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Flat feet

Flat feet (pes planus) refer to a change in foot shape in which the foot does not have a normal arch when standing.

Causes

Flat feet are a common condition. The condition is normal in infants and toddlers.

Flat feet occur because the tissues holding the joints in the foot together (called tendons) are loose.

The tissues tighten and form an arch as children grow older. This will take place by the time the child is 2 or 3 years old. Most people have normal arches by the time they are adults. However, the arch may never form in some people.

Some hereditary conditions cause loose tendons and ligaments.

- Ehlers-Danlos Syndrome
- Marfan Syndrome

People born with these conditions may have flat feet.

Aging, injuries, or illness may harm the tendons and cause flat feet to develop in a person who has already formed arches. This type of flat foot may occur only on one side.

Rarely, painful flat feet in children may be caused by a condition in which two or more of the bones in the foot grow or fuse together. This condition is called tarsal coalition.

Symptoms

Most flat feet do not cause pain or other problems.

Children don't often have foot pain, ankle pain, or lower leg pain. They should be evaluated by a health care provider if this occurs.

Symptoms in adults may include tired or achy feet after long periods of standing or playing sports. You also may have pain on the outside of the ankle.

For patients that have had flat foot for a long time, you may develop changes in the appearance and flexibility of your toes also. You can have pain in the deformed toes.

Exams and Tests

In people with flat feet, the instep of the foot comes in contact with the ground when standing.

To diagnose the problem, the provider will ask you to stand on your toes. If an arch forms, the flat foot is called flexible. You will not need any more tests or treatment.

If the arch does not form with toe-standing (called rigid flat feet), or if there is pain, other tests may be needed, including:

- CT scan to look at the bones in the foot
- MRI scan to look at the tendons in the foot
- X-ray of the foot to look for arthritis

Treatment

Flat feet in a child do not need treatment if they are not causing pain or walking problems.

- Your child's feet will grow and develop the same, whether special shoes, shoe inserts, heel cups, or wedges are used.
- Your child may walk barefoot, run or jump, or do any other activity without making the flat feet worse.

In older children and adults, flexible flat feet that do not cause pain or walking problems do not need further treatment.

If you have pain due to flexible flat feet, the following may help:

- An arch-support (orthotic) that you put in your shoe. You can buy this at the store or have it custom-made.
- Special shoes.
- Calf muscle stretches.

Rigid or painful flat feet need to be checked by a provider. The treatment depends on the cause of the flat feet.

For tarsal coalition, treatment starts with rest and possibly a cast. Surgery may be needed if pain does not improve.

In more severe cases, surgery may be needed to:

- Clean or repair the tendon
- Transfer a tendon to restore the arch
- Fuse joints in the foot into a corrected position

Flat feet in older adults can be treated with pain relievers, orthotics, and sometimes surgery.

Outlook (Prognosis)

Most cases of flat feet are painless and do not cause any problems. They will not need treatment.

Some causes of painful flat feet can be treated without surgery. If other treatments do not work, surgery may be needed to relieve pain in some cases. Some conditions such as tarsal coalition may need surgery to correct the deformity so the foot stays flexible.

Surgery often improves pain and foot function for people who need it.

Possible Complications

Possible problems after surgery include:

- Failure of the fused bones to heal
- Foot deformity that does not go away
- Infection
- Loss of ankle movement
- Pain that does not go away
- Problems with shoe fit

When to Contact a Medical Professional

Contact your provider if you experience persistent pain in your feet or your child complains of foot pain or lower leg pain.

Prevention

Most cases are not preventable. However, wearing well supported shoes can be helpful.

Alternative Names

Pes planovalgus; Fallen arches; Pronation of feet; Pes planus

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