The Brookbush Institute Enhances Anatomy Education with an Update to the Course 'Ankle Joint Actions and Muscles'

Learn about plantar flexion, dorsiflexion, inversion, and eversion, along with all the muscles responsible for these joint actions!

NEW YORK, NY, UNITED STATES, September 26, 2024 /EINPresswire.com/ -- From the Course: Lesson 16: Ankle Joint Actions and Muscles
Additional Study Aids: Dorsiflexion, Plantar Flexion

> Brookbush Institute education is comprehensive and thorough while easy to digest. I have filled so many gaps from my initial licensure with their program. I'm so grateful for BrookbushInstitute.com"
>
> *Sherstin Hatch (from Google Reviews)*

QUICK SUMMARY

Ankle Joint Actions and the Muscles that Contribute to those Actions.

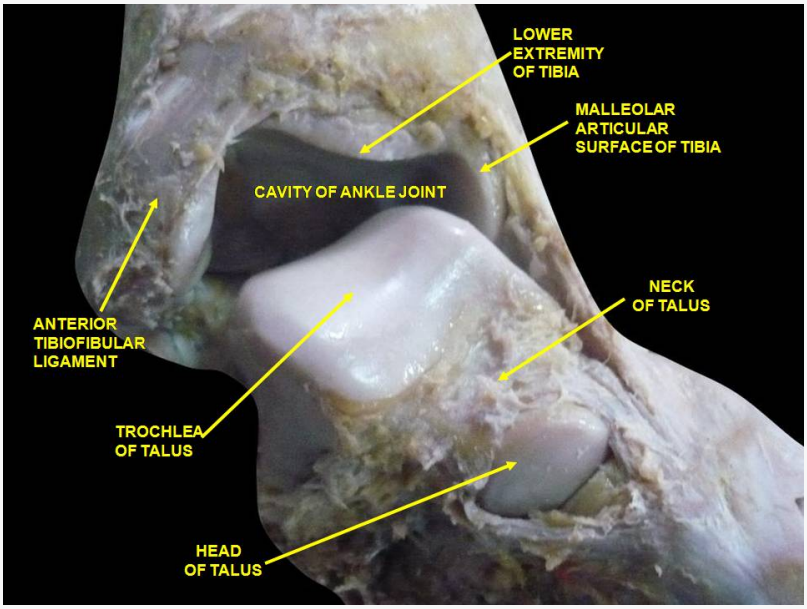
1 . Dorsiflexion (Bringing the foot closer to the shin):
- Tibialis Anterior
- Extensor Digitorum Longus
- Extensor Hallucis Longus
- Fibularis Tertius

2. Plantar Flexion (Pointing the foot downward, moving the foot away from the shin):
- Gastrocnemius
- Soleus
- Tibialis Posterior
- Fibularis Longus
- Fibularis Brevis
- Flexor Hallucis Longus
- Flexor Digitorum Longus
- Plantaris (assists)

3. Inversion (Turning the sole of the foot inward):
- Tibialis Posterior
- Tibialis Anterior

- Flexor Hallucis Longus (assists)
- Flexor Digitorum Longus (assists)

4. Eversion (Turning the sole of the foot outward):
- Fibularis Longus
- Fibularis Brevis
- Fibularis Tertius



Inside the Ankle Joint - https://brookbushinstitute.com/courses/ankle-joint-actions-and-muscles

COURSE SUMMARY:
This course describes the anatomy of the ankle bones and ankle joints. This includes the talocrural joint, also known as the tibiotalar joint, where the tibia (shin bone) meets the talus. As well as, the subtalar joint, also known as the talocalcaneal joint, where the talus meets the calcaneus (heel bone). This course does not include descriptions of the tarsal bones and the transverse tarsal joints (midfoot joints), which will be covered in more advanced courses on the foot. Additionally, this course discusses the joint actions allowed by the mortise created by the ankle bones at the ankle joint, including dorsiflexion (foot closer to tibia), plantar flexion (calcaneus closer to tibia), ankle eversion (sole of foot faces away), and ankle inversion (sole of foot faces inward). Interestingly, more inversion is allowed than eversion because of the normal anatomy of medial malleolus (shorter) and lateral malleolus (longer).

This course includes the muscles crossing the ankle bones and ankle joints, and their contribution to each joint action. The muscles discussed in this course include the gastrocnemius, soleus, tibialis posterior, tibialis anterior, fibularis longus, fibularis brevis, and fibularis tertius. Examples include the gastrocnemius, soleus, tibialis posterior, fibularis longus, and fibularis brevis contributing to ankle plantar flexion during a calf raise, and the tibialis anterior and fibularis tertius contributing to ankle dorsiflexion during heel walks. Note, these muscles also play a role in maintaining optimal posture, optimal arthrokinematics, reducing ankle instability, and maintaining optimal alignment of the ankle joint and knee joint.

Sports medicine professionals (personal trainers, fitness instructors, physical therapists, massage therapists, chiropractors, occupational therapists, athletic trainers, etc.) must be familiar with ankle motion and the muscles of the ankle for detailed analysis of human movement, and the development of sophisticated exercise programs and therapeutic (rehabilitation) interventions. Further, this course is essential knowledge for future courses discussing detailed anatomy (e.g. evertor muscle activity reinforcing the lateral ligaments of the ankle, or the presence of sesamoid bones, or posterior glide of the talus on the tibia), the

synergistic function of these muscles with muscles of the big toe/1st toe (e.g. muscle activity of the flexor hallucis longus and tibialis posterior contributing to inversion), prevention and treatment of injury (e.g. ankle sprain, chronic ankle instability, ligament and soft tissue injuries, Achilles tendon rupture – surgery is not always necessary), and sports performance (e.g. muscle strength of the lower extremity/lower limb).

Brent Brookbush
Brookbush Institute
Support@BrookbushInstitute.com
Visit us on social media:
Facebook
X
LinkedIn
Instagram
YouTube
TikTok
