Flat Feet
(Pes Planus)

Having flat feet is a common condition. One foot or both might be affected. People of any age can have flat feet. In fact, everyone is born with them. But most of the time, the foot gradually develops an arch. That is the curve on the bottom of the foot that creates a gap between the foot and the ground. An arch usually develops in childhood. Sometimes, though, an arch never develops and the foot stays flat on the bottom. Other times, an arch develops but later collapses (caves in). That is what gives the condition its nickname, "fallen arches." The medical term for flat feet is pes planus.

Some people have flat feet their whole life and have no problems. For others, the condition causes pain and needs to be corrected.

CAUSES

- A problem with the foot's soft tissue; tendons and ligaments could be loose.
  - This can cause what is called flexible flat feet. That means the shape of the foot changes with pressure. When standing on the toes, a curved arch can be seen. When standing on the ground, the foot is flat.
- Wear and tear. Sometimes arches simply flatten over time.
- Damage to the *posterior tibial tendon*. This is the tendon that goes from the inside of the ankle to the bones in the middle of the foot. It is the main support for the arch. If the tendon is injured, stretched or torn, the arch might flatten.
- *Tarsal coalition*. With this condition, two or more bones in the foot are joined together (*fused*) during development in the womb. This limits movement and can lead to a flat foot.

SYMPTOMS

- The foot is even with the ground from toe to heel. Your caregiver will look closely at the inside of the foot while you are standing.
- Pain along the bottom of the foot. Some people describe the pain as tightness.
- Swelling on the inside of the foot or ankle.
- Changes in the way you walk (*gait*).
- The feet lean inward, starting at the ankle (*pronation*).

DIAGNOSIS

To decide if a child or adult has flat feet, a healthcare provider will probably:

- Do a physical examination. This might include having the person stand on his or her toes and then stand normally. The caregiver will also hold the foot and put pressure on the foot in different directions.
- Check the person's shoes. The pattern of wear on the soles can offer clues.
- Order *images* (pictures) of the foot. They can help identify the cause of any pain. They also will show injuries to bones or tendons that could be causing the condition. The images can come from:
  - X-rays.
  - *Computed tomography* (CT) scan. This combines X-ray and a computer.
  - *Magnetic resonance imaging* (MRI). This uses magnets, radio waves and a computer to take a picture of the foot. It is the best technique to evaluate tendons, ligaments and muscles.

TREATMENT

- Flexible flat feet usually are painless. Most of the time, gait is not affected. Most children grow out of the condition. Often no treatment is needed. If there is pain, treatment options include:
  - Orthotics. These are inserts that go in the shoes. They add support and shape to the feet. An orthotic is custom-made from a mold of the foot.

- Shoes. Not all shoes are the same. People with flat feet need arch support. However, too much can be painful. It is important to find shoes that offer the right amount of support. Athletes, especially runners, may need to try shoes made just for people with flatter feet.
- Medication. For pain, only take over-the-counter medicine for pain, discomfort, as directed by your caregiver.
- Rest. If the feet start to hurt, cut back on the exercise which increases the pain. Use common sense.

➢ For damage to the posterior tibial tendon, options include:
- Orthotics. Also adding a wedge on the inside edge may help. This can relieve pressure on the tendon.
- Ankle brace, boot or cast. These supports can ease the load on the tendon while it heals.
- Surgery. If the tendon is torn, it might need to be repaired.

➢ For tarsal coalition, similar options apply:
- Pain medication.
- Orthotics.
- A cast and crutches. This keeps weight off the foot.
- Physical therapy.
- Surgery to remove the bone bridge joining the two bones together.

PROGNOSIS

In most people, flat feet do not cause pain or problems. People can go about their normal activities. However, if flat feet are painful, they can and should be treated. Treatment usually relieves the pain.

HOME CARE INSTRUCTIONS

➢ Take any medications prescribed by the healthcare provider. Follow the directions carefully.
➢ Wear, or make sure a child wears, orthotics or special shoes if this was suggested. Be sure to ask how often and for how long they should be worn.
➢ Do any exercises or therapy treatments that were suggested.
➢ Take notes on when the pain occurs. This will help healthcare providers decide how to treat the condition.
➢ If surgery is needed, be sure to find out if there is anything that should or should not be done before the operation.

SEEK MEDICAL CARE IF:

➢ Pain worsens in the foot or lower leg.
➢ Pain disappears after treatment, but then returns.
➢ Walking or simple exercise becomes difficult or causes foot pain.
➢ Orthotics or special shoes are uncomfortable or painful.

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