

## Shin-Splints: The Cause & Solution

"Shin splints" is a catch-all term for lower leg pain that is usually **caused from abnormal stress to the muscles, tendons, ligaments and bones in the lower extremity.**

There are a number of factors contributing to shin splints such as overpronation of the foot, inadequate stretching, wearing worn or poorly fitting shoes, or excessive asymmetrical stress placed on one leg or hip. **Another common finding associated with shin splints is a misalignment of the talus (ankle bone).**

While walking or running the talus naturally rotates relative to the tibia & fibula (the two lower leg bones). This region is known as the ankle mortise, or ankle joint. After prolonged stress to the foot and ankle, the talus and other tarsal (foot) bones may lose their healthy alignment. In the process of misalignment, the tarsal bones become fixated or locked in an abnormally rotated position. This is a structural problem and it causes great stress on the soft tissues supporting the ankle and leg.

**This talus misalignment will cause abnormal pressure between the tibia and fibula, resulting in a widening of the ankle mortise. The fibula being the thinner of the two leg bones will splay apart slightly from the tibia.** This slight separation of the two lower leg bones will cause significant stress and strain on certain supporting ligaments, muscles, and soft tissues in the leg. The pain produced by this process is often referred to as anterior shin splints.

Posterior shin splints is a slightly different variation of this condition, occurring on the opposite side of the tibia. Mechanical overstretching and compromise of the tibialis posterior muscle will often lead to this pain pattern.

In either case, continued running will exacerbate a shin splints condition, causing the leg pain to become unbearable. Sometimes runners and other athletes may have to discontinue all activity for a period of time, however the pain of shin splints will often return once they reestablish the same active routine.

Great news to a lot of athletes, there is a very effective solution for shin splints without having to discontinue sporting activities and running in most cases.

**Specific chiropractic adjustments to the ankle and foot joints will alleviate much of the stress on those strained leg muscles, tendons and ligaments.** When the talus and other tarsal bones regain their healthy alignment, that stretching force between the tibia and fibula becomes relaxed.

We attract many patients from all walks of life for conditions involving their feet, knees and other extremity joints, and our runners and athletes especially love getting their feet adjusted.



## Is knuckle popping safe?

Have you ever wondered what's actually happening when you pop your knuckles? Is it bad to do so? What makes that loud cracking sound?

The knuckle is a joint where two finger bones meet. This joint is encased by ligaments known as the joint capsule. The capsule is an enclosed space around the joint, filled with a lubricating substance called synovial fluid.



Synovial fluid contains tiny gas bubbles, which escape the joint capsule when you pop your knuckle. This is what produces the popping sound.

If you are a chronic popper you are constantly placing higher than normal stress on these tiny ligaments and capsules, and over time they may become more lax. This can cause the joints to become "hyper-mobile", where the finger joints become slightly unstable. The abnormal motion in the finger joints can lead to irritation and increased discomfort.

The act of popping your knuckles may provide instantaneous relief, but it's only temporary. Poppers find the urge and need to continue popping their knuckles in order to experience another dose of temporary relief. Habitual poppers often complain of stiff, painful and uncomfortable finger joints that become progressively worse over time.

Why is it okay to receive a chiropractic hand adjustment, but not pop your own knuckles?

When you self-pop a joint you're inflicting a random stress to the ligaments and capsule, which may eventually cause the joints to become hypermobile and misaligned. On the other hand, a chiropractic adjustment is a specific procedure where we strategically, gently realign the misaligned bones and joints.

Through gentle adjustments the finger and hand joints will regain their healthy alignment. The chiropractic adjustment is a specific movement in a precise direction, versus a generalized, random movement when you pop your own knuckles.

If you are a long-time knuckle popper or suffer with hand or finger stiffness and often feel the urge to pop your knuckles, you are in luck! Most chiropractors focus primarily on treating the spine; however, our clinic is one of the few in the area which also adjusts the hands. If you suffer with a hand problem, be sure to schedule a chiropractic evaluation with us to determine if your condition can be improved.