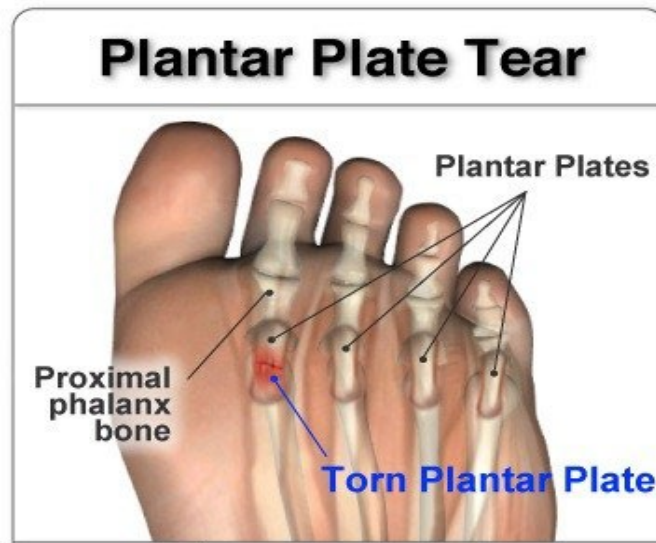


What is it? At the base of each toe, there is a ligament that acts to keep the toe in the joint and prevent it from rising up out of alignment, or hammering. When you walk, the toes bend at the base of the toe joint just before you push off of the ground. The plantar plate holds the toe in place and brings it back to a straight position. In some cases, the ligament can be overstretched or have small micro tears in it that causes pain and deformity in the toe. This is often noticed as pain and tenderness in the ball of the affected toe or toes. Once the ligament tears, the toe rises up or “hammers.”



What causes it? Many factors can cause injury to the plantar plate including increased physical activity such as walking or running, trauma, genetics, or a tight Achilles tendon that then pulls and puts increased stress at the end of the ligament at the plantar plate.

How is it diagnosed? X-rays are commonly obtained in clinic to rule out other causes of the pain. Occasionally an MRI may be ordered if there is question as to the cause of the problem. MRI's are able to see tendons and ligaments that are not visible on x-rays. However, many times additional imaging is not needed as diagnosis is based on clinical examination.

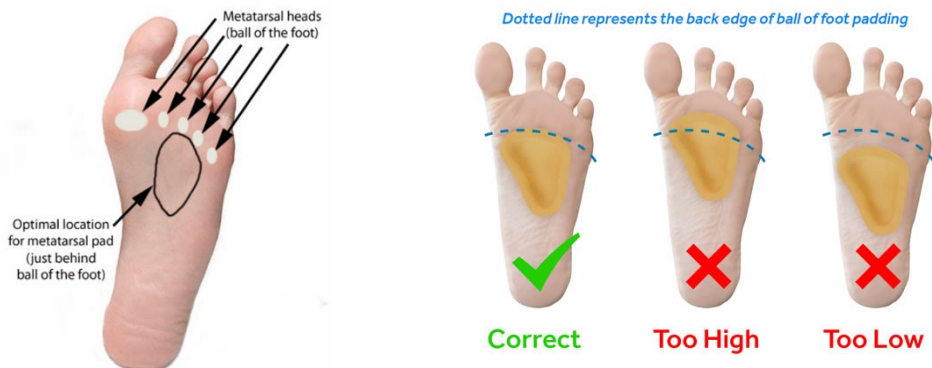
Treatment: Treatment of a plantar plate tear is multi-factor, as no one thing will totally resolve the issue. Treatment of this condition includes:

- Resting from repetitive over use activities, especially activities that require pushoff through the toes. This will allow the swelling and pain to resolve. Once the pain has resolved, activity may be slowly re-introduced. Once pain returns however, activity needs to be restricted again until better.
- Ice for 20 minutes after activities to decrease pain and swelling, and three times a day anytime pain flares up. A frozen water bottle works well and can be rolled on the ball of the foot.

- Anti-inflammatories like ibuprofen, Aleve, or Motrin to decrease pain and swelling
- Taping the MTP joint for activities. Tape a breast cancer style ribbon over the top of the base of the 2nd toe, as well as 3rd toe if painful. The tape is then crossed and anchored on the bottom of the foot at the ball. Mild color changes and swelling of the toe with taping is common. If taping leads to blistering or uncomfortable swelling the tape should be removed and the foot should be rested. See example below.



- Metatarsal pads can be purchased over the counter or online. This can be applied to the shoe insert, ideally on the underside so that it does not peel off of the insert. The metatarsal pad should be placed just below the ball of the foot and not over the metatarsal heads/plantar plate.



- Custom molded orthotics can be prescribed but many insurances do not cover the cost of these as they can cost approximately \$450. They can however, when used with the above therapies, provide pain relief.
- Stiff soled rocker-bottom shoes such as “Hoka” brand shoes which can be obtained at Foot Zone or online retailer.
- Steroid injection is not a first-line treatment but can be considered for severe pain or if significant pain persists despite first-line treatment modalities as noted above.