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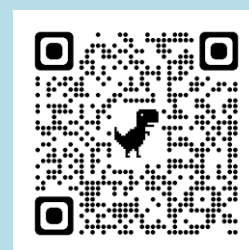
جامعة أسيوط

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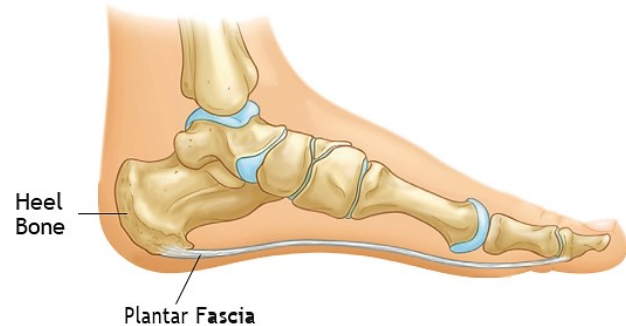
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Plantar Fasciitis

What is plantar fasciitis?

Plantar fasciitis is a common condition that affects about 10% of the population at some point in their life. It causes pain, typically under the heel, or sometimes in the arch of the foot. Plantar fascia is a strong band of tissue (like a ligament) that helps support the arch of the foot and also assists with shock absorption. It is usually most painful when you take first steps in the morning, after a long period of rest or when you have been on your feet for a long time. The plantar fascia tends to tighten when it rests, which is why pain flares up after sleeping or sitting for any length of time.



What causes plantar fasciitis?

Plantar fascia is designed to absorb high stresses and strains. But sometimes too much pressure damages the tissue and causes heel pain.

Other Sources of extra stress include:

Overuse. Plantar fasciitis is common in runners and walkers. Spending a lot of time walking or standing on hard surfaces can also strain the arch of your foot.

Anatomy. Having flat feet, high arches, and tight muscles in your calves and heels can result in extra stress on your fascia.

Shoes. Heel pain is often caused by shoes that do not fit properly or provide enough cushion and support.

How does a doctor know if I have it?

Your doctor will examine your foot and talk to you about what causes plantar fasciitis. Are you a runner or do you play sports where your feet pound on hard surfaces? Are you overweight? Do you wear high heels every day?

Physical examination. After discussing your symptoms and medical history, your doctor will examine your foot and ankle. Because plantar fasciitis is a common condition, the information gained during the examination is usually enough for your doctor to make a diagnosis.

Tests. During the examination, your doctor will rule out other causes of heel pain, like tendonitis, arthritis, or a stress fracture. To help do this, your doctor may suggest some tests, such as x-rays, magnetic resonance imaging (MRI) scans, and bone scans.

How is plantar fasciitis treated?

When treated early, most plantar fasciitis symptoms can be resolved with simple methods.

1- Exercise. Plantar fasciitis is aggravated by tight muscles in your feet and calves. Stretching the arch of your foot and your heel cord (Achilles tendon) is the most effective way to relieve the pain that comes with the condition.

2- Nonsteroidal anti-inflammatory medications. Over-the-counter pain medicines like ibuprofen and naproxen may provide the relief you need. Your doctor may also prescribe a pain medication, such as prescription-strength ibuprofen.

3- Supportive shoes. Good shoes with extra cushioning in the heel can be very helpful. Soft rubber heel lifts, heel cups, or heel wedges for your shoes provide even more support. These can be purchased at your local drug store, or sometimes at your doctor's office. Avoid shoes that have little padding, or thin and hard leather soles.

4- Night splints. Because your fascia tightens up overnight, your doctor may prescribe a night splint to help ease morning heel pain. This splint stretches the Achilles tendon, the plantar fascia, or both while you sleep.

What stretches can relieve heel pain?

A session with a physical therapist can help you learn specific exercises. Stretches like the ones shown here should be done 3 times a day – in the morning, at midday, and before you go to bed. Be sure to stretch both sides, even if only one heel is involved.



Lean forward against a wall with one leg in front of the other. Straighten your back leg and press your heel into the floor. Your front knee is bent. Hold for 15 to 30 seconds.

Do: Keep both heels flat on the floor. Point the toes of your back foot toward the heel of your front foot.



Stand on a bottom step and place the ball of your foot on the edge of the step. Slowly drop your weight into the heel of your foot, pushing your heel lower than edge of the step. Hold for 15 to 30 seconds.

Do: Hold onto the banister for balance.



Sit on the floor with both legs out in front of you. Wrap a towel around the ball of one foot and pull the towel toward your body. Hold for 15 to 30 seconds.

Do: Sit up tall and keep your legs straight.

What else might help?

About 90 percent of people greatly improve within 2 to 3 months of initial treatment. If your plantar fasciitis continues after initial treatment, your doctor may suggest new approaches.

- **Custom orthotics.** Inserts for your shoes can be custom-made for you to correct your foot position or remove pressure from various places on your foot. People with very high arches, flat feet, or foot deformity are more likely to need orthotics.
- **Casting and walking boots.** If your symptoms are not resolving, your doctor may recommend wearing a removable boot walker or cast for a short time.
- **Injection.** If conservative treatments do not relieve your symptoms, your doctor may suggest a corticosteroid injection. This delivers a high dose of anti-inflammatory medicine to the site of your pain.
- **Surgery.** When other options fail to relieve symptoms, a surgical procedure may be considered. More than 98 percent of people get better without surgery. Your doctor may consider surgery after 6 to 12 months of initial treatment without improvement.
- **Electro therapy.**

- **Ultrasound:**

Extracorporeal shock wave therapy for treatment of insertional plantar fasciitis.

Extracorporeal shock wave therapy is a technology that delivers concentrated ultrasound energy to a localized area of collagen disruption, hemorrhage, and presumably neovascularization to chronic degenerative fully vascularized tissue, such as the insertion of the plantar fascia into the calcaneal tuberosity.

- **PHONOPHORESIS:**

It is the movement of the drugs through the skin in to subcutaneous tissue under the influence of ultrasound.

- **Drugs used:**

→Hydrocortisone ointment

→Steroid type drugs such as Salicylates, NSAIDS.

→Anti inflammatory analgesic cream such as trolamine sulphate

- **TENS:**

TENS is the application of a pulse rectangular wave current via surface electrodes on patient skin.

- **HIGH TENS:**

Frequency : 100 to 150 Hz

Pulse width: 100 to 150 us

Intensity: 12 to 30 mA

Treatment time:treatment
session upto 40 min

- **LOW TENS:**

Frequency : 1 to 5 Hz

Pulse width: 100 to 500us

Intensity: >30mA

Treatment time: treatment
session upto 40 min

Sources:

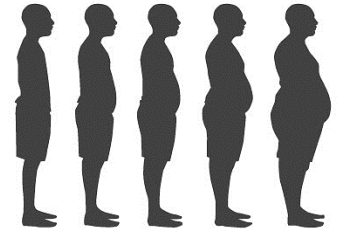
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2. Schwartz, E. N., & Su, J. (2014). Plantar fasciitis: a concise review. *The Permanente Journal*, 18(1), e105.

3. Buchbinder, R. *Patient education: Heel and foot pain (caused by plantar fasciitis)(Beyond the Basics)*

Obesity

Obesity represents the greatest threat to health in the developed world, with poor diet contributing to more disease than physical inactivity, smoking and alcohol combined. Obesity rates have almost doubled in the last 20 years! It is suggested that by 2050 obesity will have an annual cost to the nation of nearly £50 billion pounds. Obesity has, in the recent years become a global phenomenon. This has serious implications, particularly in countries like India, where one-fourth of the population is diabetic.



What is Obesity ?

Obesity is a condition in which a person has excess of body fat that could impair health. It increases an individual's risk for various diseases, disabilities, and death.

What are the Causes of Obesity?

- **Consumption of high calorific foods** like saturated and trans fats and sugars.

- Addiction to television and other hand-held devices that cause a **sedentary lifestyle**.

-**Mid-life weight gain**; Older people are at a greater risk of weight gain compared to younger individuals; especially older women who are in their **menopausal age**.

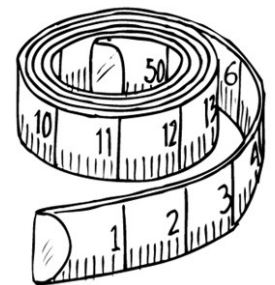
-**Diseases** like **hypothyroidism** (underactive thyroid), **Cushing's syndrome** (increase in the levels of the stress hormone, cortisol) and **Polycystic ovarian syndrome** (PCOS) (occurring in 5-10% of women of child-bearing age) have been linked to obesity.

-**Usage of Drugs** like steroids, oral contraceptives, antidepressants, antiepileptics, antihypertensives and insulin is commonly followed by weight gain.

-**Heredity**: Obesity tends to run in families. A clearer role of genetics helps in prevention of obesity for those who are most vulnerable. Eighty percent of the offspring of two obese parents become obese.

Is obesity defined by your weight?

Healthcare providers commonly use the **Body Mass Index (BMI)** to define obesity in the general population. The BMI measures average body weight against average body height. As a generalization, healthcare providers associate a BMI of 30 or higher with obesity. Although BMI has its limitations, it's an easily measurable indicator and can help alert you to obesity-related health risks.



Examples of limitations include **bodybuilders and athletes**, who have more muscle and may have higher BMI scores even though their fat levels are low. It's also possible to have obesity at a "normal" weight. If your body weight is average but your body fat percentage is high, you may have the same health risks as somebody with a higher BMI.

Another way of assessing obesity is by measuring **waist circumference**. If you have more body fat around your waist, you are statistically more at risk of obesity-related diseases.

The risk becomes significant when your waist size is more than 35 inches for people assigned female at birth or 40 inches for people assigned male at birth.

What are the three types of obesity?

Healthcare providers classify obesity into class types based on how severe it is. They use BMI to do it. If your BMI is between 25.0 and 29.9 kg/m², they put you in the overweight category. There are three general classes of obesity that healthcare providers use to evaluate what treatments may work best for each person. They include:

- **Class I obesity:** BMI 30 to <35 kg/m².
- **Class II obesity:** BMI 35 to <40 kg/m².
- **Class III obesity:** BMI 40+ kg/m².

How is obesity treated?

1- Dietary changes

The dietary changes you personally need to make to lose weight will be individual to you. Almost everyone can benefit from eating more plants. Fruits, vegetables, whole grains and legumes tend to be lower in fat and higher in fiber and micronutrients. They are more nutritious and can make you feel fuller and more satisfied after eating fewer calories.



2- Increased activity

Everyone has heard that diet and exercise are both important to weight loss and weight maintenance. But exercise doesn't have to mean a gym membership. Just walking at a moderate pace is one of the most efficient types of exercise for weight loss. Just 30 minutes, five days a week is what healthcare providers suggest.

3- Behavioral therapies

Counseling, support groups and methods such as cognitive behavioral therapy may have a role to play in supporting your weight loss journey. These methods can help rewire your brain to support positive changes.

4- Medication

Your healthcare provider may recommend medications to use in conjunction with other treatments. Medications aren't the whole answer to weight loss, but they can help tackle it from another angle. For example, appetite suppressants can intercept some of the pathways to your brain that affect your hunger.

Common FDA-approved drugs for treating obesity include:

- Orlistat: Reduces absorption of fat from your gut.
- Phentermine: Decreases your appetite. It's approved for use for three months at a time.
- Benzphetamine : Decreases your appetite.
- Diethylpropion : Decreases your appetite.
- Phendimetrazine : Decreases your appetite.



5- Weight loss surgery

If you have been diagnosed with class III obesity, bariatric surgery may be an option for you. Surgery is a severe but highly effective solution to long-term, significant weight loss. It works by changing your biology instead of just your mind or your habits. All bariatric surgery procedures alter your digestive system in some way. They restrict the number of calories you can consume and absorb. They also change hormonal factors in your digestive system that affect your metabolism and hunger. Bariatric surgery procedures include:

- Gastric sleeve (sleeve gastrectomy).
- Gastric band (LAP band).
- Gastric bypass (Roux-en-Y).
- Duodenal switch.

Sources

- <https://my.clevelandclinic.org/health/diseases/11209-weight-control-and-obesity>
- <https://www.medindia.net/health/conditions/obesity.htm>

Real Enquiries

At the “ Drug Information Center” we respond to enquiries from the professional health team as well as from others. Here’s one of the enquiries received at the center

Enquiry received from : Ph. Maryam Nabil-Woman health hospital

Enquiry: Is the flu vaccine safe for pregnant women?

Summary of the answer:

Influenza vaccination in the influenza season before planning a pregnancy is preferred, but there are no indications of an adverse effect of vaccination during pregnancy for the mother, or on the fetal outcome.

CDC (Centers for Disease Control and Prevention) recommends that pregnant women get a flu shot during any trimester of their pregnancy to protect themselves and their newborn babies from flu.

There is a lot of evidence that flu vaccines can be given safely during pregnancy, though these data are limited for the first trimester. The nasal spray vaccine is not recommended for use in pregnant women.

Sources:

- 1) Schaefer C, Peters P, and Miller R. (2007), *Drugs During Pregnancy and Lactation. Treatment options and risk assessment. 2nd*

Test Your Knowledge



- 1. The chemical substance used commonly in running a GI series is:**
 - a) Barium sulfate
 - b) Radioactive iodine
 - c) Fluorescein dye
 - d) Sodium carbonate
- 2. Beri-beri is associated with a deficiency of:**
 - a) Vitamin D
 - b) Vitamin C
 - c) Thiamine.
 - d) Riboflavin.
- 3. Miconazole is particularly effective against:**
 - a) Vaginal candidiasis
 - b) Coccidiomycosis
 - c) Tricophyton infestations
 - d) Histoplasmosis
- 4. All of the following have some effect on blood glucose EXCEPT**
 - a) Glucagon
 - b) Epinephrine
 - c) Thyroid hormone
 - d) Androgens

Ask the expert

Question: Can honey help with coughs?



An effective treatment for a disruptive cough due to respiratory infections such as colds are common this time of year might be sitting in your kitchen pantry. **Honey** can help soothe coughs for adults and children. But never give honey to a child under 1. Honey is safe for anyone ages 1 and above. And it's been shown to be effective and safe for both children and adults. It has been shown to be more effective than over-the-counter cough medications by soothing the throat and coating cough receptors. You can start with half a teaspoon to a teaspoon with some type of warm liquid. As they get older and they're able to more easily swallow the honey, you can just give it to them directly on a teaspoon using a teaspoon every two hours. And this dosage applies equally to adults.

Answers:

1. (a) 2. (c) 3. (a) 4. (d)