

WHAT IS INTER DIGITAL NEURALGIA (Morton's Neuroma)?

The condition commonly known as Morton's Neuroma had been described prior to Dr Thomas Morton (1876) and is in fact NOT a neuroma (nerve tumour). However, this term has been in common use for a condition that should be properly called Inter Digital Neuralgia. This 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.

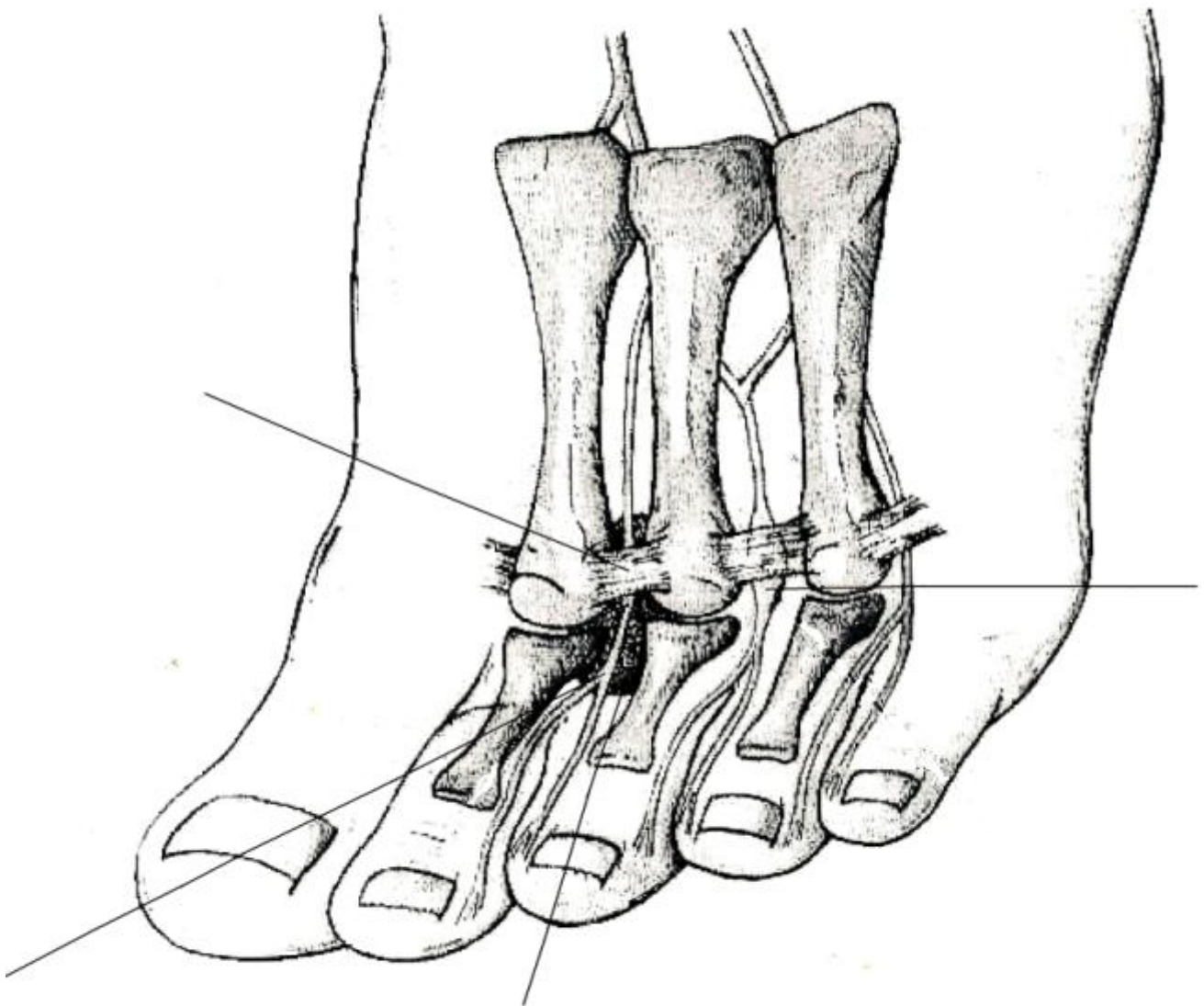
SYMPTOMS

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 3rd /4th toes and sometimes the 2nd /3rd toes but may occur between any of the toes. As the condition progresses, shooting pains (like electric shocks) may be felt, even while not 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 to 50 years.



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

Physical examination is performed by the doctor and a test called Mulder's Test which involves squeezing the foot is often performed. 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 – Radiographs (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. Interdigital neuralgia is usually diagnosed clinically and it is rare for this scan to be performed.

NON-OPERATIVE TREATMENT

Appropriate shoes and orthotics – This is directed at 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 part of the nerve is removed 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 above), or nerve irritation.

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

WHAT TO EXPECT FOLLOWING SURGERY

Following the procedure a padded bandage will be applied. The bandage will be removed 48 hours following the surgery. Stitches may be dissolvable or may be removed about 2 weeks following the operative procedure. Some numbness and tingling in the toes and the ball of the foot may be experienced – see below for complication of surgery. After the operation, you will be required to wear a special shoe until the wound sites have healed. This is usually 2 weeks following surgery. 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 2 weeks following the procedure. You should avoid getting the foot and bandages wet whilst 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 7 days of the procedure but those whose employment involves long periods on their feet may need to refrain from work for 3 to 4 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 2 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 6 weeks. Do ask us if you are unsure.

REPORT ANY EXCESSIVE PAIN, SWELLING, REDNESS OR

DISCHARGE TO YOUR GENERAL PRACTITIONER OR CONTACT
THE FOOT AND ANKLE TEAM

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