METATARSALAGIA

(THE PLANTAR FOOT)

A COMMON CONDITION IN WHICH THE BALL OF THE FOOT BECOMES PAINFUL AND INFLAMED AS PART OF A SYNOVITIS - USUALLY SECONDARY TO OVERUSE. VERY COMMON IN ATHLETES.

ETIOLOGY/RISK FACTORS

- Hallux - Varus or Valgus deformity
- Excessive overpronation
- Excessive underpronation
- Morton Syndrome (large 2nd toe)
- Obesity
- High-level activity at an older age (50+)
- Reduced Dorsiflexion
- High-heeled shoes

SUBJECTIVE

- Will usually complain of gradually increasing pain on the plantar-foot
- May note it feels like they're walking on 'pebbles'.
- Usually describe a feeling of a 'deep bruise'
- Pain usually worse with prolonged standing/walking

OBJECTIVE

- Localised pain at the base of the 1st, 2nd or 3rd (or all) metatarsophalangeal joint(s)
- Pain when performing a heel-raise
- Not uncommon to have callus formation at the area of pain
- Commonly a structural or functional leg length discrepancy - causing overloading of the affected side?

TREATMENT

- Address any reductions in ROM (ankle dorsiflexion and mid-tarsal)
- Strengthen the intrinsic foot muscles (doming)
- Advise lifestyle changes - e.g. weight loss, flat-soled shoes
- Refer for orthotics if indicated
- Load-management - advice short period of rest with gradual return

KEY DIFFERENTIAL DIAGNOSIS: SESAMOIDITIS & MORTON'S NEUROMA

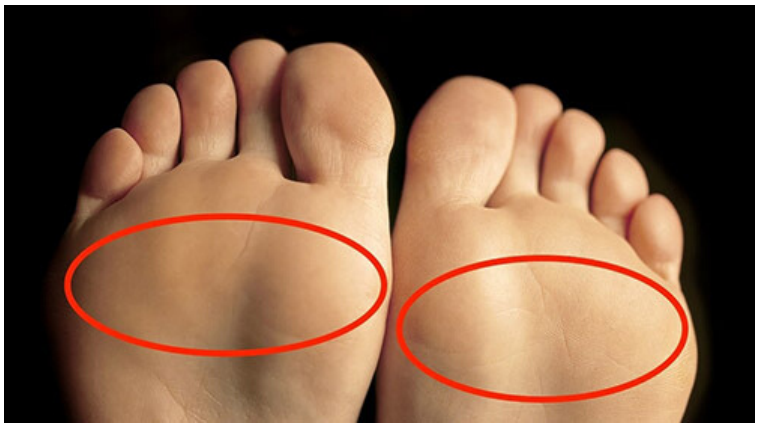
PROGNOSIS: GOOD - RETURN TO ACTIVITY APPROX. 4-12 WEEKS

METATARSALAGIA

OBJECTIVE ASSESSMENT

In the absence of any suggestion a fracture may be present (i.e. a sudden spike in pain, inability to weight-bear, a very specific area of pain that subsides with rest, bruising), the objective assessment will indicate a likely metatarsalagia if the following are present:

- Pain on palpation over the 1st, 2nd or 3rd metatarsophalangeal bases (or all 3) of the plantar-foot.
- Pain with mid-foot stance or push-off during gait (or pain with static heel raises)

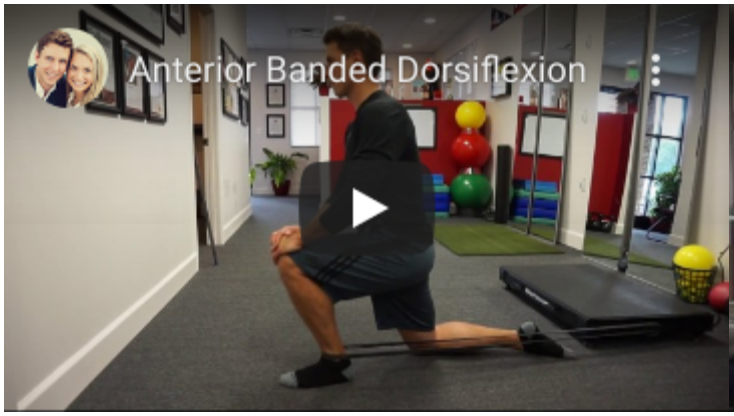


Conditions such as sesamoiditis and morton's neuroma may present very similarly - although there are subtle differences which can be found on their individual PDF's.

METATARSALAGIA

TREATMENT OPTIONS

Increase ankle dorsiflexion



Increase ankle dorsiflexion

Increase mid-tarsal ROM

Intrinsic Foot Strengthening

Hands-on techniques are useful in the early stages of rehab to facilitate range of motion, but 'homework' should be given to continue to improve ankle dorsiflexion and intrinsic foot strengthening (with consideration of progressive overload).

When pain has subsided to a 1-2/10 (VAS) on a daily basis, a gradual return to sporting activity can be permitted. At this stage load-management is vital. You must determine the appropriate amount of loading by a process of trial and error. Essentially, advise, for example, 2x20 minute runs a week. If there is no negative response, increase the duration, intensity or frequency of running as per the requirements of your specific client