonyms: ultrasound heating, tissue heating

Scopus Search: "Thermal effects" OR heating

See also: high intensity focused ultrasound, therapeutic effects

Hynes MB, Bujak MC, Chérin E, Sade S, Foster FS. Design of a Subtarsal Ultrasonic Transducer for Mild Hyperthermia Treatment of Dry Eye Disease. [42:232-242](#).

Yeshurun L, Azhari H. Non-invasive Measurement of Thermal Diffusivity Using High-Intensity Focused Ultrasound and Through-Transmission Ultrasonic Imaging. [42:243-256](#).

Harris GR, Church CC, Dalecki D, Ziskin MC, Bagley JE. Comparison of Thermal Safety Practice Guidelines for Diagnostic Ultrasound Exposures. [42:345-357](#).

Hsiao Y-S, Deng CX. Calibration and Evaluation of Ultrasound Thermography Using Infrared Imaging. [42:503-517](#).

Thrombolysis

Synonyms: sonothrombolysis, recanalisation, clot busting

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

Chen X, Wang J, Pacella JJ, Villanueva FS. Dynamic Behavior of Microbubbles during Long Ultrasound Tone-Burst Excitation: Mechanistic Insights into Ultrasound-Microbubble Mediated Therapeutics Using High-Speed Imaging and Cavitation Detection. [42:528-538](#).

Khokhlova TD, Monsky WL, Haider YA, Maxwell AD, Wang Y-N, Matula TJ. Histotripsy Liquefaction of Large Hematomas. [42:1491-1498](#).

- Porter TR, Radio S, Lof J, Everbach C, Powers JE, Vignon F, Shi WT, Xie F. Diagnostic Ultrasound High Mechanical Index Impulses Restore Microvascular Flow in Peripheral Arterial Thromboembolism. *42:1531-1540.*
- Zhang X, Owens GE, Cain CA, Gurm HS, Macoskey J, Xu Z. Histotripsy Thrombolysis on Retracted Clots. *42:1903-1918.*
- Roos ST, Juffermans LJM, van Royen N, van Rossum AC, Xie F, Appelman Y, Porter TR, Kamp O. Unexpected High Incidence of Coronary Vasoconstriction in the Reduction of Microvascular Injury Using Sonolysis (ROMIUS) Trial. *42:1919-1928.*
- Liao A-H, Chung H-Y, Chen W-S, Yeh M-K. Efficacy of Combined Ultrasound-and-Microbubbles-Mediated Diclofenac Gel Delivery to Enhance Transdermal Permeation in Adjuvant-Induced Rheumatoid Arthritis in the Rat. *42:1976-1985.*
- Black JJ, Yu FTH, Schnatz RG, Chen X, Villanueva FS, Pacella JJ. Effect of Thrombus Composition and Viscosity on Sonoreperfusion Efficacy in a Model of Micro-Vascular Obstruction. *42:2220-2231.*
- Roos ST, Yu FT, Kamp O, Chen X, Villanueva FS, Pacella JJ. Sonoreperfusion Therapy Kinetics in Whole Blood Using Ultrasound, Microbubbles and Tissue Plasminogen Activator. *42:3001-3009.*
- Thyroid**
Synonyms: Thyroid gland
Scopus Search: *Thyroid** OR *goitre*
- Koh J, Moon HJ, Park JS, Kim SJ, Kim HY, Kim E-K, Kwak JY. Variability in Interpretation of Ultrasound Elastography and Gray-Scale Ultrasound in Assessing Thyroid Nodules. *42:51-59.*
- English C, Casey R, Bell M, Bergin D, Murphy J. The Sonographic Features of the Thyroid Gland After Treatment with Radioiodine Therapy in Patients with Graves' Disease. *42:60-67.*
- Du J, Bai X, Lu Y, Wang H, Zhao J, Liu J, Wang H, Sui X, Fang Q. Diagnostic Efficacy of Ultrasonographic Characteristics of Thyroid Carcinoma in Predicting Cervical Lymph Node Metastasis. *42:68-74.*
- Lai X-J, Zhang B, Jiang Y-X, Li J-C, Zhao R-N, Yang X, Zhang Q, Zhang X-Y, Li W-B, Zhu S-L. High Risk of Lateral Nodal Metastasis in Lateral Solitary Solid Papillary Thyroid Cancer. *42:75-81.*
- Park VY, Kim E-K, Kwak JY, Yoon JH, Kim MJ, Moon HJ. Thyroid Imaging Reporting and Data System and Ultrasound Elastography: Diagnostic Accuracy as a Tool in Recommending Repeat Fine-Needle Aspiration for Solid Thyroid Nodules with Non-Diagnostic Fine-Needle Aspiration Cytology. *42:399-406.*
- Zhao J, Qian L, Zu Y, Wei Y, Hu X. Efficacy of Ablation Therapy for Secondary Hyperparathyroidism by Ultrasound Guided Percutaneous Thermoablation. *42:1058-1065.*
- Kim GR, Kim E-K, Kwak JY, Yoon JH, Moon HJ. Association between Bethesda Categories and Ultrasound Features of Conventional Papillary Thyroid Carcinoma. *42:1066-1074.*
- Bhatia KSS, Lam ACL, Pang SWA, Wang D, Ahuja AT. Feasibility Study of Texture Analysis Using Ultrasound Shear Wave Elastography to Predict Malignancy in Thyroid Nodules. *42:1671-1680.*
- Song YS, Kim J-h, Na DG, Min HS, Won J-K, Yun TJ, Choi SH, Sohn C-H. Ultrasonographic Differentiation Between Nodular Hyperplasia and Neoplastic Follicular-Patterned Lesions of the Thyroid Gland. *42:1816-1824.*
- Dong Y, Zhan W, Zhou J, Song L, Ni X, Zhang B. Hyper-Echoic Rim in Thyroid Nodules: A New Ultrasonographic Feature for Malignancy Prediction. *42:2123-2129.*
- Seong M, Shin JH, Hahn SY. Ultrasound Strain Elastography for Circumscribed Solid Thyroid Nodules without Malignant Features Categorized as Indeterminate by B-Mode Ultrasound. *42:2383-2390.*
- Rim JH, Chong S, Ryu HS, Chung BM, Ahn HS. Feasibility Study of Ultrasonographic Criteria for Microscopic and Macroscopic Extra-Thyroidal Extension Based on Thyroid Capsular Continuity and Tumor Contour in Patients with Papillary Thyroid Carcinomas. *42:2391-2400.*
- Hofauer B, Mansour N, Heiser C, Wirth M, Straßen U, Loeffelbein D, Bas M, Knopf A. Reproducibility of Acoustic Radiation Force Impulse Imaging in Thyroid and Salivary Glands with Experienced and Inexperienced Examiners. *42:2545-2552.*
- Jeong SH, Hong HS, Lee EH. Diagnostic Utility of Acoustic Structure Quantification for Evaluation of Radiation Sialadenitis after Radioactive Iodine Therapy. *42:2553-2561.*
- Dobruć-Sobczak K, Zalewska EB, Gumińska A, Słapa RZ, Młosek K, Wareluk P, Jakubowski W, Dedecjus M. Diagnostic Performance of Shear Wave Elastography Parameters Alone and in Combination with Conventional B-Mode Ultrasound Parameters for the Characterization of Thyroid Nodules: A Prospective, Dual-Center Study. *42:2803-2811.*
- Koh J, Kim E-K, Kim J-Y, Kwak JY, Yoon JH, Moon HJ. Comparison of Ultrasound, Pathologic and Prognostic Characteristics of the Follicular Variant of Papillary Thyroid Cancer According to Fine-Needle Aspiration Cytology. *42:2864-2872.*
- Tissue characterization**
Synonyms: tissue identification, tissue differentiation, histoscanning
Scopus Search: *tissue AND characteri*ation OR identification OR differentiation OR histoscanning*

- Boekhoven RW, Peters MFJ, Rutten MCM, van Sambeek MR, van de Vosse FN, Lopata RGP. Inflation and Bi-Axial Tensile Testing of Healthy Porcine Carotid Arteries. [42:574-585](#).
- Steinbuch J, Hoeks APG, Hermeling E, Truijman MTB, Schreuder FHBM, Mess WH. Standard B-Mode Ultrasound Measures Local Carotid Artery Characteristics as Reliably as Radiofrequency Phase Tracking in Symptomatic Carotid Artery Patients. [42:586-595](#).
- Weijers G, Wanten G, Thijssen JM, van der Graaf M, de Korte CL. Quantitative Ultrasound for Staging of Hepatic Steatosis in Patients on Home Parenteral Nutrition Validated with Magnetic Resonance Spectroscopy: A Feasibility Study. [42:637-644](#).
- Zhang S, Zhu J, Zhang X, He J, Li J. Assessment of the Stiffness of Major Salivary Glands in Primary Sjögren's Syndrome through Quantitative Acoustic Radiation Force Impulse Imaging. [42:645-653](#).
- Kulig K, Chang Y-J, Winiarski S, Bashford GR. Ultrasound-Based Tendon Micromorphology Predicts Mechanical Characteristics of Degenerated Tendons. [42:664-673](#).
- Yoshitake Y, Miyamoto N, Taniguchi K, Katayose M, Kanehisa H. The Skin Acts to Maintain Muscle Shear Modulus. [42:674-682](#).
- Wang L, Feng L, Yao Y, Deng F, Wang Y, Feng J, Xing Y. Ultrasonographic Evaluation of Optic Nerve Sheath Diameter among Healthy Chinese Adults. [42:683-688](#).
- Caixinha M, Santos M, Santos J. Automatic Cataract Hardness Classification Ex Vivo by Ultrasound Techniques. [42:989-998](#).
- Al-Kadi OS, Chung DYF, Coussios CC, Noble JA. Heterogeneous Tissue Characterization Using Ultrasound: A Comparison of Fractal Analysis Backscatter Models on Liver Tumors. [42:1612-1626](#).
- Gómez-Flores W, Ruiz-Ortega BA. New Fully Automated Method for Segmentation of Breast Lesions on Ultrasound Based on Texture Analysis. [42:1637-1650](#).
- Akiyama K, Akagi R, Hirayama K, Hirose N, Takahashi H, Fukubayashi T. Shear Modulus of the Lower Leg Muscles in Patients with Medial Tibial Stress Syndrome. [42:1779-1783](#).
- Zhou J, Yang Z, Zhan W, Dong Y, Zhou C. Anisotropic Properties of Breast Tissue Measured by Acoustic Radiation Force Impulse Quantification. [42:2372-2382](#).
- Widman E, Maksuti E, Amador C, Urban MW, Caidahl K, Larsson M. Shear Wave Elastography Quantifies Stiffness in Ex Vivo Porcine Artery with Stiffened Arterial Region. [42:2423-2435](#).
- Akkus Z, Bayat M, Cheong M, Viksit K, Erickson BJ, Alizad A, Fatemi M. Fully Automated and Robust Tracking of Transient Waves in Structured Anatomies Using Dynamic Programming. [42:2504-2512](#).
- Kim S-Y, Lee HS, Kim E-K, Kim MJ, Moon HJ, Yoon JH. Effect of Background Parenchymal Enhancement on Pre-operative Breast Magnetic Resonance Imaging: How It Affects Interpretation and the Role of Second-Look Ultrasound in Patient Management. [42:2766-2774](#).
- Koh J, Kim E-K, Kim J-Y, Kwak JY, Yoon JH, Moon HJ. Comparison of Ultrasound, Pathologic and Prognostic Characteristics of the Follicular Variant of Papillary Thyroid Cancer According to Fine-Needle Aspiration Cytology. [42:2864-2872](#).
- 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*
- Moncion A, Arlotta KJ, Kripfgans OD, Fowlkes JB, Carson PL, Putnam AJ, Franceschi RT, Fabiilli ML. Design and Characterization of Fibrin-Based Acoustically Responsive Scaffolds for Tissue Engineering Applications. [42:257-271](#).
- Fabiilli ML, Phanse RA, Moncion A, Fowlkes JB, Franceschi RT. Use of Hydroxyapatite Doping to Enhance Responsiveness of Heat-Inducible Gene Switches to Focused Ultrasound. [42:824-830](#).
- Transcranial ultrasound**
Synonyms: TCS, TCD
Scopus Search: Transcranial OR TCD OR skull
See also: **Doppler**
- Zhou Y, Hua Y, Jia L, Wang L, Liu B, Duan C, Jiao L. Evaluation of Interventional Therapy for Patients with Intracranial Vertebral Artery Stenosis by Transcranial Color-Coded Sonography. [42:44-50](#).
- Guo Y-Z, Gao Y-S, Guo Z-N, Niu P-P, Yang Y, Xing Y-Q. Comparison of Different Methods of Valsalva Maneuver for Right-to-left Shunt Detection by Contrast-Enhanced Transcranial Doppler. [42:1124-1129](#).
- Martí-Fàbregas J, Figueroa S, Martínez-Lizana E, Zubizarreta I, Carrera D, Martínez-Domeño A, Prats-Sánchez L, Camps-Renom P, Jiménez-Xarrié E, Delgado-Mederos R. Total Cerebral Blood Flow in Patients with Cardioembolic Stroke: Is It Clinically Meaningful? [42:2826-2833](#).
- Yeh S-J, Tang S-C, Tsai L-K, Chen Y-F, Liu H-M, Chen Y-A, Hsieh Y-L, Yang S-H, Tien Y-H, Yang C-C, Kuo M-F, Jeng J-S. Ultrasonographic Changes after Indirect Revascularization Surgery in Pediatric Patients with Moyamoya Disease. [42:2844-2851](#).

U

Ultrafast imaging*Synonyms:* high speed, plane wave*Scopus Search:* ultrafast OR ultra-fast

Wang D, Zong Y, Yang X, Hu H, Wan J, Zhang L, Bouakaz A, Wan M. Ultrasound Contrast Plane Wave Imaging Based on Bubble Wavelet Transform: In Vitro and In Vivo Validations. *42:1584-1597.*

Holländer B, Hendriks GAGM, Mann RM, Hansen HHG, de Korte CL. Plane-Wave Compounding in Automated Breast Volume Scanning: A Phantom-Based Study. *42:2493-2503.*

Andersen MV, Moore C, Arges K, Søgaaard P, Østergaard LR, Schmidt SE, Kisslo J, Von Ramm OT. High-Frame-Rate Deformation Imaging in Two Dimensions Using Continuous Speckle-Feature Tracking. *42:2606-2615.*

Jing B, Tang S, Wu L, Wang S, Wan M. Visualizing the Vibration of Laryngeal Tissue during Phonation Using Ultrafast Plane Wave Ultrasonography. *42:2812-2825.*

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*”

Dou J-P, Yu J, Cheng Z-G, Han Z-Y, Liu F-Y, Yu X-L, Liang P. Ultrasound-Guided Percutaneous Microwave Ablation for Hepatocellular Carcinoma in the Caudate Lobe. *42:1825-1833.*

Bessiere F, N’Djin WA, Colas EC, Chavrier F, Greillier P, Chapelon JY, Chevalier P, Lafon C. Ultrasound-Guided Transesophageal High-Intensity Focused Ultrasound Cardiac Ablation in a Beating Heart: A Pilot Feasibility Study in Pigs. *42:1848-1861.*

Hansen KL, Møller-Sørensen H, Kjaergaard J, Jensen MB, Lund JT, Pedersen MM, Lange T, Jensen JA, Nielsen MB. Intra-Operative Vector Flow Imaging Using Ultrasound of the Ascending Aorta among 40 Patients with Normal, Stenotic and Replaced Aortic Valves. *42:2414-2422.*

Sconfienza LM, Mauri G, Messina C, Aliprandi A, Secchi F, Sardanelli F, Randelli PS. Ultrasound-Guided Percutaneous

Tenotomy of Biceps Tendon: Technical Feasibility on Cadavers. *42:2513-2517.*

Lin M-X, Kuang M, Xu M, Zhuang B-W, Tian W-S, Ye J-Y, Xie X-H, Xie X-Y. Ultrasound and Contrast-Enhanced Ultrasound for Evaluation of Irreversible Electroporation Ablation: In Vivo Proof of Concept in Normal Porcine Liver. *42:2639-2649.*

Wang L, Wu W, Teng J, Zhong R, Han B, Sun J. Sonographic Features of Endobronchial Ultrasound in Differentiation of Benign Lymph Nodes. *42:2785-2793.*

Yang W, Ziemlewicz TJ, Varghese T, Alexander ML, Rubert N, Ingle AN, Lubner MG, Hinshaw JL, Wells SA, Lee Jr FT, Zagzebski JA. Post-procedure Evaluation of Microwave Ablations of Hepatocellular Carcinomas Using Electrode Displacement Elastography. *42:2893-2902.*

Seitel A, Sojoudi S, Osborn J, Rasoulilian A, Nouranian S, Lessoway VA, Rohling RN, Abolmaesumi P. Ultrasound-Guided Spine Anesthesia: Feasibility Study of a Guidance System. *42:3043-3049.*

De Angelis C, Mauri G. Expanding Role of Contrast-Enhanced Ultrasound in Guidance and Monitoring of Percutaneous Thermal Ablation. *42:3051.*

Uterus*Synonyms:* womb*Scopus Search:* Uter* OR Cervi* OR Womb*See also:* obstetrics

Chen M, He Y, Zhang P, Geng Q, Liu Q, Kong L, Chen Y, Wei Q, Liu J, Guo S, Liu H. Comparison of Uterine Receptivity between Fertile and Unexplained Infertile Women by Assessment of Endometrial and Subendometrial Perfusion Using Contrast-Enhanced Ultrasound: Which Index is Better—Peak Intensity or Area under the Curve? *42:654-663.*

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