

## Pediatric Flatfoot

Pediatric flatfoot is one of the most debated conditions when it comes to deciding whether treatment is necessary or beneficial to avoid. What we do know is that children are almost universally flatfooted when they start walking due to a large fat pad underneath their arch. However, as children begin to grow this fat pad decreases and some of the arch structure becomes apparent. Generally in the age range of 5-8, a Pediatric assessment can help establish which style of pediatric flatfoot your child presents with.

### What is Pediatric Flatfoot:

Rigid flatfoot is characterized by a stiff, flattened arch in both weight-bearing and non-weight bearing positions. This is the most concerning form of pediatric flatfoot and should be assessed by an orthopedic surgeon.

Flexible flatfoot is characterized by a normal arch during non-weight-bearing and a flattening of the arch during weight-bearing positions. Children with asymptomatic flexible flatfoot should be monitored clinically for the onset of symptoms and signs of progression up until approximately 8 years of age. After the age of 8 it is expected for any developmental issues to be resolved and therefore if the child remains flatfooted further investigation is required. If the child remains asymptomatic it is generally accepted to avoid treatment, but this is not unanimous in the literature.

Symptomatic flatfoot results in the child reporting pain and discomfort, which usually leads to a decrease in activity level. Pain is typically found along the medial part of the arch, lower leg, knee, and Achilles tendon. Some researchers suggest that poor foot mechanics during weight-bearing activities may be a source of growing pains in children.

Since the child is symptomatic there is research to suggest that clinical intervention is necessary, however, this is not unanimous within the field. The type of treatment is at the doctor's discretion but it is usually directed towards the specific symptoms that the child is complaining of.

### Treatment of Pediatric Flatfoot:

Treatment options for flexible symptomatic flatfoot include modifying the activities of the child, orthopedic footwear recommendations, custom foot orthotics, and stretching and strengthening exercises. If these treatment options provide positive results it is recommended the child has follow up observations moving forward. If no improvement occurs the child should be reassessed or referred to a specialist.

The functional goal of orthotic treatment is to help restore the alignment of the foot underneath the talus during gait, which allows the articulations of the foot to lock for a stable propulsion. This can be achieved with the use of a custom or off the shelf foot orthotic. Custom foot orthotics have the clear benefit of being custom made to each foot of the child, however, the off the shelf foot orthotic offers a cost effective alternative for a growing child.



