Plantar Heel Pain

Heel pain is a common presentation in the clinic. There are many potential causes of pain in this region and while there are a few juvenile conditions, such as Sever's Disease, most are more prevalent in older age groups. In this article we discuss some of the more common causes of plantar heel pain and how to manage each one.

Load spike

A sudden increase in recreational or training loads to the foot and lower limb are a common cause of plantar heel pain. The principle of "Use it or lose it" holds quite true. Essentially the tissue in the body is conditioned to cope with a certain loads, based on you level of activity. When there is a sudden increase in load, even in the presence of reasonable training loads in the past, we tend to overload tissue which can result in painful breakdown of the tissue. This can present as stress fractures in the calcaneus (heel bone), plantar fasciitis and tendinopathy of the achilles or tibialis posterior tendon.



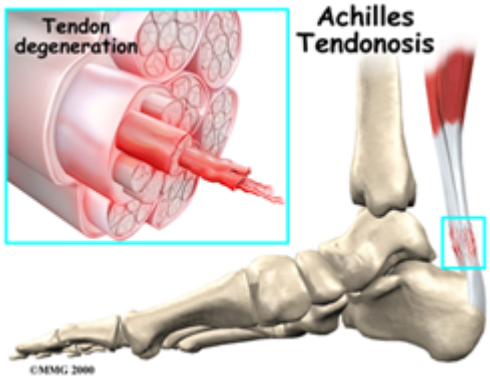
Often, caught early enough, these conditions may simply respond to a period of rest, followed by a gradual ramp up of load from a sensible level. In the case of plantar fasciitis and tendinopathy of the foot and ankle, these conditions often present to the clinic when people have undertaken a boom or bust type approach, where they rest but continue to return to too high a training load too quickly. In these cases, true weakness of the tissue involved will be present and successful management will involve being given a graded strengthening program to improve the load capacity of the tissue in question.

Overload from poor biomechanics

Poor biomechanics due to weakness of the muscles of the lower limb commonly results in pain and injury to the heel and

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foot. Being overweight will often compound these issues, by placing further stress on the structures involved. These conditions can affect the joints and bones, however, much more commonly effect the soft tissue of the foot and heel. Commonly this will again effect plantar fascia, tendons, and calcaneal heel pad. As these conditions are almost always chronic, there is generally a degree of tissue breakdown involved.



Initial management of these overload syndromes involves reducing load to the tissue. This can be a little trickier as unlike the examples above, often the levels of load which have caused the injury are the tasks of normal daily living and more difficult to eliminate or strip back. More often in these cases, external support to the tissue through taping, orthotics and the use of appropriate supportive shoes plays a crucial role. A graded strength program to improve overall lower limb strength as well as to gradually load and strengthen the effected tissue is vital, although often must be undertaken quite slowly at first. In these cases, guidance from your physiotherapist is always recommended.

Trauma

These injuries tend to be more obvious and often simpler in their management. The mechanism for injury is generally obvious and the onset of pain immediate. Trauma may result in damage to either bone or soft tissue in the region of the heel. Common presentations are calcaneal fractures, fat pad impact and avulsion injuries, where a small fragment of bone that tendons or ligaments attach to is pulled away. In many of these cases, due to the forces and degree of tissue damage involved, the initial degree of offload is more significant and often requires the use of a boot or crutches.

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After a period of relative offload, related to the degree of damage to the tissue, the effected leg is gradually loaded up as the tissue capacity increases. A general strength program for the effected leg is usually undertaken to reverse the widespread deconditioning because of a period of offload. Your physiotherapist will generally provide guidance on how quickly you are able to increase load and return to pre injury sport and activities.

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