

RSNA® 2019
DECEMBER 1-6

Musculoskeletal Radiology

RADIOLOGICAL SOCIETY
OF NORTH AMERICA
105TH Scientific Assembly
and Annual Meeting

Meeting.RSNA.org
#RSNA19

Accreditation and Designation Statements

The Radiological Society of North America (RSNA®) is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

The RSNA designates this live activity for a maximum of 94.00 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

The Commission on Accreditation of Medical Physics Education Program (CAMPEP) has approved the direct transfer of *AMA PRA Category 1 Credit™* to MPCEC on a credit-for-credit basis for medical physicists.

Corporate Symposium

Please refer to each course description in the online program to determine if CME credit is offered for the session.

Instructions on claiming credit will be provided during the course. CME credit for the Corporate Symposiums will be provided through a third-party provider and not through RSNA

Program information is subject to change. For the most up-to-date information, please use your Meeting App or visit Meeting.RSNA.org.

Walk Through the Week

Sunday, Dec. 1, 2019

Case of the Day

Musculoskeletal Sunday Case of the Day

Session ED008-SU Case of Day, Learning Center

10:45 AM–12:15 PM

Scientific Papers Sessions

Musculoskeletal (Bone Marrow and Neoplasms)

Session SSA14 E450B

Science Session with Keynote: Musculoskeletal (Pelvis and Hip)

Session SSA15 E451A

12:30–1:00 PM

Posters and Exhibits: Discussions

Musculoskeletal Sunday Poster Discussions

Session MKS-SUA MK Community, Learning Center

1:00–1:30 PM

Posters and Exhibits: Discussions

Musculoskeletal Sunday Poster Discussions

Session MKS-SUB MK Community, Learning Center

2:00–3:30 PM

Educational Courses

Advanced Muscle Imaging: State of the Art

Course RC104 E450A

Imaging of Musculoskeletal Emergencies (Interactive Session)

Course RC108 S406A

Dynamic Musculoskeletal US: Clicks and Clunks of the Lower Extremity (Hands-on)

Course RC152 E264

4:00–5:45 PM

Plenary Sessions

Sunday Afternoon Plenary Session

Session PS12 Arie Crown Theater

Monday, Dec. 2, 2019

Case of the Day

Musculoskeletal Monday Case of the Day

Session ED008-MO. Case of Day, Learning Center



7:15–8:15 AM

Educational Courses

Radiology Stranger Things: A Journey into the Upside Down (Case-based Competition)

Session SPDL20E451B

8:30–10:00 AM

Educational Courses

Emerging Technology: 3D Joint MR Imaging

Course RC217S504CD

Whole Body MRI for Precision Oncology in Malignant Bone Disease

Course RC218S103AB

Hands-on Musculoskeletal Ultrasound: A Forum for Question and Answer (Hands-on)

Course RC231E258

8:30 AM–12:00 PM

Educational Courses

Musculoskeletal Series: MRI of Ankle and Foot

Course RC204E451B

10:30 AM–12:00 PM

Scientific Papers Sessions

Musculoskeletal (Body Composition)

Session SSC09E450B

12:15–12:45 PM

Posters and Exhibits: Discussions

Musculoskeletal Monday Poster Discussions

Session MKS-MOA MK Community, Learning Center

12:45–1:15 PM

Posters and Exhibits: Discussions

Musculoskeletal Monday Poster Discussions

Session MKS-MOB MK Community, Learning Center

3:00–4:00 PM

Scientific Papers Sessions

Musculoskeletal (Accelerated Imaging)

Session SSE15N228

Musculoskeletal (Arthritis and Cartilage)

Session SSE16N227B

Tuesday, Dec. 3, 2019

Case of the Day

Musculoskeletal Tuesday Case of the Day

Session ED008-TUCase of Day, Learning Center

7:15–8:15 AM

Educational Courses

Houston, We Have a Problem (Case-based Competition)

Session SPDL30E451B

8:30–10:00 AM

Educational Courses

BOOST: Musculoskeletal-Sarcoma Case-based Multidisciplinary Review (Interactive Session)

Course MSRO35S103CD

Review of Pediatric Nuclear Medicine

Course RC311S504CD

8:30 AM–12:00 PM

Educational Courses

Musculoskeletal Series: Ultrasound

Course RC304E450A

Pediatric Series: Musculoskeletal Imaging

Course RC313N228

10:30 AM–12:00 PM

Scientific Papers Sessions

Musculoskeletal (Machine Learning and Artificial Intelligence)

Session SSG08E451A

11:30–11:50 AM

Showcase Presentations

3D + AV Theater: Experimental Applications of Desktop 3DP: Pioneering Research from the Field: Presented by Formlabs

Session 3D32 . . .3D Printing and Advanced Visualization Theater, North Building

12:00–12:20 PM

Showcase Presentations

RSNA AI Theater: ScanDiags-AI-driven Decision Support from Musculoskeletal MRI: Presented by Balzano AI Engineers

Session AI34AI Showcase North Building Level 2

12:15–12:45 PM

Posters and Exhibits: Discussions

Musculoskeletal Tuesday Poster Discussions

Session MKS-TUA MK Community, Learning Center

12:45–1:15 PM

Posters and Exhibits: Discussions

Musculoskeletal Tuesday Poster Discussions

Session MKS-TUB MK Community, Learning Center



1:00–1:20 PM

Showcase Presentations

RSNA AI Theater: Impacting Workflows on Routine MSK X-rays with the Implementation of Machine Learning Algorithms: Presented by Radiobotics
Session AI36. AI Showcase North Building Level 2

1:30–3:00 PM

Educational Courses

Essentials of Musculoskeletal Imaging
Course MSES33 S100AB

2:00–3:00 PM

Corporate Symposium

Advancements in Ultrasound Imaging for MSK and Sports Medicine: Presented by the Institute for Advanced Medical Education (IAME), educational grant provided by Canon Medical Systems USA, Inc.
Session CS34 S101AB

3:00–4:00 PM

Scientific Papers Sessions

Musculoskeletal (Muscle, Tendon, and Nerve)
Session SSJ15 E353C
Musculoskeletal (Knee)
Session SSJ16 E353A

3:30–5:00 PM

AI Hands-on Workshop

Deep Learning for MRI Interpretation on the Microsoft Azure ML Platform: Presented by Balzano AI Engineers
Session HW33. AI Showcase North Building Level 2

4:30–6:00 PM

Educational Courses

Articular Discs, Menisci, and Labra: Structure, Function, and Dysfunction Using MRI with Emphasis on the Knee Meniscus, Triangular Fibrocartilage, and Glenoid and Acetabular Labrum
Course RC404. E451B
Nerve Ultrasound Based on a Regional Approach: Ankle and Foot (Hands-on)
Course RC452. E264

Wednesday, Dec. 4, 2019

Case of the Day

Musculoskeletal Wednesday Case of the Day
Session ED008-WE. Case of Day, Learning Center

8:30–10:00 AM

Educational Courses

RSNA/ESR Sports Imaging Symposium: Upper Extremity Sports Injuries (Interactive Session)
Session MSSR41 E350
Emerging Technology: Dual-energy and Spectral CT Update 2019
Course RC517 S505AB
Vertebral Augmentation (Hands-on)
Course RC550. E260

8:30 AM–12:00 PM

Educational Courses

Musculoskeletal Series: MRI of Elbow, Wrist, and Hand
Course RC504. S406A

10:30 AM–12:00 PM

Educational Courses

Case-based Review of Pediatric Radiology (Interactive Session)
Course MSCP42 E450B
RSNA/ESR Sports Imaging Symposium: Lower Extremity Sports Injuries (Interactive Session)
Session MSSR42. E350

10:30 AM–12:00 PM

Scientific Papers Sessions

Musculoskeletal (Interventional)
Session SSK14 E353A

12:15–12:45 PM

Posters and Exhibits: Discussions

Musculoskeletal Wednesday Poster Discussions
Session MKS-WEA MK Community, Learning Center

12:45–1:15 PM

Posters and Exhibits: Discussions

Musculoskeletal Wednesday Poster Discussions
Session MKS-WEB MK Community, Learning Center

1:30–3:00 PM

Educational Courses

RSNA/ESR Sports Imaging Symposium: Musculoskeletal Interventional Procedures (Interactive Session)
Session MSSR43. E350

3:00–4:00 PM

Scientific Papers Sessions

Musculoskeletal (Shoulder)
Session SSM17 S105AB



3:30-5:00 PM

Educational Courses

RSNA/ESR Sports Imaging Symposium: Postoperative Imaging of Sports Injuries (Interactive Session)

Session MSSR44 E350

4:30-6:00 PM

Educational Courses

Neuro and MSK (Case-based Competition)

Session SPDL41 E451B

Thursday, Dec. 5, 2019

Case of the Day

Musculoskeletal Thursday Case of the Day

Session ED008-TH Case of Day, Learning Center

7:15-8:15 AM

Educational Courses

Keeping Radiology Weird: Spot Diagnoses from the Pacific Northwest (Case-based Competition)

Session SPDL50 E451B

8:30-10:00 AM

Educational Courses

Case-based Review of Musculoskeletal Radiology (Interactive Session)

Course MSCS51 S406A

Best Cases from the AIRP (In Conjunction with the American Institute for Radiologic Pathology) (Interactive Session)

Course RC624 S404CD

Common Spinal Injection Procedures for Diagnosis and Treatment of Back Pain (Hands-on)

Course RC631 E263

Live Ultrasound Interventional Procedures: Joint Injections, Cyst Aspiration, Abscess Drainage, Vascular Access, Core Biopsy, and Foreign Body Removal (Hands-on)

Course RC652 E264

8:30 AM-12:00 PM

Educational Courses

Musculoskeletal Series: Applying Artificial Intelligence to Musculoskeletal Imaging

Course RC604 N228

10:30-11:30 AM

Educational Courses

ASRT@RSNA 2019: Hip Imaging Update

Course MSRT53 N230B

10:30 AM-12:00 PM

Educational Courses

Case-based Review of Musculoskeletal Radiology (Interactive Session)

Course MSCS52 S406A

10:30 AM-12:00 PM

Scientific Papers Sessions

Musculoskeletal (Hardware and Orthopedic Implants)

Session SSQ13 N226

12:15-12:45 PM

Posters and Exhibits: Discussions

Musculoskeletal Thursday Poster Discussions

Session MKS-THA MK Community, Learning Center

12:45-1:15 PM

Posters and Exhibits: Discussions

Musculoskeletal Thursday Poster Discussions

Session MKS-THB MK Community, Learning Center

1:00-3:00 PM

Educational Courses

Interventional Oncology Series: Musculoskeletal Intervention

Course VSIO51 S405AB

4:30-6:00 PM

Educational Courses

Advanced Imaging of Arthritis

Course RC704 S402AB

Image-guided Biopsy of the Spine (Hands-on)

Course RC731 E263

Friday, Dec. 6, 2019

8:30-10:00 AM

Educational Courses

Avulsion Injuries of the Upper and Lower Extremities

Course RC804 E451B

10:30 AM-12:00 PM

Scientific Papers Sessions

Musculoskeletal (Spine)

Session SST05 E450B



Posters and Exhibits Discussions

(CME is available when the author is present for discussion during the lunch period)

Sunday, Dec. 1, 2019

12:30–1:00 PM

Scientific Posters

3D Shape Analysis of the Supraspinatus Muscle in Rotator Cuff Tear Patients
MK350-SD-SUA2 **Station #2**

Is the Bone Mineral Density of Necrotic Area Decreased in Pre-collapse Osteonecrosis of the Femoral Head? A Propensity-Matched Study Using CT Hounsfield Unit Values
MK349-SD-SUA1 **Station #1**

Performance of a Standardized Scanning and Reporting Method for Sonographic Soft Tissue Sarcoma Surgical Resection Bed Surveillance
MK387-SD-SUA4 **Station #4**

Physician Image Ordering Variability for Low Back Pain in a Single Healthcare System
MK351-SD-SUA3 **Station #3**

12:30–1:00 PM

Education Exhibits

An Educational Approach to Dynamic Contrast-Enhanced MRI Techniques for Arthritis Assessment
MK293-ED-SUA8 **Station #8**

Dynamic MR Imaging of Thoracic Outlet Syndrome - Imaging Protocol and Pictorial Review of Various Etiologies
MK289-ED-SUA5 **Station #5**

Metabolic and Endocrine Bone Disorders and Conditions: A Current, Comprehensive Review
MK292-ED-SUA7 **Station #7**

Osteochondral Lesions of the Talar Dome: An Up-To-Date Approach on Multimodality Imaging and Surgical Techniques
MK308-ED-SUA11 **Station #11**

Postsurgical Imaging of the ACL: Everything You Always Wanted to Know But Were Afraid to Ask
MK291-ED-SUA6 **Station #6**

Through Thick and Thin: Periosteal Reactions and Their Underlying Etiology
MK307-ED-SUA10 **Station #10**

Ultrasound Features of Sport-related Muscle Injuries of the Lower Limb
MK294-ED-SUA9 **Station #9**

What the Radiologist Needs to Know About Posterior Tibial Tendon Dysfunction and How to Help the Orthopedic Surgeons
MK290-ED-SUA12 **Station #12**

1:00–1:30 PM

Scientific Posters

3D Morphometric Characterization of Femoral Cam Lesion Extent
MK389-SD-SUB4 **Station #4**

An Updated Classification of A Normal Manubriosternal Junction: A Human Cadaveric Study Correlating Magnetic Resonance Imaging and Computed Tomography
MK352-SD-SUB1 **Station #1**

Diagnostic Value of Axial Computed Tomography Images for Distal Tibiofibular Syndesmosis Injury
MK353-SD-SUB2 **Station #2**

Dual-Energy CT Virtual Non-Calcium Technique in the Diagnosis of Osteoporosis: A Correlation Study with Quantitative CT
MK390-SD-SUB5 **Station #5**

Feasibility of Isotropic MAVRIC-SL with Spectral Bin Modulation for Metal Artifact Reduction at 3T MR
MK354-SD-SUB3 **Station #3**

1:00–1:30 PM

Education Exhibits

An Overview of Post-Operative Anterolateral Ligament Reconstruction
MK320-ED-SUB12 **Station #12**

Easier To Catch Than A "Can Of Corn": MRI and MRI Arthrogram of Shoulder Injuries in the Throwing Athlete
MK299-ED-SUB7 **Station #7**

Make No Bones About - Quiz Based, Imaging Of Vertebral Bone Tumors
MK301-ED-SUB9 **Station #9**

MR Neurography Applied to Carpal Tunnel Release Surgery: How to Interpret and Surgical Implications
MK297-ED-SUB10 **Station #10**

Musculoskeletal Manifestations of HIV Infection: A Pictorial Review
MK298-ED-SUB6 **Station #6**

Nothing Wrecks Us Like the Plexus! Lumbosacral Plexus: Anatomic Review with Challenging Cases
MK314-ED-SUB11 **Station #11**



Traumatic Thoracolumbar Spine Injuries: How to Help the Spine Surgeon
MK300-ED-SUB8 **Station #8**

Monday, Dec. 2, 2019

12:15–12:45 PM

Scientific Posters

Calcaneofibular Ligament Anatomy Under Different Ankle Positions
MK382-SD-MOA7 **Station #7**

CT-Guided Core Needle Bone Biopsy in the Workup of Non-Spinal Osteomyelitis: Is it Necessary for Diagnosis and Treatment?
MK357-SD-MOA3 **Station #3**

Different Energy Transfer Efficiency and Buffering Capability in Quadriceps and Calf Muscles with Low-Load Isotonic Exercise Detected by Dynamic Localized Phosphorus 31 Magnetic Resonance Spectroscopy
MK381-SD-MOA6 **Station #6**

Evaluation of an Accelerated Three Dimensional Fast Spin Echo with Compressed Sensing (CS-MATRIX) for Diagnosing Cartilage Lesions of Knee
MK380-SD-MOA5 **Station #5**

MRI Texture Analysis of Synovial Fluid as a Predictive Biomarker for Synovitis and OA Severity
MK355-SD-MOA1 **Station #1**

Talar Osteochondral Lesion of the Ankle: A Meta-Analysis of Diagnostic Performance of Magnetic Resonance Imaging
MK356-SD-MOA2 **Station #2**

The MOCART 2.0 (Magnetic Resonance Imaging of Cartilage Repair Tissue): Knee Score and Atlas
MK379-SD-MOA4 **Station #4**

12:15–12:45 PM

Education Exhibits

Bursa, Bursa, Bursa: Interventional Tactics and Tips for Radiologists
MK303-ED-MOA9 **Station #9**

Diffusion Tensor Imaging Application as a Prognostic Biomarker in Carpal Tunnel Syndrome after Decompression Surgery
MK304-ED-MOA10 **Station #10**

Don't Forget the Patella: CT and MRI Imaging Spectrum of Patellar Injuries
MK305-ED-MOA11 **Station #11**

Fascia Disorders Around the Body
MK306-ED-MOA12 **Station #12**

Ultrasound-Guided Therapeutic Interventions for Pelvic Neuropathy
MK302-ED-MOA8 **Station #8**

12:45–1:15 PM

Scientific Posters

"Salt and Pepper" Sign on Fat Fraction Map by IDEAL-IQ: Useful MR Sign for Differentiating Bone Islands from Osteoblastic Metastases
MK358-SD-MOB1 **Station #1**

Application of Multi-Echo Dixon Technique and IVIM-DWI in Patients with Primary Osteoporosis: A Preliminary Study with 3.0 T MRI
MK384-SD-MOB5 **Station #5**

Benign Bone Tumors Percutaneous Treatment: There is Life Beyond Osteoid Osteoma
MK360-SD-MOB3 **Station #3**

DECT for Detecting Gout: Problem-Solving Technique versus Problem-Causing Technique - Evaluation of Clumpy Artifact in Foot and Ankle DECT from Gout-Free Patients
MK383-SD-MOB4 **Station #4**

Septic Arthritis in Shoulder: Diagnostic Clues on Indirect MR Arthrography
MK359-SD-MOB2 **Station #2**

Ultrafast Imaging of Shoulder MR Arthrography with Compressed Sensing Accelerated Isovolumetric 3D-THRIVE: Comparison of One Scan of Iso-Volumetric with Multiplanar Reconstruction (MPR) and Three Scans of Conventional MR Images
MK385-SD-MOB6 **Station #6**

Weight-Bearing Syndesmotome Measurements in Ankle Injuries: Comparison with the Normal Side Using a Semi-Automatic Software
MK386-SD-MOB7 **Station #7**

12:45–1:15 PM

Education Exhibits

Interventional Musculoskeletal Ultrasound Techniques: A Review
MK309-ED-MOB9 **Station #9**

Juvenile Osteochondritis Dissecans Versus Normal Variants of Ossification in the Knee in Children: Key Points to Correct Assessment
MK313-ED-MOB12 **Station #12**

Ultrasound Guided Perineural Injections for the Diagnosis and Treatment of Chronic Pelvic Pain
MK311-ED-MOB10 **Station #10**



Ultrasound MSK Guided Intervention: Tips and Tricks
MK310-ED-MOB8 **Station #8**

You're Getting on My Nerves: A Review of Current and Future Applications of DTI Tractography of the Central and Peripheral Nervous System
MK312-ED-MOB11 **Station #11**

Tuesday, Dec. 3, 2019

12:15–12:45 PM

Scientific Posters

Diagnostic Value of Dual-Energy CT Virtual Non-Calcification for Occult Fracture of Knee Joint
MK363-SD-TUA3 **Station #3**

Differentiation of Benign and Malignant Vertebral Fracture on MR Using ResNet Deep Learning Compared to Radiologist's Reading
MK399-SD-TUA7 **Station #7**

High Resolution Ultrasound in Sub-clinical Diabetic Neuropathy: A Potential Screening Tool
MK396-SD-TUA4 **Station #4**

Increased Bone Marrow Density on Unenhanced CT in Patients with Acute Myeloid Leukemia
MK361-SD-TUA1 **Station #1**

Lateral Femoral Condyle Insufficiency Fractures: Associated Morphological Findings
MK398-SD-TUA6 **Station #6**

Quantitative MRI Detects Muscle Recovery?
MK397-SD-TUA5 **Station #5**

The Efficacy of Ultrasound-Guided Suprascapular Nerve Radiofrequency Ablation in the Treatment of Chronic Shoulder Pain
MK362-SD-TUA2 **Station #2**

12:15–12:45 PM

Education Exhibits

Clinical Applications of Dual Energy Computed Tomography in Musculoskeletal Imaging: Detection of Gout, Bone Marrow Edema, and Application in Skeletal Surveys
MK316-ED-TUA9 **Station #9**

Dual-Energy CT for Bone Marrow Imaging: "How To Do It"
MK318-ED-TUA11 **Station #11**

Patell-It Like It Is: A Multimodality Image-Based Guide of Patellofemoral Disorders for Radiologists
MK315-ED-TUA8 **Station #8**

Ultrasound (US) Imaging of Rectus Abdominis Muscles Diastasis: Methodology, Findings, and Practical Role
MK317-ED-TUA10 **Station #10**

12:45–1:15 PM

Scientific Posters

Comparison between Quantitative T2*-analysis of the Retropatellar Cartilage and the TTTG Distance in Young Professional Soccer Players
MK400-SD-TUB4 **Station #4**

Deep Learning Takes the Pain Out of Back Breaking Work - Automatic Vertebral Segmentation and Attenuation Measurement for Opportunistic Osteoporosis Screening
MK403-SD-TUB7 **Station #7**

Do Muscle Elastography and Echogenicity in Spastic Cerebral Palsy Correlate with Response to Botulinum Toxin Injection?
MK401-SD-TUB5 **Station #5**

Greyscale Ultrasound and Color Doppler Evaluation of Callus Formation in Fractures of Long Bones Treated by Internal Fixation
MK402-SD-TUB6 **Station #6**

Just a Coincidence? Magnetic Resonance Imaging Analysis of Kaplan Fiber Injury in the Setting of Acute Anterior Cruciate Ligament Tear
MK365-SD-TUB2 **Station #2**

Quantitatively Whole Knee Cartilage Assessment in Vivo Using Ultrashort Echo Time Magnetization Transfer (UTE-MT) MRI
MK364-SD-TUB1 **Station #1**

Virtual Magnetic Resonance Lumbar Spine Images Generated from Computed Tomography Images Using Conditional Generative Adversarial Networks
MK366-SD-TUB3 **Station #3**

12:45–1:15 PM

Education Exhibits

MR Imaging of Peripheral Neuropathy: From Infectious to Compressive Causes
MK325-ED-TUB12 **Station #12**

Pediatric Bone Tumors and Mimickers: Focused Imaging Overview with Pathologic Correlation
MK326-ED-TUB11 **Station #11**

Radiographic Measurements and Angles of the Ankle and Foot: What Every Radiologist Should Know
MK323-ED-TUB9 **Station #9**

Strategies to Upgrade your MSK MRI: Back to Basic Physics, Made Easy
MK324-ED-TUB10 **Station #10**



Walking on Pebbles: Beyond Morton's Neuroma
MK321-ED-TUB8 **Station #8**

Wednesday, Dec. 4, 2019

12:15–12:45 PM

Scientific Posters

Correlation Between Thoracic Vertebral Bone Strength and Quantitative Lung CT Assessment in Chronic Obstructive Pulmonary Disease Patient
MK369-SD-WEA3 **Station #3**

Evaluation of Articular Cartilage of the Glenohumeral Joint in Patients with Labral Injury Using T2 Mapping Technique: Relationship between Labral Tear Location and T2 Mapping Value: Evaluation of Articular Cartilage of the Glenohumeral Joint (GHJ)
MK367-SD-WEA1 **Station #1**

Longitudinal Change of Long Head of the Biceps Brachii Tendon on Magnetic Resonance Imaging After Rotator Cuff Repair
MK404-SD-WEA4 **Station #4**

Piriformis Syndrome: Pain Response Outcomes Following CT-Guided Injection Incremental Value of Botulinum Toxin Injection
MK405-SD-WEA5 **Station #5**

Radiomics and Machine Learning May Accurately Preoperatively Be Predicting the Histopathological Grades of Soft Tissue Sarcomas Based on Multiparametric MRI
MK368-SD-WEA2 **Station #2**

US Features in the Median Nerve for the Assessment of Carpal Tunnel Syndrome Using High Frequency US Imaging
MK406-SD-WEA6 **Station #6**

12:15–12:45 PM

Education Exhibits

Articular Cartilage Injury of the Knee Reporting and Data System (ACIK-RADS): A New Proposal for the Report of Cartilage Injury in the Knee by MRI
MK332-ED-WEA9 **Station #9**

Common and Uncommon Complications of Reverse Total Shoulder Arthroplasty: Pictorial Review and Review of the Literature
MK329-ED-WEA12 **Station #12**

Demystifying Sacral Masses: Imaging Findings, Rad-Path Correlation, and Biopsy Techniques
MK330-ED-WEA7 **Station #7**

High Resolution Ultrasonography (US) of the Elbow Demonstrating Standard Technique and Its Variations with Emphasis on Detailed Evaluation of Ligaments, Tendons, and Nerves
MK331-ED-WEA8 **Station #8**

Most Common MRI Findings of Muscle Sport Injuries in Professional Football Players: A Pictorial Review
MK328-ED-WEA11 **Station #11**

Put Your Shoulder Into It (and Elbow And Wrist For That Matter): Ultrasound-Guided Procedures of the Upper Extremity
MK327-ED-WEA10 **Station #10**

12:45–1:15 PM

Scientific Posters

Chondral Lesions of the Wrist: A Meta-Analysis Comparing Performance of MRI, MRA and CTA
MK370-SD-WEB1 **Station #1**

Cryoablation for Advanced and Refractory Desmoid Tumors: A Promising Treatment?
MK407-SD-WEB4 **Station #4**

Deep Learning-Based Automatic Fat Quantification of Supraspinatus Muscle: Quantitative Comparison of a Single Slice at Y-View versus Total MR Slices
MK408-SD-WEB5 **Station #5**

Detecting Mild Fatigue of Lower-Limb Skeletal Muscle Using Stimulated Echo in Q-Space Imaging
MK372-SD-WEB3 **Station #3**

Novel 3D Cone-Beam CT Scan Mode on a Multipurpose X-Ray System: Evaluation of Image Quality in Cadaveric Elbow Scans Compared to Third Generation Dual-Source CT
MK409-SD-WEB6 **Station #6**

Skeletal Muscle, Visceral and Subcutaneous Fat Area Measurements Inter-Reader Variability Assessment
MK371-SD-WEB2 **Station #2**

12:45–1:15 PM

Education Exhibits

Carpal Injury from a Fall on the Outstretched Hand
MK334-ED-WEB8 **Station #8**

Muscle MRI in Neuromuscular Disorders
MK337-ED-WEB7 **Station #7**

Not All 'Green' is Tophi - Focusing on the False Negatives and False Positives of DECT for Diagnosis of Gout
MK319-ED-WEB11 **Station #11**

Recent Update on Whole Body MRI for Musculoskeletal Imaging
MK335-ED-WEB9 **Station #9**



Soft Tissue Masses of the Forefoot: A Case Based Approach
MK336-ED-WEB10 **Station #10**

Thursday, Dec. 5, 2019

12:15–12:45 PM

Scientific Posters

Brachial Plexus MR-Neurography in Patients with Parsonage-Turner Syndrome
MK374-SD-THA2 **Station #2**

Evaluation of Clinical Assessments and MRI Findings that Suggest Surgical Treatment for Patients with Medial Epicondylitis: A Retrospective Study in a Single Institution
MK373-SD-THA1 **Station #1**

MRI-based Radiomics Signature: A Potential Imaging Biomarker for Prediction of Histologic Grade, Preoperative Prediction of Recurrence, and Prediction of Survival Outcome for Liposarcoma in Extremities
MK375-SD-THA3 **Station #3**

Real-Time Identification of Key Anatomical Features for Ultrasound-Guided Regional Anesthesia
MK393-SD-THA6 **Station #6**

Reduction of Metal Artifacts From after 3D Printed Patient-Specific Hip Arthroplasty for the Treatment of Bone and Soft Tissues Malignant Tumors in Computer Tomography: Value of Virtual Monochromatic Spectral and Metal Artifacts Reduction Software
MK392-SD-THA5 **Station #5**

Virtual Bone Mineral Density Imaging with Third-Generation Dual-Source Dual-Energy CT for Diagnosis of Osteoporosis: A Preliminary Study
MK391-SD-THA4 **Station #4**

12:15–12:45 PM

Education Exhibits

Anatomy of Bone Nutrient Vessels Related to Avascular Necrosis
MK340-ED-THA11 **Station #11**

Beyond Muscles and Bones: Significant Vascular Findings on Routine Musculoskeletal Imaging
MK339-ED-THA9 **Station #9**

Dancing Feet: Biomechanism and Imaging Findings of Foot and Ankle Musculoskeletal Injuries in Dancers
MK342-ED-THA8 **Station #8**

Gluteal Pathology in the Kardashian Era: An Imaging Review
MK338-ED-THA10 **Station #10**

Meniscal Ramp Lesion: A Hidden Injury and Its Importance
MK341-ED-THA7 **Station #7**

12:45–1:15 PM

Scientific Posters

Clinical Utility and Economic Impact of Screening Follow-Up Upper Extremity Radiographs in Children with Uncomplicated Distal Radius Fractures
MK378-SD-THB3 **Station #3**

Comparison of the Clinical Value of Two MR Metal Artifact Reduction Sequences in Patients with Malignant Bone Tumor after Joint Replacement
MK348-SD-THB4 **Station #4**

Diffusion and Perfusion Parameters is Associated with Early Lumbar Intervertebral Disc Degeneration: A Quantitative MRI Study
MK394-SD-THB5 **Station #5**

Intracortical Bone Mineral Density Correlates Well with Quantitative Susceptibility Mapping (QSM) Obtained from Cones Ultrashort Echo Time Magnetic Resonance Imaging (UTE-MRI)
MK376-SD-THB1 **Station #1**

Role of Whole-Body Diffusion-Weighted Imaging in Evaluation of Multiple Myeloma
MK377-SD-THB2 **Station #2**

Self-Improving AI-Assisted Semiautomated Musculoskeletal MR Image Segmentation
MK395-SD-THB6 **Station #6**

12:45–1:15 PM

Education Exhibits

Bone Injury Patterns and Pseudofractures of the Knee: Are You Familiar with Them?
MK346-ED-THB7 **Station #7**

Elusive Complications in Hip Arthroplasty - Dare to Spot It: Imaging Features of Uncommon Postoperative Complications
MK344-ED-THB9 **Station #9**

Hands Up! Systemic Diseases with Characteristic Imaging Findings in the Hand
MK008-EB-THB **Hardcopy Backboard**

Left Foot, Right Foot, Feet, Feet, Feet: Imaging Evaluation of Ankle and Foot Instrumentation and Reconstruction
MK347-ED-THB8 **Station #8**

Piriformis Muscle Variants: Not Always the Culprit!
MK343-ED-THB10 **Station #10**

Spaces and Interfaces: An Approach to Tendon Pathology in MR Imaging of the Hand and Wrist
MK345-ED-THB11 **Station #11**



Education Exhibits

SPACE No.	EXHIBIT TITLE		
MK001-EB-X	Infected or Not? And by What? Challenging Cases of Musculoskeletal Infection Which Were Met During the Multidisciplinary Care Approach	MK107-ED-X	Orthopaedic Clinical Examination Signs and What it Means for Radiologists
MK002-EB-X	Imaging of Anterior Cruciate Ligament Reconstruction: Normal Postoperative Appearance and Complications	MK108-ED-X	The Nuts and Bolts: What the Radiologist Needs to Know about the Imaging Appearance of Orthopedic Procedures
MK003-EB-X	Neurologic Pathologies of the Lumbar Spine: What Every Musculoskeletal Radiologist Should Know	MK109-ED-X	Anatomy, Biomechanics, Imaging and Pathologies of the Acromioclavicular Joint
MK004-EB-X	The Subscapularis: All About the Footprint Anatomy Beyond Tendinous Attachment and Variable Mechanisms of Injury with MRI Correlation	MK110-ED-X	Adult Bone Marrow Disorders
MK005-EB-X	Arthroscopic Surgery of the Wrist: What Radiologists Should Know	MK111-ED-X	Dark Lesions of the Talus
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