



A patient's guide to

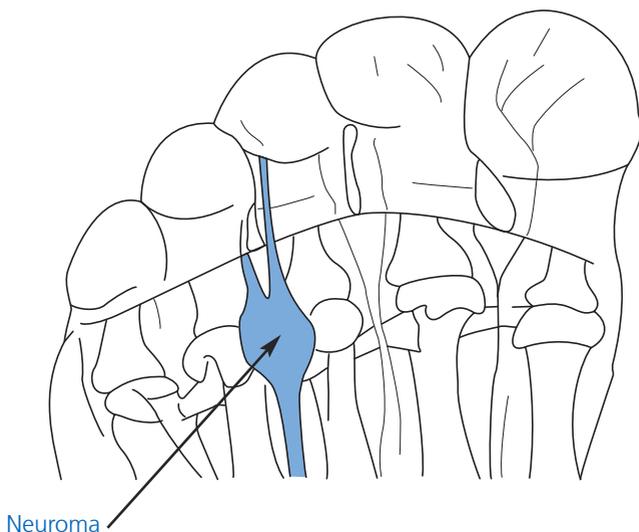
inter digital neuralgia (morton's neuroma)



The foot and ankle unit at the Royal National Orthopaedic Hospital (RNOH) is a multi-disciplinary team. The team consists of three specialist orthopaedic foot and ankle consultant surgeons (Mr Singh, Mr Cullen and Mr Goldberg), specialist doctors in training, a clinical nurse specialist, orthotist, physiotherapists and a physician assistant. All team members are specialised in foot and ankle care and work together to provide and deliver a quality service.

What is inter digital neuralgia (morton's neuroma)?

Morton's neuroma is **NOT** a neuroma (nerve tumour). It is a painful swelling or irritation of the digital nerve that runs between the metatarsal bones. Entrapment of this nerve causes pain in the ball of the foot that radiates to the toes.



Symptoms

Pain, numbness and a tingling sensation are the main symptoms. This usually presents when the foot is enclosed in a shoe and while standing or walking. Pain is usually experienced in a specific area of the forefoot and radiates into the toes.

The condition commonly affects the third and fourth toes and sometimes the second and third toes but may occur between any of the toes. As the condition progresses, shooting pains (like electric shocks) may be felt, even without any weight bearing. Occasionally a clicking sensation is associated with the pain.

Common causes

Irritation of the digital nerve – this usually develops over a prolonged period of time. With repeated injury, the nerve or surrounding tissue becomes longer, making it more susceptible to injury.

Inappropriate footwear – often it is tight fitting shoes or the constant wearing of high heels combined with thin hard soles. This shifts the body weight onto the ball of the foot and increases the pressure on the nerve. It is therefore more common in women. This condition can affect adults of any age; however, it is more common between the ages of 25 and 50 years old.

Diagnosis

The diagnosis may be difficult and depends on the history and description of the problem.

Physical examination – is performed by the doctor and a mulder's test, which involves squeezing the foot is often undertaken. A palpable click followed by pain shooting out into the toes and back into the foot (known as the mulder's click) may indicate the presence of a morton's neuroma. The doctor will also assess any numbness you may have in your toes.

Diagnostic imaging – X-rays may be taken to investigate underlying problems. Sometimes an ultrasound scan may be performed. This involves using sound to generate an image of the soft tissue between the metatarsals.

Local anaesthetic and steroids may be administered by the radiologist during the ultrasound scan and the doctor will ask you to keep a pain diary to see if your symptoms are relieved. Unusually, if diagnosis proves difficult, an MRI (magnetic resonance imaging scan) may be carried out, usually in conjunction with intravenous contrast. Morton's neuroma is usually diagnosed clinically and it is rare for this scan to be performed.

Non-operative treatment

Appropriate shoes and orthotics – modifying footwear and insoles and extra wide soft shoes with cushioning to the soles often help to offload the forefoot, thus improving symptoms.

Injection – cortisone in conjunction with a local anaesthetic (lignocaine) injected into the area around the nerve relieves pain in about 40% of cases. Injections can also be useful in localizing the site of the swelling.

Surgery

If conservative methods are unsuccessful, surgery may be necessary. This has about an 80% success rate. The operation involves removing the part of the nerve that causes pain and discomfort. As a result, some permanent numbness will be experienced on the side of the involved toes. In up to 5% of patients, persistent pain occurs at the cut end of the nerve and further surgery is required. This is known as a stump neuroma. In view of this, surgery is only considered after all non-operative measures have been unsuccessful.

Benefits of surgery

The aim of surgery is to relieve pain and, therefore, improve mobility.

Complications/risks of surgery

Infection – as with any surgical intervention there is a small risk of developing a post operative infection. This risk is increased if you are diabetic, suffer from rheumatoid disease or if you smoke. You may be refused surgery unless you refrain from smoking.

Persistent pain – this may be due to a stump neuroma – (as mentioned previously), or nerve irritation.

Scarring – any type of surgery will leave a scar. Occasionally this may be painful or inflamed.

What to expect following surgery

A padded bandage will be applied after the procedure. The bandage may be removed 48 hours following the surgery. Stitches will be removed about two weeks following the operative procedure.

Some numbness and tingling in the toes and the ball of the foot may be experienced. After the operation, you will be required to wear a special shoe for up to two weeks, until the wound site(s) have healed. However, this is an approximation as each individual heals at differing rates. Swelling to the affected foot is common after any type of foot surgery.

Important post-operative advice

Elevation – elevate the foot as much as possible. It is advisable to keep the affected area above groin level as this helps to significantly reduce swelling. Inflammation may exacerbate pain. Anti inflammatory pain relief such as nurofen or ibuprofen combined with paracetamol is effective – do ask advice from your doctor or pharmacist before taking medications.

Keep the wound sites covered – the wound must be kept dry and clean until healed; stitches are usually removed about two weeks following the procedure. You should avoid getting the foot and dressings wet while bathing.

Rest – we advise that you rest for a few days. Those with a sedentary type of employment will probably be able to return to work within seven days of the procedure but those whose employment involves long periods on their feet may need to refrain from work for three to four weeks. However, this is an individual decision and each person has a different speed of recovery.

Driving – you may resume driving a manual car about two weeks after your operation. If you drive an automatic car and your left foot only has been operated on, you may be able to resume driving earlier. In all cases, you should sit in a stationary car and check that you are able to perform an emergency stop and drive safely. You should check with your insurance company that your cover is valid after your surgery.

Sport – you can usually resume sporting activities after six weeks. Do ask a member of the foot and ankle team if you are unsure.

REPORT ANY EXCESSIVE PAIN, SWELLING, REDNESS OR DISCHARGE.

If you have any comments about this leaflet or would like it translated into another language/large print, please contact the Clinical Governance Department on 020 8909 5439/5717.

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