



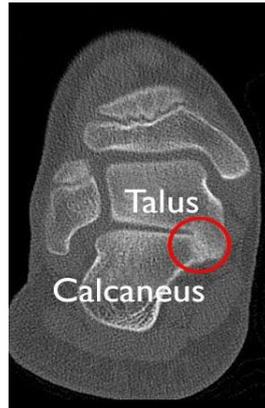
Tarsal Coalition

A tarsal coalition occurs when two bones are connected by a bridge of bone, cartilage, or strong, fibrous tissue.

These bridges of tissue can vary in size.

The two most common sites of tarsal coalition are between:

- calcaneus and navicular bones
- talus and calcaneus bones.



How common are coalitions?

Incidence – 1:100

In 50% of cases both feet are affected.

Many coalitions never cause symptoms.

What is the cause?

The coalition forms before birth but doesn't become symptomatic until late childhood or adolescence

Babies bones contain more soft, growing cartilage. As a child grows this cartilage becomes bone which is hard and rigid.

If a coalition is present it can harden, too, and fuse the growing bones together with a solid bridge of bone or fibrous tissue.

This hardening of the coalition typically happens between ages 8 and 16, depending upon which bones are involved.

As a result, the foot stiffens, causing pain and other symptoms.

The stiffness may lead to arthritis over time.

What are the symptoms?

- Stiff, painful feet around the middle or back half of the foot.
- A rigid flat foot, that makes it difficult to walk on uneven surfaces. To accommodate for the foot's lack of

motion, the patient may roll the ankle more than normal, which may result in recurrent ankle sprains.

- Increased pain or a limp with higher levels of activity.

How is it diagnosed?

- X-rays often will show bony coalitions.
- CT scan is the best for bony coalitions.
- MRI scan will show cartilage or fibrous coalitions

What is the non surgical treatment?

Tarsal coalitions only require treatment if they are causing symptoms.

Nonsurgical Treatment

- Activity modification
- Pain relief
- Orthotics
 - Arch supports
 - Ankle brace for instability
 - Boot for short term immobilisation
- Steroid injections in some situations

When is surgery considered ?

This is considered if there are ongoing symptoms and impairment of function after non surgical management.

What surgery is recommended?

The surgical treatment depends on:

- Location of the coalition
- Extent - large or small
- Type of coalition - fibrous vs bony
- Presence of arthritis

Resection

The coalition is removed, and fat or muscle is interposed thereby preserving motion.

Fusion

The coalition is removed, and the 2 bones are joined together permanently.

This handout is an overview of tarsal coalition and is not all inclusive.

If you have any questions regarding this please contact Mr. Curry's rooms on **(03) 99286560**