Peroneus Brevis Class handout.

A balanced ankle, foot, and lower leg transmit, distribute, and cushion the entire body's weight. The Peroneus Brevis muscle is an important and influential component in this region's pain-free function.

Essential components within these abilities include the flexible 'arches' and the soft tissue surrounding, supporting, and mobilizing these amazing structures. The arches convey the body's weight to the metatarsals, the phalanges, and the calcaneus. A significant portion of the bodies weight is borne through the medial longitudinal arch consisting of the first (proximal) and second (middle) phalangeal, the first metatarsal, the first and second cuneiforms, the navicular, talus, and calcaneus bones.

Medial-lateral weight distribution is transmitted through the remaining regions of the foot. An "outrigger canoe" is a helpful image for understanding how the foot functions. The canoe body is the main support line, and the outrigger provides lateral stability.

This lower leg, ankle, foot, and toes often mirror fundamental imbalances in the body's core structure, which, if left uncorrected, inhibits any permanent rebalancing of the foot, ankle, and lower leg. If the imbalance resulted from trauma, this situation could conversely affect the body's structural balance.

Indications of core structural imbalances:
Hammer toes, bunions, calluses, bone spurs, weak ankles, fallen or exaggerated arches, and what is often labeled 'Plantar Fasciitis.'

Indications of traumatic imbalances:
Local pain, swelling, discoloration, and limited weight-bearing ability.

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Peroneus Brevis

The Peroneus Brevis muscle, also known as the fibularis brevis muscle, is one of the muscles located in the lateral compartment of the leg. It plays a crucial role in ankle stability and is responsible for several movements of the foot and ankle. Let's take a closer look at the anatomy and physiology of the Peroneus Brevis muscle:

Physiology of the Peroneus Brevis Muscle:

Muscle Action: The primary function of the Peroneus Brevis muscle is to evert the foot, which means it helps to turn the sole of the foot outward (away from the midline of the body). Eversion is an important movement for maintaining balance and stability during walking and other weight-bearing activities.

Assisting in Plantar Flexion: In addition to eversion, the Peroneus Brevis muscle also plays a secondary role in plantar flexion of the foot. Plantar flexion is the movement that points the toes downward, as in standing on your tiptoes or pushing off during walking or running.

Stabilization: The Peroneus Brevis muscle contributes to the stability of the ankle joint, especially during activities that involve uneven terrain or sudden changes in direction.

Antagonistic Pair: The Peroneus Brevis muscle often works in opposition to the tibialis anterior muscle, which is responsible for dorsiflexion (lifting the foot upward) and inversion (turning the sole of the foot inward). Together, these muscles help maintain balance and control of the foot and ankle.

In summary, the Peroneus Brevis muscle is an important muscle of the lateral compartment of the leg that primarily functions to evert the foot and assist in plantar flexion. It plays a crucial role in maintaining balance and stability during various activities, especially those involving the foot and ankle.

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PERONEUS BREVIS

Origin: The Peroneus Brevis muscle originates from two main sites:

The lower two-thirds of the lateral surface of the fibula, which is the thinner bone of the lower leg.

The intermuscular septum, which is a connective tissue structure separating various compartments of the leg.

Insertion: The muscle inserts onto the base of the fifth metatarsal bone, which is located on the outer side of the foot.

Nerve Supply: The Peroneus Brevis muscle is primarily innervated by the superficial peroneal nerve (also known as the common peroneal nerve), which is a branch of the sciatic nerve.

https://www.anatomystandard.com/

https://www.adameducation.com

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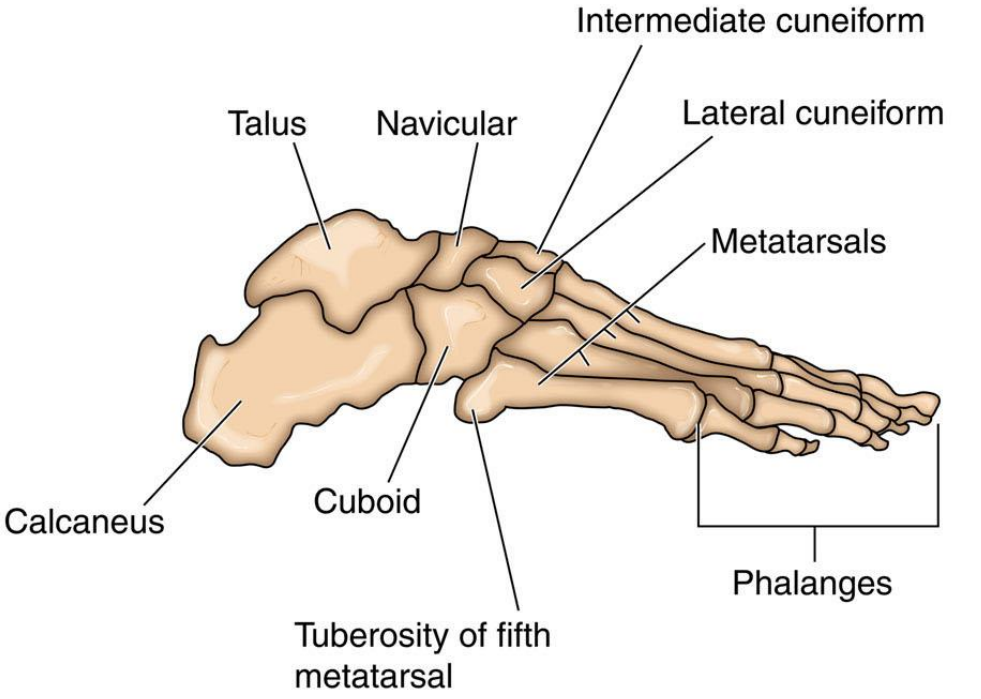
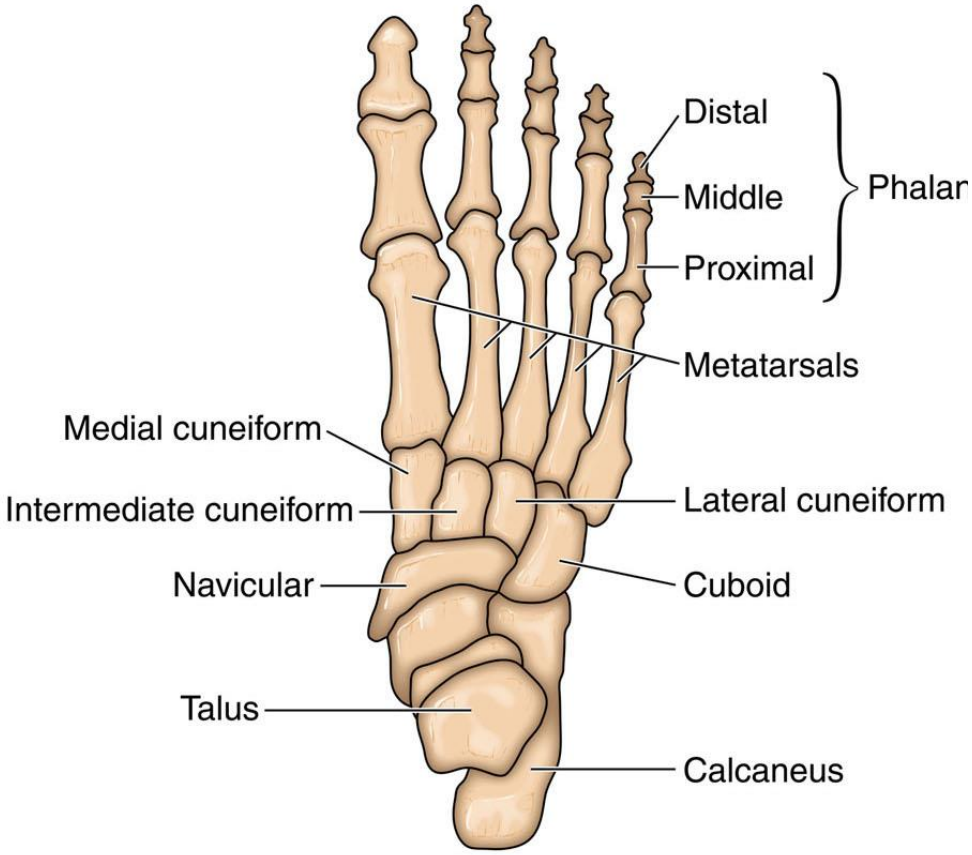
Resource for supporting your knowledge:

https://orthopaedia.com/page/Anatomy-of-the-Foot-Ankle





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Terminology

Origin: The beginning site, the more fixed attachment of the muscle. Can be considered as the anchoring point.

Insertion: The movable attachment of the distal end of the muscle.

Entheses: Locations of stress concentration where tendons and ligaments attach to bone.

Superior: Toward the upper part of the structure.

Inferior: Toward the lower part of the structure.

Anterior: Nearer to the front of the body.

Posterior: Nearer to or at the back of the body.

Medial: Near the midline of the body.

Lateral: Farther from the midline of the body.

Proximal: Near the point of attachment, center of the body.

Distal: Away from the trunk, from the center.

External: Towards the surface of the body.

Internal: Away from the surface of and within the body.

Plantar: Refers to the bottom of the foot.

Dorsal: Refers to the top of the foot.

Unilaterally: Contracting on one side.

Bilaterally: Contracting on both sides.

Inversion: To turn inward.

Eversion: To turn outward.

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Synergist: Cooperating and supporting.

Antagonist: That which counteracts, opposes.

Agonist: The muscle directly engaged in contraction.

Periosteum: The periosteum is a dense highly innervated membrane composed of fibrous connective tissue that closely wraps (invests) all bone, except that of the articulating surfaces in joints which are covered by a synovial membrane.

The periosteum is the most densely innervated, followed by bone marrow and cortex. It is important to recognize and respect the sensitivity of this membrane. It may well be the most sensitive component in the body.

For more information: Sensory Innervation of Human Bone

"Peri-" is a prefix borrowed from the Greek meaning "around or about" and "-osteum" also comes from the Greek, from "osteon" meaning "bone", so periosteum literally means "around the bone."

Golgi Tendon Organ (GTO): A spindle-shaped structure near the muscular/tendinous junction. This structure is thought to function as a feedback system that monitors muscle tension, inhibits muscle contraction of the agonist, and facilitates contraction of the antagonistic muscle. The purpose of this mechanism is to prevent overuse and damage to the muscle and involved joint.