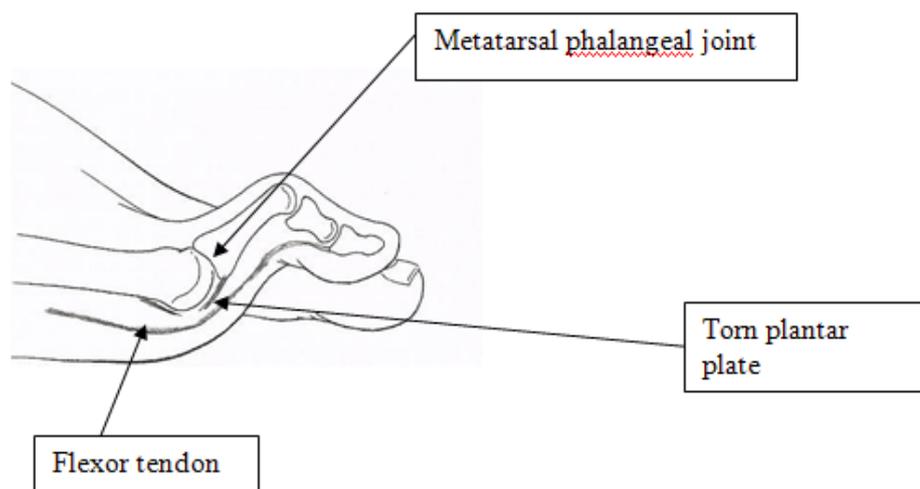


Plantar plate injuries

Introduction

A plantar plate tear is caused by a specific injury to the toe and the joint, or overuse of the joint over time. Often this can be associated with a bunion deformity in which the big toe drifts under the second toe, elevating the toe, and stretching or tearing the plantar plate under the metatarsal bone. Usually the metatarsal head that is taking the greatest weight is under excess stress during walking, and the plantar plate ligament gives out over time and begins to tear.



How is it treated?

1. Conservative

- a. Pain relieving injections have a limited role.
- b. Splints – using a DARCO toe splint can stabilise the toe and help reduce your pain. However, this is not a cure.
- c. Orthotics – can make your whole foot function better, making best use of the foot anatomy that you have. They will not however repair the damage to torn or ruptured plantar plate.

2. Surgery

An incision is made on the top of the foot over the relevant toe. The metatarsal bone is cut and moved away to allow access to the plantar plate. This is then repaired and reattached to the base of the toe. This brings about good alignment of the toe. The metatarsal bone is then realigned and screwed back together. If you have a hammer toe this will also be repaired, with a temporary wire in place for 6 weeks. The advantage of this procedure is that you can weight bear after 48 hours and the correction tends to be solid.

You can see this technique on

Youtube: www.youtube.com/watch?v=adE-hdD5nMM

or as an animation

www.arthrex.com/resources/animation/BOh1oSfVOEy24QE2LfZb9g/cpr-complete-plantar-plate-repair



What does surgery involve?

On the day of surgery you will be admitted to the ward and one of the nursing staff will check you in, take your blood pressure and any other tests that may be required. The surgeon will remind you of the surgical process and possible complications and ask you to sign a consent form if not already completed. You can be awake or asleep for this surgery, either way your foot will be numbed via a series of injections around the ankle. The procedure lasts about 45 minutes and involves making an incision on top of your foot to repair the toe. You might also probably have a joint in your toe fused to give stability.

After the operation you will be taken back to the ward and once able you should start taking your painkillers. Your surgeon will see you on the ward after the operation to answer any questions that you might have and make sure that you are fit to leave hospital. You will be supplied with a special post-operative shoe



and wheeled to your transport in a wheelchair. Crutches might be needed but this will be discussed with you beforehand.

You should not drive after foot surgery and should be accompanied home by a responsible adult.

You will also be advised of your follow up appointment date.

How will I feel afterwards?

Although long-acting local anaesthetic, administered during the procedure, should control most of the pain for about 8 to 10 hours, you should expect some pain or discomfort after the operation. Painkillers will be discussed with you prior to your operation and prescribed by the anaesthetist.

Recovering from surgery

The first 14 days

For the first two weeks you are not bed bound, but you are house bound for that period. Your activities can include visiting the bathroom, making a drink for yourself and pressing 'Go' on the microwave. You should be on your foot for approx 5 mins in the hour, each hour that you are awake.

Bend your knees and ankles periodically to stimulate circulation. Most people are able to stop taking their painkillers after 72 hours. Do not leave the house, drive or get the foot wet. If you need an xray you will also be informed of this.

7 days

Post-op review appointment at the hospital. At this appointment you will see one of our nursing team who will redress the foot for you and answer any questions you may have.

14 days

At the second post-operative appointment you will probably have the stitches taken out. You will be advised to gradually increase your activity and gently exercise. You may wash and bathe normally and apply moisturising cream to the wound, unless you have a wire yet to be removed from the toe – we will advise you of this.



6 weeks

Continue applying ice compresses to your foot several times each day to reduce swelling. You may now stop wearing the boot and change to wearing wide comfortable shoes such as trainers. If you drive, you may do so when you can walk comfortably. If you don't think you are fit to drive at this stage, don't!

What are the possible risks and complications?

The successful outcome of any operation cannot be guaranteed. The following information outlines the more common complications relating to foot surgery in general and more specifically to the type of operation that you are having.

General complications of foot surgery

- Pain. There will be post-operative pain. For most people the pain passes after 72 hours and is tolerable with regular painkillers (following dosage recommendations).
- Swelling. This is a normal outcome of any operation. The extent of post-operative swelling varies and cannot be predicted. In some people the swelling reduces within a matter of weeks and in others could take many months. Application of an ice pack greatly reduces swelling.
- Infection. There is a small risk of infection with all surgery, less than 3%. If this occurs it will be treated with relevant antibiotics. Look out for redness and discharge from the wound.
- Deep Vein Thrombosis. Also known as Venous Thromboembolism (VTE), this is a rare complication of foot surgery under local anaesthetic. The risk increases if you are having a general anaesthetic. There is also an increased risk if you take the contraceptive pill, HRT or smoke. Immobilising the leg in a cast also increases the risk of a DVT. If you have had a DVT in the past, please tell your surgeon. If you do have certain risk factors you will have an injection to thin your blood on the day of surgery. This might need to be repeated for up to 14 days following surgery.
- Complex Regional Pain Syndrome (CRPS). This is a rare but difficult complication. This is an abnormal response of the nervous system to surgery



but can also happen after simple trauma. This can lead to a variety of painful sensations in the foot, which require medical and pain relieving techniques.

- Scarring: As a result of your surgery you will have a scar on your foot. To begin with the scar will be raised, red and sensitive but with time it will usually settle.

Specific complications of plantar plate repair surgery

- You may lose some sensation around the operation site.
- Sometimes the scar line is sore and more noticeable than normal. This will normally improve with time.
- The joint can stiffen up sometimes and lose some movement, this normally improves with time.
- The deformity can re-occur, with an elevated toe.
- Sometimes the bones fail to fuse together in the toe or metatarsal. This occurs rarely and might require immobilisation in a cast or more surgery.
- Occasionally shortening the metatarsal bone can lead to overload to the adjacent metatarsal bone and pain. Fortunately this is rare.
- Correction of the joint pain can sometimes highlight other foot problems that you were not aware of. Occasionally other joints in the forefoot can become painful.

Useful numbers

Baddow Hospital	01245 671181
Baddow Emergency Contact Nurse	07591 977965