

Plantar Fasciitis

Dr. Savannah Santiago, DPM

What Is It / What Causes It

Flat band of tissue that stretches from the heel to the toes that can become irritated.

Causes:

- High Arches or Flat Feet
- Unsupportive Shoes
- Tight Achilles Tendons
- Obesity
- Pregnancy

Feels Like:

- Heel pain on bottom or inside of foot
- Pain with first step in the morning
- Pain with first step after sitting/resting
- Pain after exercise

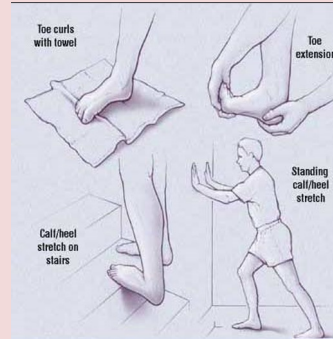


Foot Facts

- Plantar Fasciitis is the most common foot complaint in the world
- 10% of US population will visit their doctor for it
- More common in females, but males experience it frequently too
- 80% of plantar fasciitis cases resolve within 12 months

Treatments

Stretching Exercises



Icing



Taping

Massage

Proper Shoe Gear



Orthotics

- Custom (ONLY get from a PODIATRIST)
- Over the counter



Night Splints



Steroid Injections

Anti-Inflammatory Medications

Physical Therapy

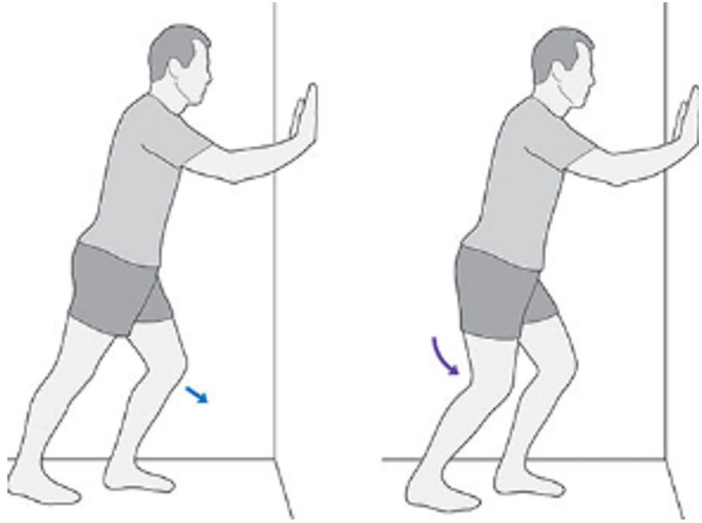


Surgery (Rarely)

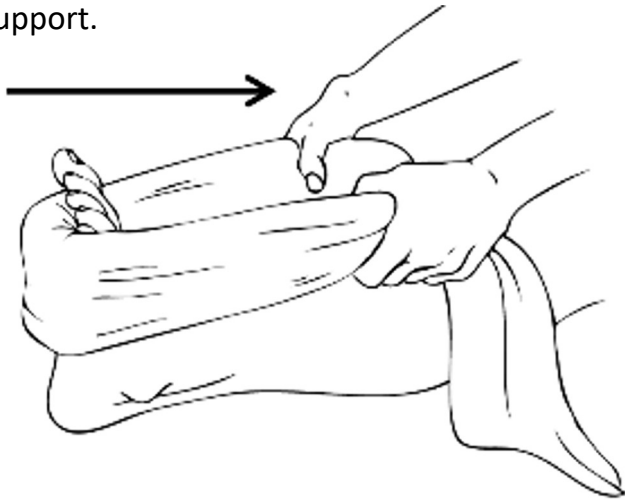


Plantar Fasciitis Stretching Exercises

Remember to hold all stretches for 30 seconds and repeat throughout the day!



Wall Stretch. Bend back leg for 30s & straighten back leg for 30s each. Use wall for stability and support.



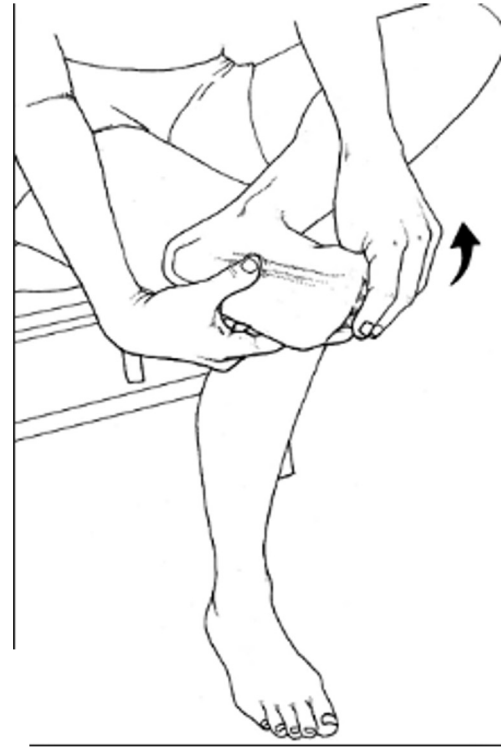
Towel Stretch. Using a towel or elastic exercise band, pull just under the toes toward your nose for 30s. Repeat. Best done first thing in morning before taking first step.



Arch Strengthening. Use toes to grip towel and pleat under the arch. Repeat x10 each foot.




Ice Massage. Using a frozen plastic water bottle, roll the arch of the foot back and forth to stretch and ice the area for 15 minutes.



Massage: Using one hand, pull your toes toward your nose while the other hand massages the tight areas of the arch.

Ingrown Toenails

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What Is It / What Causes It		Treatments
Occurs when the corner or edge of your toenail grows into the surrounding skin causing pain and sometimes infection.		Procedure: <ul style="list-style-type: none">- Partial or Full Nail Removal- Permanent vs. Non-Permanent Nail Treatment What Happens? <ol style="list-style-type: none">1. Your toe will be numbed with a local anesthetic2. The nail bed will be freed and cut back to the cuticle3. Phenol, a chemical used to destroy the nail root may or may not be used to prevent recurrence4. The nail will be bandaged and after-care instructions will be given5. Numbness to the toe may last for up to 24 hours After-Care: <ul style="list-style-type: none">- Keep bandage on for 24 hours- After 24 hours, soak the bandage to remove it- Dress nail with antibiotic ointment and a Band-Aid- Continue to soak the toe in Warm Water and Epsom Salt Baths- Take over the counter Tylenol as needed for pain- Follow up in 2 weeks is standard
Causes: <ul style="list-style-type: none">- Tight Fitting Shoes- Improper Nail Grooming- Trauma- Irregularly Curved Toenails- Improper Foot Hygiene- Certain Meds / Diseases	Symptoms: <ul style="list-style-type: none">- Tenderness- Swelling- Pain with Pressure- Redness- Bleeding- Pressure- Overgrowth of Skin	
		
Foot Facts		
<ul style="list-style-type: none">- Ingrown toenails are most commonly seen on the big toe- The best way to prevent ingrown nails is to cut the nails straight across or have a podiatrist help maintain good nail care- Antibiotics may help relieve the infection, but do not cure the problem		

Warts (Verrucas)

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What Is It / What Causes It		Treatments
Small growth(s) on the skin that usually appear on the heels, toes or any weight bearing surfaces. Caused by a viral infection called Human Papillomavirus (HPV).		Diagnosis: <ul style="list-style-type: none">- A doctor will examine the lesion and assess your foot with a thorough history and physical exam.- A scalpel will be used to remove overlying thickened skin down to the lesion to check for pinpoint bleeding- A small lesion may be sent to a laboratory for microscopic or pathologic analysis Treatments: <ul style="list-style-type: none">- Most warts go away without treatment, but may take up to 1-2 years and recurrence is common.- Further callus removal and application of salicylic acid may be applied; multiple treatments may be necessary.- Cryotherapy (Freezing Medicine) may be applied to the wart; multiple treatments may be necessary.- Prescription Oral Medications may be prescribed- Surgical Resection may be necessary as a last resort to resect infected tissue
Causes / Risk Factors: <ul style="list-style-type: none">- Caused by the virus HPV- Viral particles enter the body through cuts, breaks in the skin or weak spots on the bottom of the feet- Children & teens more commonly affected due to poor foot hygiene- People with weak immune systems- Episodes of warts in the past	Symptoms: <ul style="list-style-type: none">- Small, rough, grainy growth usually on the bottom of the foot- Thickened skin or callus over well defined spot on skin- Black pinpoint spots on the growth- Pain / Tenderness when walking or standing- Interruption of normal skin lines	
Foot Facts		
<ul style="list-style-type: none">- HPV is very common- Over 100 types of the virus exist & only a few cause warts on the skin- Not everyone that comes into contact with the virus develops a wart- The virus is contagious but is not easily passed from one person to the next, however it is important to take precautions to prevent its spread		

Footwear Recommendations

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WHAT TO LOOK FOR:

1. Stiff Heel

- a. Press on both sides of the heel
-- it should **NOT** collapse!

Reminder:

- Always stand when assessing the fit of a shoe
- Your toes should have two finger breadths of space from the tip of the shoe
- The width of the shoe should be wide enough so that the toes do not push together excessively

2. Rigid Middle (Arch)

- a. The shoe should **NEVER** twist in the middle!

WHAT TO LOOK FOR



THICK HEEL SECTION TO
REDUCE LOAD ON ACHILLES AND
NO PLANTAR MUSCLE

FIRM MID SECTION
WITH A STURDY BUT
WELL CUSHIONED
ARCH SUPPORT

FIRM TOE SECTION
WITH LITTLE TO NO
EXCESS BEND

3. Toe Flexibility

- a. Toe box should bend with the foot
but should **NOT** bend too much!

Reminder:

- Shoes should be changed every 500-1,000 miles of wear

Please Note Brands that are American Podiatric Medicine Association Approved include but are not limited to: Asics, Merrells, Danskos, & Dockers.

Hallux Limitus/Rigidus

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What Is It / What Causes It

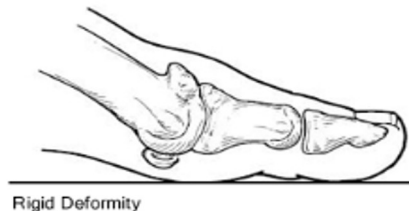
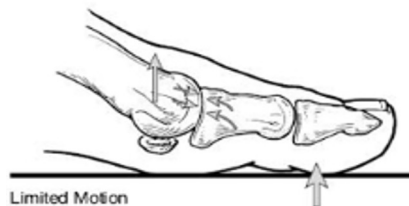
Limited range of motion of the big toe joint in the upward direction

Causes:

- Abnormal foot and toe mechanics
- Genetics
- Trauma
- Arthritis disorders (gout)
- Demanding activities (sports)
- Improper footwear
- Neurological conditions

Symptoms:

- Stiffness in the big toe joint
- Pain
- Bony prominence, especially on the top of the big toe joint
- Joint enlargement
- Difficulty wearing shoes



Treatments

Diagnosis:

- Your doctor will perform a full history and physical exam including family history, biomechanical, and gait exam
- Imaging tests such as X-rays

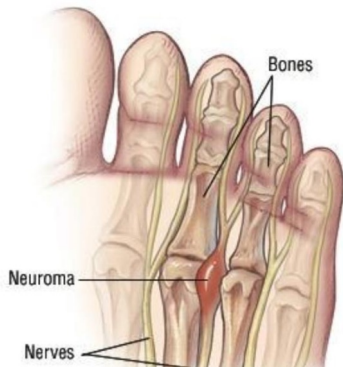
Treatments:



- Proper shoes
- Shoe repair/modification
- Custom orthotics
- Padding
- Oral anti-inflammatory medication
- Protection, rest, ice, compression, and elevation
- Physical therapy
- Injections
- Surgery

Neuroma

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What Is It / What Causes It		Treatments
Benign growth of nerve tissue, also referred to as a “pinched nerve”		Diagnosis: <ul style="list-style-type: none">● Your doctor will perform a full history and physical exam● Imaging tests such as ultrasound, MRI, and/or X-rays Treatments: <ul style="list-style-type: none">● Proper shoes<ul style="list-style-type: none">○ Padding/cushion, wide toebox, no excessive heel height (no greater than 2 inches)● Padding● Custom orthotics● Taping● Activity modification● Icing● Oral anti-inflammatory medication● Cortisone injections● Injections of sclerosing agent● Surgery
Causes: <ul style="list-style-type: none">● Biomechanical deformities (flat foot, high arch)● Improper footwear (high heels, pointed toe shoes)● Trauma● Repeated stress to the area	Symptoms: <ul style="list-style-type: none">● Pain, bottom of the foot or between the toes● Tingling, burning, and/or numbness● “Shooting” pain● Swelling	
		
Foot Facts <ul style="list-style-type: none">● Most common neuroma located between the 3rd and 4th toes<ul style="list-style-type: none">○ Also known as “Morton’s Neuroma”● More common in females		



Nail Fungus

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What Is It / What Causes It

Fungal infection of the nail bed



Causes:

- The fungus common in nature
- Walking/being barefoot in a shared space such as a locker room, foot spa, bathtub/shower
- Occlusive footwear
- Direct contact with another person with onychomycosis
- Weakened immune system

Symptoms:

- Nail discoloration (yellow, white)
- Thickening of the nail
- Separation of the nail
- Brittle, crumbly nail
- Distorted in shape
- Pain
- Spreading from one toenail to other toenails

Foot Facts

- Onychomycosis accounts for 1/3 of fungal skin infections
- Toenail itself is not infected, but the skin underneath the nail
- Even with treatment, current nail will never look normal again. Treatments will cause a healthy, normal nail to grow out

Treatments

Diagnoses:

- Your doctor will perform a full history and physical exam
- A sample may be taken of the nail to culture and look at under a microscope

Treatments:

- Prevention:
 - Keep feet clean and dry
 - Keep toenails short
 - Don't walk barefoot in areas like locker room or public showers
 - Don't share nail clippers
 - When visiting a nail salon, make sure salon is clean and licensed, and sterilizes its instruments, or bring your own
- Manage with cutting and filing toenails regularly
- Topical antifungals (often ineffective)
- Oral medications (Terbinafine)
- Surgical removal of toenail



Calluses/Corns

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What Is It / What Causes It

Thick, hardened skin that develops when your skin tries to protect your body against pressure and friction

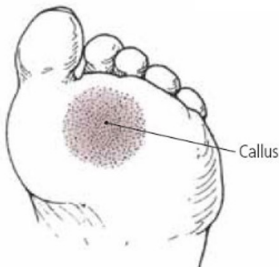
Causes:

- Abnormal foot structure
- Abnormal walking tendencies
- Ill fitting shoes
- Not wearing socks with foot wear
- Constant rubbing on a part of the foot

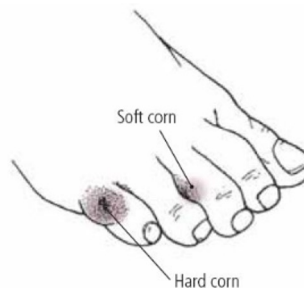
Symptoms:

- Thick, hard patch of skin
- Discoloration of the skin (yellow, clear) sometimes with brown/red discoloration
- Flaky, dry skin
- Pain
- Difficulty walking/standing

Calluses



Corns



Foot Facts

- Calluses develop anywhere on the body where there is repeated friction
- Corns typically develop on the tops and sides of the toes and balls of the feet

Treatments

Diagnosis:

- Your doctor will perform a full history and physical exam including a biomechanical and gait exam
- Imaging tests such as X-rays

Treatments:

- Prevention:
 - Wear proper fitting shoes
 - Wear socks
 - Cushioning, padding
- Pumice stone (at home)
- Sharp debridement
- Patches/Creams (Salicylic acid)
- Custom orthotics
- Surgery

Patients with diabetes, heart disease, and/or circulatory problems should never remove their calluses at home and should be done by a professional

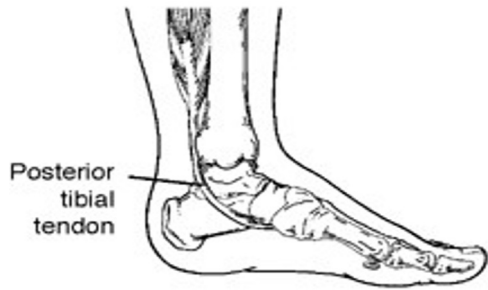
Adult acquired flatfoot

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What Is It / What Causes It

PTTD: Posterior Tibial Tendon Dysfunction

The arch of your foot becomes flat and your heel roll inward when standing due to a weak tendon on the inside of your ankle (posterior tibial tendon)



Symptoms:

- Arch pain, heel pain
- Pain on the inside of your ankle (along the course of the tendon)
- Swelling on the inside of your ankle
- Inward rolling of your ankle and/or heel
- Flattened arch



Foot Facts

- PTTD is the most common type of flatfoot developed during adulthood.
- PTTD is a progressive problem- it will slowly worsens if not treated early and properly.

Treatments

Diagnosis:

- Your doctor will perform a full history and physical exam including a biomechanical and gait exam
- Imaging tests such as X-rays, MRI of your foot and ankle

Treatments:

- Resting
- Immobilization with short leg cast or boot
- Icing
- Anti-inflammatory medications
- Proper shoe gear
- Custom foot orthosis
- Lace-up or figure-8 ankle brace
- Physical therapy
- Surgery (reserved for most advanced stage of PTTD or if all non-surgical treatments failed)
 - Repair and strengthen the posterior tibial tendon
 - Flatfoot reconstruction

Bunions

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What Is It / What Causes It

HAV, commonly known as a bunion, is a painful bump at the base of your big toe with the big toe bending towards the second toe.



Symptoms

- Painful bump at the base of your big toe
- Redness, swelling
- Burning sensation
- Joint stiffness
- Callus
- Big toe crossing over the second toe

Causes:

- Poorly supported foot type
- Imbalance of the structures in the foot
- Arthritis
- Poor shoe gear

Foot Facts

- Although poor shoe gears do not cause a bunion but it can definitely worsen the symptoms
- Kids can have bunions too! They're called Juvenile Hallux Valgus. They are usually flexible.

Treatments

Diagnosis:

- Your doctor will perform a full history and physical exam including a biomechanical and gait exam
- Imaging tests such as X-rays to evaluate the bony structures of your foot

Treatments:

- Rest
- Ice
- Anti-inflammatory medications
- Proper shoe gear and avoid wearing narrow shoes or high heels
- Padding
- Bunion splint
- Custom foot orthosis



- Surgery- Because bunions are structural and progressive, they will not go away on its own unless you surgically fix it

Posterior Heel Pain

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What Is It / What Causes It

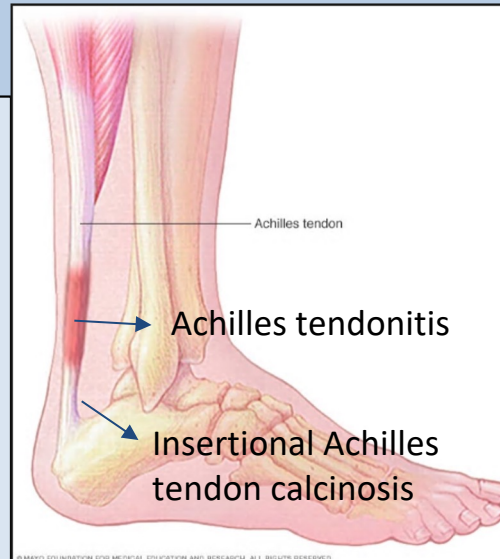
Posterior heel pain is pain in the back of your heel, usually where your Achilles tendon inserts. They can either due to Insertional Achilles Tendon Calcinosi or Achilles Tendinitis.

Symptoms:

- Pain in the back of your heel
- Aggravated by rubbing of the shoe or activity
- Pain when climbing the stairs or on tip toes
- Stiffness of the Achilles tendon after prolonged inactivity
- A bump on the back of the heel with or without:
 - Redness
 - Swelling

Causes:

- Tight calf muscle
- Overuse of the Achilles tendon
- Trauma to the Achilles tendon



Foot Facts

Posterior heel pain due to insertional achilles tendon calcinosis can affect both active and sedentary patients.

Treatments

Diagnosis:





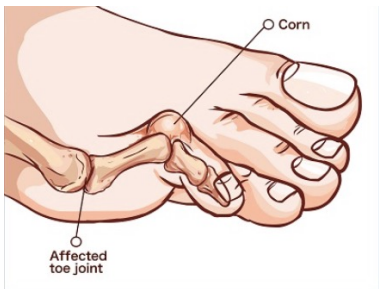
- Your doctor will perform a full history and physical exam including a biomechanical and gait exam
- Imaging tests such as X-rays, MRI of your foot and ankle

Treatments:

- Resting
- Immobilization with short leg cast or boot
- Icing
- Anti-inflammatory medications
- Proper shoe gear; avoid wearing high top shoes
- Physical therapy
- Surgery (to remove the painful bump on the back of your heel and reattach the Achilles tendon)

Hammertoes

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What Is It / What Causes It		Treatments	
Bending of the toes caused by imbalances between the foot and leg muscles. Toe bending can cause pain in shoes or arthritis in joints.		<div><div>Splints</div></div> <div><div>Toe spacers</div></div> <div><div>Wider shoes</div></div> <div><div>Orthotics</div></div> <div><div>Surgery to straighten toes and improve function.</div></div>	
Causes: <ul style="list-style-type: none">Flat feet or high arches cause long leg muscles to work too much.Long leg muscles overpower the short foot muscles leading to the toes, causing toes to bend.Usually flexible at first, they can become stiff with time.	Symptoms: <ul style="list-style-type: none">Shoe rubbing causes pain.Painful calluses build up at areas of pressure. <div></div>		
Foot Facts <ul style="list-style-type: none">Wearing shoes that are too tight will worsen symptoms.			