

# **PLANTAR PLATE INJURIES**

Injuries to the plantar plate across the ball of your foot is a common pain we see that stops active Wairarapa locals in their tracks. It is most commonly felt beneath the second or third toe joints and is most prevalent in runners, dancers and those that spend lots of time on the balls of their feet, putting the force of their body weight (or even many times their body weight when running or jumping) on these joints.

## YOUR PLANTAR PLATE IS AT THE BALLS OF YOUR FEET

Each of the joints at the balls of your feet is surrounded and protected by a joint capsule. The plantar plate is a thick tissue that sits at the bottom of the joint. It starts just before the joint (towards the midfoot) and connects to the joint, where it's the thickest, and then up to the toes. Due to its location here, pressure is placed on it with every step you take.

#### The plantar plate helps you in many ways. It:

- ✓ Helps prevent your toes from being pushed too far upwards
- ✓ Stabilises the toes
- ✓ Helps prevent toe deformities like hammertoesHelps you push up off the ground during walking and running
- ✓ Helps the fat pad beneath the ball of your feet absorb the compressive forces you incur when you walk, run or jump

✓ Helps prevent our toes from separating too far from one another (which would negatively impact the way we walk and make us more vulnerable to pain

### **TREATING PLANTAR PLATE INJURIES**

Plantar plate injuries and tears occur when the forefoot, and hence the plantar plates, are repeatedly overloaded, meaning excess pressure or force is placed on the balls of the feet. The second toe is the most common site for this, though any toe can be affected. **This overloading may occur from:** 

- ✓ Physical activities where you spend more time on the balls of your feet, e.g. dancing, running
- ✓ A job or activity where you're regularly climbing stairs
- ✓ Having flat feet or other problems or irregularities with your foot posture
- ✓ The effects on your feet from having a bunion or other toe deformities (claw toes, hammertoes, mallet toes)
- ✓ Walking for prolonged periods on hard surfaces like concrete, or in hard, unsupportive footwear
- ✓ Having a longer second toe, or a shorter big toe, may also make you more vulnerable to plantar plate injuries

#### **SIGNS & SYMPTOMS**

#### If you've injured your plantar plate, you may experience:

- ✓ Pain and swelling directly beneath a joint at the ball of the foot
- ✓ Worsening pain when the toe is pushed upwards (dorsiflexed) towards the sky
- ✓ A 'V' sign (toe separation) between the affected toe and the one next to it
- ✓ The feeling of walking on the bones of the feet

## **TREATING PLANTAR PLATE INJURIES**

Our goal is for you to have minimal downtime so you can get back to being active and doing the things you love as quickly as possible. We start by working to relieve your painful symptoms, then help repair the damage, and finally, we put the right measures in place to reduce the likelihood of another tear occurring in the future. This may involve:

- ✓ Strapping the affected toes to help relieve pain
- ✓ **Padding** to offload the damaged joint
- Using custom foot orthotics to help correct any biomechanical or alignment issues that may have contributed to the injury, like supporting flat feet or other foot postural issues
- ✓ Using **shockwave** treatment to support healing and repair of the plantar plate
- Ensuring your shoes are helping your recovery and not making it worse
- ✓ Using a strengthening and stretching rehab program
- ✓ For severe cases, using a splint or boot





