**Adult acquired flat foot (AAFF) / Tibialis Posterior Dysfunction (TPD)**

**What is AAFF/ TPD and what causes it?**

The Tibialis posterior tendon runs behind the inside ankle bone, under the arch and attaches under the foot. It performs an important role in supporting the arch and stopping the foot from rolling over.



When AAFF/TPD occurs, the tendon has become damaged from inflammation and stretching due to injury or overuse.

It occurs as a result of-

* Pre-existing flat footedness
* Age- although it can occur at any age, incidence increases over the age of 40 and it is more prevalent in women.
* Inflammatory arthritis for example Rheumatoid Arthritis
* Being overweight
* Direct trauma to the tendon or other injury

**What are the signs and symptoms of AAFF/TPD?**

* The main symptoms are pain and swelling along the course of the tendon along the inside of the ankle.
* Pain with walking, this is worse with prolonged walking and pain tends to worsen as the day goes on.
* Changes foot shape with the arch flattening, in advanced cases the arch completely collapses.
* In more advanced stages the inability to stand on tip-toes of one foot, this is because the tibialis posterior tendon allows us to perform this function.

AAFF/TPD is classified in stages as below

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| --- | --- |
| Stage 1• Tendon is stretched and may be warm to the touch• Pain along tendon especially when walking • Swelling along the tendon • Able to stand on tiptoe on one leg  | Stage 2• More severe pain and swelling • Increased flattening of the foot • More difficult to stand on tiptoe on one leg • Tendon is partially torn |
| Stage 3• As with previous stages but in addition the heel is in a fixed position• Unable to stand on tip toes | Stage 4• As with previous stages but with accompanying ankle deformity  |

**Treatment of AAFF/TPD**

The earlier that AAFF/TPD is treated the more successful treatment is.

Non-surgical treatment

* Reduce activity and follow R.I.C.E-

**R**- Rest

**I**-Ice

**C**- Compression

**E**- Elevation

* Pain relief
* Change of footwear- lace up shoes with a stiff heel counter and cushioned shock absorbing sole.
* Orthoses, in-shoe insoles either off the counter or bespoke, in some cases an ankle brace.
* Physiotherapy
* In some cases a removable walking air cast may be needed.

Surgical treatment

* In stage 2 surgical treatment is usually a tendon repair or transfer- this is when another tendon is used to perform the function of the tibialis posterior tendon
* In stage 3 or 4 surgical intervention involves fusion of the rear-foot joints so that they no longer move, this prevents the foot from collapsing.