

# MUSCULOSKELETAL RADIOLOGY

## 104<sup>TH</sup> Scientific Assembly and Annual Meeting

Radiological Society of North America  
McCormick Place, Chicago

**November 25–30**

Meeting.RSNA.org #RSNA18

**RSNA<sup>®</sup> 2018**  
**TOMORROW'S**  
RADIOLOGY TODAY 

## 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 **99.25 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.

# Walk Through The Week

## SUNDAY, NOV 25, 2018

### 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 . . . . . E353C**

Musculoskeletal (Lower Extremity)

**Session SSA15 . . . . . E353B**

### 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**

### 1:30–6:00 PM

#### Educational Courses

Interventional Oncology Series: Lung, Kidney and Bone

**Course VSI011. . . . . S405AB**

### 2:00–3:30 PM

#### Educational Courses

Opportunistic CT Screening for Osteoporosis, Sarcopenia, and Adiposity

**Course RC104 . . . . . E450B**

Imaging of Musculoskeletal Injuries (Interactive Session)

**Course RC108 . . . . . E451B**

Nerve Ultrasound Based on a Regional Approach: Hip to Knee (Hands-on)

**Course RC152 . . . . . E264**

### 4:00–5:45 PM

#### Plenary Sessions

Sunday Afternoon Plenary Session

**Session PS12 . . . . . Arie Crown Theater**

# MONDAY, NOV 26, 2018

## 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

You Take the Red Pill-You Stay in Wonderland and I Show You How Deep the Rabbit Hole Goes (Case-based Competition)

**Session SPDL20. . . . . E451B**

## 8:30–10:00 AM

### Educational Courses

Whole-body MRI for Oncologic Decision Making in Bone Disease

**Course RC218. . . . . S103AB**

Advances in CT: Technologies, Applications, Operations-Special Purpose CT

**Course RC221. . . . . S102CD**

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

**Course RC231. . . . . E258**

## 8:30 AM–12:00 PM

### Educational Courses

Musculoskeletal Series: Knee MRI

**Course RC204. . . . . E451B**

## 10:30 AM–12:00 PM

### Educational Courses

Case-based Review of Magnetic Resonance (Interactive Session)

**Course MSCM22. . . . . S100AB**

## 10:30 AM–12:00 PM

### Scientific Papers Sessions

Science Session with Keynote: Musculoskeletal (Body Composition)

**Session SSC10. . . . . S102CD**

## 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**

Science Session with Keynote: Emergency Radiology  
(Forensic and Musculoskeletal Imaging)

**Session SSE06** . . . . . **E353A**

Musculoskeletal (Upper Extremity)

**Session SSE15** . . . . . **N228**

Musculoskeletal (Metal Artifact Reduction Techniques)

**Session SSE16** . . . . . **N227B**

**4:30–6:00 PM****Educational Courses**

3D Medical Printing Applications I

**Course RCC25** . . . . . **S501ABC**

**TUESDAY, NOV 27, 2018****Case of the Day**

Musculoskeletal Tuesday Case of the Day

**Session ED008-TU** . . . . . **Case of Day, Learning Center**

**7:15–8:15 AM****Educational Courses**

The RAD Files: The Truth is Out There (Case-based  
Competition)

**Session SPDL30** . . . . . **E451B**

**8:30–10:00 AM****Educational Courses**

Emerging Technology: Dual Energy and Spectral CT Update  
2018

**Course RC317** . . . . . **S505AB**

**8:30 AM–12:00 PM****Educational Courses**

Musculoskeletal Series: Ultrasound

**Course RC304** . . . . . **E450A**

Pediatric Series: Musculoskeletal Imaging

**Course RC313** . . . . . **N228**

**10:30 AM–12:00 PM****Educational Courses**

Case-based Review of Nuclear Medicine: PET/CT Workshop-  
Chest and Musculoskeletal PET/CT (In Conjunction with  
SNMMI) (Interactive Session)

**Course MSCC32** . . . . . **E450B**

**10:30 AM–12:00 PM****Scientific Papers Sessions**

Musculoskeletal (Machine Learning and Artificial Intelligence)

**Session SSG08** . . . . . **S102CD****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****3:00–4:00 PM****Scientific Papers Sessions**

Musculoskeletal (Advances in Computed Tomography)

**Session SSJ15** . . . . . **E350**

Musculoskeletal (Muscle, Tendon and Nerve)

**Session SSJ16** . . . . . **E353B**

Vascular Interventional (Spine and Bone Intervention)

**Session SSJ26** . . . . . **S502AB****3:30–5:00 PM****Educational Courses**

Essentials of Musculoskeletal

**Course MSES34** . . . . . **S100AB****4:30–6:00 PM****Educational Courses**

Interpretation of Musculoskeletal Radiographs: A Forgotten Art

**Course RC404** . . . . . **E353C**

Emerging Technology: 3D Joint Imaging

**Course RC417** . . . . . **S505AB**

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

**Course RC452** . . . . . **E264****WEDNESDAY, NOV 28, 2018****Case of the Day**

Musculoskeletal Wednesday Case of the Day

**Session ED008-WE** . . . . . **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 SPDL40** . . . . . **E451B**

Hot Topic Session: Fast MSK MR Imaging

**Session SPSH40** . . . . . E450A

## 8:30 AM–12:00 PM

### Educational Courses

Musculoskeletal Series: Shoulder MRI

**Course RC504** . . . . . S406A

## 8:30–10:00 AM

### Educational Courses

RSNA/ESR Sports Imaging Symposium: Upper Extremity

Sports Injuries

**Session MSSR41** . . . . . E352

Vertebral Augmentation (Hands-on)

**Course RC550** . . . . . E260

## 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

**Session MSSR42** . . . . . E352

## 10:30 AM–12:00 PM

### Scientific Papers Sessions

Musculoskeletal (Advances in MR Imaging)

**Session SSK13** . . . . . N229

## 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

Essentials of Pediatric Imaging

**Course MSES43** . . . . . S100AB

RSNA/ESR Sports Imaging Symposium: Musculoskeletal

Interventional Procedures

**Session MSSR43** . . . . . E352

**3:00–4:00 PM****Scientific Papers Sessions**

Musculoskeletal (Novel Signs and Patterns)

**Session SSM15** . . . . . **E450B****3:30–5:00 PM****Educational Courses**

RSNA/ESR Sports Imaging Symposium: Postoperative

Imaging of Sports Injuries

**Session MSSR44**. . . . . **E352****4:30–6:00 PM****Educational Courses**

Neuro and MSK (Case-based Competition)

**Session SPDL41** . . . . . **E451B****THURSDAY, NOV 29, 2018****Case of the Day**

Musculoskeletal Thursday Case of the Day

**Session ED008-TH** . . . . . **Case of Day, Learning Center****8:30–10:00 AM****Educational Courses**

Case-based Review of Musculoskeletal Radiology (Interactive Session)

**Course MSCS51**. . . . . **S100AB**

Interactive Game: When Do Imaging Findings Make a Difference? (Interactive Session)

**Course RC618** . . . . . **E353B**

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: Musculoskeletal Interventions

**Course RC604**. . . . . **E353C****10:30–11:30 AM****Educational Courses**

ASRT@RSNA 2018: Techniques That Can Make or Break Musculoskeletal Imaging - A Case-Based Approach

**Course MSRT53** . . . . . **N230B**



**10:30 AM–12:00 PM****Educational Courses**

Case-based Review of Musculoskeletal Radiology (Interactive Session)

**Course MSCS52** . . . . . **S100AB**

**10:30 AM–12:00 PM****Scientific Papers Sessions**

Molecular Imaging (Musculoskeletal, Gastrointestinal, Cardio)

**Session SSQ12** . . . . . **S504CD**

Musculoskeletal (Arthritis and Cartilage)

**Session SSQ13** . . . . . **E451A**

**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**

**4:30–6:00 PM****Educational Courses**

Imaging of the Hand and Wrist: How to Add Value

**Course RC704**. . . . . **S406B**

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

**Course RC731** . . . . . **E263**

**FRIDAY, NOV 30, 2018****8:30–10:00 AM****Educational Courses**

Ligamentous Injuries of the Knee: Mechanistic Approach with Emphasis on MR Imaging

**Course RC804**. . . . . **E451A**

Review of Pediatric Nuclear Medicine

**Course RC811** . . . . . **E263**

**9:30 AM–12:30 PM****Educational Courses**

International Symposium in Musculoskeletal Radiology (In Conjunction with Asian Musculoskeletal Society (AMS), European Society of Musculoskeletal Radiology (ESSR), German Society of Musculoskeletal Radiology (DGMSR), International Skeletal Society (ISS), Korean Society of Musculoskeletal Radiology (KSMR) and Society of Skeletal Radiology (SSR))

**Session SPIS61**. . . . . **E450A**

**10:30 AM–12:00 PM****Scientific Papers Sessions**

Musculoskeletal (Spine)

**Session SST05 . . . . . E351**

## Posters and Exhibits

## Discussions

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

**SUNDAY, NOV 25, 2018****12:30–1:00 PM****Scientific Posters**

Bony and Muscular Differences in Temporomandibular Joint Disorders on MRI

**MK348-SD-SUA3 . . . . . Station #3**

Imaging Can Finally Be Used to Decide on Therapy of Cartilaginous Tumors in Long Bones: Resection or Curettage

**MK349-SD-SUA4 . . . . . Station #4**

MR Anatomical-Histological Correlation of the Adductor Longus-Rectus Abdominis-Pubic Ligament Complex

**MK350-SD-SUA5 . . . . . Station #5**

Sonoelastography of the Supraspinatus and Infraspinatus Tendons in Patients with Adhesive Capsulitis of Shoulder

**MK347-SD-SUA2 . . . . . Station #2**

The Echogenic Appearance of the Diabetic Deltoid Muscle on Shoulder Ultrasound: Is This Simply from Adipose Tissue Infiltration, Can This Appearance Predict Type 2 Diabetes and be Used to Detect Pre-Diabetes?

**MK346-SD-SUA1 . . . . . Station #1****12:30–1:00 PM****Education Exhibits**

Dual-Energy X-ray Absorptiometry (DXA): Beyond Filling in the Numbers

**MK342-ED-SUA6 . . . . . Station #6****1:00–1:30 PM****Scientific Posters**

Fat Fraction Variation in Vertebrae: A Potential Biomarker in Evaluation of Bone Marrow Health

**MK354-SD-SUB4 . . . . . Station #4**

Microflow Imaging Technology of Ultrasound Examination for  
Diagnosis of Adhesive Capsulitis of the Shoulder

**MK353-SD-SUB3 . . . . . Station #3**

Painful Type II Navicular Os: MRI Findings and Classification

**MK355-SD-SUB5 . . . . . Station #5**

Rapidly Progressive Osteoarthropathy of the Hip: A Study of  
1471 Patients After Steroid Injection

**MK351-SD-SUB1 . . . . . Station #1**

Whole Body MRI for Breast Cancer Staging: The Roles of the  
Static Field Strength and Gadolinium Contrast Agents in Focus

**MK352-SD-SUB2 . . . . . Station #2**

## 1:00–1:30 PM

### Education Exhibits

Soft Tissue Calcification - An Interactive Pictorial Quiz

**MK343-ED-SUB6 . . . . . Station #6**

## MONDAY, NOV 26, 2018

## 12:15–12:45 PM

### Scientific Posters

Arterial Spin-Labeling MR Imaging of Painful Shoulder  
Disorders

**MK358-SD-MOA3 . . . . . Station #3**

Asynchronous Quantitative Computed Tomography for Bone  
Mineral Density Measurement in Two Clinics: A Comparability  
Study Using Cross-Calibration Phantom

**MK361-SD-MOA6 . . . . . Station #6**

Empirical Mathematical Model for Dynamic Contrast-  
Enhanced MRI in Patients with Rheumatoid Arthritis: A Novel  
Technique to Monitor the Clinical Disease Activity

**MK356-SD-MOA1 . . . . . Station #1**

Imaging Quantification of Glenoid Bone Loss in Patients with  
Glenohumeral Instability: A Systematic Review

**MK359-SD-MOA4 . . . . . Station #4**

Periprosthetic Heating During Metal Artifact Reduction  
Sequence Magnetic Resonance Imaging of Hip Arthroplasty  
Implants at 3T

**MK360-SD-MOA5 . . . . . Station #5**

Structural Abnormalities on Knee MRI Associated with Normal  
Aging over 6 years: Data from the Osteoarthritis Initiative

**MK362-SD-MOA7 . . . . . Station #7**

The Comma Sign: Can We Find It on Shoulder MRI?

**MK357-SD-MOA2 . . . . . Station #2**

## 12:15–12:45 PM

### Education Exhibits

A Name to Remember: What is the Eponym of the Fracture?

**MK344-ED-MOA8 . . . . . Station #8**

## **12:45–1:15 PM**

### **Scientific Posters**

Automatic Diagnosis Of ACL Tear On X-Ray In Trauma Patients: Achieving “Expert Level” Perception Of Subtle Radiology Findings (Segond Fracture) Using a Sparse Data Set

**MK365-SD-MOB3 . . . . . Station #3**

Evaluation of Age-related Changes in the Posterior Cruciate Ligament using T2\* Maps Derived from MR Images with an Ultra-short TE Sequence

**MK367-SD-MOB5 . . . . . Station #5**

Evaluation of CT Fat Quantification Techniques for Assessing the Rotator Cuff Musculature

**MK364-SD-MOB2 . . . . . Station #2**

Fast MR Imaging of Isotropic Volumetric Ankle: Acceleration of Three-Dimensional Fast Spin Echo Sequence Using Compressed Sensing Combined with Parallel Imaging

**MK363-SD-MOB1 . . . . . Station #1**

Precision of Bone Mineral Density Measurements Around Total Ankle Arthroplasty Using Dual Energy X-ray Absorptiometry

**MK366-SD-MOB4 . . . . . Station #4**

Prospective Comparison Between Radiofrequency Ecographic Multi-Spectrometry (REMS) and Dual Energy X-Ray Absorptiometry (DXA) Osteoporosis Risk Assessment

**MK369-SD-MOB7 . . . . . Station #7**

Real-Time Dynamic MRI of Finger Motion: A Feasibility Study

**MK368-SD-MOB6 . . . . . Station #6**

## **12:45–1:15 PM**

### **Education Exhibits**

Guess Who is Who: Tumor versus Tumor Mimicker—Bone and Soft Tissue Tumor Mimickers

**MK345-ED-MOB8 . . . . . Station #8**

## TUESDAY, NOV 27, 2018

### 12:15–12:45 PM

#### Scientific Posters

Automatic Femoral Neck Fracture Detection and Classification Utilizing Advanced Deep Learning Techniques

**MK370-SD-TUA1** . . . . . **Station #1**

Color-Coded Virtual Non-Calcium Dual-Energy CT for the Detection of Lumbar Disc Herniation in Comparison with Standard Grayscale CT using MR Imaging as Standard of Reference: A Multireader Diagnostic Performance Study

**MK376-SD-TUA7** . . . . . **Station #7**

CT-Guided Percutaneous Cryoablation of Musculoskeletal Lesions: Success and Fail

**MK371-SD-TUA2** . . . . . **Station #2**

Multiple Myeloma: Differentiation of ISS Stage Based on a Diffusion MRI-based Radiomic Signature

**MK375-SD-TUA6** . . . . . **Station #6**

Non-invasive MRI Biomarkers of Muscle Injury and Recovery for Muscular Dystrophy

**MK373-SD-TUA4** . . . . . **Station #4**

Proton Density Fat Fraction (PDFF) MR Imaging for Differentiation of Acute Benign and Malignant Vertebral Body Fractures

**MK372-SD-TUA3** . . . . . **Station #3**

Quantitative Assessment of Power Doppler Signal in the Subchondral Bone Region is an Effective Predictor of Radiographic Progression in the Hand of Rheumatoid Arthritis

**MK374-SD-TUA5** . . . . . **Station #5**

### 12:45–1:15 PM

#### Scientific Posters

Acoustic Radiation Force Impulse (ARFI) Imaging of Myositis: An Added Value?

**MK383-SD-TUB7** . . . . . **Station #7**

Classification of Median Nerve Swelling Pattern in Patients with Carpal Tunnel Syndrome and its Clinical Significance

**MK382-SD-TUB6** . . . . . **Station #6**

Deep Learning for Detection of Hip, Knee, and Shoulder Arthroplasty Dislocations and “Transfer Learning” to Native Joint Dislocations

**MK380-SD-TUB4** . . . . . **Station #4**

Determination of Musculoskeletal Magnetic Resonance Imaging Protocol between Routine Protocol and Radiologist-Tailored Protocol Using Deep-learning Convolutional Neural Networks

**MK379-SD-TUB3** . . . . . **Station #3**

Dual-Energy CT for Display of Bone Marrow Edema in Correlation with MRI: Characterization of Acuteness of Vertebral Compression Fractures on Staging CT

**MK381-SD-TUB5 . . . . . Station #5**

Predictor of Short-Term Poor Prognosis Following Percutaneous Vertebroplasty in Postmenopausal Women of Different Ages with Osteoporotic Related Vertebral Compression Fractures

**MK377-SD-TUB1 . . . . . Station #1**

Quantitative Assessment of Skin Stiffness Using Ultrasound Shear Wave Elastography in Systemic Sclerosis

**MK378-SD-TUB2 . . . . . Station #2**

## WEDNESDAY, NOV 28, 2018

**12:15–12:45 PM**

### Scientific Posters

Contrast Extravasation after Shoulder Arthrography: Is it Avoidable?

**MK389-SD-WEA6 . . . . . Station #6**

Correlation of Quantitative MRI Measures of Rotator Cuff Muscle Fatty Infiltration to Shoulder Strength and Range of Motion: A Pilot Study of Subjects with Painful Full-Thickness Supraspinatus Tendon Tear and Asymptomatic Controls

**MK388-SD-WEA5 . . . . . Station #5**

Detection of Different Degree Traumatic Vertebral Bone Marrow Edema by Virtual Noncalcium Technique of Dual-Source Dual-Energy CT

**MK385-SD-WEA2 . . . . . Station #2**

Diagnostic Outcome of Image-Guided Percutaneous Core Needle Biopsy of Sclerotic Bone Lesions: A Meta-Analysis

**MK384-SD-WEA1 . . . . . Station #1**

Efficacy of Hybrid Compressed Sensing in Three-Dimensional Isotropic T2-Weighted Fast Spin-Echo for the Lumbar Spine

**MK386-SD-WEA3 . . . . . Station #3**

MRI-Based Radiomic to Assess Lipomatous Soft Tissue Tumors Malignancy: A Pilot Study

**MK387-SD-WEA4 . . . . . Station #4**

**12:45–1:15 PM**

### Scientific Posters

3D-MRI versus 3D-CT in the Evaluation of Osseous Anatomy in Femoroacetabular Impingement using Dixon 3D FLASH Sequence

**MK393-SD-WEB4 . . . . . Station #4**

Adhesive Capsulitis: Are We Making the Diagnosis Before Clinicians?

**MK392-SD-WEB3 . . . . . Station #3**

Evaluation of Glenoid Labral Tears: Comparison Between Dual Energy CT Arthrography and MR Arthrography of the Shoulder

**MK394-SD-WEB5 . . . . . Station #5**

High-Frequency Ultrasound Evaluation of the Nail and Terminal Extensor Tendon in Psoriasis

**MK391-SD-WEB2 . . . . . Station #2**

Paraspinal Lean Muscle Mass Analysis using MRI in Patients with Adjacent Segment Disease after Lumbar Fusion

**MK390-SD-WEB1 . . . . . Station #1**

The Meniscal Comma Sign: Characterization and Clinical Importance of a Displaced Meniscal Fragment in the Meniscotibial Recess

**MK395-SD-WEB6 . . . . . Station #6**

## THURSDAY, NOV 29, 2018

### 12:15–12:45 PM

#### Scientific Posters

A Method to Improve the Image Quality of Spine CT on Reducing Metal Artifacts Caused by Pedicle Screws in Patients

**MK398-SD-THA3 . . . . . Station #3**

Detection of Spondylolysis: Is Replacement of CT by Ultrashort Time to Echo (UTE) MR Sequences Feasible? A Human Cadaveric Spine Study

**MK399-SD-THA4 . . . . . Station #4**

Dual-Energy Computed Tomography for Differentiation of Infiltration Patterns in Multiple Myeloma: A Feasibility Study

**MK397-SD-THA2. . . . . Station #2**

Fracture Risk Assessment of Diabetes Mellitus Patients: Comparison of Trabecular Bone Analysis by Tomosynthesis with Various Established Estimations

**MK396-SD-THA1. . . . . Station #1**

MRI-Detected Structural Damage and Longitudinal Change in Femorotibial Cartilage T2 Values in Radiographically Normal Joints

**MK400-SD-THA5 . . . . . Station #5**

Preoperative Intraarticular Hip Injections and the Risk of Postoperative Infection after Total Hip Arthroplasty

**MK401-SD-THA6. . . . . Station #6**

### 12:45–1:15 PM

#### Scientific Posters

Correlation of the New MRI Grading System for Cervical Foraminal Stenosis Based on Axial T2-Weighted Images with Severity of Neurological Manifestations

**MK402-SD-THB1. . . . . Station #1**

Hyperintensity of Vertebral Lesions in Relation to the Spinal Cord on T1-Weighted MR images: A Sign to Differentiate Multiple Myeloma from Metastasis

**MK405-SD-THB4 . . . . . Station #4**

Injury Patterns of Medial Patellofemoral Ligament in Patients with Acute Anterior Cruciate Ligament Tear: Is Associated with the Patellofemoral Osteoarthritis after ACL Reconstruction?

**MK404-SD-THB3 . . . . . Station #3**

Silent Progression in Patients with Rheumatoid Arthritis: Is DAS28 Remission an Insufficient Goal in RA?

**MK406-SD-THB5 . . . . . Station #5**

Three-Dimensional Magnetic Resonance Imaging Improved Diagnostic Accuracy for Posterior Ligamentous Complex Disruption Based on an In Vitro Study

**MK403-SD-THB2 . . . . . Station #2**

Ultrasound-Guided Percutaneous Needle Tenotomy Using Tenex Technique for Lateral Epicondylitis: Effectiveness and Contributing Factors

**MK407-SD-THB6. . . . . Station #6**



# Education Exhibits

<b>SPACE NO.</b>	<b>EXHIBIT TITLE</b>
<b>MK001-EB-X</b>	Tibial Pilon Fractures: What Radiologists Need to Know
<b>MK002-EB-X</b>	Underestimated Ligament Injuries in MRI: How Maneuvers Can Help
<b>MK003-EB-X</b>	A Bump, So What? High-Resolution Ultrasound (HRUS) of Soft-Tissue Superficial Palpable Lesions (STSPL)
<b>MK004-EB-X</b>	Ultrasound and Color-Doppler Imaging of Non-Melanoma Skin Tumors
<b>MK005-EB-X</b>	Rice Bodies: Leaving Routine 'RICE with BEAN'
<b>MK006-EB-X</b>	Do You Know How Many Fat Pads Useful in the Diagnosis of Msk Disease?: Anatomic and Case Review of Fat Pad Sign in the Whole Body
<b>MK007-EB-X</b>	Strain Ratio in Sonoelastography of the Achilles Tendon: A Comparison Between Asymptomatic Professional Athletes and Sedentary Volunteers
<b>MK008-EB-X</b>	Resonating with Rockwood: MRI of Acromioclavicular Joint Injuries
<b>MK009-EB-X</b>	Vascularized Composite Allograft (VCA)! Not An Everyday Graft Evaluation - Upper Limb Transplantation: What the Radiologist Needs to Know
<b>MK010-EB-X</b>	Grow a Spine: Paravertebral Ligamentous Ossifications
<b>MK011-EB-X</b>	Time to Add DWI to Your MSK Tumor Protocol
<b>MK012-EB-X</b>	The High Cost of a Cheap Resort: Radiological Spectrum of the Injected Biopolymers Complications
<b>MK100-ED-X</b>	Arch Enemies: Elevate your Knowledge of Adult Flatfoot Deformity
<b>MK101-ED-X</b>	Etiology-Based Imaging Review of Soft Tissue Calcification and Ossification
<b>MK102-ED-X</b>	Time Wounds All Heels: The Musculoskeletal Sequelae of High-Heeled Shoes

<b>MK103-ED-X</b>	Synovial Sarcomas: An Institutional Review of the Imaging Characteristics in Pathologically Proven Cases
<b>MK104-ED-X</b>	TB or Not TB: Imaging Features of Musculoskeletal Tuberculosis
<b>MK105-ED-X</b>	Anterior Glenohumeral Instability: A Systematic and Structured Approach with Arthroscopic Correlation
<b>MK106-ED-X</b>	Imaging of Rotator Cuff Reconstructions for Massive Rotator Cuff Tears: What the Radiologist Needs to Know
<b>MK107-ED-X</b>	Ankle Instability in Sports: Anatomy, Imaging Approach, and Treatment
<b>MK108-ED-X</b>	Carpal Scaphoid Fractures Radiologist Role and Surgical Perspectives
<b>MK109-ED-X</b>	A Review of Epidural Spinal Injections: What the Radiologist Needs to Know
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