LESSER TOE DEFORMITIES / MORTONS NEUROMA

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"Lesser toes" refers to the second to fifth little toes next to the big toe. Three common lesser toe deformities are the *Claw toe, Hammer toe* and *Mallet toe*. Lesser toes can also under, override or crossover other adjacent toes causing abnormal rubbing, callosities and pain along the top of the toes especially in enclosed shoes.

Pain along the undersurface or ball of the foot (the metatarsal head) is also termed "*metatarsalgia*". With wear and tear, the capsule around this joint can degenerate causing a tear or inflammation in the capsule (*capsular tear or capsulitis*), inflammation of the cushion around the metatarsal head (*bursitis*) or inflammation in the joint (*synovitis*).





Often, lesser toe deformities are associated with big toe deformities such as bunions or arthritis (Hallux Rigidus) and the big toe may need to be addressed at the same time. If it causes abnormal forefoot imbalance, transfer pain or "transfer metatarsalgia" to the ball of the foot can occur.

Other causes of pain around the lesser toes include a "Morton's Neuroma" where the digital nerve is swollen and jammed between the bones in the forefoot. This can cause pain between the webspaces, tingling, numbress or pin and needles in the toes. The most common place a neuroma is found is between the third and fourth toes.

NON-OPERATIVE MANAGEMENT

Initial management of lesser toe deformities include callosity pads, toe sleeves and deeper or open type shoes. "Metatarsal domed" insoles can take the pressure away from areas of inflammation along the ball of the foot or can increase the space between the bones so that there is less compression on a Morton's neuroma. Both can also undergo corticosteroid injections usually under ultrasound. Other alternative modalities include shock wave therapy for Morton's neuroma.

OPERATIVE MANAGEMENT

For those patients who have ongoing pain despite adequate non-operative management, operative correction can be considered. Lesser toe deformities of the digits can be corrected via the "Oxford procedure". Part of the knuckle bone forming the deformity is excised to allow space for it to correct. The tendon at the top of the toe is transferred into space and the extensor tendon repaired. No wires are usually required. Another options is to correct and fuse the joint together but a wire is usually required.

For pain along the ball of the foot or metatarsalgia, a "Weil's procedure" shortens and lifts the metatarsal head at the ball of the foot correcting the forefoot imbalance. A small screw is used to hold the corrected bone.



Oxford procedure

Weil's procedure

Morton's neuromas can be excised through a small incision along the top of the foot.

COMPLICATIONS

Complications are rare with these procedures. There may be a 5% chance of recurrence or overcorrection of a toe deformity. However it is uncommon to cause significant symptoms requiring further surgery. There is always a small risk of infection, nerve injury and blood clots, and anaesthetic problems with lower limb surgery and measures are taken to minimise these risks. Scarring can be minimised with scar massage techniques and mobilisation. Sometimes taping of the toes is required in the first 6-12 weeks to maintain alignment. Most people's toes will be fairly swollen after the operation and sometimes can persist indefinitely. Rarely, the blood and nerve supply to a toe may be affected so badly, especially with severe deformities, that they are stretched and damaged and the toe can die or has to be amputated.

POSTOPERATIVE INSTRUCTIONS

- 1. Overshoe is fitted usually by the physiotherapist the next morning
- 2. Heel weight bearing +/- crutches for 4-6 weeks
- 3. Rest and elevation "toes to the nose" 2 weeks
- 4. Removal of sutures at 1-2 weeks
- 5. Foot physiotherapy for scar, soft tissue massage and mobilisation joint
- 6. +/- taping of toes for 6-12 weeks
- 7. Ice and or salt baths to minimise swelling
- 8. Comfortable shoes 4-6 weeks

RECOVERY TIMES

Hospital stay	Overnight	
Rest & elevation	7-14 days	
Crutches/Frame	7 days	
Time off work		
- Seated	3 week	
- Standing	6-12 weeks	
Foot swelling	6-12 weeks	
Sports	>3months	

This brochure is a brief overview of the surgical management of plantar fasciitis and not designed to be all-inclusive. If you have any further questions, please do not hesitate to contact your surgeon.