

# Pronation and sport



**W**hen you run, your foot hits the ground in a very specific pattern. The outside of your heel takes the initial impact and then your foot turns inward to spread the impact across the front of your foot. This slight roll in the way your foot moves comes naturally and is called pronation. It's how our feet absorb shock and adjust to uneven terrain. Over or under-pronating, however, can lead to serious injury, especially when this movement is repeated through regular sport.

Over-pronation in particular is a common problem among athletes, which leads to joint misalignment, as your feet are constantly moving in a way that is less efficient and your joints realign themselves to compensate for this change. People with low arches often suffer from problems of over-pronation.

Over-pronation increases strain on muscles and tendons as they have to work double-time to provide extra support to your joints. The most common injuries that result from over-pronation include sprained ankles and torn tendons and ligaments as your foot is rolling out too far before rolling back in again, providing unstable support that is difficult for your tendons to reinforce. Achilles tendonitis, knee injuries and shin splints can all be attributed to over-pronation as these are all repetitive strain injuries caused by the huge amounts of added pressure being placed on those areas.

We can evaluate the movement of not only your feet, but also your ankles, knees and hips to determine the degree of over-pronation and provide treatment to help restore a natural degree of pronation in your stride. Usually this involves a good look at your sports shoes and the fitting of orthotics to provide extra support and reduce the strain on your muscles, tendons and ligaments.

# Sports Podiatry

**H**igh-impact sports such as basketball, soccer, running, football, cricket and indeed any sport involving use of your feet can all lead to injuries requiring specialist treatment. Sports podiatry looks specifically at injuries to the foot, ankle and lower leg sustained through participation in physical activity. It is easy to injure your feet while playing sport as the forces between your feet and the ground are amplified during high-impact activity.

Sports podiatric injuries come in two forms: overuse injuries caused by repeated pressure on tendons and joints; and movement or biomechanical injuries caused by the way your feet are impacting with the ground and incorrect movement patterns. Movement injuries are often impacted by overuse problems as you may be changing the way you walk, run or jump to compensate for an existing injury, thereby causing other injuries through moving in a different way to what would come naturally.

The most prevalent sports injuries include shin splints, runner's knee, Achilles tendonitis, corns and bunions through to postural issues and lower back pain. Runners also complain of thickened nails that are also often ingrown. Long distance running is gruelling on your feet and mangled, unsightly nails is a standard consequence.

Treatment for sports podiatric injuries includes screening to look at your posture and movement, and analysis of how the movement of your feet affects your lower limbs. Painful corns, bunions, shin splints or other injuries can all be caused by unnatural movement patterns that can be corrected by the evaluation of sports shoes and the fitting of orthotics. Overuse injuries involving the skin and nails also benefit from medicinal treatments, and in some cases surgery for problems such as ingrown nails. Some injuries also benefit from sports massage therapy and corrective exercise regimes.

For optimal recovery after a sports-related injury a podiatrist can give you the targeted help you need to get you back on the playing field.



## Sports orthotics

Runners often complain about knee pain, particularly when running downhill. Tendonitis, particularly of the Achilles tendon is another common problem for a lot of athletes. These sorts of injuries — and many more! — are caused through the increased force placed on your joints and tendons through high-impact sport.

Wearing correct footwear is critical to healthy feet. We can evaluate your sports shoes to check that they are suitable for your chosen

sport and can offer advice on changes that may make the world of difference to any pain or discomfort you are experiencing. Athletes put huge amounts of pressure on their feet and a little extra support can go a long way. Beyond choice of sport-appropriate footwear, orthotics provide that extra support when you need it most, reducing pain and discomfort so you can get out there and enjoy the sports you love.

Orthotics are inserts that are placed inside your shoes to

adjust imbalances and restore the natural movement of your feet, which is often altered through compensating for other injuries or just plain bad habits! Customised sports orthotics help to realign your posture by restoring natural balance in your range of movement and also cushioning the impact through added silicone pads placed in the insole to absorb some of the force created during high-impact activity.

Sports orthotics are specially designed to work with

your sports shoes and are customised both to your feet and with intended use in mind, as you need different levels of support and your movement can change depending on the type of sport that you're participating in. Orthotics have loads of benefits not limited to the feet by supporting you in such a way that your knees, hips and spine are better aligned, so orthotics can be a simple cure for that nasty case of runner's knee or lower back pain.

Trevor Lane Podiatry - Trevor Lane

Suite 11 / 120 Birkdale Road

Ph-(07) 3207 4736

Birkdale QLD

A proud member of the Australian Podiatry Association (QLD)