



Parents Guide to Pediatric Flat Feet.

To Treat or Not to Treat...

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Introduction

There is an age old question regarding the treatment of pediatric flat feet. There are physicians who say they should never be treated and that the child will just grow normal feet. Then, there is another group of physicians who say, it's better to treat it sooner than later.

We've written this Ebook to help to shed more light on this controversial subject.

Knowledge is power, and we want you to be able to make an informed decision regarding the best treatment path for your child.



Note:
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- + Why is pediatric flat foot a “bad” thing?
- + Why do some doctors downplay or recommend no treatment?
- + What are the treatment options?
- + When should I consider having my child's feet fix?



How do I know if my child has a flat foot?

- + The most common observation is to just look at their inner arch.
- + Depending on the age of your child, they should have an “arch” to their foot.
- + Children less than 6 years of age can have a lot of normal “baby” fat that has been stored to their arch area. This can sometimes confuse both parents and doctors into thinking their child has a flat foot.



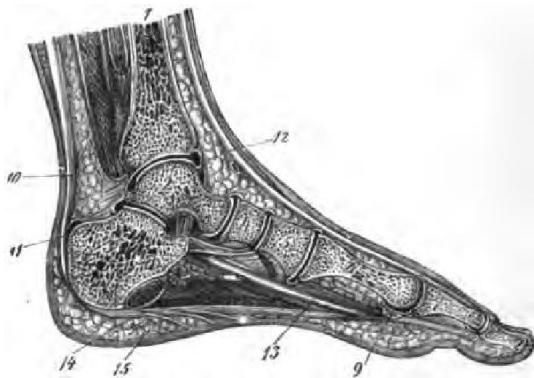
Anatomy 101

The simple observation of the inner arch is confusing and it really cannot tell the story.

We have to dust off the old anatomy books to really find the answer to that question.

There are 26 bones, 33 joints, and more than 100 soft tissue structures that form the foot machine.

Don't worry, we're only going to focus on a few of the key structures.



The foundation joint of the body.

The entire body rests on the ankle and heel bones. Their alignment and stability is what determines if the foot is stable and aligned or unstable and misaligned.

The ankle bone (talus) should be located on the top of the heel bone (calcaneus).

Located between the two bones is a naturally occurring space called the sinus tarsi (tar-sigh). That sinus tarsi canal should always be in an **open** position as indicated by the arrow in the picture to the right.



Normal ankle bone alignment

In order to know what's wrong, we have to know what's right.

Here's a side view of the foot. When we draw a bisection of the ankle bone, it should extend into the long metatarsal bone of the forefoot.

Again, look at the sinus tarsi opening in between the ankle and heel bones.



Top view –normal alignment

The bisection of the ankle bone (black arrow), should be aligned between the 1st and 2nd metatarsal bones.

This is an excellent indication that the ankle bone is aligned and stable.

This person does not have a bunion deformity and is not likely to develop one.



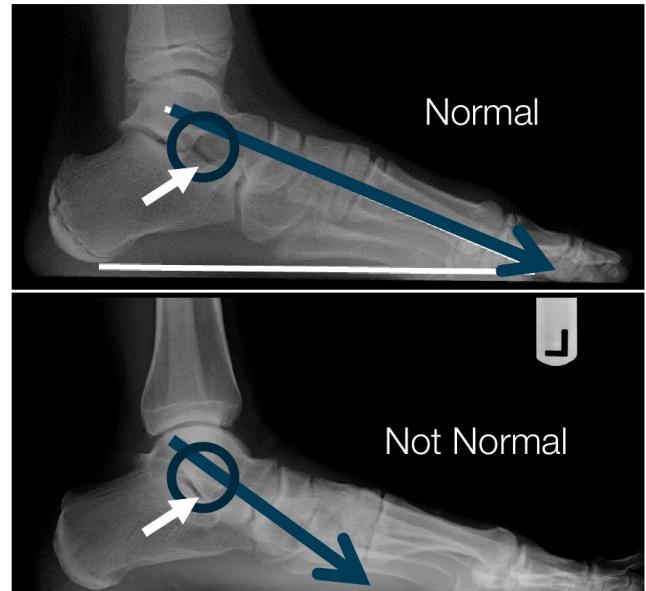
“Not normal” ankle bone alignment

Now let's compare an aligned hindfoot to a misaligned hindfoot.

We first see that the sinus tarsi space is no longer in an open position.

We also see that the bisection of the ankle bone no longer extends into the long 1st metatarsal bone of the forefoot.

Both of those findings are enough to diagnose the patient with a partially dislocated ankle bone. That means that the joints of the ankle and heel bones are not in their normal alignment.

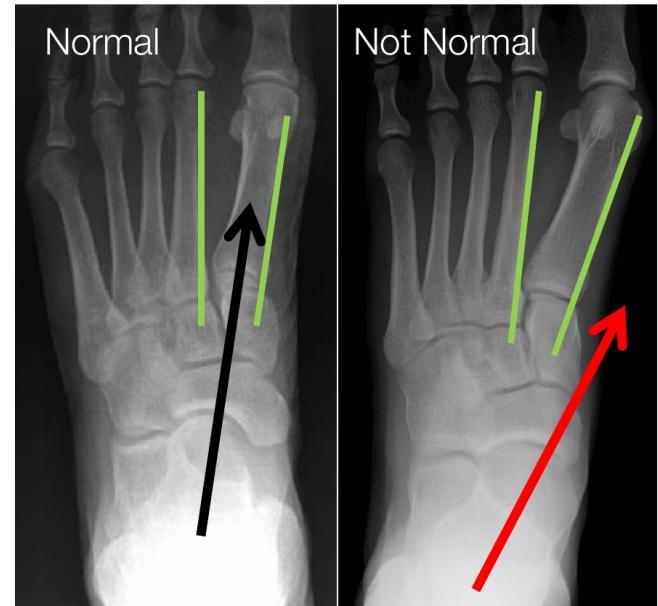


“Not normal” ankle bone alignment

Here are 2 top to bottom view x-rays of an aligned and misaligned ankle bone.

The bisection of the ankle bone (red) arrow does not extend in between the green lines.

This **turning inward** of the ankle bone will **close** the sinus tarsi space. It unlocks the joints of the foot leading to weakness and further instability.

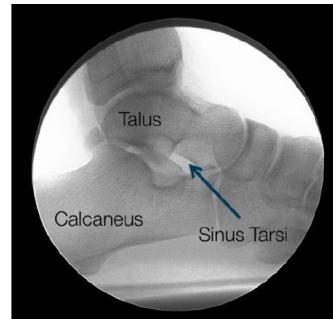


Ankle bone displacement

There is a common condition where the ankle partially dislocates on the heel bone. This is something that one either has (born with), or doesn't have, will never develop.

The ankle bone has displaced from its normal position and **shifted forward** and angle **downward**.

This can be a flexible deformity, especially early in life. Eventually, it can become a fixed or rigid deformity, meaning the ankle bone cannot be placed back on the heel bone. Then you have it for good.



See the difference?

These are the x-rays of the same patient.

The top view is the normal “relaxed” way the patient stands.

You no longer see the open sinus tarsi. The joints of the ankle bone are no longer aligned.

The bottom image was taken after the patient's hindfoot was realigned. Now you can easily see the sinus tarsi space. The joints of the ankle bone are back into alignment and the patient has an arch again.



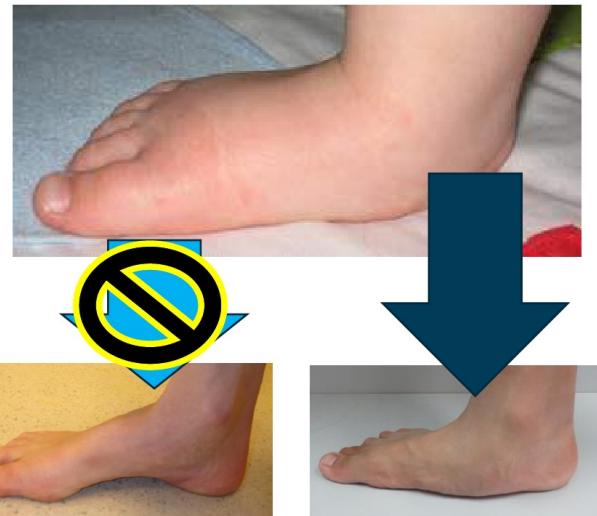
Can a flat foot, fix itself?

There is no evidence that a child with a misaligned and partially dislocated ankle bone will “out-grow” this condition.

Actually, the opposite is true. It won’t get better, it will only get worse!

That’s because excessive forces continue to push the ankle bone out of alignment while standing, walking, or running.

Ligaments, tendons, and muscles cannot tighten-up to realign and stabilize the ankle bone.



Symptoms of misaligned or flat feet:



Common childhood symptoms and concerns.

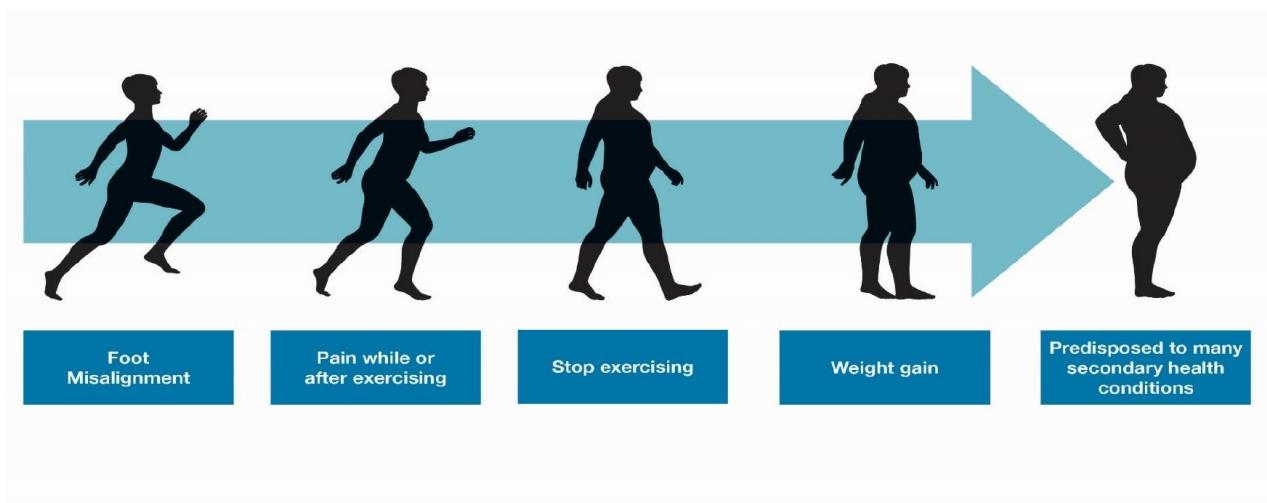
- + Child is clumsy
- + Runs slower than their classmates
- + They will have a psychological impact
- + They think they are “deformed”
- + Don’t want to participate in sports activities



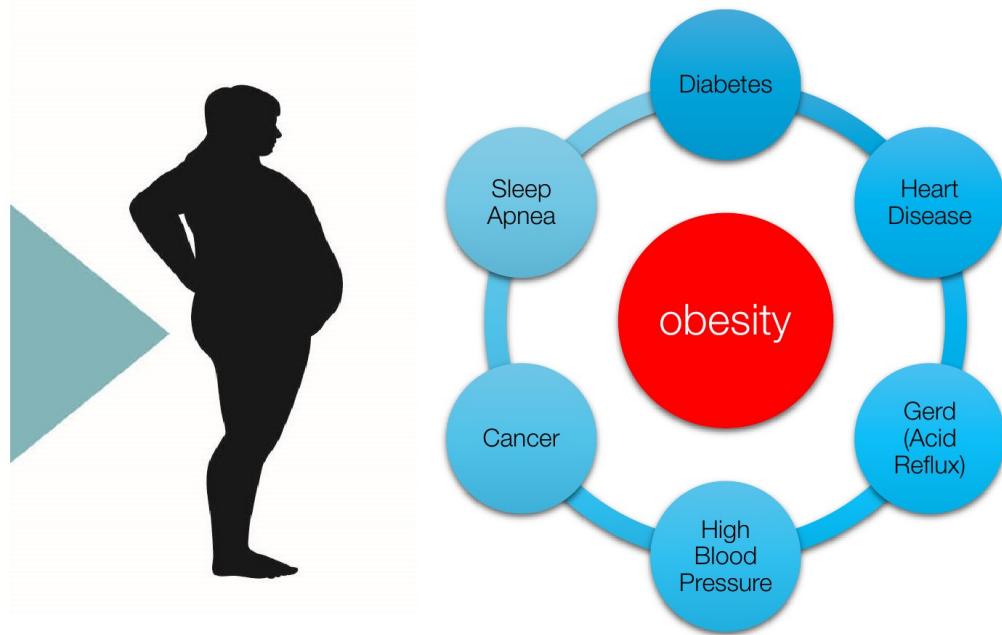
Pediatric Obesity

- + Decreased activity level = decreased metabolism.
- + They don't alter their diet, decreased metabolism = weight gain.
- + Obesity leads to diabetes at a younger age and a predisposition to many other diseases.



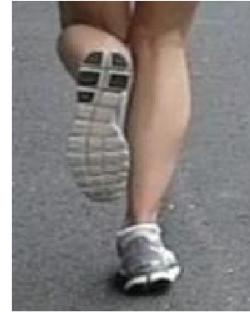


Obesity leads to all sorts of problems.



High school/College Age

- + Growing pains/shin splints
- + Lack of enthusiasm to stand/walk
- + Clumsy gait
- + No desire to exercise or play sports
- + Excessive shoe wear
- + Decreased activity level
- + Weight gain
- + Obesity
- + High risk for juvenile diabetes
- + Symptoms aren't limited to their feet



Middle Age Effects

- + Shin splints
- + Plantar fasciitis/fasciopathy
- + Mild/Moderate bunions/Hallux Limitus
- + Nerve entrapment
- + Knee pain
- + Hip pain/Sciatica
- + Back pain/herniated discs
- + Decreased activity level
- + Weight gain
- + Obesity
- + Developmental diabetes
- + Foot surgery
- + Knee surgery (arthroscopic)
- + Chronic hip pain
- + Chronic back pain

Later years of life...

- + Restless leg syndrome
- + Weakened plantar fascia
- + Posterior tibial tendon dysfunction
- + Severe bunions, Hallux Rigidus
- + Plantar neuropathy
- + Knee osteoarthritis
- + Hip osteoarthritis
- + Spinal stenosis
- + Obesity
- + Diabetes
- + Hypertension
- + Heart disease
- + Failed Foot surgery
- + Failed Knee surgery)
- + Failed hip surgery
- + Failed back surgery

The effects to the body

Because the feet are the foundation to the body, those misaligned and flat feet will shift the forces to the knees, hips, and back.

Unfortunately, most doctors forget that the foot is connected to the knee bone, and the knee bone is connected to the hip bone ...

They just focus on the part of the body that hurts without connecting all the dots.



A misaligned ankle bone is a deformity that should be realigned.

Ankle bone instability is something that is seen in childhood. Unfortunately, most parents and children are told that it is nothing to be concerned about and that the child will just outgrow this condition.

Again, a displaced ankle has never been proven to "fix" itself. It doesn't get better with time, it gets worse.

Not all ankle bone displacements will end up as severe as this one to the right, but are you willing to gamble that it won't?



What are the treatment options?

Now that you know what causes the foot to become misaligned. What can be done to fix it?

There are many different opinions by various medical professionals as to the best form of treatment.

It is very important to understand that each foot, and every patient, will have a unique set of circumstances. It is important that you seek guidance from a foot specialist. Only they can determine which options would make sense for your situation.



There are amazing foot specialists out there waiting to help you.

Treatment Goals

- + Identify the root-cause of the problem, as well as secondary sites of compromise.
- + Treatment “fixes” the underlying etiology, not aimed solely at the symptom(s).
- + Does the least amount of harm.
- + Has the lowest possibility to lead to additional disease states.



Foot orthosis-arch supports

- + The role of arch supports remains among one of the first lines of treatment.
- + How exactly is an arch support supposed to work? To support the arch?
- + That means that the arch support has to realign and stabilize the ankle bone, prevent the partial dislocation of the ankle bone.
- + Arch supports cannot realign and stabilize the ankle bone. There are no scientific or radiographic studies that show the ankle bone realignment with an arch support.



Bottom-line:

Arch supports do not address the underlying etiology:

A displaced-misaligned ankle bone.

So how can we realign and stabilize the ankle bone?

Conservative, external measures cannot and have not been proven to realign and stabilize the ankle bone.

There have been many aggressive internal surgical procedures that have been tried.

Unfortunately, the cure can be worse than the disease with these options.

These procedures are associated with a long recovery, many potential risks and complications. Most patients will have to be brought back to the operation room to remove painful pins or screws.

There has to be a better option!



EOTTS-HyProCure® Procedure

- + The HyProCure stent has the best success rate, 94%.
- + On the other hand, “arthroereisis” implants have actual failure rates, up to 100%.
- + HyProCure is the stent of choice by leading foot surgeons in nearly 60 countries.
- + HyProCure fixes the underlying root-cause etiology.
- + It is scientifically proven to reduce the excessive forces acting on the mid- and forefoot.

This EOTTS-HyProCure procedure takes about 15 minutes, on average, to perform.

The results are instant.



Urgency to fix ankle bone displacement sooner, than later!

This foot will...



Eventually transform into this foot.



HyProCure in action...

Ankle displacement - before

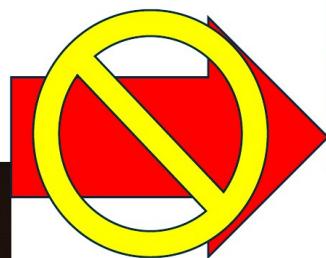


Ankle alignment and stability – after
HyProCure was inserted into the sinus
tarsi.

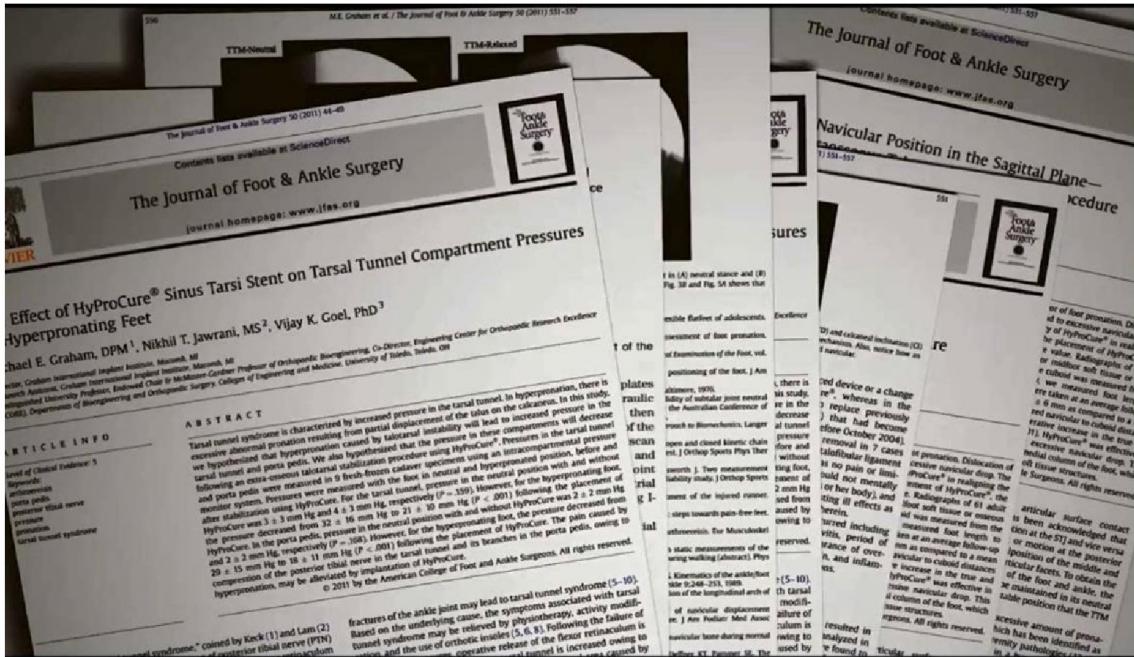


Bottom line:

Please don't ignore your children's feet. A misaligned or flat foot is not a life-threatening condition where your child has to be rushed off to the local operating room. However, the sooner a real treatment is provided, the better.



References



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