



Sick Call Screeners Course

Musculoskeletal System:

Lower Extremities

(2.9)



Enabling Objectives

- 1.46 Utilize the knowledge of musculoskeletal system anatomy while assessing a patient with a musculoskeletal complaint
- 1.47 Utilize the knowledge of musculoskeletal system physiology while assessing a patient with a musculoskeletal complaint
- 1.48 Obtain history from patient with common orthopedic disorders



Enabling Objectives(Cont.)

- 1.49 Perform an orthopedic examination
- 1.50 State signs and symptoms of common orthopedic disorders
- 1.51 State treatments for common orthopedic disorders
- 1.16 State Red Flag criteria



Lower Extremity



Photo by: Petty Officer 3rd Class Katarzyna Kobiljak | USS John C. Stennis (CVN74)

R³

Relevant, Responsive, Requested

2.9-2-4



Pelvis and Hip

- Pelvic Bones
- Iliopsoas Joint
- Greater Trochanter
- Lesser Trochanter



Air Medical Journal Volume 36, Issue 5. MyAthens



Bones in the Knee

- Medial and lateral epicondyle of the femur
- Patella
- Superior and inferior patella tendon
- Medial and lateral condyle of the tibia



Orthopedic Physical Assessment. Published Jan 1, 2014. MyAthens



Muscles of the Knee

- Quadriceps
- Hamstring Muscles



Seidel's Guide to Physical Examination 8th Edition

R³

Relevant, Responsive, Requested

2.9-2-7



Joints of the Knee

- Ligaments
- Menisci
- Patella
- Bursa



Seidel's Guide to Physical Examination 8th Edition

R³

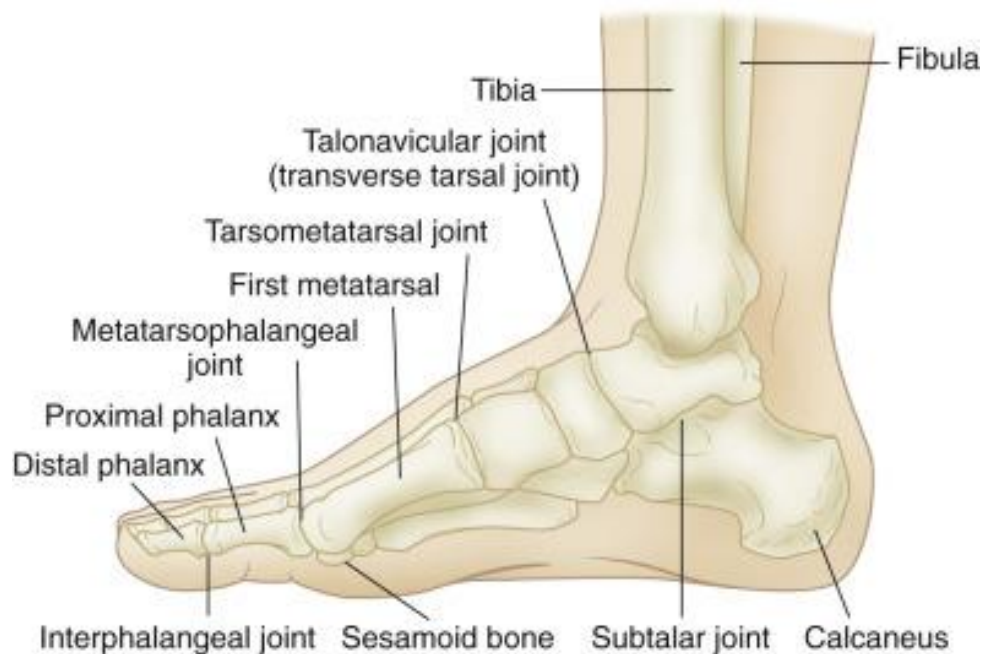
Relevant, Responsive, Requested

2.9-2-8



Bones of the Ankle and Foot

- Calcaneus
- Talus
- Tibia
- Phalanges
- Metatarsals
- Tarsal
- Medial and lateral malleolus

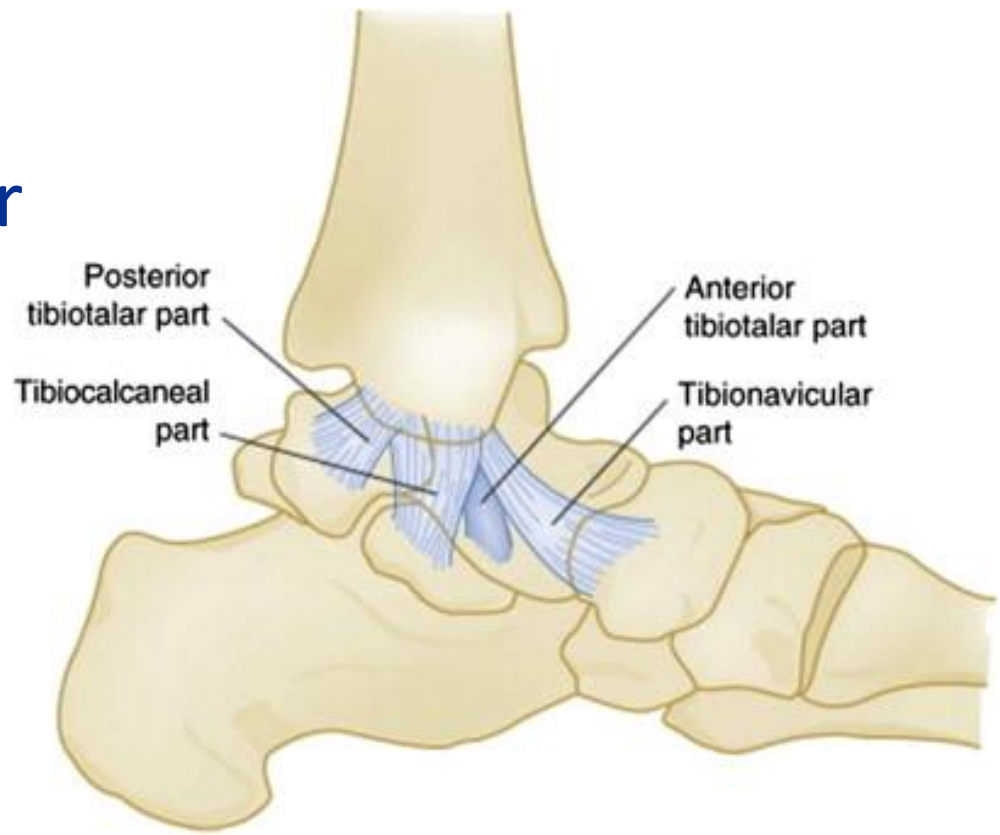


Seidel's Guide to Physical Examination 8th Edition



Ligaments of the Ankle and Foot

- Anterior Talofibular Ligament
- Posterior Talofibular Ligament
- Calcaneofibular Ligament



Emergency Medicine Clinics of North America. Volume 33, Issue 2. MyAthens



Obtain History

- Obtain Patient History
 - CC
 - HPI
 - OLDCARTS
 - PMHx
 - Family History
 - ROS



Perform an Orthopedic Examination

- Physical Exam
 - General Impression
 - Palpation
 - ROM
 - Neurologic Exam



Orthopedic Physical Assessment. Published Dec 31, 2013. MyAthens

R³

2.9-2-12

Relevant, Responsive, Requested



Pelvis and Hip Examination



Seidel's Guide to Physical Examination 8th Edition

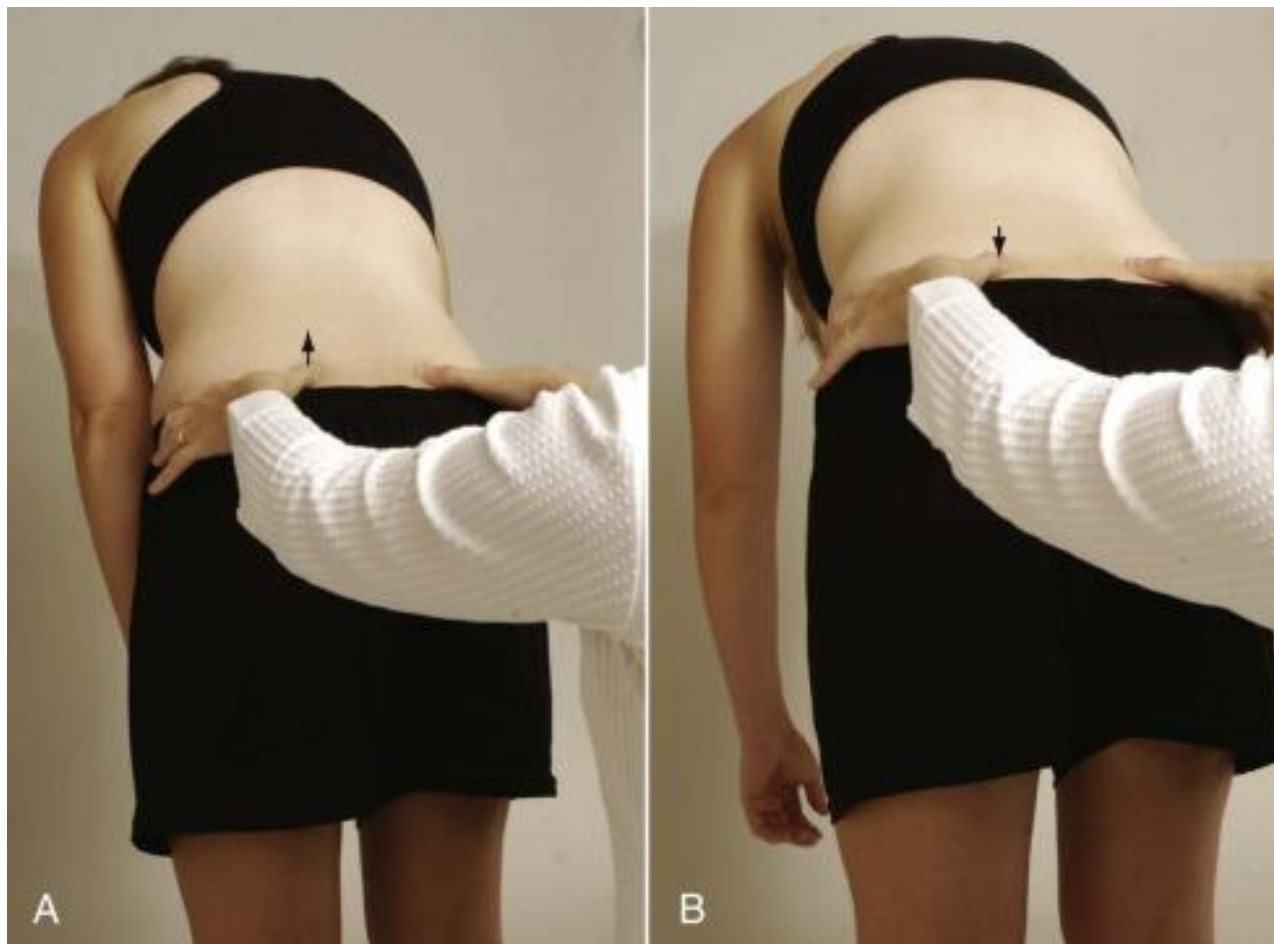
R³

Relevant, Responsive, Requested

2.9-2-13



Pelvis and Hip Palpation



Orthopedic Physical Assessment. Published Dec 31, 2013. MyAthens

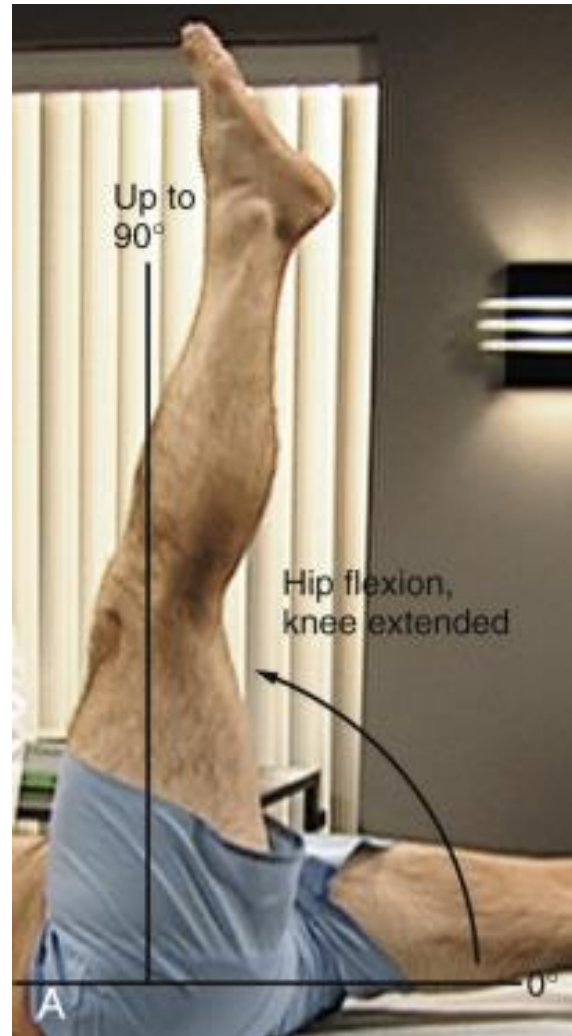
R³

Relevant, Responsive, Requested

2.9-2-14



Hip Flexion



Seidel's Guide to Physical Examination 8th Edition

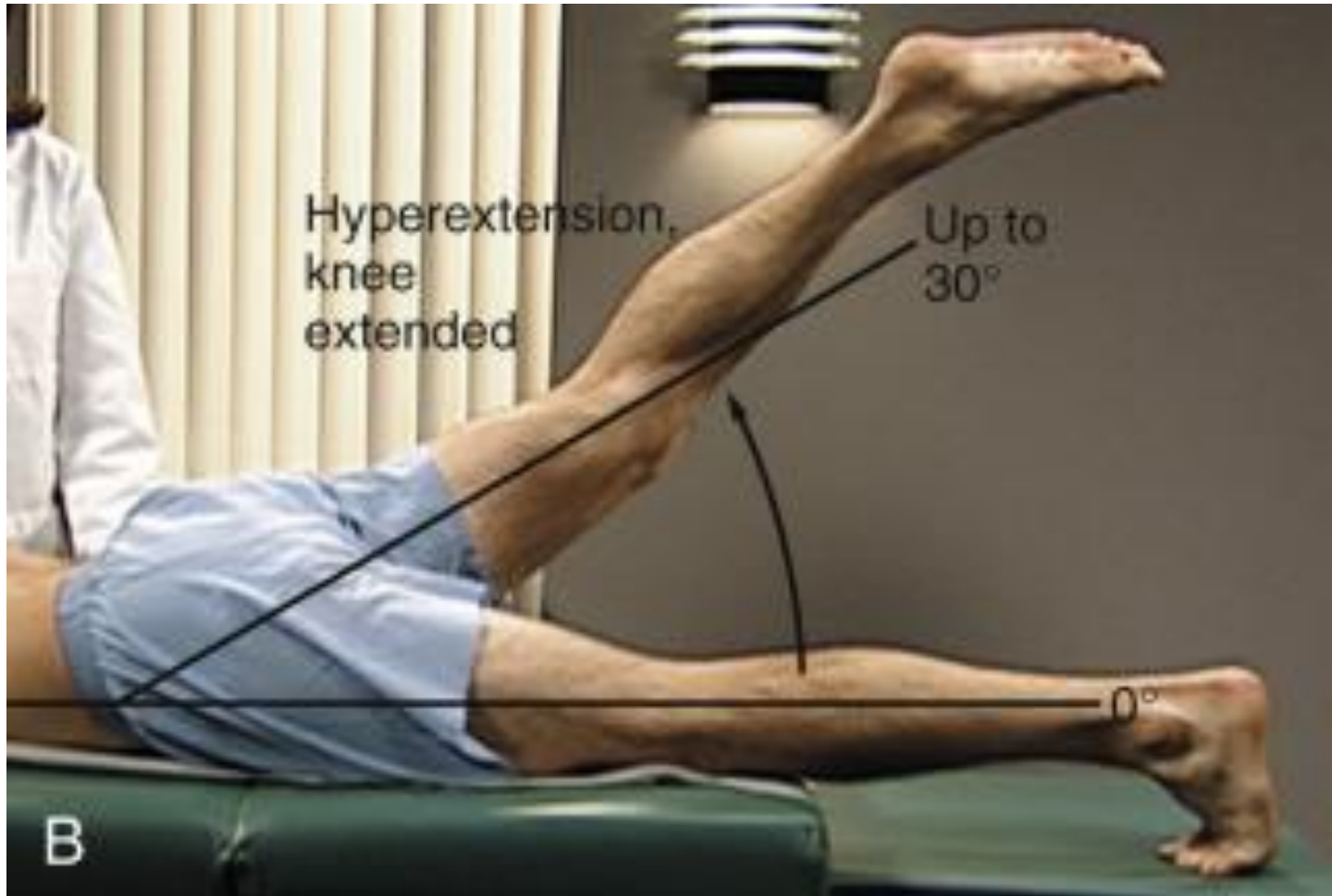
R³

Relevant, Responsive, Requested

2.9-2-15



Hyperextension



Seidel's Guide to Physical Examination 8th Edition

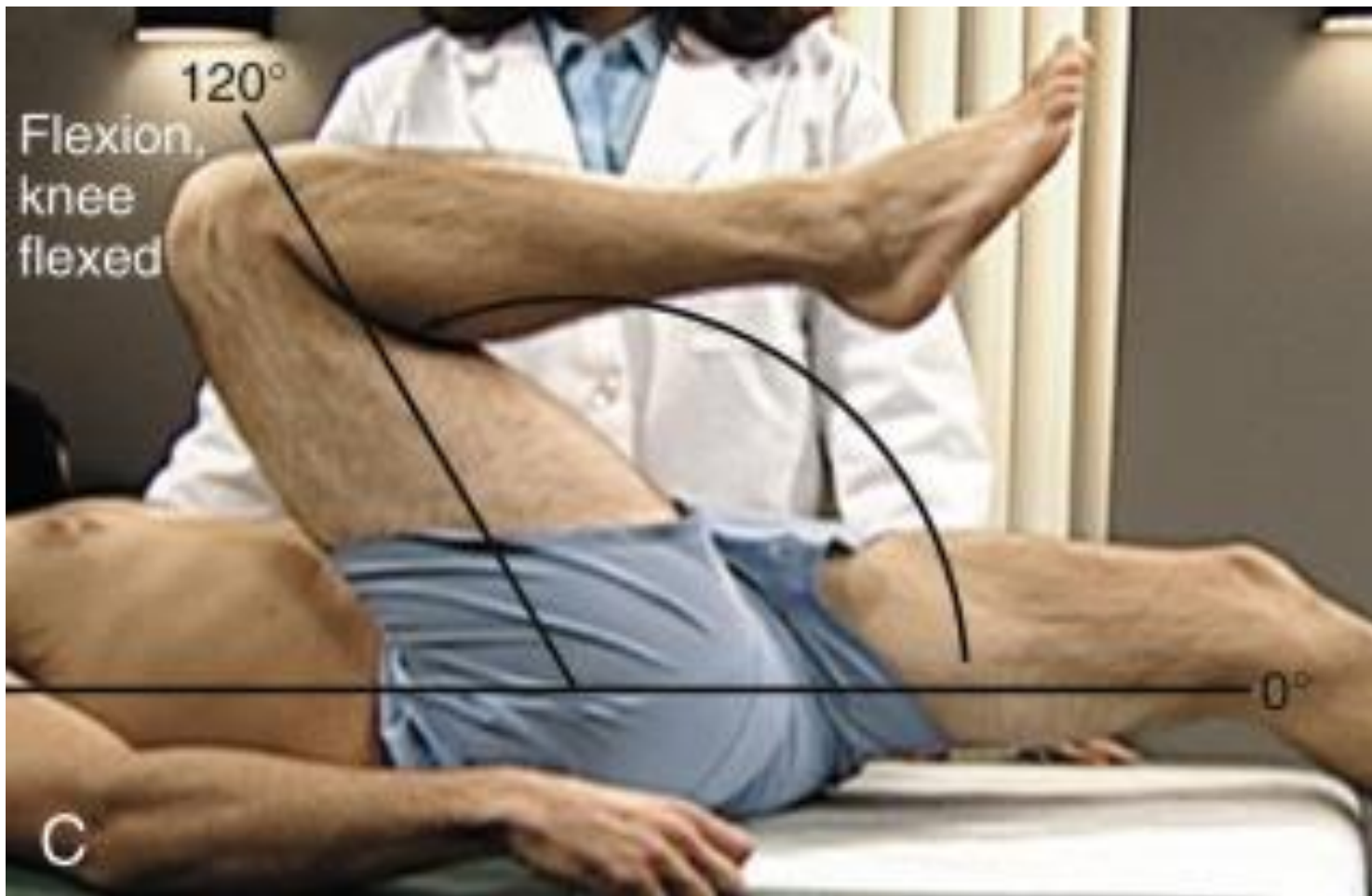
R³

Relevant, Responsive, Requested

2.9-2-16



Hip Flexion w/ knee flexed



Seidel's Guide to Physical Examination 8th Edition

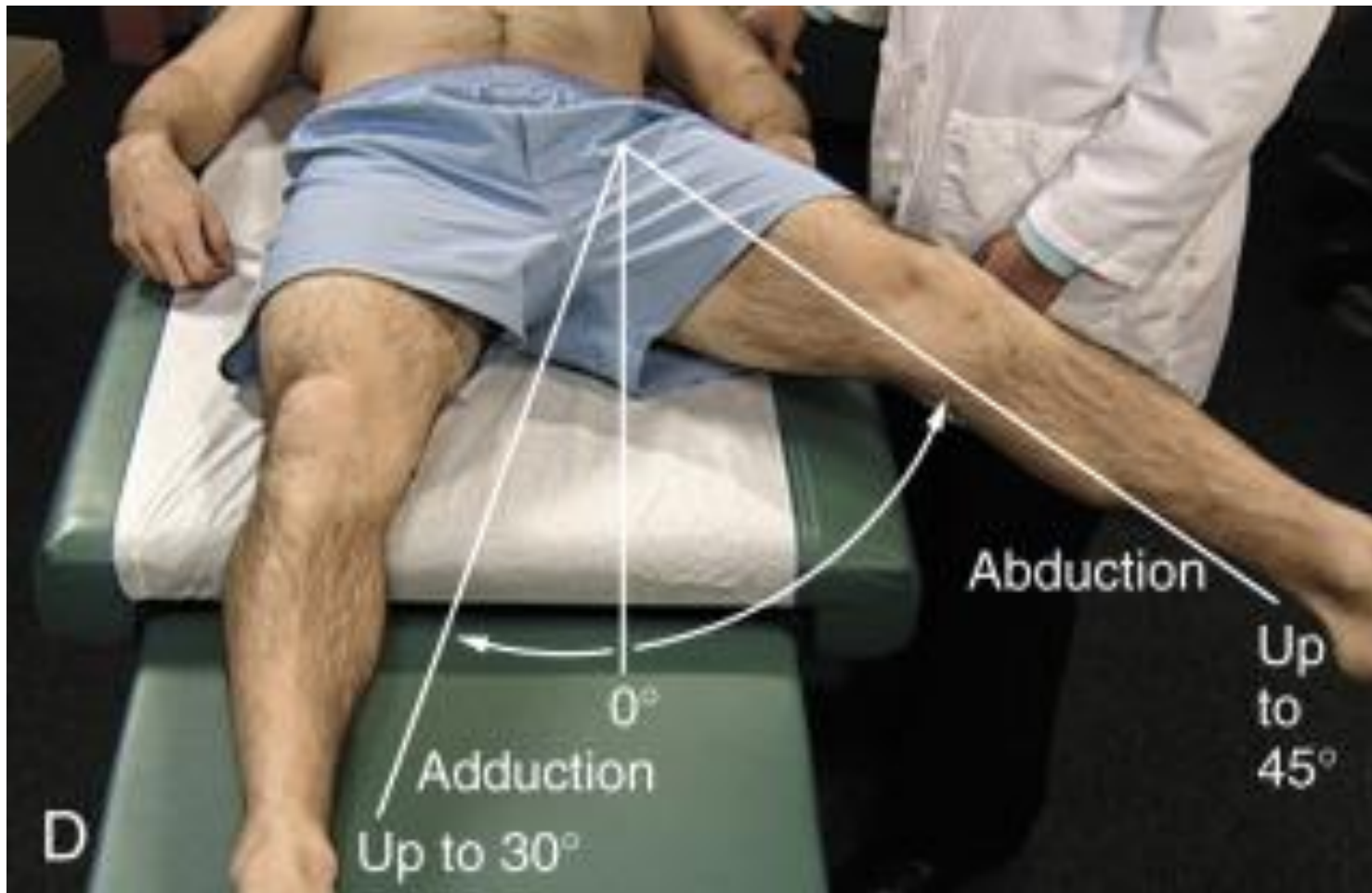
R³

Relevant, Responsive, Requested

2.9-2-17



Abduction and Adduction



Seidel's Guide to Physical Examination 8th Edition

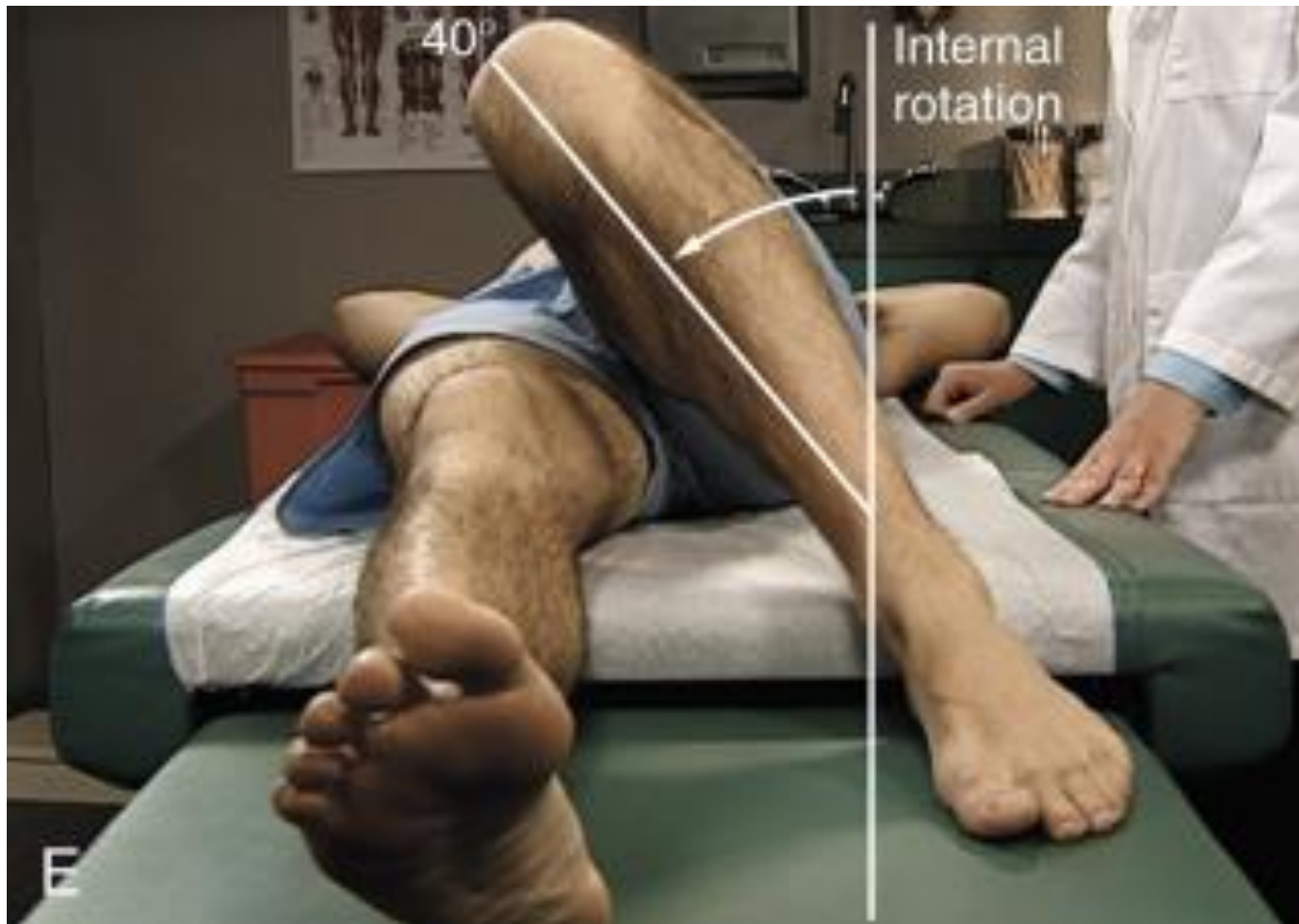
R³

Relevant, Responsive, Requested

2.9-2-18



Internal Rotation



Seidel's Guide to Physical Examination 8th Edition

R³

Relevant, Responsive, Requested

2.9-2-19



External Rotation



Seidel's Guide to Physical Examination 8th Edition

R³

Relevant, Responsive, Requested

2.9-2-20



Testing Hip Flexor



Orthopedic Physical Assessment. Published Dec 31, 2013. MyAthens

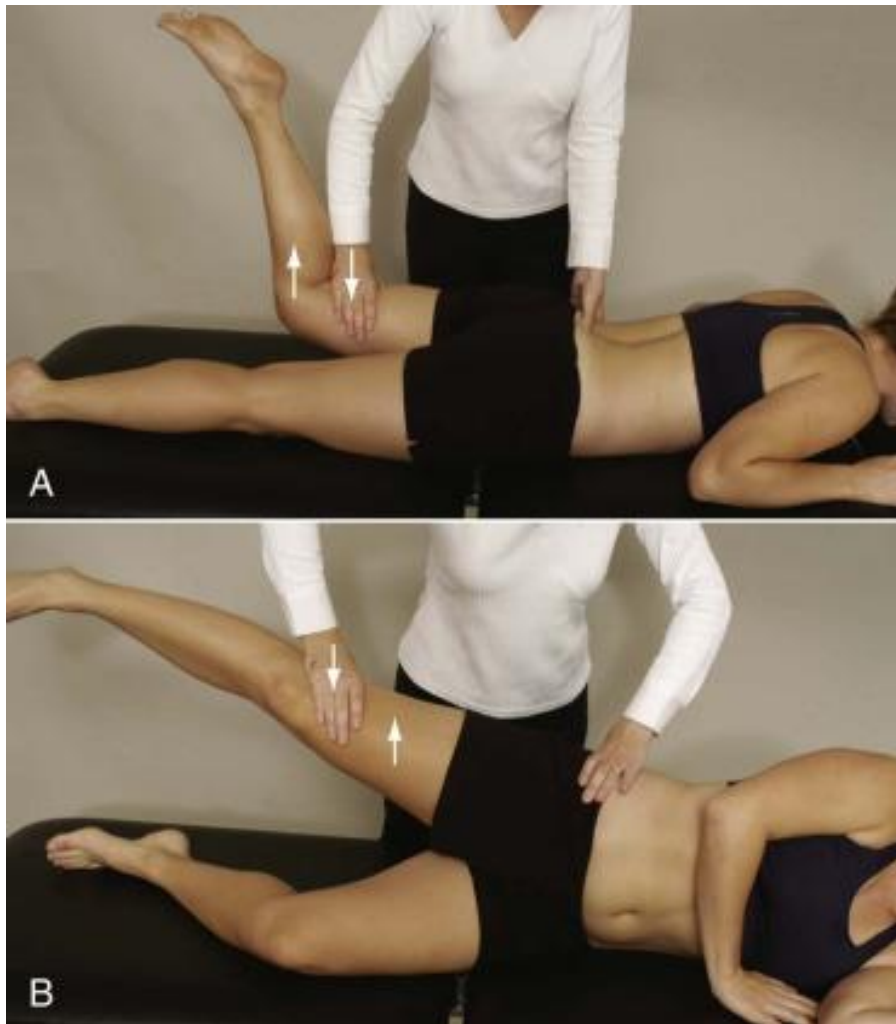
R³

Relevant, Responsive, Requested

2.9-2-21



Testing Extensors & Adductors



Orthopedic Physical
Assessment. Published Dec 31,
2013. MyAthens

R³

Relevant, Responsive, Requested

2.9-2-22



Testing Abductors



Orthopedic Physical Assessment. Published Dec 31, 2013. MyAthens

R³

Relevant, Responsive, Requested

2.9-2-23



Trendelenburg Test



Seidel's Guide to Physical Examination 8th Edition

R³

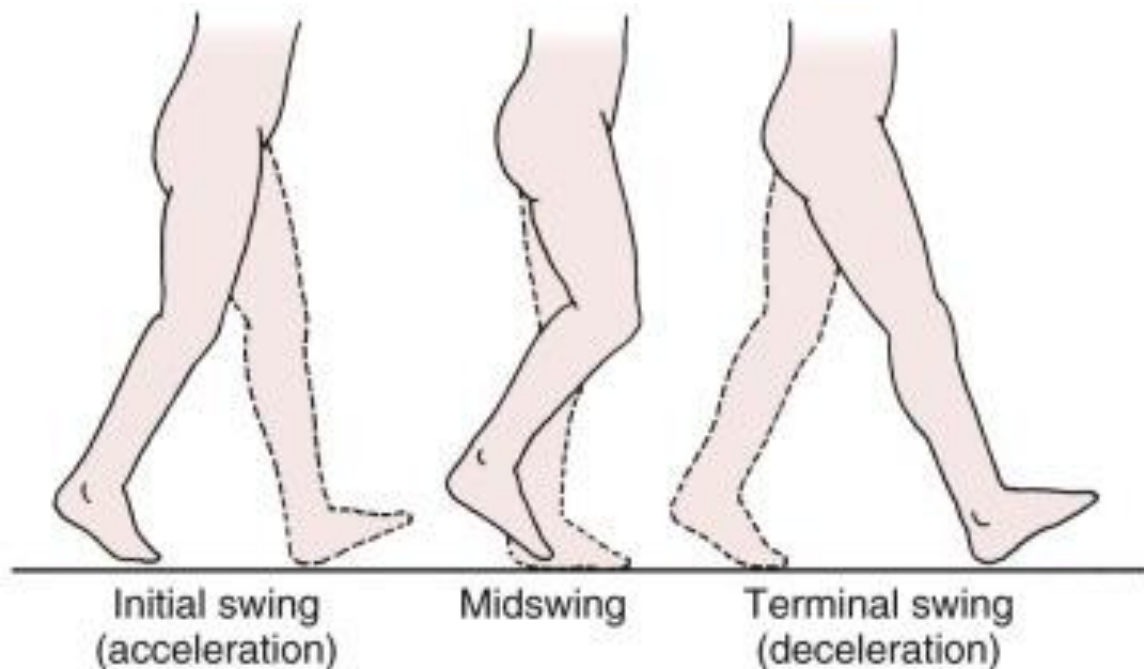
Relevant, Responsive, Requested

2.9-2-24



Pelvis and Hip Exams

- Special Tests
- Related areas
- Sensation
- Reflexes
- Gait
- Neurovascular Status



Orthopedic Physical Assessment. Published Dec 31, 2013. MyAthens

R³

2.9-2-25

Relevant, Responsive, Requested



Knee Inspection



Procedures Consult. Published Feb 7, 2008. MyAthens

R³

Relevant, Responsive, Requested

2.9-2-26



Knee Palpation



Orthopedic Physical Assessment. Published Dec 31, 2013. MyAthens

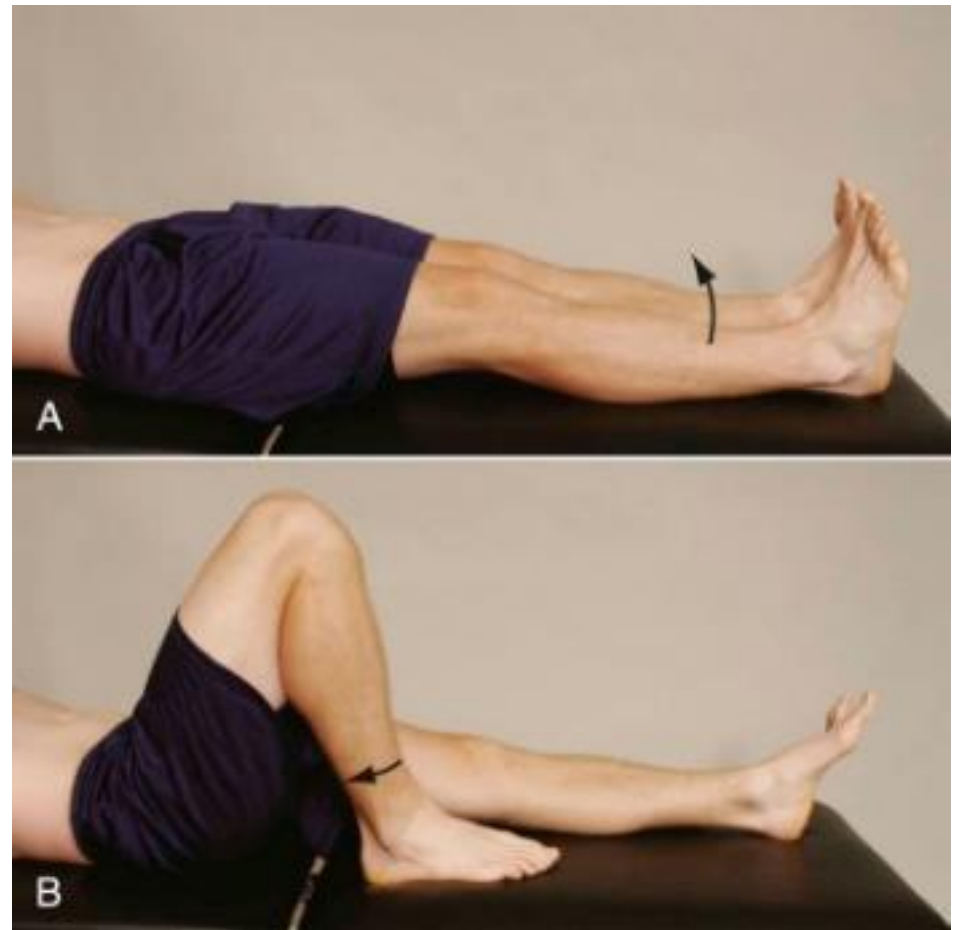
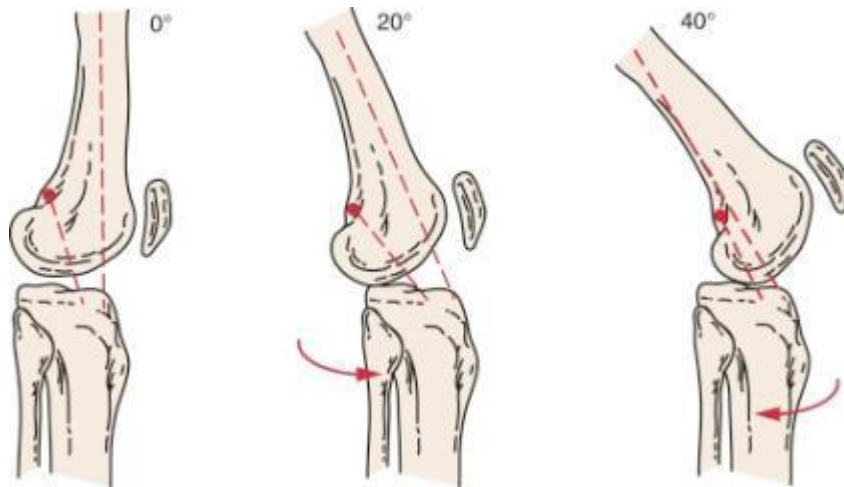
R³

Relevant, Responsive, Requested

2.9-2-27



Knee Active ROM



Orthopedic Physical Assessment. Published Dec 31, 2013. MyAthens

R³

Relevant, Responsive, Requested

2.9-2-28



Knee Passive ROM



Orthopedic Physical Assessment. Published Dec 31, 2013. MyAthens

R³

Relevant, Responsive, Requested

2.9-2-29



Testing Quadriceps & Hamstrings



Orthopedic Physical Assessment.
Published Dec 31, 2013. MyAthens

R³

Relevant, Responsive, Requested

2.9-2-30



Ballottement



Seidel's Guide to Physical Examination 8th Edition

R³

Relevant, Responsive, Requested

2.9-2-31



Bulge Signs



Seidel's Guide to Physical Examination 8th Edition

R³

Relevant, Responsive, Requested

2.9-2-32



Drawer's Test



Seidel's Guide to Physical Examination 8th Edition

R³

Relevant, Responsive, Requested

2.9-2-33



Lachman's Tests



Orthopedic Physical Assessment. Published Jan 1, 2014. MyAthens

R³

Relevant, Responsive, Requested

2.9-2-34



McMurray's Sign



Seidel's Guide to Physical Examination 8th Edition

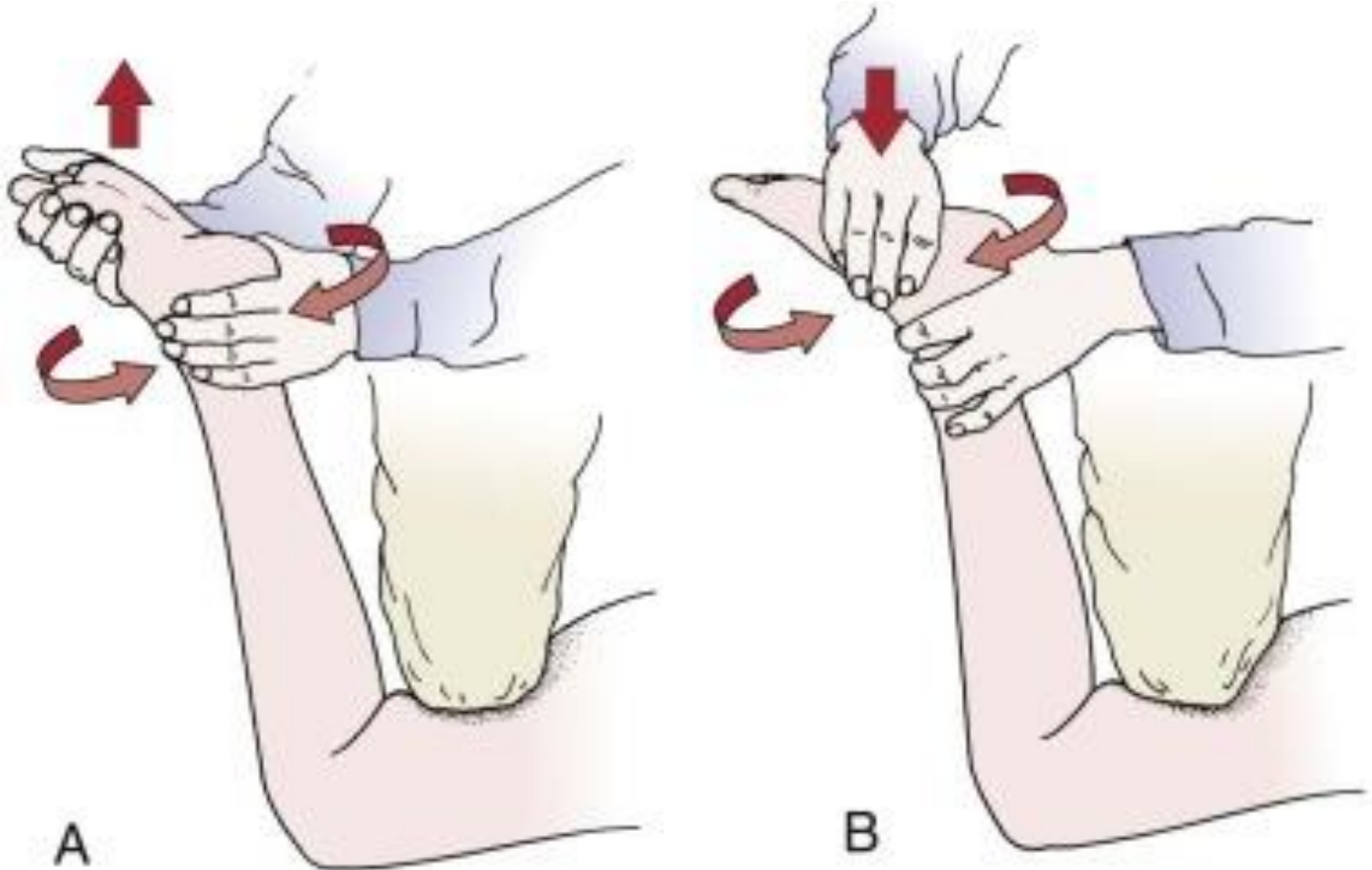
R³

Relevant, Responsive, Requested

2.9-2-35



Apley's Compression & Distraction Tests



Orthopedic Physical Assessment. Published Jan 1, 2014. MyAthens

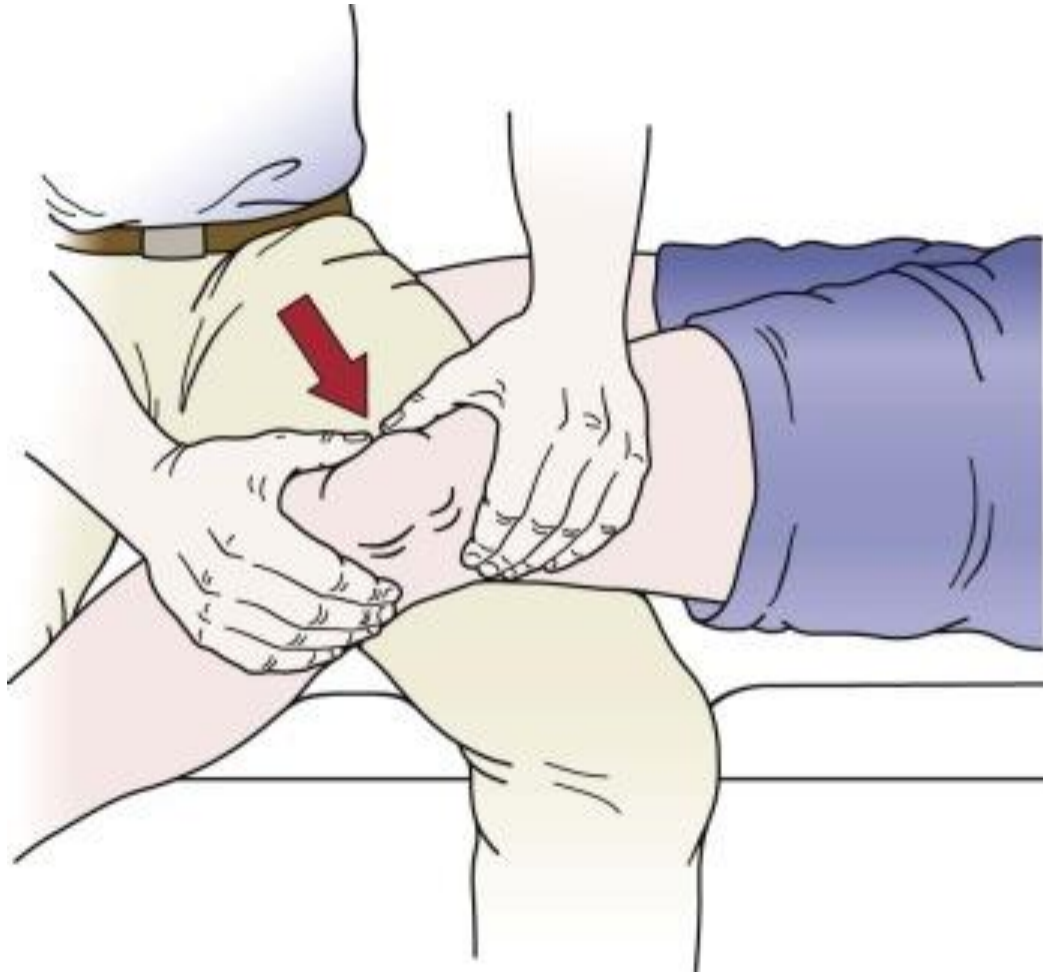
R³

Relevant, Responsive, Requested

2.9-2-36



Apprehension Test



Orthopedic Physical Assessment. Published Jan 1, 2014. MyAthens

R³

Relevant, Responsive, Requested

2.9-2-37



Examination of Related Areas



Orthopedic Physical Assessment. Published Jan 1, 2014. MyAthens

R³

Relevant, Responsive, Requested

2.9-2-38



Ankle and Foot Examination



Clinical Skills: Figure 15. Published Mar 29, 2018. MyAthens

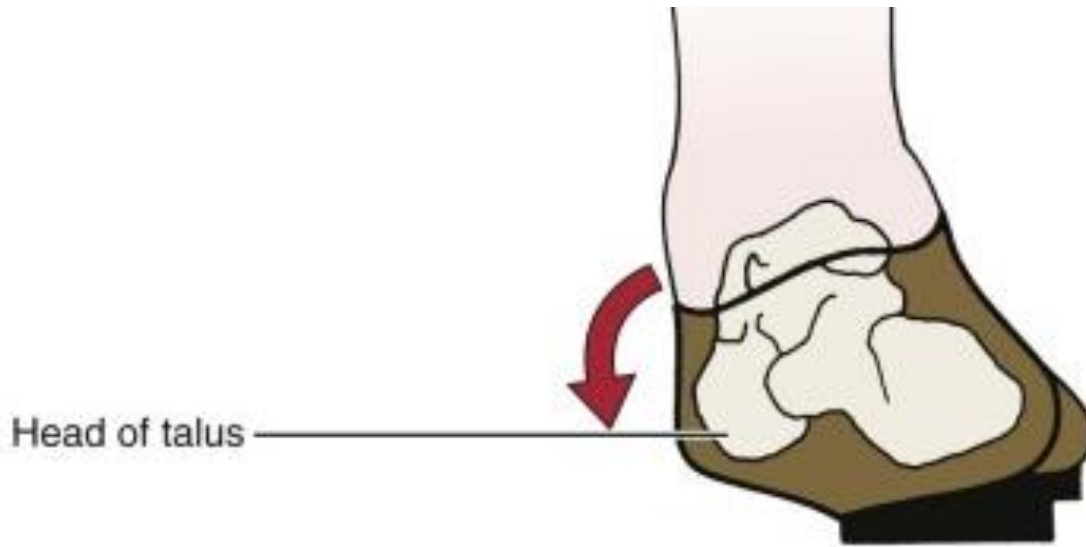
R³

Relevant, Responsive, Requested

2.9-2-39



Ankle and Foot Inspection



Orthopedic Physical Assessment. Published Jan 1, 2014. MyAthens

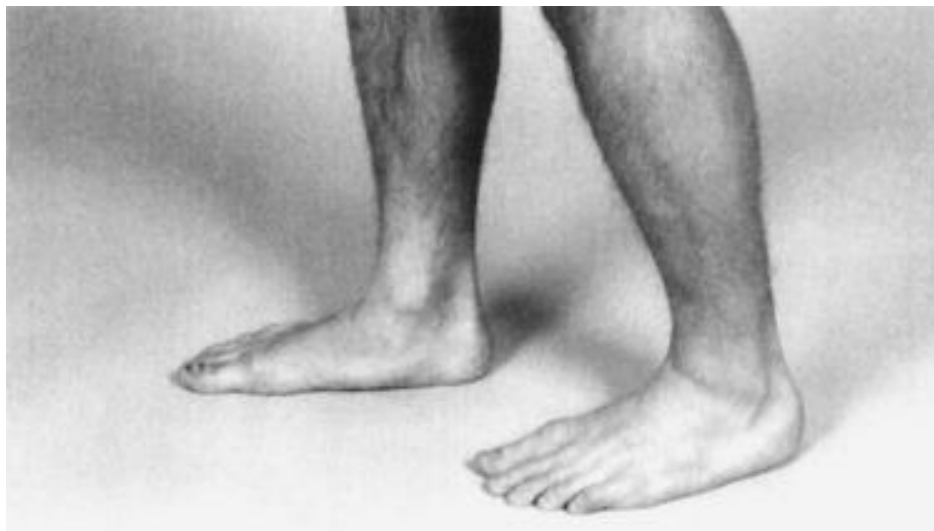
R³

Relevant, Responsive, Requested

2.9-2-40



Ankle and Foot Inspection (Cont.)



Orthopedic Physical Assessment. Published Jan 1, 2014. MyAthens

R³

Relevant, Responsive, Requested

2.9-2-41



Number of Toes



Orthopedic Physical Assessment. Published Jan 1, 2014. MyAthens

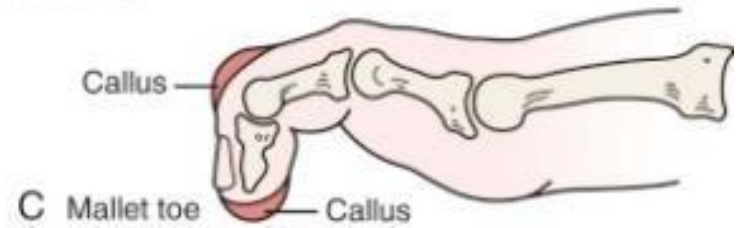
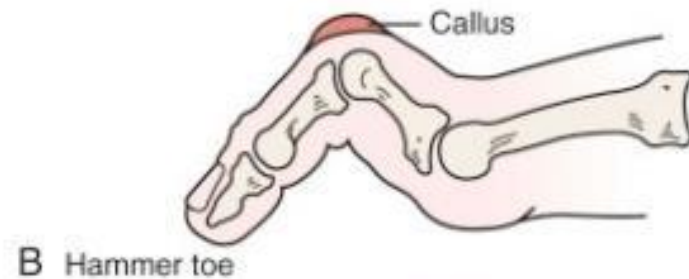
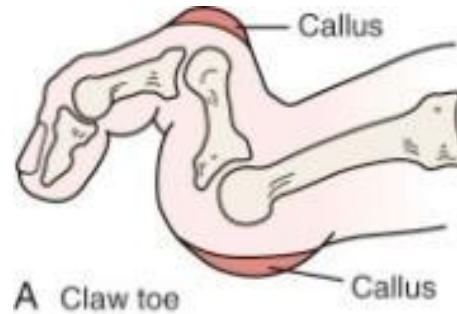
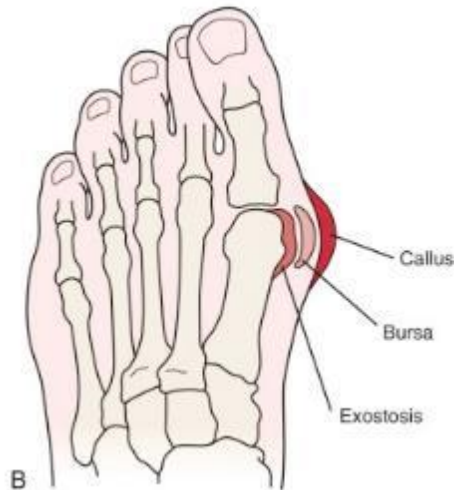
R³

Relevant, Responsive, Requested

2.9-2-42



Unexpected Deviations



Orthopedic Physical Assessment. Published Jan 1, 2014. MyAthens



Ankle and Foot Palpation



Orthopedic Physical Assessment. Published Jan 1, 2014. MyAthens

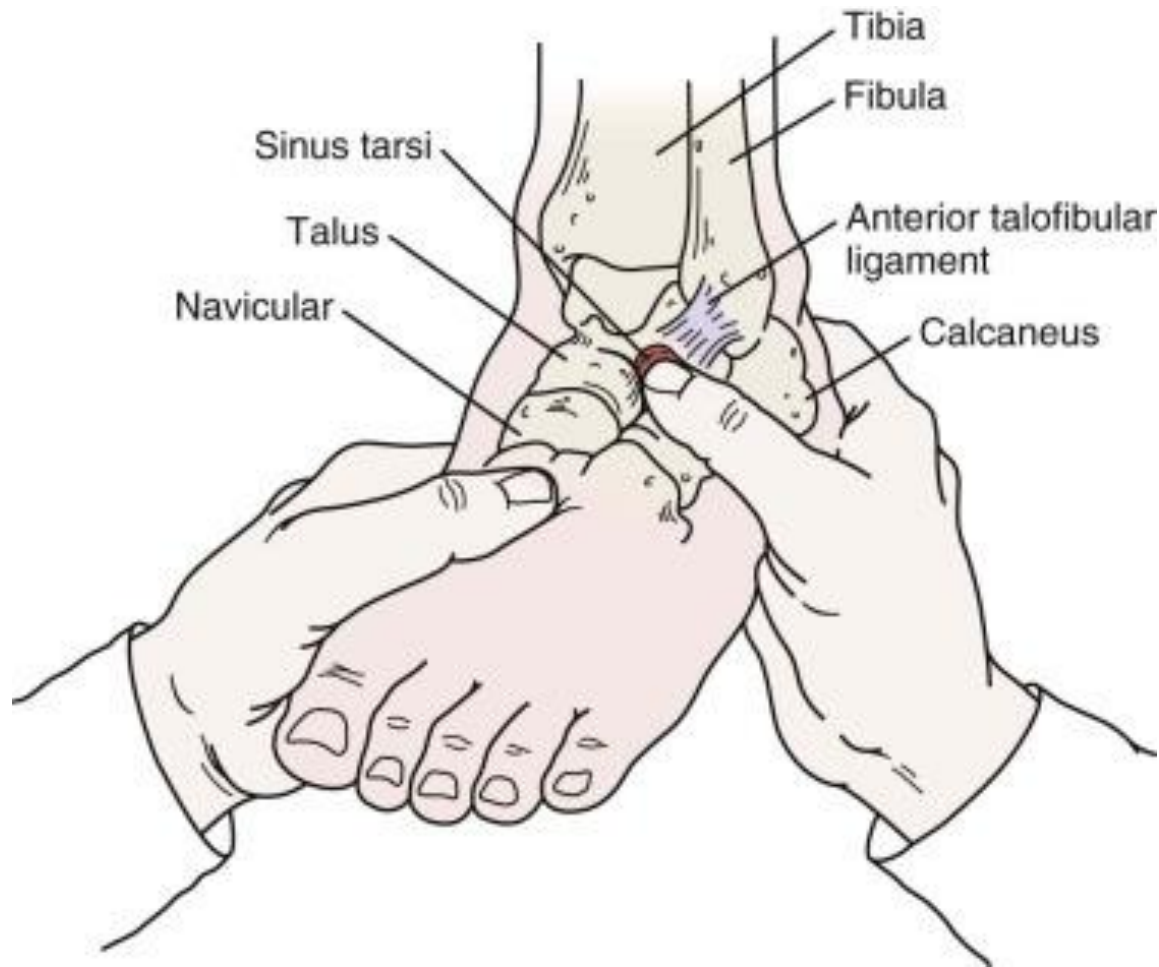
R³

Relevant, Responsive, Requested

2.9-2-44



Palpation of Bony Prominences



Orthopedic Physical Assessment. Published Jan 1, 2014. MyAthens

R³

Relevant, Responsive, Requested

2.9-2-45



Forefoot Palpation



Orthopedic Physical Assessment.
Published Jan 1, 2014. MyAthens

R³

Relevant, Responsive, Requested

2.9-2-46



Ankle and Foot Active ROM



Orthopedic Physical
Assessment. Published
Jan 1, 2014. MyAthens

R³

Relevant, Responsive, Requested

2.9-2-47



Ankle and Foot Passive ROM



Orthopedic Physical
Assessment. Published
Jan 1, 2014. MyAthens

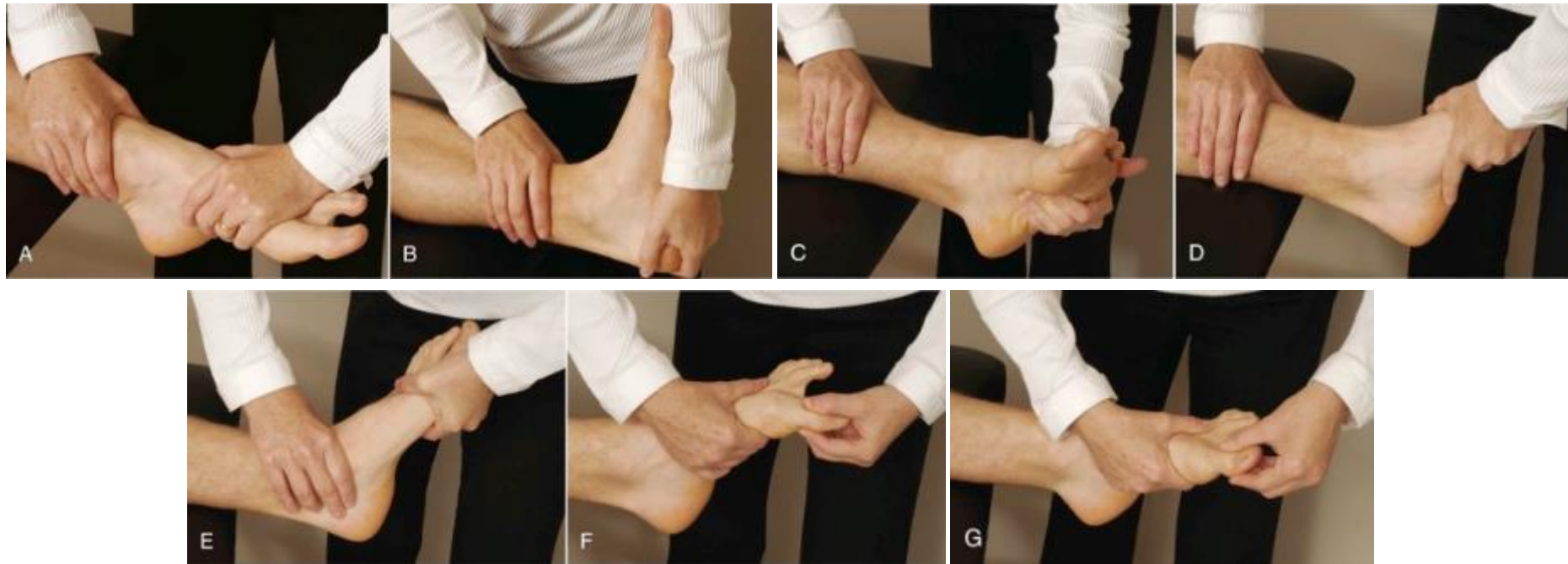
R³

Relevant, Responsive, Requested

2.9-2-48



Ankle and Foot Motor Strength



Orthopedic Physical Assessment. Published Jan 1, 2014. MyAthens

R³

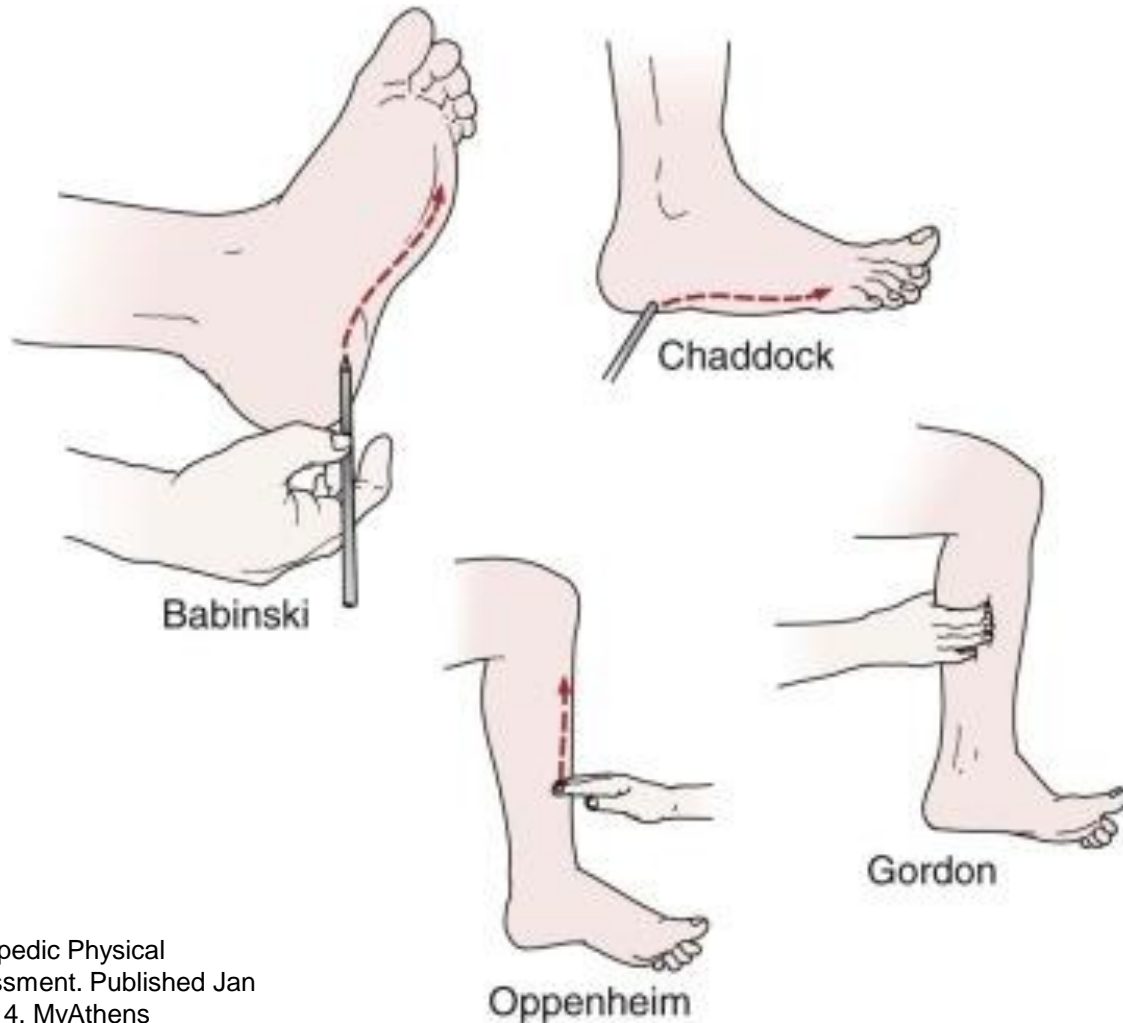
Relevant, Responsive, Requested

2.9-2-49



Ankle and Foot Neurovascular

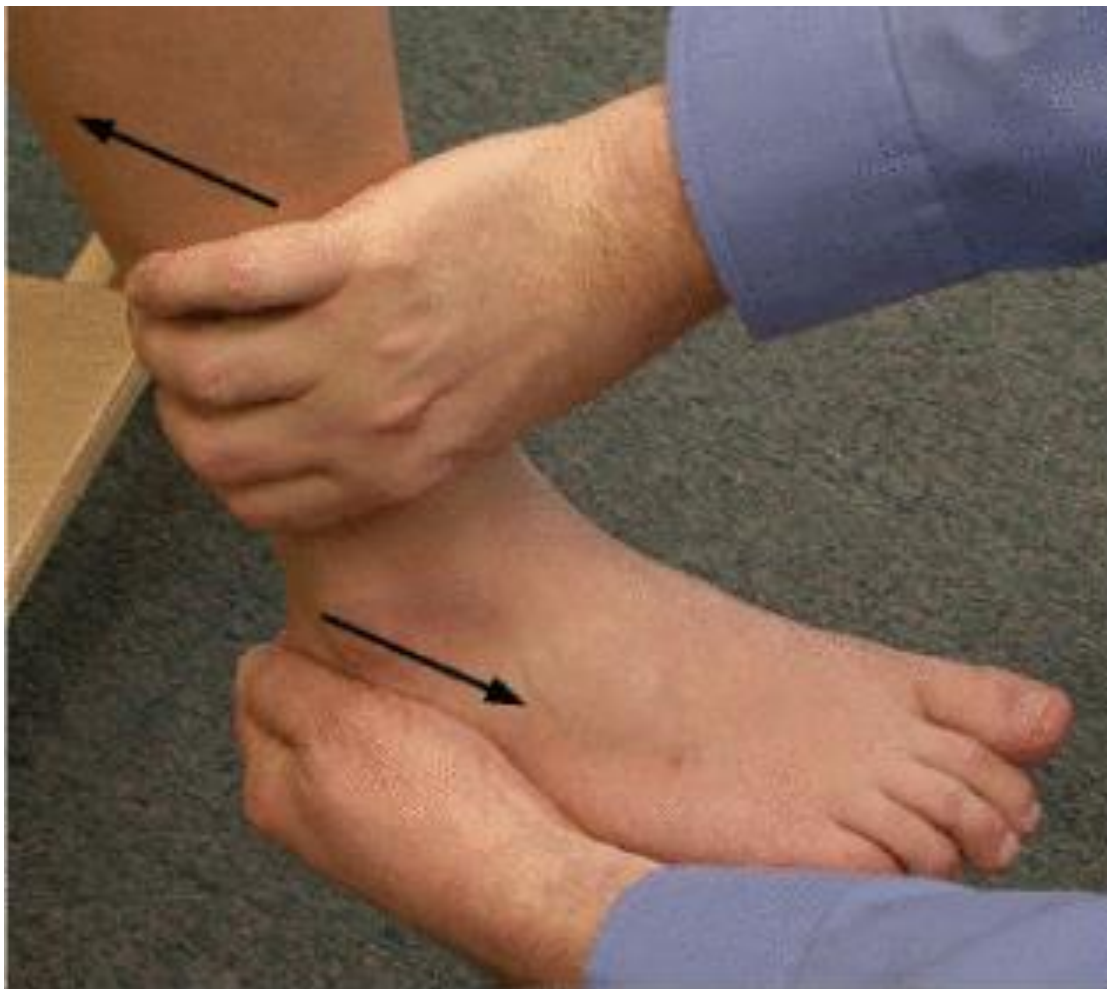
- Sensation
- Reflexes
- Gate
- Neurovascular Status



Orthopedic Physical
Assessment. Published Jan
1, 2014. MyAthens



Anterior Drawers Test



Essentials of Musculoskeletal Care – 5th Ed. (2016)

R³

Relevant, Responsive, Requested

2.9-2-51



Talar Tilt Test



Essentials of Musculoskeletal Care – 5th Ed. (2016)

R³

Relevant, Responsive, Requested

2.9-2-52



Talar Tilt Test (Cont.)



Essentials of Musculoskeletal Care – 5th Ed. (2016)

R³

Relevant, Responsive, Requested

2.9-2-53



Anterior Tibialis



Essentials of Musculoskeletal Care – 5th Ed. (2016)

R³

Relevant, Responsive, Requested

2.9-2-54



Thompson Test



Orthopedic Physical Assessment. Published Jan 1, 2014. MyAthens

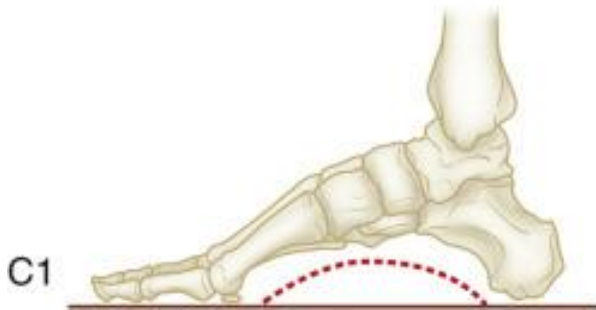
R³

Relevant, Responsive, Requested

2.9-2-55



Rigid or Supple Flat Feet Test



Seidel's Guide to Physical Examination 8th Edition

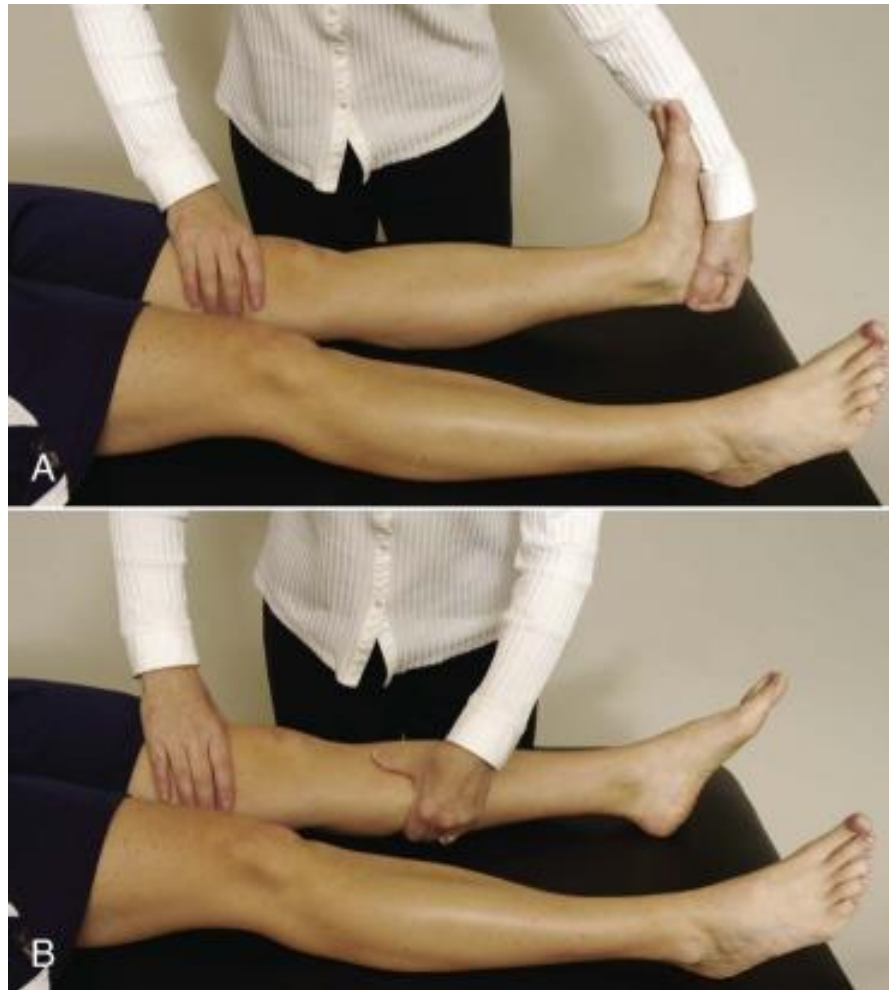
R³

Relevant, Responsive, Requested

2.9-2-56



Homans' Sign



Orthopedic Physical Assessment. Published Jan 1, 2014. MyAthens

R³

Relevant, Responsive, Requested

2.9-2-57



Examination of Related Areas



Orthopedic Physical Assessment. Published Jan 1, 2014. MyAthens

R³

Relevant, Responsive, Requested

2.9-2-58



Common Hip Conditions



Photo by: Sgt. Caitlyn Smoyer | VIRIN: 171113-A-GA727-116C.JPG

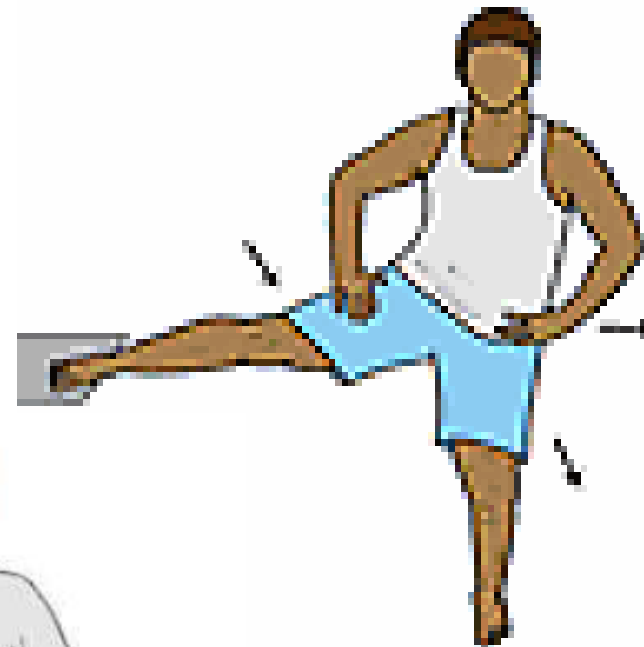
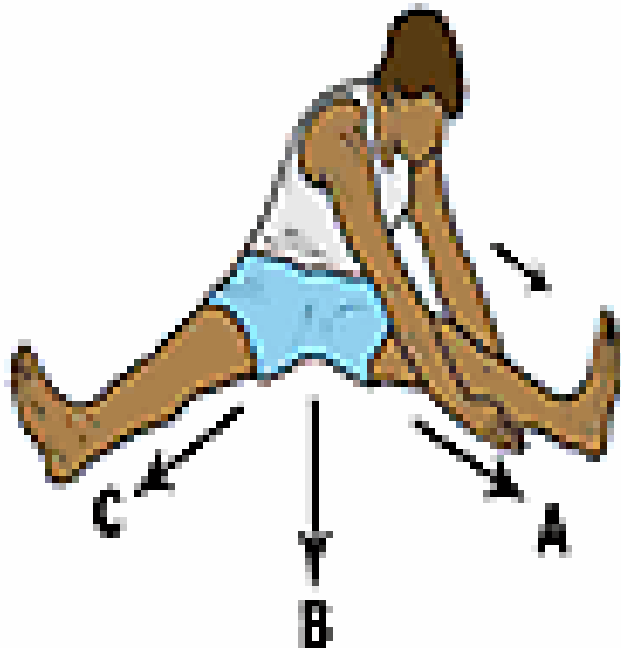
R³

Relevant, Responsive, Requested

2.9-2-59



Groin and Hamstring Pull



Patient Education. Published May 22, 2017. MyAthens

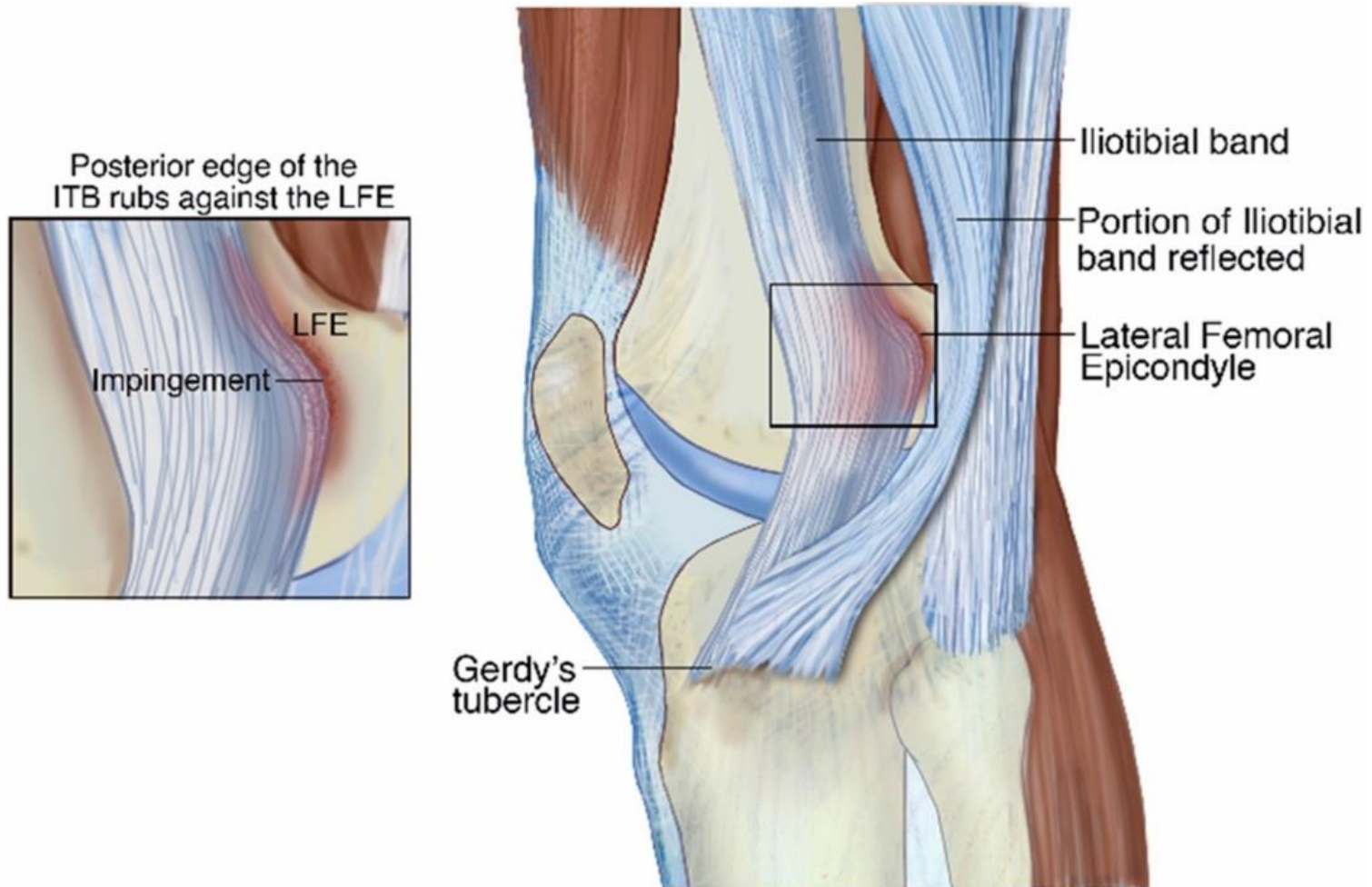
R³

Relevant, Responsive, Requested

2.9-2-60



Iliotibial Band Tendonitis (ITB)



Clinical Overview, Published Dec 19, 2017, MyAthens

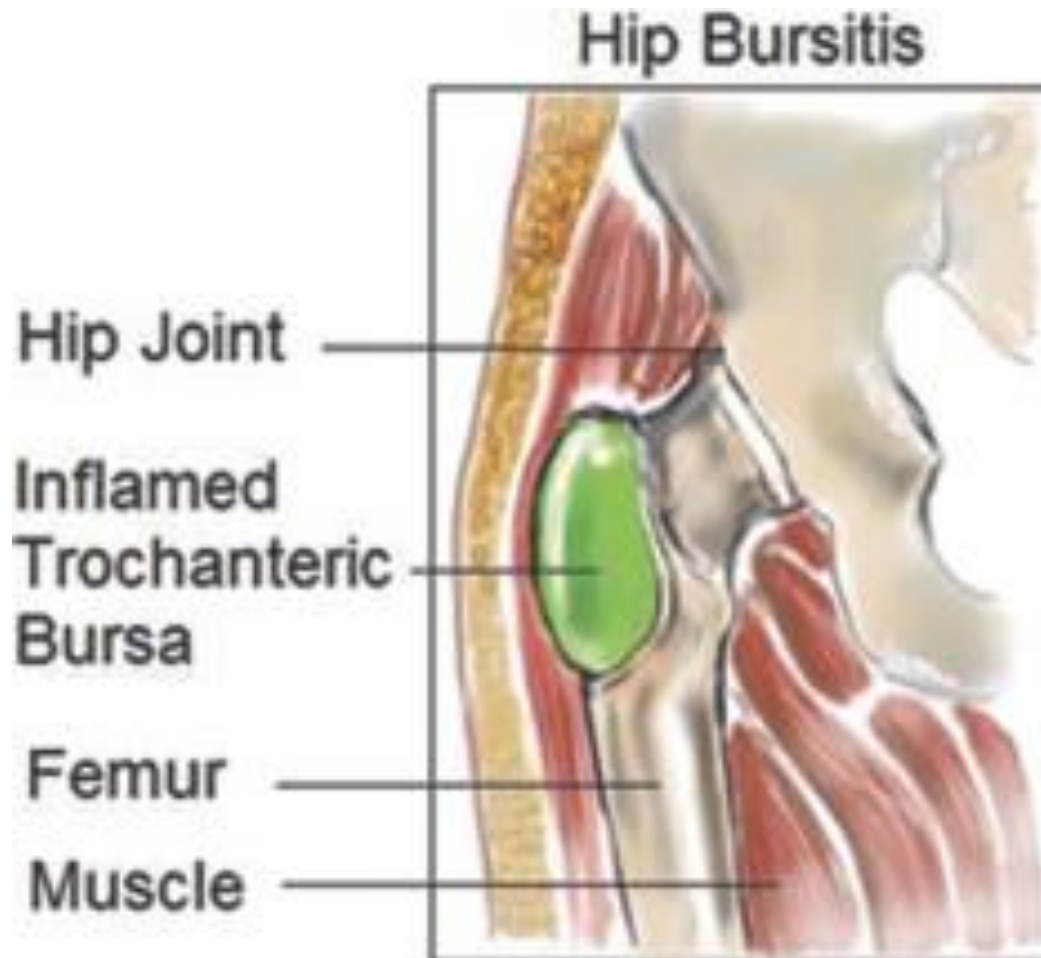
R³

Relevant, Responsive, Requested

2.9-2-61



Trochanteric Bursitis



Journal for Nurse Practitioners. Published May 1, 2007. MyAthens



Common Knee Conditions



Photo by: Airman 1st Class Savannah Waters VIRIN: 170601-F-DB163-045C.JPG

R³

Relevant, Responsive, Requested

2.9-2-63



Osgood Schlatter



Clinical Overview. Published Dec 6, 2016. MyAthens

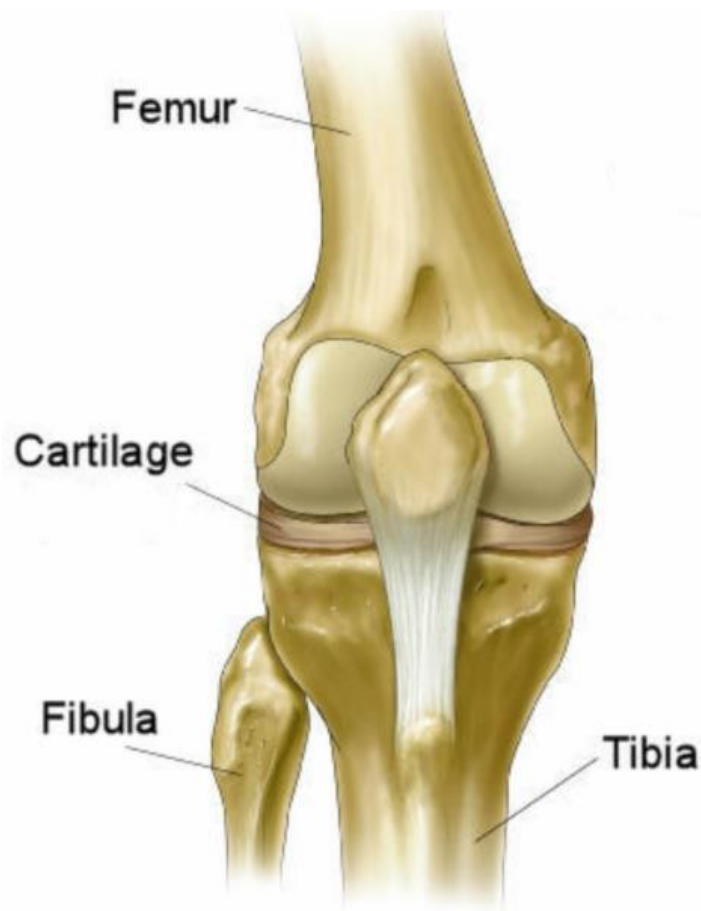
R³

Relevant, Responsive, Requested

2.9-2-64



Patellofemoral Pain Syndrome

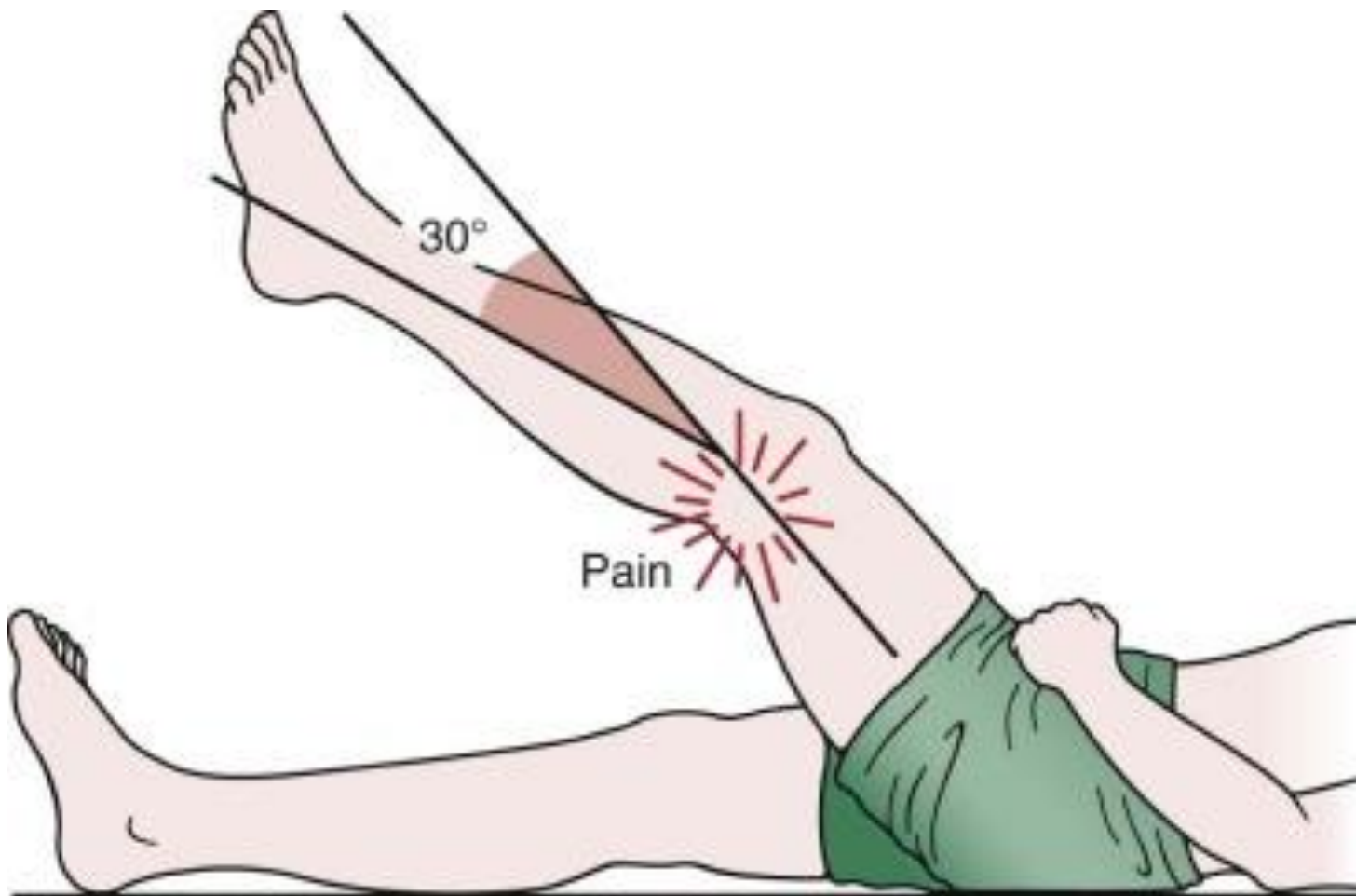


© SEIF & ASSOCIATES, INC., 2005

Elsevier Interactive Patient Education © 2017 Elsevier Inc./Last revised: February 1, 2018. MyAthens



Iliotibial Band Syndrome



Orthopedic Physical Assessment. Published Jan 1, 2014. MyAthens

R³

Relevant, Responsive, Requested

2.9-2-66



Knee Effusion



Procedures Consult. Published Mar 12, 2007. MyAthens

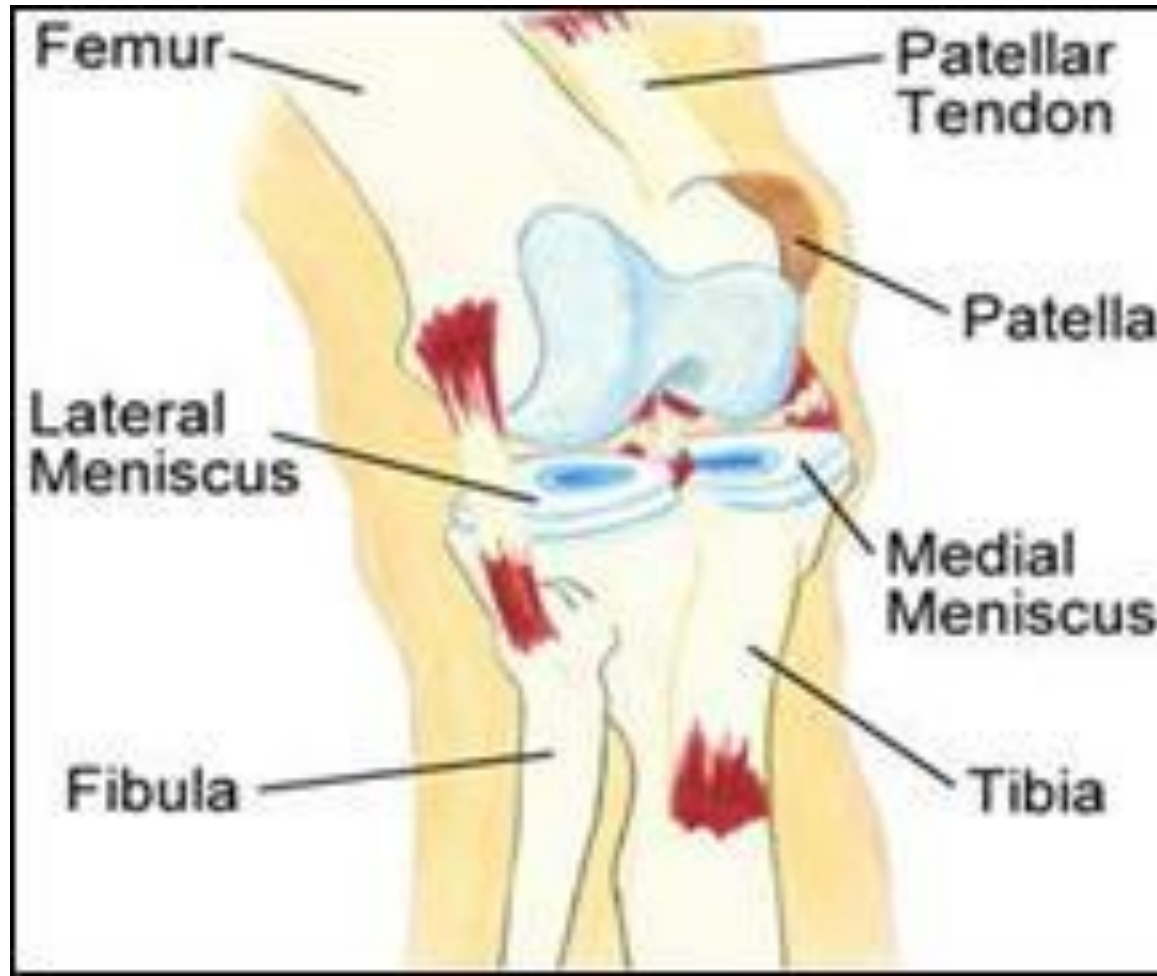
R³

Relevant, Responsive, Requested

2.9-2-67



Meniscal Injuries



Patient Education. Published May 22, 2017. MyAthens

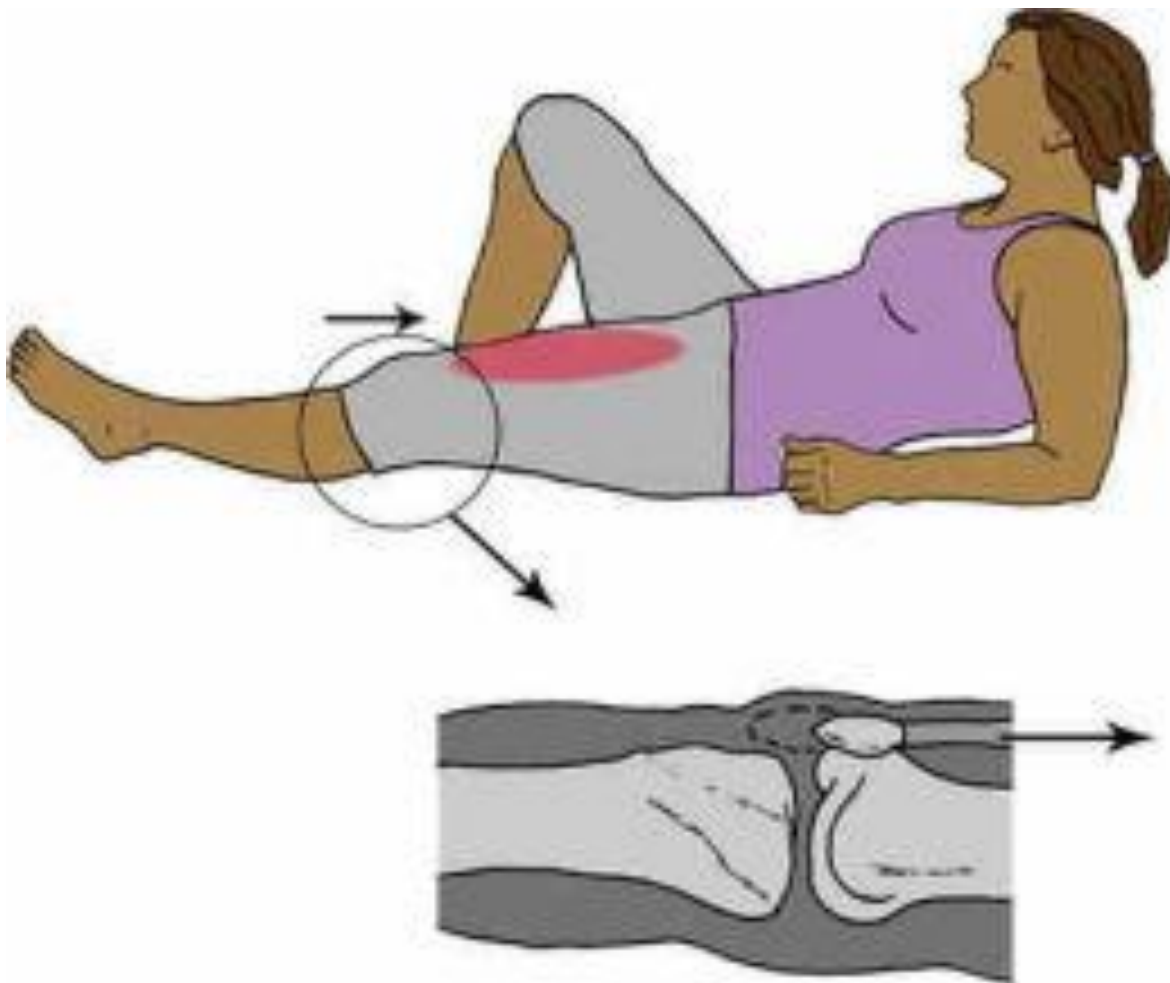
R³

Relevant, Responsive, Requested

2.9-2-68



Collateral Ligament Injury



Patient Education. Published May 22, 2017. MyAthens

R³

Relevant, Responsive, Requested

2.9-2-69



Cruciate Ligament Injury



Photo by: Cpl. Raquel Barraza / Marine Corps Air Station Miramar / 3rd Marine Aircraft Wing

R³

Relevant, Responsive, Requested

2.9-2-70



Patellar Tendonitis



Photo by: Spc. Henry Villarama / 173rd Airborne Brigade

R³

Relevant, Responsive, Requested

2.9-2-71



Common Foot and Ankle Problems



Photo by: Petty Officer 2nd Class Emiline L. M. Senn VIRIN: 171101-N-OR184-0856C.JPG

R³

Relevant, Responsive, Requested

2.9-2-72



Sprained Ankle



GRADE 1



GRADE 2



GRADE 3

Patient Education. Published Oct 26, 2016. MyAthens

R³

Relevant, Responsive, Requested

2.9-2-73



Shin Splints



U.S. Marine Corps photo by Lance Cpl. Yamil Casarreal/Released

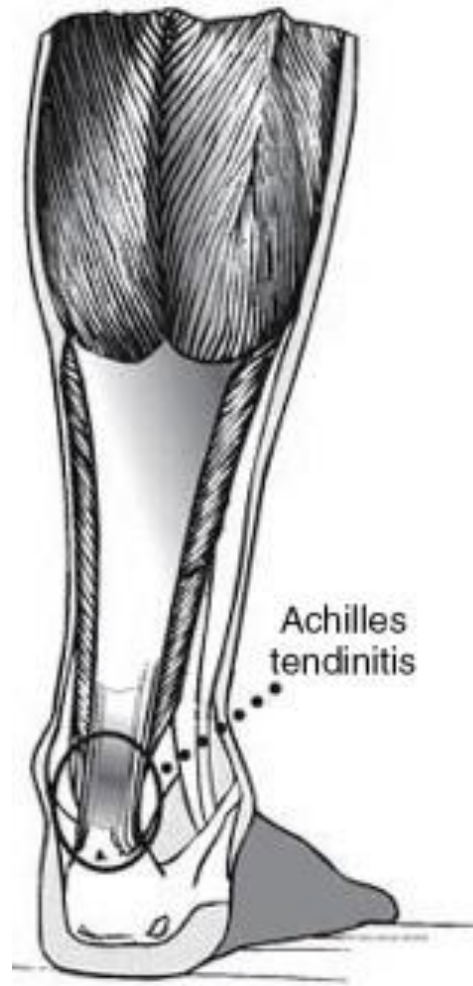
R³

Relevant, Responsive, Requested

2.9-2-74



Achilles Tendonitis



Acute and Chronic Wounds. Published Jan 1, 2016. MyAthens

R³

Relevant, Responsive, Requested

2.9-2-75



Gout



© ICF & ASSOCIATES, INC, 2003

Patient Education. Published Feb 1, 2018. MyAthens

R³

Relevant, Responsive, Requested

2.9-2-76



Ingrown Toenail



Goldman-Cecil Medicine. Published Jan 1, 2016. MyAthens

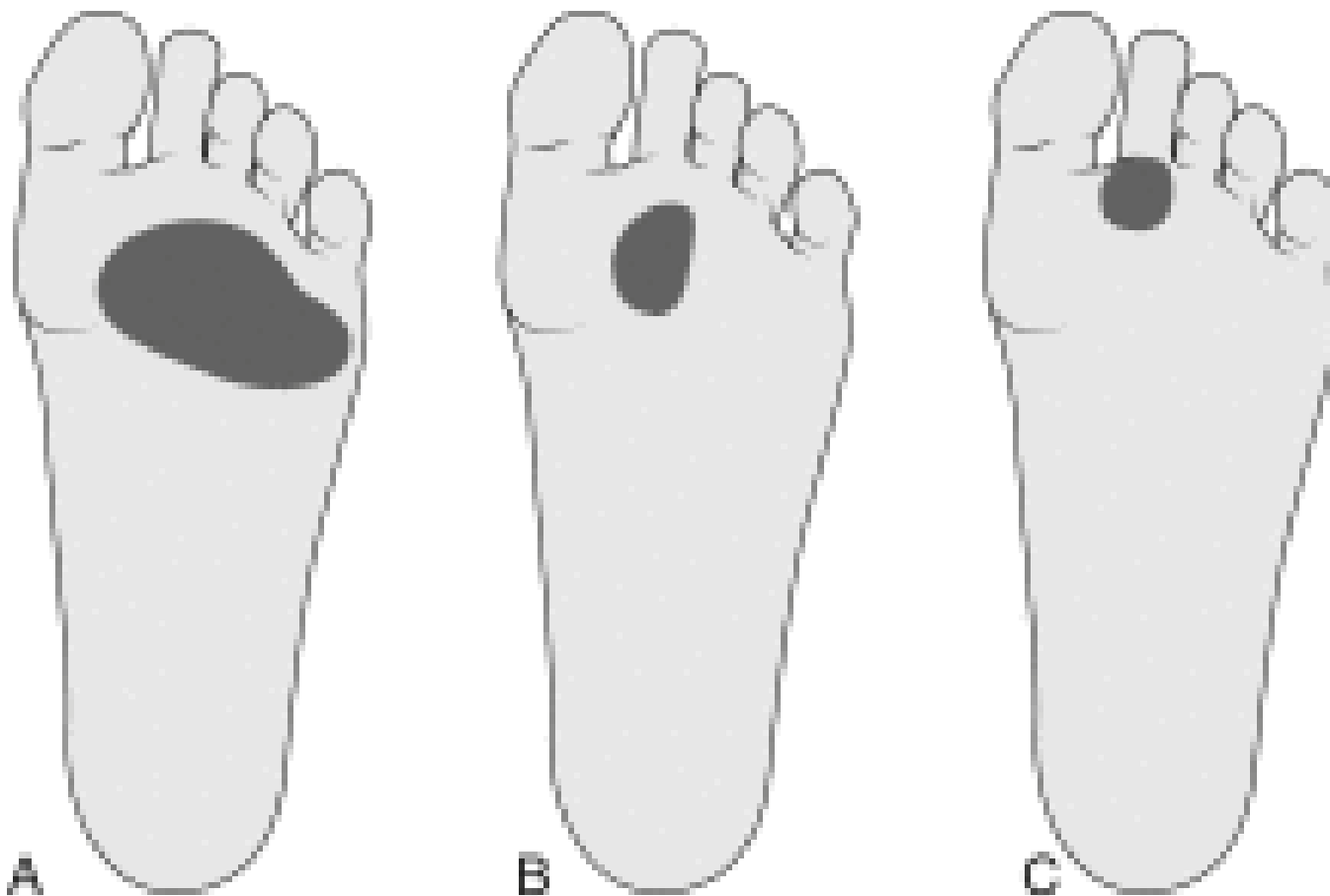
R³

Relevant, Responsive, Requested

2.9-2-77



Metatarsalgia



Ferri's Clinical Adviser 2018. Published Jan 1, 2018. My Athens

R³

Relevant, Responsive, Requested

2.9-2-78



Plantar Fasciitis



Photo by: Sgt. Ty Stafford, 207th Public Affairs Detachment

R³

Relevant, Responsive, Requested

2.9-2-79



Morton Neuroma



Patient Education. Published
Jun 24, 2015. MyAthens

R³

Relevant, Responsive, Requested

2.9-2-80



Septic Arthritis



Vascular
Medicine: A
Companion to
Braunwald's
Heart Disease.
Published
January 1, 2013.
MyAthens



Summary and Review

- 1.46 Utilize the knowledge of musculoskeletal system anatomy while assessing a patient with a musculoskeletal complaint
- 1.47 Utilize the knowledge of musculoskeletal system physiology while assessing a patient with a musculoskeletal complaint
- 1.48 Obtain history from patient with common orthopedic disorders

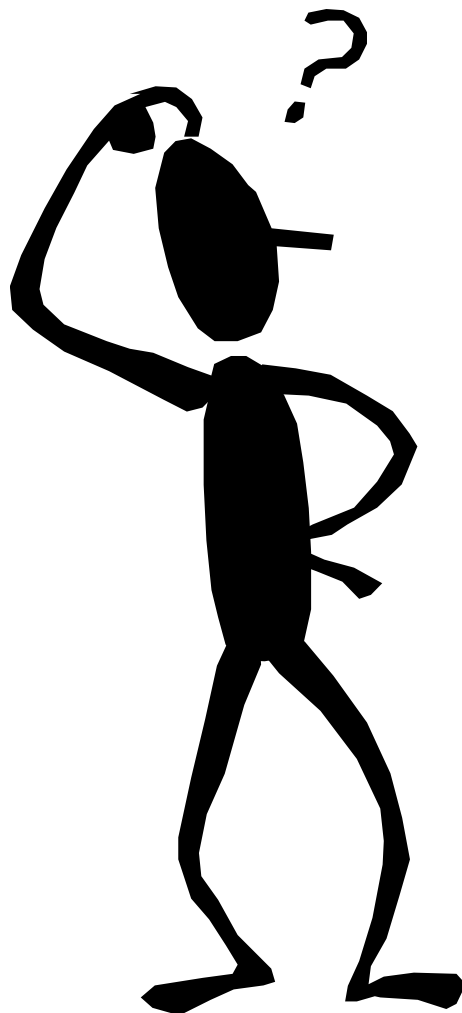


Summary and Review (Cont.)

- 1.49 Perform an orthopedic examination
- 1.50 State signs and symptoms of common orthopedic disorders
- 1.51 State treatments for common orthopedic disorders
- 1.16 State Red Flag criteria



Questions



R³

Relevant, Responsive, Requested

2.9-2-84



Application

- Lower Extremities Job Sheet SCSC 2.9-3
- SCSC Performance Test 9