



FREQUENTLY ASKED QUESTIONS ABOUT RUNNING INJURIES

WHAT CAUSES LOW BACK PAIN IN RUNNERS?

Outside of the consequences of improper form, often times generalized low back pain in runners can come from a variety of sources including tight hip flexors (front hip muscles) with or without lower abdominal weakness. The hip flexors are short, deep muscles that help swing one leg past the other leg while running. They attach to the lower portion of your spine. The lower abdominals should help dissipate the ground reaction forces as they travel upwards. Weakness in the abdominals leads to decreased shock absorption of these forces, with the pain often being felt in the low back.

Runners can also have symptoms from postural faults, vertebrae or pelvic malalignments, or diseased discs. If you experience persistent pain or symptoms in your low back or legs, you should consult a healthcare professional.

WHAT IS "IT BAND SYNDROME"?

The ITB, or iliotibial band, refers to the thick, fascial band that runs from the outside of the hip to just below the outside of the knee. Tightness in the band can produce pain at either joint, sometimes with a 'snapping' type sensation. This inflexibility is often eliminated with specific band stretching. Some runners develop localized areas of band tightness or knots due to the band attempting to compensate for weak hip abductor muscles. These muscles lie directly next to the band, and if they are weak and unable to stabilize the inward rotation of the thigh, the band is often overused.

WHAT CAN CAUSE FRONT SIDED KNEE PAIN?

Global pain in the front of the knee can be caused by a multitude of factors. The ITB and hip abductor muscles, if imbalanced, can account for some of the pain. Kneecap malalignment and/or improper tracking of the kneecap in its groove during movement can be another reason. Tight hamstrings (back of thigh muscles) and/or quadricep (front of thigh muscle) weakness can also contribute, as these are the major muscles acting on the knee. Some runners have mechanical faults above or at the knee, such as those listed, as well as overly flat or overly pronated feet, which can exacerbate symptoms.

WHAT ARE "SHIN SPLINTS"?

Typically, 'shin splints' refers to pain along the shin/lower leg bone. There are also cases of posterior/'back of leg' shin splints and lateral/'side of leg' shin splints. Front shin splint pain is characterized by pain anywhere along the length of the shin bone, that usually increases with activity/increased running time. It can be caused by improper footwear, forefoot running/running on the balls of your feet, calf inflexibility, or inadequate push off in your running cycle. If a runner has foot/ankle biomechanical problems that require an orthotic (insert) and they currently aren't using one, that may also be a factor.

WHAT IS PLANTAR FASCITIS?

The plantar fascia is a thick, arch supporting structure on the bottom of your foot. It starts at the heel and extends to the knuckles of the toes, covering the entire width of the foot. It can become inflamed and painful for most of the same reasons that lead to shin splint pain. In addition, runners with either excessively low or excessively high arches may be more prone to developing pain. Runners that lack full motion at their great toe also often develop plantar fasciitis, as they tend NOT to achieve full push off and thus leave a portion of their fascia tight.

WHAT ARE ORTHOTICS AND HOW DO I KNOW IF I NEED THEM?

Orthotics are inserts designed to help aid in the comfort and/or the biomechanics of the foot. They range in density from soft, gel type to dense, rigid type. They range in specificity from 'off-the-shelf' to custom made. Those runners who have significant foot/ankle or lower extremity mechanical faults usually need some type of orthotic, coupled with a specific type of running shoe to decrease the chance of injury. Generally speaking, overly high arched feet require a softer orthotic to compliment the cushioned-based running shoe. The overly flat foot typically needs a medium density orthotic and a stable or motion controlling shoe. Specialized physical therapists and podiatrists are good resources to consult if you think you may need an orthotic.