

Orthopedic Conditions in Children

Many children have common orthopedic conditions. How do you know which should be treated and which should be left to correct on their own? The following is a list of common orthopedic conditions in children with tips on how to treat the different conditions and how to choose shoes for your child.

Flatfeet

Many infants and children have flatfeet. One in seven children never develops an arch. Just as children vary in height, so do arches in their feet. Your child's arch will develop whether he wears shoes or goes barefoot. Most children have low arches because they are loose-jointed. Health care providers are most concerned about a high arch, but also watch a child closely if the flatfoot is stiff, painful or very severe.

Tip: Wearing a pad under the arch of a simple loose-jointed arch may make the child uncomfortable...and waste money.

Bowlegs and knock knees

During normal growth, children are bowlegged (legs curve out) and then become knock-kneed (legs curve in). For most children, time is the best treatment. There may be concern if the condition is severe or is only on one side or runs in the family (especially if the family tends to be very short).

In-toeing

In-toeing (toes point inward) is common in children and is outgrown most of the time. There are three causes of in-toeing:

1. **Tibial torsion** is an inward twisting of the lower leg bone, or tibia. The most common form of in-toeing is often noticed when infants first begin to walk. It can affect both legs or just one. Most cases are outgrown by age three. It can also correct on its own in children up to 9-10 years old. The best treatment is patience—letting time do its work.

Tip: Special shoes are of no help. About one child in 1,000 will not outgrow tibial torsion, with or without brace treatment.

2. **Metatarsus adductus**, or “hooked foot,” is an inward curve of the forefoot. It is thought to be caused by certain positions of a fetus in the womb. In 85 percent of children who have hooked foot, it corrects itself without treatment. If treatment is needed, long leg casting is the method of choice.

Tip: Some health care providers advise parents to massage the foot many times a day to stretch the muscles on the inside of the foot.

3. **Femoral torsion** is an inward turning of the thigh bone at the hip. It is unknown what causes this. In this form of in-toeing, the whole leg is turned inward, with knee caps pointing inward. The condition often worsens until the child is four to six years old; then it tends to improve with time.

Continued



In-toeing, femoral torsion, continued

Ninety-eight percent of children outgrow this condition by their eighth birthday. Here again, patience is the best treatment.

Tip: Using special shoes or braces, and telling your child to “walk straight” have not been found to help. This may make a child feel different and can have a bad effect on self-image.

Out-toeing

Out-toeing (toes point out) in the non-walking infant is very common. It is caused by an outward turning of the hip left over from the position of the fetus in the womb. Nearly all children outgrow this after they have been walking for many months. Out-toeing that occurs in the older, walking child is of concern because it often gets worse. If the out-toeing is severe, it may cause your child to look or walk differently than other children or may cause other problems (for instance, your child may not be able to run well). Surgery may be needed. There is no known way to prevent this condition.

Choosing shoes for your child

Follow these tips when choosing shoes for your child:

- **Adequate size.** Shoes are much better too large than too small. Most children outgrow their shoes every three months.
- **Flexibility.** Stiff support shoes are not good for feet because they limit movement that is needed for developing strength and letting your child’s foot move the way it should. A child’s foot needs protection from cold and sharp objects, but also needs to be able to move freely.
- **High-tops and low-tops** work well. It is not true that children need high-top shoes to support their ankles.

- **Flat, non-skid sole.** Falls cause many injuries. A flat, non-skid sole may prevent a fall. The shoe should have some resistance on the bottom but not too “grabby,” as this can also cause your child to trip.
- **Shoe material.** Look for a soft porous upper. A material that breathes, such as leather or cloth, is best. Avoid shoes that are too thin, pointy or oddly shaped. Good shoes don’t need to cost a lot.

Final tips

The best shoe protects the foot, keeps it warm and allows freedom of motion and space to grow.

Barefoot people have the best feet! Your child needs a flexible, soft shoe that has the most freedom for his feet to develop normally.

FOR MORE INFORMATION

- Children’s Resource Line (206) 987-2500 or (866) 987-2500 *toll-free Washington, Alaska, Montana, Idaho*
- Your Child’s Health Care Provider

Children’s will make this information available in alternate formats upon request. Please call Marketing Communications at (206) 987-5205.

This handout has been reviewed by clinical staff at Children’s Hospital. However, your child’s needs are unique. Before you act or rely upon this information, please talk with your child’s health care provider.