



FLAT FEET IN KIDS

RAISING CONCERN

SYMPTOMS | CAUSES | TREATMENT

Introduction

Flat feet, also known as **Pes Planus** or fallen arches, are a medical condition in which the arch of the foot is prone to suboptimal development. Normally, in this condition, the bottom of the foot is curved and forms an arch.

Our foot contains 100 tendons, 33 joints, muscles, and ligaments, which are used to hold together 26 different bones. It forms a viable arch structure in the child's foot allowing it to support the weight of the body in the erect posture, thus, helping the child to move properly. The structure of the arch should be flexible as well as sturdy so that the feet can adjust to different surfaces.

If a child has flat feet, he or she may have the tendency to roll inwards when walking or standing and the feet [may] point in the outer direction. This is known as **overpronation**. It disrupts the natural alignment of the body and makes your child susceptible to injuries leading to increased pain in the feet.

All infants are born with flat feet as the muscles and ligaments are not fully developed. The muscle tone is weak, and the ligament structure is loose. However, as they grow up, the muscles and ligaments become stronger and form an arch.

It has been observed that [20-30% of children](#) never form the arches or curves in both the feet or in just one foot.

If the arches don't form by the age of 6, then parents are advised to consult a doctor and take specific measures to correct the foot posture.

Symptoms and Causes of Flat Feet



Symptoms

- ★ Pain in foot, leg, and knee.
- ★ Outward pointing feet.
- ★ Inward or tilted walking style.
- ★ Difficulty in wearing shoes.
- ★ Difficulty in performing physical activities such as running, jumping, etc.



Causes

- ★ **Hypermobility of joints.**
- ★ **Low muscle tone.**
- ★ **Genetic factors.**
- ★ **Tight Achilles Tendon.**
- ★ **Down syndrome.**
- ★ **Cerebral palsy.**
- ★ **Tarsal coalition.**

Clinical Conditions

- ★ **Accidental injury to the ankle or foot.**
- ★ **Repeated Ankle Sprain.**
- ★ **Calf Pain.**
- ★ **Muscle Fatigue.**

Diagnosis for Flat Feet in Children

Wet Feet Test

The first step for testing flat feet in children is to conduct a wet feet test at home, and here's how you can do it.

- 1 Take a tub of water and wet your child's feet.
- 2 Next, make your child stand on a flat surface where the footprints will be visible such as a concrete floor.
- 3 Now, ask your child to walk.
- 3 Observe the footprints. If you see a full print of the feet, then the chances of flat feet are high. If you see curved footprints, then the chances of flat feet are minimal.

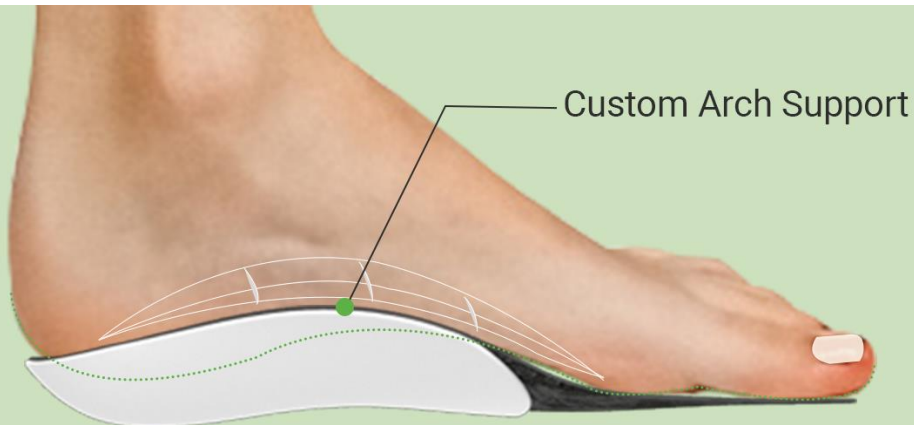
Doctor's Diagnosis

If the wet feet test shows full footprints, it is best to go for a complete diagnosis. The doctor's assessment will include:

- 1 Assessment of foot posture to determine how the child stands, walks, and sits.
- 2 Biomechanical foot analysis of the leg, foot, and ankle.
- 3 Gait analysis for observing body mechanics, movement, and muscle activity.
- 4 Footwear assessment for observing the shoe-wearing pattern.
- 4 X-ray and radiographs for assessing overall cause and the pain-originating area.

Treatment Options

Arch Support



The Secret for your comfort

Arch supports or insoles can dramatically increase foot comfort while walking and standing. These insoles help maintain a comfortable gait posture, which reduces the extra work done by muscles, ligaments, and joints due to fallen arches. It decreases the overall stress on the feet, corrects the posture, and eliminates the pain caused due to flat feet condition.

CuraFoot insoles are custom molded and designed to fit the contours of the child's feet and support them while walking and standing. The design is reviewed and suggested by many clinical specialists and conforms to US FDA guidelines.

The physiotherapists at CuraFoot conduct a 7-point foot assessment to gain a deeper knowledge about alignment issues, pressure distribution, and other clinical conditions such as corns, calluses, knee pain, heel pain, etc. After the complete assessment, CuraFoot insoles are prepared by keeping in mind the different needs of every child and the underlying problems they face.

CuraFoot uses advanced foam box to capture the impression of a child's feet, which is similar to how dental impressions are taken. This impression is then scanned via a 3D laser at 0.25 MM to fit the original contours of the feet.

The insoles and custom shoes prepared for children are passed through numerous quality checks to ensure the effectiveness of design and structure.

Back, Knee, Heel, and Ankle Pain Relief

As the children grow, their gait adjusts in response to foot-related medical conditions such as flat feet. This change in gait can lead to alignment issues and stress in the muscles, bones, and joints which can cause backaches and pain in the knees, heels, and ankles.

Although physiotherapy may seem like a viable option because it can reduce stress on muscles and ligaments, it is hard to maintain normal gait and receive long-term benefits with just physical therapy. With custom orthotics such as insoles and **flat foot shoes**, it is possible to achieve a neutral state and improve the position of the joints, muscles, and bones.



Back Pain



Knee Pain



Heel Pain



Ankle Pain

Gait Analysis and Use of Insoles

Gait analysis is a method of discovering alignment problems and abnormal movement in children. This abnormality can develop due to high stress in muscles and joints in the lower half of the body such as knees, heels, ankles, and feet resulting in frequent injuries.



Orthotics such as insoles and **flat foot shoes** by CuraFoot help children with alignment issues and abnormal movement by offering support to the body posture. These can be used regularly by children with gait-related conditions to decrease the severity of their symptoms.



SMO and UCBL for Foot Alignment



The purpose of UCBL and SMO Orthotic devices are to support foot alignment in children. The proper alignment of feet in children helps correct the overall body posture. This can reduce the pain and discomfort experienced by children due to fallen arches, flat feet, or **overpronation**.

CuraFoot is the first custom insoles provider in India that manufactures UCBL and SMO orthotics made from polypropylene. Both UCBL and SMO developed by CuraFoot assist in reducing misalignment in feet, provide foot and ankle support, redistribute pressures across the feet, have shock absorption capabilities, and help in maintaining a normal gait.

Surgery

Surgery is only suggested for children with severe pain and tendon rupture or tear. If the condition doesn't cause pain or any discomfort, physiotherapy and custom insoles are recommended.

Conclusion: Preferred Lifestyle Changes

Children with flat feet condition should go for low-impact activities such as swimming, walking, and bicycling. If your child is suffering from obesity, engage them in activities to help them lose weight. For discomfort and pain while walking or playing, a proper sports shoe with custom insoles should be preferred to support child's feet.

CuraFoot's insoles can be utilized to provide enhanced support and comfort for the feet. With customized designs and clinically suggested production methods, the insoles are manufactured to accurately match the contours of a child's feet. This assists children while walking and standing. For a detailed consultation and advanced diagnosis, check curafoot.in and visit our nearest center.