

ANATOMY OF THE FOOT

Complex in design and function, the foot is amazing! The dorsal aspect is the “top” of the foot, and the plantar aspect is the “bottom” of the foot. Because the feet support locomotion of the *entire* body in upright position, foot injuries are common in athletes.

Proper fitting athletic sports shoes can enhance performance and prevent injuries. Consider cushioning, flexibility, control, stability in the heel counter area, lightness, and good traction from the appropriate sole configuration when buying shoes. Durable construction that will protect your feet and keep them comfortable is important. Shoes that do not fit can cause bunions, corns, calluses, hammertoes, and other disabling foot disorders. Fit new shoes to your largest foot, however, and please, try on both shoes!

Common foot injuries:

Broken Toes: Pain, swelling and bruising are the most common signs of a broken toe. Usually the toe is buddy taped to an adjacent toe, and surgery is rarely required.

Stress fractures: These are small cracks in the bone surface, and frequently occur in the metatarsal bones of the forefoot. They develop because of overuse, sudden increases in training, change in training surface, or high impact sports. The key element to recovery is rest for a few weeks.

Lisfranc Fracture-Dislocation: This occurs between the small tarsal bones of the midfoot and metatarsals. Lisfranc injuries are often mistaken for sprains, and operative treatment may not be necessary if the bones remain aligned properly.

Fracture of the Talus: The talus sits between the heel bone (calcaneus) and the lower leg bones (tibia and fibula). Most injuries to the talus result from motor vehicle accidents, falls from heights, and snowboarding. There will be acute pain, inability to bear weight, and

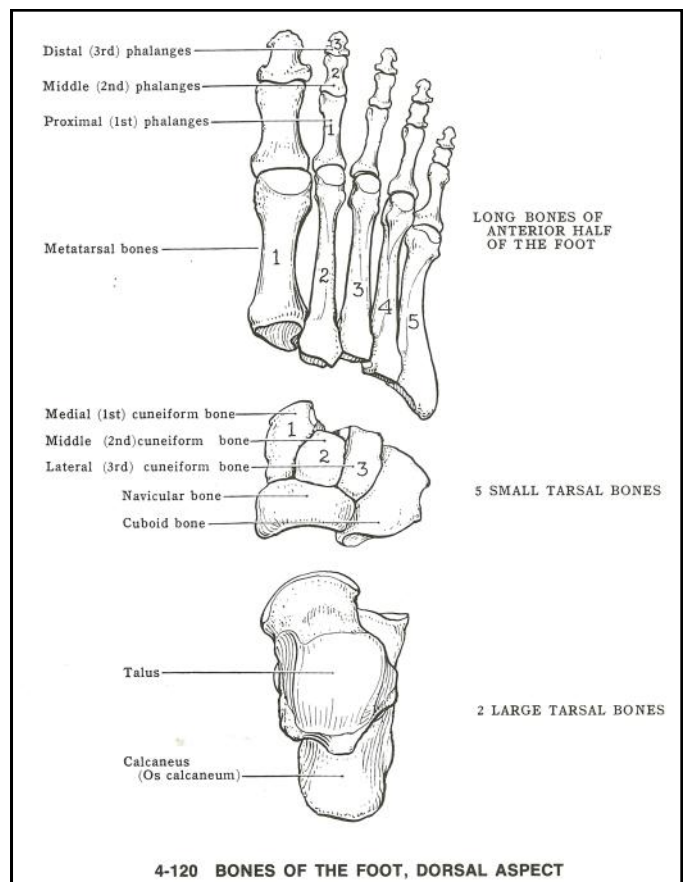
considerable swelling and tenderness. Most talar fractures are treated with surgery, casting, and physical therapy.

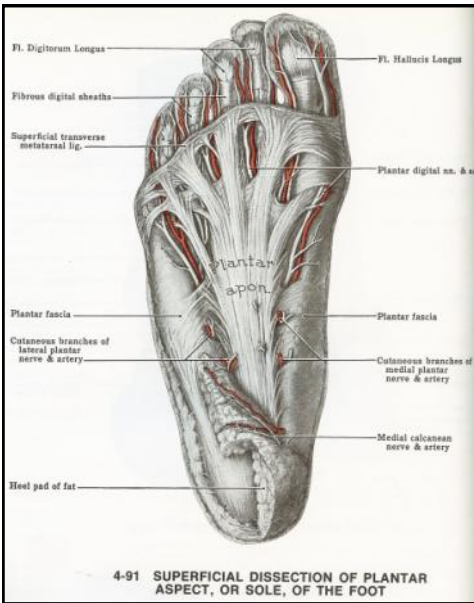
Bunions, Calluses & Corns: Prevention is the best policy! Wear shoes that fit properly, have a roomy toe area, and have heels no higher than 2 inches.

Common treatments:

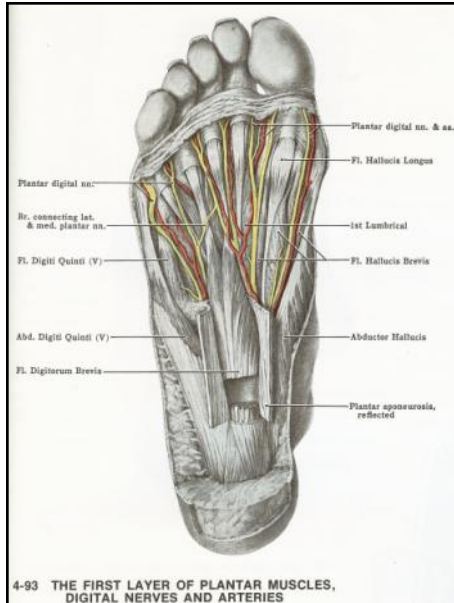
Immobilization with a splint, brace, boot, or cast; icing; buddy taping; and Physical Therapy.

Athletes can expect successful outcomes for most foot injuries, provided there has been timely accurate identification and appropriate management of their injury.

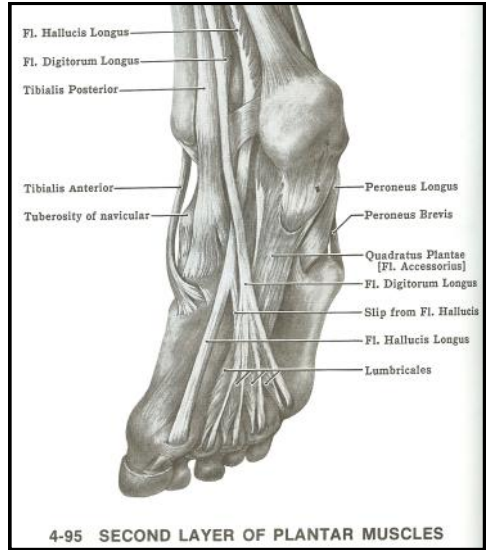




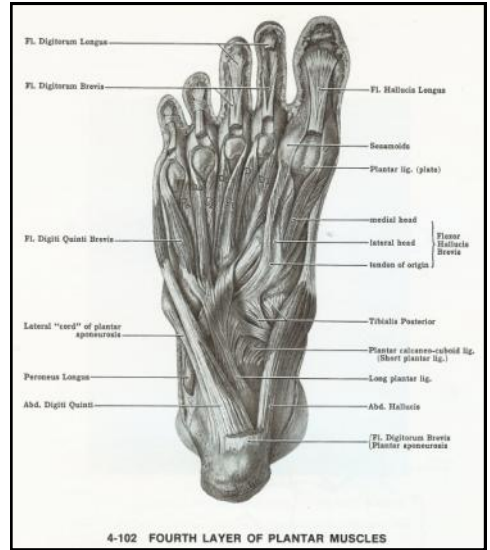
4-91 SUPERFICIAL DISSECTION OF PLANTAR ASPECT, OR SOLE, OF THE FOOT



4-93 THE FIRST LAYER OF PLANTAR MUSCLES, DIGITAL NERVES AND ARTERIES



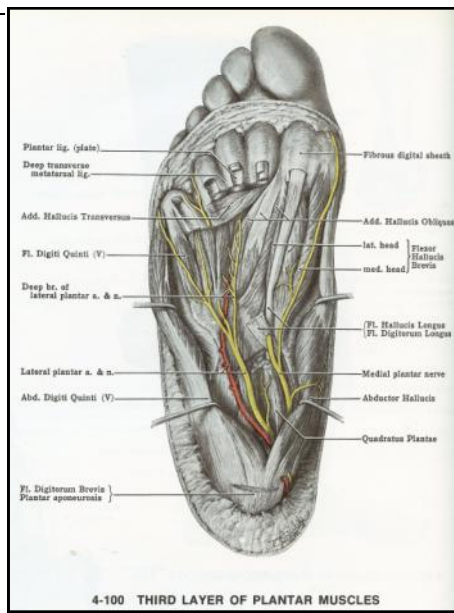
4-95 SECOND LAYER OF PLANTAR MUSCLES



4-102 FOURTH LAYER OF PLANTAR MUSCLES

PLANTAR FASCIITIS

Plantar fasciitis is the most common cause of pain on the bottom of the foot, just in front of the heel. It occurs when the fascial bands that support the arch of the foot become irritated and inflamed. This fascia is the shock absorber of the foot. In most cases, plantar fasciitis develops without a specific, identifiable reason. Contributing factors may be tight calf muscles, high arches, repetitive impact activity, new or increased activity, and obesity. Rest, ice, and stretching your calves and feet are effective ways to relieve the pain that comes with this condition. A cushioned shoe or soft heel pad are helpful. A night splint that stretches the plantar fascia while you sleep is very effective. Physical Therapy may be suggested by the doctor also. Surgical treatment is rarely necessary.



4-100 THIRD LAYER OF PLANTAR MUSCLES

These pictures were taken from Grant's Atlas of Anatomy. The first edition of this book was printed in 1943 by John Charles Boileau Grant. After his death in 1973, other authors have continued the tradition, and the twelfth edition was printed in 2008!

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