

“With protected cells the virus shouldn't be able to spread and we'd be looking at functional cure —Christopher Peterson

Support for your feet

Flat foot is not that common a problem but there are people who suffer from it. For this problem, an early diagnosis can help avoid surgery

RAJENDRA KUMAR RAI

ANRI lady from the Middle East visited India to seek treatment for her swelling and pain in the ankle joint. She was investigated for various diseases; TB, Rheumatoid arthritis, gout etc but was not getting better. She was finally diagnosed with a flat foot because of a torn tendon in her lower leg. She had surgery to reconstruct this tendon. The swelling and pain disappeared and her foot shape came back to normal. If the correct diagnosis would have been earlier surgery could have been avoided.

For many, flat feet have been present since their teenage years and it may simply be the way their foot is shaped. This is entirely normal. In these cases both feet are often the same. There are many doctors who may tell you that your arches have “fallen”. It is important that any such advice is given to you by a suitably qualified foot and ankle specialist/professional who can tell what is normal from abnormal. Having a longstanding flat foot can be okay.

The question that first comes about the ‘flat foot’ problem is what causes an abnormal flat feet? Dr Pradeep Moonot,



an orthopedic surgeon specialising in knee, foot and ankle surgery in Breach Candy Hospital, Mumbai explains that there are lots of reasons behind flat feet such as tendon tear in foot due to overuse, inflammation or obesity. The other reasons are; excessive laxity in the joints and this can be related to weight gain, sometimes a childhood condition that is an abnormal fusing of some foot bones which makes the foot stiffer and quite flat, one of the major reasons could be foot arthritis as well, arthritis in the back or middle of the foot is usually painful. It can be caused by an injury or develop with no real explana-

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tion. It shows with different symptoms depending on the case, some people may find walking painful especially along the inside border of the foot and ankle. Running can be very difficult due to pain. There can also be some swelling in the inside of the ankle. Sometimes tingling or numbness can develop on the inside or sole of the foot because the nerve along the inside of the ankle may be slightly stretched or compressed.

The diagnosis is based on an accurate history or story of symptoms from the patient. Examining the foot for pain and swelling can differentiate a normal

WHAT ARE FLAT FEET?

Flat feet (also called *pes planus*) is a postural deformity in which the arches of the foot collapse, with the entire sole of the foot coming into complete or near-complete contact with the ground

HOW THE ARCH HELPS

There is a functional relationship between the structure of the arch of the foot and the biomechanics of the lower leg. The arch provides an elastic, springy connection between the forefoot and the hind foot

with insoles. It is vital to get assessed as soon as possible as solutions to your problem can change a lot and become more difficult over time. He concludes that the key is to get assessed by a foot and ankle specialist (podiatrist). If the foot is flat but flexible then you may be able to have treatment with simple insoles and physiotherapy. The idea is to support your foot to stop it getting worse but unfortunately the arch would be permanently flat without the insoles. For a more active person this treatment may not be satisfactory. In this case surgery to re-create the arch can be performed, a flat foot correction.

Surgery is sometimes required if the condition is more severe. The procedures that may be considered are the calcaneal osteotomy, Sometimes known as the ‘heel shift’, A tendon transfer in this a tendon is taken from one of the lesser toes, which is then transferred to run behind the medial malleolus. This does not affect the function of the toes and patients make a full recovery and Fusion, It is recommended in late stages of adult flat foot, the fusion of joints needs to be considered in order to effectively eliminate pain.

Deciding whether surgery is necessary

If you have an abnormal flat foot it will never be made “a normal shape in a normal shoe” without surgery. You can manage it with special insoles and physiotherapy but it can still get worse. Specially made shoes can be an attractive option, if your lifestyle is less active than others. Surgery is successful in over 80 percent of patients and worth discussing with your surgeon, says Dr Moonot.

Hope for the HIV infected

The hunt for HIV cure is now bolstered by new research, which could spell hope for millions suffering due to the disease

DEBORAH JONES /AFP

A cure for HIV remains elusive, but scientists say the hunt is more hopeful than ever, based on the prospects of new research described at the International AIDS Society conference this week. Scientists reported on progress on gene therapy and using antibodies to neutralize HIV, research into why some HIV-infected people are able to stay in remission off drugs after treatment, and a hypothesis that vaccines, yet to be invented, could be used to “shock and kill” the virus in HIV-infected people. “Insights into the virus, its progression and the body’s response to HIV are helping to narrow and concentrate the focus of the HIV cure research agenda,” said Françoise Barre-Sinoussi of France’s Pasteur Institute, a Nobel Laureate and former IAS president.

Christopher Peterson of the Fred Hutchinson Cancer Research Center in Seattle, Washington, released findings from a study on modified stem cells in monkeys. The researchers successfully “edited” cells to block HIV from en-

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tering immune system cells through pathways known as “Trojan horse” receptors, said the study. “With enough protected cells the virus shouldn't be able to spread and we'd be looking at functional cure,” Peterson told reporters at AIDS 2015 in this Western Canadian city, attended by some 6,000 scientists and other HIV experts. Peterson was awarded the HIV Cure prize at a “CURE” symposium held in advance of the AIDS 2015 conference, noted Barre-Sinoussi.

Another study, led by John Mascola of the US National Institutes of Health, administered HIV-1 monoclonal antibodies to eight HIV-infected people. Within three months of a receiving one antibody infusion, the plasma viral load in six of the people “decreased by approximately 10 to 50 fold,” said Mascola’s report. It said the two people unaffected by the infusion carried an HIV strain resistant to the antibody used. Antibodies may have several uses in treating HIV, Mascola told a press conference, including the possibility of helping to “kill the viral reservoir” hiding in the cells of infected people.



None of the new findings have yet led to practical treatments, and all “raise more questions than answer questions,” noted Steven Deeks of the University of California, San Francisco. But Deeks said they will lead to “bigger studies, which will often fail, but lead to more studies. That is how science plays out.” Asier Saez-Cirion of the Institut Pasteur in Paris led research on a French girl infected with HIV at birth, whose family stopped her treatment after several years, and who then was

able to remain healthy for 12 years. But just how she has been able to stay in remissions for so long remains poorly understood. “We need a lot of basic research,” said Saez-Cirion.

The scientists called for continued funding for cure research, most of it basic research that may not show immediate results. “Less than one per cent of total (global) AIDS funding is for cure” research, noted Australian scientist Sharon Lewin. Lewin earlier told AFP that success in treating infected people could

lead to officials and the public thinking “AIDS and HIV are not a big deal, that we’ve solved it, when the reality is there are still two million new infections and 1.5 million deaths a year from HIV, and 35 million people living with HIV.” Lewin told reporters the next steps in “cure” research include clinical trials on helping infected people stay in remission after stopping treatment with antiretroviral medications, treatments to “shock and cure” the virus and bolstering the immune systems of patients.

IN SHORT >>

Turkmenistan the world's most non-smoking country

Health-obsessed former Soviet Turkmenistan is the country with the world's lowest proportion of smokers, World Health Organisation chief Margaret Chan said. Chan said that just 8 percent of the population smoked, according to WHO figures. “Recently a WHO overview showed that in Turkmenistan only 8 percent of the population smokes,” Chan told the country’s authoritarian President Gurbanguly Berdimukhamedov, who is a dentist by training. Cited by state media, Chan noted that the country ratified the Framework Convention on Tobacco Control in 2011 by which time it had already banned smoking in public places. In 1990, 27 percent of Turkmen males over 15 and 1 percent of females smoked. A decade later Turkmenistan banned smoking in public places, state buildings and the army, as well as all forms of tobacco advertising. By comparison, 31.1 percent of the global male population over the age of 15 smoked in 2012, while 6.2 percent of females were smokers. President Berdimukhamedov, in power since the death of eccentric predecessor Saparmurat Niyazov in 2006, is a keen equestrian, while Niyazov campaigned against smoking and built a 36-kilometre “path of health” into the mountains surrounding Ashgabat which government officials were forced to walk. This April the gas-rich country of more than five million held a month of public exercises and sporting events under the slogan “health and happiness.”

Antioxidants for a better life

Do your immune system a favor, and pack some more fruits and vegetables on your plate. They're loaded with nutrients, called antioxidants, that are good for you. Add more fruits and vegetables of any kind to your diet. It'll help your health. Some foods are higher in antioxidants than others, though.

The three major antioxidant vitamins are beta-carotene, vitamin C, and vitamin E. You'll find them in colorful fruits and vegetables, especially those with purple, blue, red, orange, and yellow hues.

Beta-carotene and other carotenoids: apricots, asparagus, beets, broccoli, cantaloupe, carrots, corn, green peppers, mangoes, turnip and collard greens, nectarines, peaches, pink grapefruit, pumpkin, squash, spinach, sweet potato, tangerines, tomatoes, and watermelon

Vitamin C: berries, broccoli, Brussels sprouts, cantaloupe, cauliflower, grapefruit, honeydew, kale, kiwi, mango, nectarine, orange, papaya, snow peas, sweet potato, strawberries, tomatoes, and red, green, or yellow peppers

Vitamin E: broccoli, carrots, chard, mustard and turnip greens, mangoes, nuts, papaya, pumpkin, red peppers, spinach, and sunflower seeds

These foods are also rich in antioxidants: ■ Prunes

■ Apples
■ Raisins
■ Plums
■ Red grapes
■ Alfalfa sprouts
■ Onions
■ Eggplant
■ Beans

Other antioxidants that can help keep you healthy include:

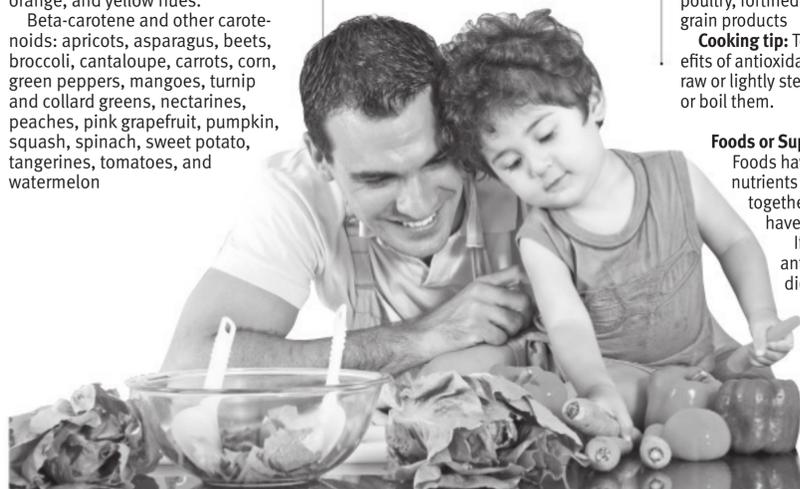
Zinc: oysters, red meat, poultry, beans, nuts, seafood, whole grains, fortified cereals, and dairy products
Selenium: Brazil nuts, tuna, beef, poultry, fortified breads, and other grain products

Cooking tip: To get the biggest benefits of antioxidants, eat these foods raw or lightly steamed. Don't overcook or boil them.

Foods or Supplements?

Foods have many different nutrients in them, and they work together. Supplements don't have that same mix.

If you can't get enough antioxidants in your diet, some experts recommend taking a multivitamin that includes minerals, too. But chances are, you can get what you need from your diet. If you want to check that you're on track, ask your doctor or a dietitian.



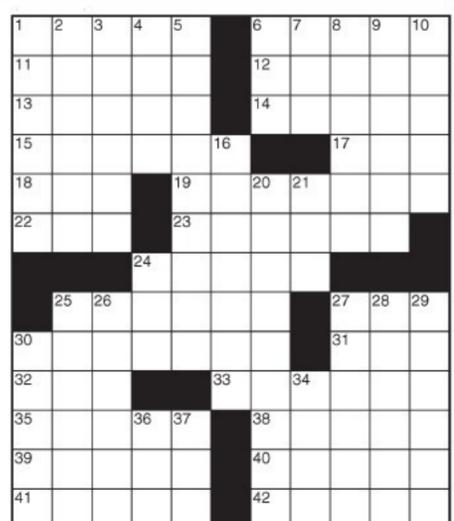
CROSSWORD BY THOMAS JOSEPH

Across

- King or Czar
- Yard worker
- Muse of love poems
- Hirsch of “Into the Wild”
- Rebound
- Cap feature
- Open, in a way
- Spring site
- 2016 Olympics host
- Ensigns, e.g.
- Japanese honorific
- Began to cry
- Occupies
- Compass creation
- Wine choice
- Skilled worker
- Eden name
- Shell game need
- Trample
- Jimmy Smits series
- They're adored
- New York city
- Chutzpah
- Bus units
- Door sign

Down

- Happens a second time
- Astronomical muse
- “The Far Side” cartoonist
- School on the Thames
- Lovers of love
- Gun
- Paris pal
- Words on a candy
- heart
- Ran off to wed
- Showed over
- Spanish dishes
- Sweetheart
- Cal. spans
- Work wk.'s end
- Invent
- Roma's nation
- School paper
- Unfold
- Not as bright
- Top grade
- Unspoiled spot
- Do something
- Lived



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