1st Metatarsophalangeal Joint Osteoarthritis

The aim of this leaflet is to give you some understanding of the problems you may have with your b
sections; describing 1st Metatarsophalangeal joint (MTPj) osteoarthritis (OA), what you should know
It is not a substitute for professional healthcare advice and should be used along with verbal inform
of the foot and ankle team.

What is 1st MTPj OA?

1st MTPj OA is the scientific name for a degenerative condition in the joint of the big toe. This condi
and stiffness. Occasionally, symptoms are felt across the lesser toes due to the stiffness and/or pai
Osteophytes, are extra bony projections growing around the joint line, lead to prominence around th
stiffness of the 1st MTPj this can be referred to as Hallux Rigidus.

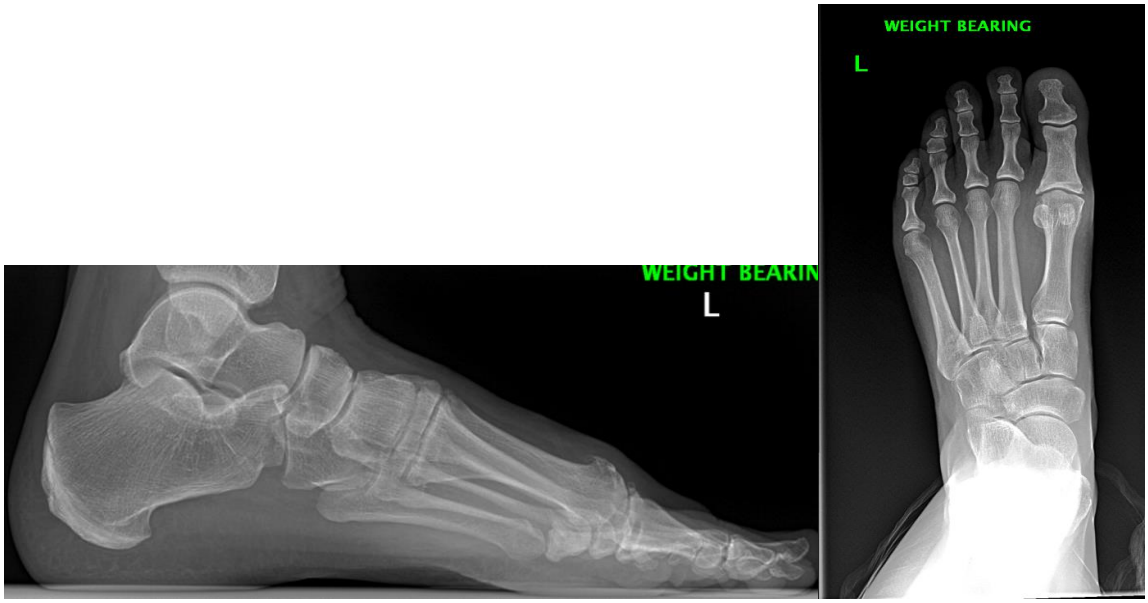
What are common causes of 1st MTPj OA?

No single cause has been proven. It may develop because of a prior injury, altered mechanics (the
just genetics when the cartilage wears more quickly in some people than others. Contributing factor
may also lead to people being more susceptible.

What are the symptoms?

1st MTPj OA may not always cause severe symptoms, but sometimes it can cause:

- Pain, stiffness, swelling and redness around the joint
- Difficulty or altered walking
- Pain on the top of the big toe joint or under the small toes
- Deformity of the toe
- Problems with footwear due to the big toe bony prominence



What are the treatment options?

A) Non surgical treatment

- One of the most important things you can do to help is to wear the right footwear. You shou properly such as walking shoes or boots.
- Shoes with a heel that are flexible will increase the pressure through the problematic joint a remember, this may not be felt immediately, however doing thousands of steps a day, pain
- You can take painkillers such as paracetamol or ibuprofen to help relieve the pain and infla
- Using an ice pack regularly can also help to reduce the pain and swelling

B) Surgical or invasive treatments

Joint Injection

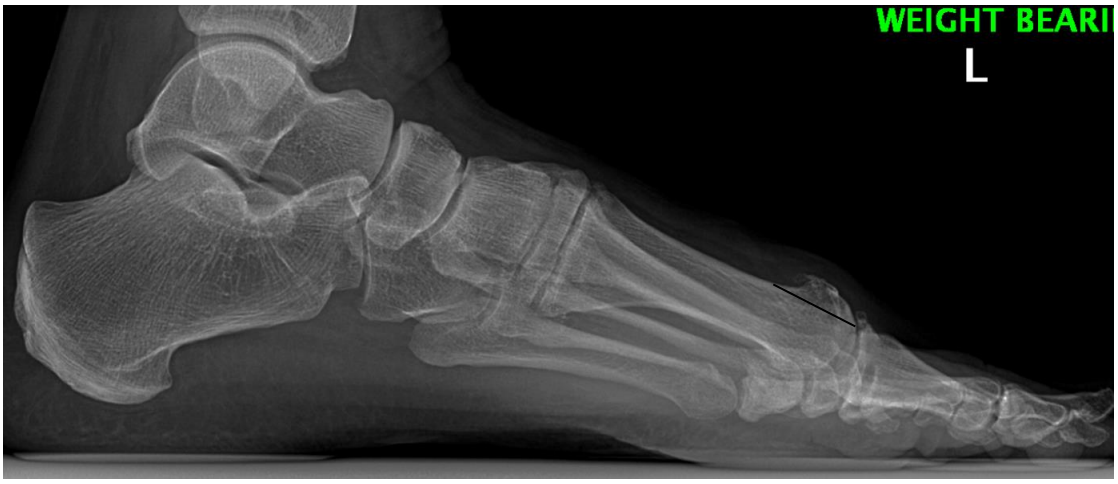
One of the first option you can consider is a **steroid injection**. This is not a cure for the degenerat improve the movement but may give some pain relief for a period of time. We cannot predict how l also be used as a diagnostic tool. If you get good pain relief (regardless of how long it lasts) it indic that joint. If it doesn't give good pain relief for any period of time, this might be because other facto are experiencing. We may try an injection to confirm the diagnosis.
Risks of injection include infection, bleeding, skin atrophy, depigmentation, post injection flare up, the steroid for up to one month following the injection.

Surgical options

Surgery for 1st MTPj OA is considered when non operatve measures fail to relieve your symptoms daily activities, work or hobbies. The main reason to do the surgery is to improve your pain and oc prominence rubbing against the footwear.

Cheilectomy
If your main problem is footwear rubbing due to a lump on the top or arthritis limited to the top third

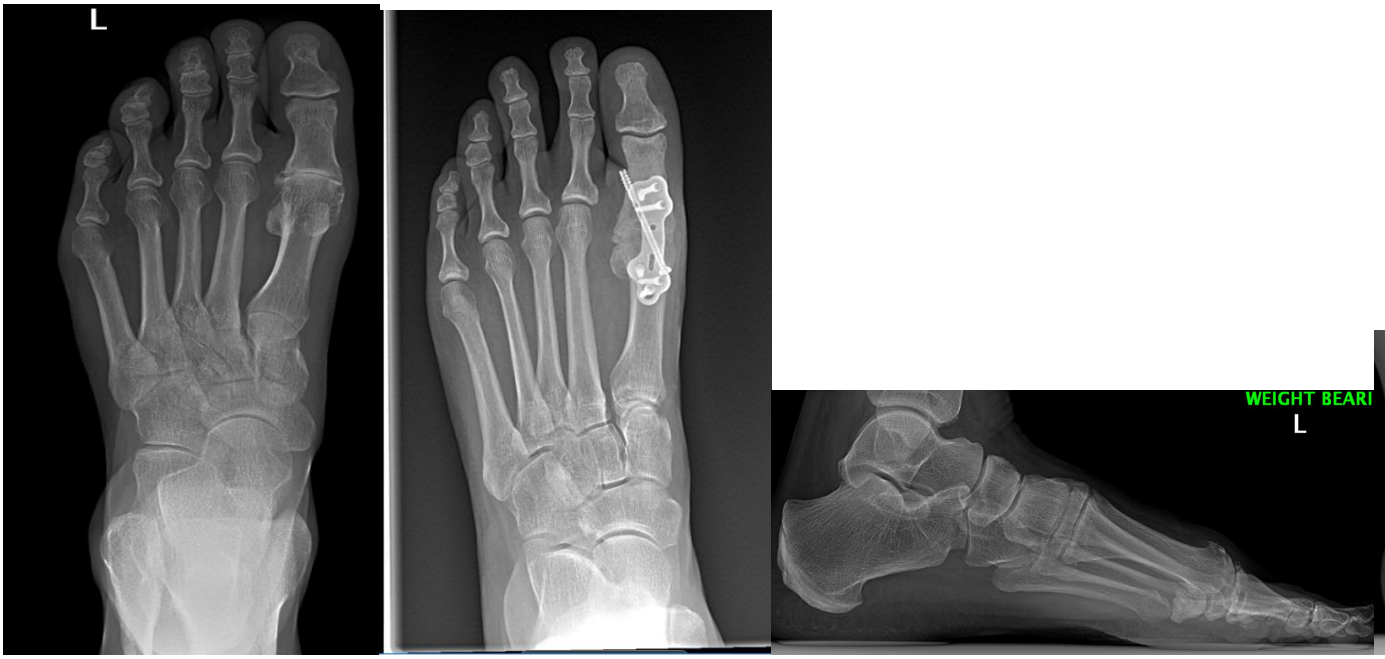
might be offered**.** This procedure involves an incision (cut) along the inner side of the joint removin
toe joint upto 1/3rd of the joint surface on the top and any osteophytes around the joint. This proce
of the big toe joint and does not do anything to improve the degenerative changes in rest of the joi
patients more symptomatic.
Risks of Cheilectomy procedure include scar sensitivity, on-going or worsening pain from the joint,
other generic risks of surgery. These are explained in more detail under the complications section



Joint Fusion
The main end-stage surgery is joint fusion. This procedure involves removing the damaged cartila
of the bones together, compress and fix them together to enable them heal together as one solid p

An incision (cut) is made along the inner side of the joint. The joint is prepared by cutting away the
osteophytes that have formed around the joint. A screw is then passed across the joint to compres
applied to hold the joint still whilst the bones attempts to heal together over the coming months. Ca
position of the toe as it needs to be slightly raised off the floor to enable a more natural walking pa
closed with stitches which are usually dissolvable. There is usually no need for a plaster cast but y
provided with a special shoe afterwards.

X-ray appearance before and after surgery are shown below



Smoking Advice

One of the main risks with a fusion procedure is that the bones fail to heal together, called a ‘non-u
who smoke take longer for their bone to heal. If you smoke you are five times more likely to develo
healing).It is important that you give up smoking for at least 6 weeks before your operation and up
bones have healed. You can get help from your GP or a Smoking Helpline.

Does the surgery have any complications?

Modern big toe surgery is usually successful at achieving improvements in pain and deformity but

- Swelling

It is normal for your foot to swell after surgery. It may take up to 6 months for the swelling to go do
health and activity. It is important to elevate your foot above the groin in the early stages and then
develops as activity levels progress.

- Pain

It is usually painful for the first few weeks after surgery. In the first 6 months after 1st MTPj fusion s
outer border of the foot to avoid weight bearing through the big toe. This could induce some discon
the bone healing progresses, the pain and swelling will improve and so should your walking.

- Infection

This occurs in a small percentage of patients. Minor infections normally settle after a short course
than 1% and may require further surgery to resolve the infection and prolonged antibiotics.

- Bleeding

Sometimes after the surgery the wounds can bleed. If this occurs please contact the team (not you
invite you back to clinic for a wound assessment. If this occurs at the evening or weekend please a
department if you are concerned.

- Numbness and tingling
This can occur around the wound as a result of minor nerve damage. Numbness or sensitive area be permanent.

- Blood clots
Deep vein thrombosis (DVT) or pulmonary embolism (PE) is rare. All patients will undergo a risk a developing a blood clot and preventive injections are given to reduce your risk.

- Scar
All surgery will leave a scar, these can sometimes be sensitive. It is recommended to massage the the scar is healed after surgery.

- Prominent screws or plate
Occasionally the metal work can be felt beneath the skin and cause discomfort. These may be rem bones have healed if they continue to cause problems.

- Non-union
The bones occasionally don't heal and cause continued pain. As previously mentioned if you smo complications are higher. Non-union may require further surgery to repeat the process to make the risk of non-union.

- Mal-union
This happens when the bones heal in the wrong position. This may require further surgery at a late

- Chronic Regional Pain Syndrome (CRPS)
A small number of patients may experience CRPS. This is a chronic condition characterised by se the skin which persist beyond the first few weeks following surgery. This is treated with physiother

Post operative Advice

Wound care/dressing

The foot and ankle will be in a bulky bandage following both fusion and cheilectomy procedures. T next outpatient appointment usually 2 weeks after surgery at a nurse led clinic.

You will be supplied with a special post-operative shoe to aid walking. This may be either a heel w soled sandal and must be worn at all times when you are on your feet.

Elevation

It is extremely important to keep the foot which has been operated on elevated above groin level a weeks after your operation.

For two days after surgery your foot needs to be raised 55 minutes out of every hour. The duration minutes per hour every day (e.g. 50 minutes on day 3, 45 minutes on day 4 etc).This should help t allow better wound healing.

Patient Information

Analgesia

Pain killers are recommended to be taken regularly during the first week of surgery. These will be
hospital

Exercise

The physiotherapist will assess your walking and provide crutches if required prior to discharge fro
instructed on how to move the affected foot and ankle to prevent stiffness in other joints and help r

We encourage you to move around and walk as comfort allows – 'little and often' is a good genera
swelling has subsided.

If you have had a **cheilectomy** procedure and once the wound has healed, we encourage you to
by moving the toe up and down using your hands initially and then progressing on to perform heel
start with little and often and increase to performing these 4-6 times daily with 3-4 sets of 10 - 20 r
with these, but this should improve over the first 2 months. If it continues to be painful as your activ
number of sets and repetitions down to a tolerable level.

Follow up appointments

You will be given an outpatients appointment for two weeks following the surgery. At this appointm
remove the dressings and inspect the wound. You will be given further information on how to care
manage your symptoms.

A further appointment will be made 6-8 weeks after your surgery to check your progress. An x-ray
position of the toe and the metal work.

A final review would be at 4 months of surgery with xrays to check the bone healing. However, if y
let us know and we'll see you sooner. Foot swelling and discomfort is expected for 4 to 6 months o

Returning to work

This depends on your individual circumstances and your type of employment.
If you have a sedentary job and are able to elevate your affected foot, then you may return to work
surgery. If you have a more physically demanding job it may take four months or sometimes longe
bone healing time is 4 months.

Driving

If surgery is undertaken on your LEFT foot and have an automatic car, you can start driving at aro
Otherwise, you may be able to drive at 8 weeks dependent on your progress. If you have had a **ch**
wounds have healed, you can attempt to drive. You need to do a test drive to ensure you can perf
notify your insurance company the type of procedure that you have undergone to ensure your cov

Sport

You can return to sporting activities like swimming and cycling from 3 - 4 months after your operat
such as jumping and running would take more than 6 months and some patients may not be able
activities for many reasons.

Patient Information