

Neuromas

SYMPTOMS

- Pain in area of "ball of foot"
- Burning or tingling sensation in the foot and maybe some numbness
- Cramping may also occur
- No swelling or bumps

DEFINITION

NEUROMA

- A bundle of nerve endings whose covering is inflamed
- Occurs when the tissue surrounding a nerve become enlarged thickened
- Usually a pinching of the third and forth metatarsal bones which compresses a nerve
- Generally occurs in adults and more common in females

PRIMARY CAUSES

EXCESSIVE PRONATION

- Pronation is a normal movement of the foot, that allows the arch to flatten to a degree, which helps the body to absorb shock and adapt to different ground surfaces.
- In analyzing ones gait, first contact is on the heel and outside of the foot; followed by a shift of body weight continuing forward, toward the arch and toes.
- If the foot is weak or tired and/or the footwear is not supportive, then the arch can flatten more than normal, which is excessive pronation.
- Flattening of the arch (excessive pronation) places pressure on the foot and can decrease the metatarsal arch thus increasing the chance of compression on the nerve creating a neuroma.
- With excessive pronation, increased stresses can be placed on the foot.

CONTRIBUTING FACTORS

- Flat feet
- Wearing of tight, poorly fitting shoes such as pointed, high heeled shoes
- Aggravated by prolonged standing
- Increased stress such as kneeling or ladders
- Mechanically there is too much movement of the metatarsals (long bones of the foot)

TREATMENT - ADVICE GIVEN MOST OFTEN IN CURRENT LITERATURE

The **3 S's** — **Stretching, Strengthening and Supporting**, along with ICE and REST, have been found to be the simplest and most effective treatment for most foot and lower extremity, overuse injuries.

- Stretching of the foot and massage can help to decrease pressure between the toes and metatarsals.
- Strengthening of the foot with the toe curl can help to strengthen the arch.
- **Supporting** the foot with the proper shoes and insoles, can help prevent, improve or eliminate the vast majority of foot problems. This may be a Birkenstock sandal, with a broad base and contoured footbed, that is low to the ground and conforms to the foot. It may also be a shoe with an upper that wraps the foot and supports the arch and heel, thus limiting excessive pronation. The vast majority of footwear have more than enough cushion but very little support for the arch and heel. One of the easiest and most effective solutions is to add a simple over the counter insole that provides a forgiving support for both the arch and heel.
- Make sure the shoe has enough room in the toe box.
- May need an additional metatarsal support to help decrease pressure on the ball of the foot.





