

Plantar Plate Tear

Body Part

Your plantar plate is a thick ligament that runs along the ball of your foot, connecting the long bones (metatarsal) of your foot to the base of your toes. It is designed to protect the head of the metatarsals from excess pressure, preventing our toes from spreading too far apart, and prevent the overextension of our toes.

Condition:

When the plantar plate is overloaded or strained, a tear can develop. As your second metatarsal is often the longest, plantar plate tears most often, but not exclusively, develop at the base of the 2nd toe.

Contributors to a plantar plate tear can include:

- The tendency to over-pronate (roll the feet inwards)
- Having a bunion or a hammer toe
- Having a long second metatarsal bone
- Have a blockage in a joint
- Activities that put high pressure on the ball of the foot, such as dancing, running and climbing stairs
- High, thin, narrow and/or flexible shoes

Plantar plate tear is 10x more likely in women this is due to the higher incidence of high heeled or narrow shoes worn by women.

Symptoms:

- The patient will complain of pain on the dorsal and plantar aspects of the MTPJ, usually described as an ache, bruising, cramp, sharp, shooting, burning.
- Mild swelling may be present along with an episode of trauma, however trauma is not essential as plantar plate injuries are typically chronic overuse injury.
- Weight bearing activities increase pain – especially dancing, forefoot running, barefoot walking.
- Rest / non weight bearing reduces pain.
- Occasionally the toe might become displaced and have a “V” formation or sit up, but this is typically found in a full rupture of the plantar plate.

Treatment:

- Strapping the toe
- Padding to offload the damaged area

- Temporarily altering your footwear
- Exercise modification
- No barefoot walking
- Anti-inflammatory medications
- Orthotics
- Moon Boot or cam walker (in severe cases)
- Surgery if fully ruptured or if none of the above interventions suffice

Prognosis:

Restoring the plantar plate can take time, with the majority of patients pain-free within 3-4 months. The initial symptoms do improve faster, allowing most people to return to regular activity within one month.



Further information:

For further information, please contact our friendly team at Gen Health.

Picture Link: <https://www.performpodiatry.co.nz/footproblems/plantar-plate-tear/>