

Common Ankle & Foot Problems for Runners

Plantar Fasciitis (Heel Spur)

What: Partial or complete tear in the arch ligament on the bottom of the foot. The most common cause of heel pain in runners. Pain site is at bottom of heel where the arch ligament attaches to the heel bone.

Causes: 1.) A sudden turn that exerts great pressure on the tissues of the bottom of the foot. 2.) Shoes without adequate arch support. 3.) Shoes with very stiff soles. 4.) Feet that pronate excessively (feet that flatten and roll inward). This stresses the plantar fascia.

Treatment: Anti-inflammatory medications, Ice. Orthotics, Possibly change shoes. If pain persists, physical therapy modalities. If pain continues to persist, possibly cortisone injection from DPM, MD. Surgery is uncommon.

Retrocalcaneal Bursitis (Pump Bump)

What: Footwear presses hard against the corners of the heel bone. This inflames the bursa sac that lies between your Achilles tendon and the heel bone. The enlarged bursa sac looks like a bump on the heel bone.

Causes: Sometimes called a pump bump because can also be caused by wearing high heels. Seen more frequently in folks with a very high arch or very flat foot. If you do not wear shoes, you would never get this condition. Folks with a boxed shape heel bone are also more susceptible.

Treatment: Anti-inflammatory medications, Ice. If you have a flat foot, orthotics are helpful. "Relieving" the shoe by stretching the leather over the bump. Dispersion element with padding/moleskin that cover all areas around the bump. If pain persists, physical therapy modalities. If pain continues to persist, possibly cortisone injection from DPM, MD. Surgery is uncommon.

Achilles Tendinitis

What: Achilles Tendinitis is common in all running sports. Trauma happens when the calf muscles contract suddenly or intensely. Because the tendon is not very elastic, it does not absorb the tension and micro tears occur. Pain is worse in the mornings and lessens as you use the tendon, but creates more damage because many runners keep running versus resting.

Causes: 1.) Lack of flexibility 2.) Poor or old running shoes. 3.) Heel Strike: If your heel turns suddenly inward or outward it causes stress on the muscle-tendon unit. It is something you inherit. 4.) Running on asphalt.

Treatment: Rest, Anti-inflammatory medications, Ice. Pain free stretching following at least a week of the above. Orthotics sometimes helpful. Possibly change shoes. If pain persists, physical therapy modalities. If pain continues to persist (chronic), possibly immobilize with walking cast for one month and then initiate PT for stretching. Surgery is uncommon.

Metatarsal Stress Fracture

What: This is the most common stress fracture. IT was so commonly seen in the armed forces that they called it the "march fracture". It is also fairly common in distance runners.

Causes: The fracture occurs as a cumulative result of the force applied to the foot with marching or running. It is a classic overuse syndrome. Starting a running season or drastically increasing a training routine can result in these fractures. If you apply pressure directly over the injured area, it will illicit a sharp localized pain. Initial x-rays do not always show the fracture.

Treatment: Rest. Stop running! These fractures can take up to 2-3 months to heal. If you are not compliant, your DPM may put you in a walking cast. Physical therapist can aid in diagnosis, but treatment is not applicable. Basically, need to let the injured bone heal.

Inferior Calcaneal Bursitis (Bruised heel)

What: You have a bursa sac that lies between your heel bone (calcaneous) and your heel pad.

Causes: This area can get bruised and the bursa irritated with a single traumatic event such as jumping from a height or landing awkwardly on concrete/pavement.

Treatment: The best treatment is rest, ice and anti-inflammatory medication. A felt heel pad (approximately 1/4") is often helpful in softening the impact of walking. If the above is not effective, your DPM can inject the bursa with cortisone.

Posterior Tibial Tendonitis

What: Posterior tibialis tendonitis comes on gradually, usually over weeks. The pain is sharply localized at the tendon attachment to the navicular bone in the mid foot (inner ankle knob on the top of the foot).

Causes: The major job of the posterior tibialis muscle is to hold up the arch of your foot. Flat feet puts great stress on this tendon.

Treatment: Rest, Anti-inflammatory medications, Ice, Taping under arch. Semi rigid-orthotics. If pain persists, physical therapy modalities. If pain still persists, your DPM may inject along the tendon but usually not into the tendon itself.

Proper Shoe Fit

- 1. Heel Height:** Running in heels that are too low causes excessive pull on the calf muscles and the Achilles tendon. Remember, forces up to three times the body weight are activated every time the foot strikes the ground. Some foot conditions can easily be added by placing small heel lift or with new shoes with better height.
- 2. Heel Cushion:** If the heel cushion is too hard, the heel can become bruised. The rigid foot/high impact foot needs a softer heel. In the normal foot, if the heel is too soft, you sink into your shoes and lose some of the rebound energy that accompanies foot strike. Too soft of a heel can lead to fatigue.
- 3. Heel Stability:** The heel counter at the back of the shoe encircles and holds the heel in place. In the normal foot, it should be stiff to control heel motion. The more it prevents excessive rolling in and out the better; however, in the high impact/rigid foot, less stability is desired because the foot/ankle is already rigid.
- 4. Forefoot Flexibility:** The shoe should bend where the foot bends- at the ball. If the shoe is too stiff, it can cause shin splints, Achilles tendonitis, or lower leg pain. The stiff sole causes the muscles in the foot and the lower leg to work excessively.
- 5. Toe Clearance:** Toes should have clearance above and straight ahead. If there is extrapressure from lack of room, irritations like blisters, calluses, corns or runner's blister can form.
- 6. Orthotics:** Orthotics are special shoe inserts. In most cases, custom orthotics work best versus "off the shelf". Orthotics are like eyeglasses. If you need a pair, you need your own. Orthotics can aid in alignment and mechanics to take stress off structures such as tendons. For example, over pronation causes the lower leg to twist inward, which can cause the knee cap to rub against the long bone of the thigh causing runners knee. Over pronation can also cause back, hip, knee, arch, ankle or foot conditions. Orthotics can assist in controlling pronation. This is only one example. Orthotics show the best outcomes when a.) the foot/ankle and general posture is assessed in both non-weightbearing and static and dynamic weightbearing (walking) b.) a custom mold is taken in non-weightbearing (non-compensated position) c.) the shaping of the mold is custom for the footwear d.) proper trial and modifications. Orthotics can be rigid, semi-rigid or soft; however, only a very small percentage of athletes or fitness buffs wear rigid orthotics. The foot is meant to bend and flex. Semi-rigid orthotics are helpful when more stability is required and soft orthotics are preferred for the high arched rigid foot. Individualization is key!