

Happy Feet

Your whole body rests on your feet. Be sure you treat them well.



FROM THE EXPERTS AT THE ARTHRITIS FOUNDATION





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“Feet change every two to five years and it’s not uncommon for feet to get bigger, wider and flatter as we age.”

— Mark Mendeszoon, DPM,
foot and ankle surgeon

Together, our two feet have 52 bones, 66 joints and more than 200 muscles, tendons and ligaments. They carry our body weight, support our skeleton and help us balance and move.

“Your feet determine how the mechanical forces of standing, walking and running get distributed to the knees, hips, back and spine,” explains podiatrist Robert M. Joseph, DPM, PhD, program director, North Florida/South Georgia Veterans Health Administration. As a result, when your feet or ankles are affected by arthritis or some other condition, a domino effect of musculoskeletal problems can result.

Foot pain or deformities can cause your body to move differently to feel better, sometimes leading to problems and pain in your knees, hips or back. When your feet or ankles hurt, you may not want to be active, but staying active is important. It helps reduce arthritis pain and stiffness. It also helps you stay at a healthy weight, which puts less stress on your joints.

It’s important to talk to your doctor about any foot or ankle issues you might be experiencing and take ongoing measures to protect them.

“Feet change every two to five years and it’s not uncommon for feet to get bigger, wider and flatter as we age,” says podiatrist Mark Mendeszoon, DPM, a foot and ankle surgeon in Ohio. “Patients with arthritis are definitely at higher risk for foot deformities progressing more rapidly. That’s why it’s so important for them to follow up with their foot and ankle specialist and stay in communication with their rheumatologist.” While foot problems become more common with age, they can also affect children with juvenile arthritis. If your child has arthritis, it’s important to include foot health and proper footwear in conversations with their pediatric rheumatologist. Depending on your child’s needs, the doctor may refer you to a specialist — such as a pediatric physical or occupational therapist, podiatrist, or certified orthotist — who can assess your child’s gait and mobility and recommend or prescribe appropriate shoe inserts, braces, or supportive footwear.

WALK THIS WAY

When your feet or ankles hurt, even walking can become difficult. That's because they play a key role in how you move (your gait). Gait mechanics involve many muscles, connective tissues and joints that carry your weight, starting at your toes and going all the way up to your hips and back.

Foot and ankle problems can change the way you walk. But the reverse is also true: Having an unusual walking pattern — such as from an arthritic hip — can lead to foot or ankle issues.

To figure out what's going wrong, podiatrists or physical therapists may do a gait analysis. This helps them find movement problems — like weak muscles, stiffness or poor flexibility — that could be making foot or ankle pain worse. (Neurologists may also use gait analysis to check for signs of certain brain or nerve conditions.)

A gait analysis might involve a computer, but it's often as simple as walking up and down a hallway or on a treadmill while a health care professional watches you from the front, back and side. Sometimes, they record a video to study your gait more closely.

As the patient walks, the podiatrist “will assess how the patient’s foot, ankle, leg, hip, torso, shoulders, etc. navigate a hallway or treadmill,” says Alex Kor, DPM, a podiatric surgeon in Indiana and a past president and fellow of the American Academy of Podiatric Sports Medicine. “For example, a patient with osteoarthritis of the knee or great toe joint will have less range of motion [that] will affect the speed, cadence and stride. At times, patients with arthritis are likely to take smaller steps, may limp or alter their gait by even straining the torso,” he says.



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SHOW SUPPORT

A gait analysis may also help determine whether a person needs orthotics, or shoe inserts, which can ease pain and provide protection from further damage.

Pre-made orthotics are available over the counter in some shoe stores and other retailers. These provide cushioning and support that may help in some cases. But people who have foot or ankle deformities or conditions that affect how they walk, stand or function might benefit from custom-made orthotics.

Custom orthotics are specially made from a computer-generated scan of a person's foot or a foot mold, as ordered by a podiatrist or other medical foot specialist, explains Dr. Kor.

They are designed to modify foot and ankle positioning to help correct biomechanics. For example, arthritis pain and damage in feet or ankles can cause someone to shift how they stand and

move, putting additional strain on legs, knees, back or other body parts. Orthotics can also help with conditions like flat feet, high arches, heel pain and plantar fasciitis. Talk to your doctor about whether a custom orthosis is right for you.



FOOT FAILINGS

Feet and ankles get a pounding every day and are susceptible to injuries and to numerous conditions, including these:

Osteoarthritis. This degenerative joint disease can develop and progress quickly as a result of an injury or slowly over time.

Inflammatory, autoimmune arthritis. Rheumatoid, psoriatic and other autoimmune, inflammatory forms of arthritis can damage joints throughout the body, including feet and ankles.

Gout. The onset of this form of arthritis typically appears in a single inflamed, extremely painful joint, often the big toe.

Tendinitis. Inflammation of a tendon in the foot or ankle, such as the Achilles tendon, is one of the most common causes of foot pain.

Plantar fasciitis. Small tears and inflammation of the ligament that runs from the heel to the ball of the foot, called the plantar fascia, causes this condition.

Diabetes. This condition, which many people with arthritis also have, can cause serious foot problems. These may include open sores, nerve damage (neuropathy) and poor blood flow.

Bone spurs and bunions. Pain in your feet and ankles can cause your body to move in unhealthy ways. This can lead to more problems, like bone spurs — hard bumps that grow on bones — and bunions, which are bumps that form on the side of the big toe.

Juvenile arthritis (JA). An umbrella term for several types of arthritis that affect children under age 16, JA causes joint inflammation, pain, stiffness and swelling. When feet (specifically, the joints of the toes) and the ankle joints are affected, it may lead to limping or other gait changes, difficulty walking and discomfort during physical activity. In some cases, it may contribute to long-term foot problems. It is also important to recognize that foot arthritis in children can impact the knees, hips and low back.



DIY FOOT PAIN SOLUTIONS

Many foot and ankle conditions require attention from a podiatrist or other foot specialist or a rheumatologist. But for common aches and pains caused by sore muscles or joints, you can try these treatments at home.

Have a ball. Use a golf or tennis ball as a foot massager. Sit down, place the ball on the floor and roll it under the ball of your foot to improve range of motion and relieve pain from plantar fasciitis or arthritis.

Treat your toes. Soak your feet in lukewarm water (90 degrees or less). Add Epsom salt to relax and soothe sore joints and muscles, but don't use it if you have any open cuts or wounds. A warm paraffin wax bath also can ease sore, stiff joints.

Put a freeze on it. Freeze a bottle of water, place it on the floor, then roll your foot over it for a soothing ice massage. For chronic

pain, alternate ice and heat. Ice for up to 20 minutes at a time (and always protect your skin with a cloth).

Rub in relief. Analgesic creams and ointments also can soothe sore feet. Apply one when you don't plan to wear shoes for a while, so the cream has time to dry. Avoid applying it between your toes, because it could cause irritation.

Lose weight. Losing just one pound of excess weight eases pressure on weight-bearing joints by four pounds.

Stretching: When it comes to foot pain in children, stretching is the No. 1 recommendation from Nicole Needles, a pediatric physical therapist at Nemours. "Sometimes foot pain is linked to the whole lower extremity, so stretches may be for the hips, knees or ankles," she says. "A common stretch would be to relieve calf tightness."

BE SURE THE SHOE FITS

As critical as feet are to our everyday lives, we often neglect them — or make things worse — by wearing shoes that don't fit well, are uncomfortable or are focused more on fashion. Wearing the wrong kind of shoe, especially if you have arthritis in the hips, knees, ankles or feet, can make joint problems worse and even cause pain in other parts of the body.

"Your body needs a well-built, stable foundation," says Gary W. Stewart, MD, an orthopedic foot and ankle surgeon in Atlanta. "That means choosing and then actually wearing footwear that's right for your particular foot type and joint issues."

Wearing a shoe that's not sturdy enough to stabilize and support affected joints creates pain and interferes with gait and mobility from the ground up.

"Shoe gear plays a critical role because it can change, for better or worse, how those forces are distributed," says Dr. Joseph.

People with arthritis "may have significant foot and ankle problems and deformities. Therefore, it is imperative that proper fitting shoes are selected for the individual to ensure comfort, protection and to mitigate any other foot and ankle problems," says Dr. Mendezsoon. "Generally, patients with arthritis will have digital deformities such as bunions, hammertoes, painful corns and calluses, collapsing arches, swelling in the feet and other pedal complaints."

Wearing shoes that fit well and support your feet is important — not just for comfort, but also to protect your feet and ankles and prevent more joint problems. Keep reading for expert tips on how to choose shoes that are good for your feet.

"The comfortable but problematic shoe is one that's too flexible and lacks solid construction. It can't correct or improve biomechanics and will end up increasing pain and decreasing function. If you can easily bend the shoe in the middle or at the heel or wring it out like a dishtowel, pass."

— Gary W. Stewart, MD, foot and ankle surgeon





BE A SAVVY SHOE SHOPPER

Shoe shopping can be confusing. “There are a lot of marketing claims, many of which are misleading, and a lot of bad advice from salespeople who lack knowledge about foot function and the design of the shoes they’re selling,” says Dr. Johnson. High price doesn’t guarantee quality. Finding a shoe that fits well is easier when you follow these simple tips:

 **Shop in specialty shoe stores.** Staff in these stores are often more informed than those in department or discount stores and they may provide additional fitting services, like a gait assessment. Some even have a staff podiatrist. Dr. Mendezsoon recommends shopping at an independent running or walking shoe specialty store, where staff are properly trained. (He owns two of them.) “As there are hundreds of different types of shoes, a patient with arthritis should really take the extra time and be fitted properly, opposed to buying them online,” he says. “Typically, the services provided by a well-established independent shoe store does not add additional cost to the shoes. Many of these establishments work closely with local podiatrists, orthopedists, chiropractors, physical therapists, rheumatologists and family doctors.”

 **Know your shoe size.** Feet change size over time. Have them measured

with a Brannock device — a tool with slides that measure length and width — when you’re sitting as well as standing. Ask a salesperson in a specialty shoe store to size both feet, then go with the larger size, but keep in mind that sizes vary among brands.

 **Get your gait checked.** Staff in some specialty stores for walking or running shoes are also trained to perform a gait analysis, says Dr. Kor. They can determine from how you walk — whether you roll your feet inward or outward, for example — what kind of structure and support you need in a shoe, and which shoes provide them.

 **Time your shopping.** Have your feet sized and try on shoes later in the day, when your feet are most swollen.

 **Take your orthotics.** If you use shoe inserts, especially custom orthotics, be sure to use them while trying on shoes.

Wear the socks you will wear with the shoes, too.

 **Ask an expert.** Your podiatrist or other health care provider can do a gait analysis and explain which features will work best for you. Make a list and take it with you when you shop.

 **Check for defects.** Put the shoes on a counter and view them from behind to check for manufacturing defects. The heels should be 90 degrees to the soles. Crooked or slanted heels can force the foot into abnormal, painful positions.

 **Buy two pairs.** When you find the shoes that are right for your feet, buy two or more pairs if you can so you can rotate them daily. “This will diminish the possibility of pain and pressure points, which can result in irritation, deformity and infection,” says Dr. Mendezsoon.

CHOOSING SHOES: DOS & DON'TS

DO choose footwear that's comfortable the first time you walk in it. "Breaking in" shoes is a painful myth, says Dr. Joseph.

DON'T focus solely on comfort. According to an Arthritis Foundation survey, comfort was the No. 1 quality people with arthritis look for in shoes. But don't stop there, says Dr. Stewart. "The comfortable but problematic shoe is one that's too flexible and lacks solid construction. It can't correct or improve biomechanics and will end up increasing pain and decreasing function," he says. "If you can easily bend the shoe in the middle or at the heel or wring it out like a dishtowel, pass."

DO opt for stabilizing features. Look for shock-absorbing, slip-resistant rubber soles, underfoot cushioning, a supportive midsole (the layer between the sole and the insole) and firm heel counters (which cup the heel). These features reduce pain and strain by keeping arthritic joints from moving, says Alan Bass, DPM, of Central Jersey Foot & Ankle Care. People with arthritis often have flatter feet and midfoot joint damage. "A firmer shoe stops those small joints from shimmying back and forth," says Dr. Bass. "The only place footwear should bend is in the ball of the foot, where you need flexibility for walking."

DON'T cram feet into shoes that are too small. If shoes with firmer features don't feel good when trying them on, it may be because they're too small, says Dr. Stewart, who notes that aging and arthritis can alter foot size. One study of people with rheumatoid arthritis, for example, found that 59% wore the wrong size. "If you have painful foot joints or pressure points and you put on a floppy, flexible shoe that's too-small, it'll give and be less likely to hurt than a more supportive but too small shoe," he says. Instead, make sure you get the stiffer shoe in the right size.

DO look for wide, deep toe boxes and rocker soles. Roomy toe boxes prevent rubbing and constriction of painful joints or bone spurs, while rocker bottoms — soles with a boat-like curve — keep pressure off the ball of the foot. "Rockers mean you spend less time

on your forefoot during the walk cycle, which is helpful for people with inflammatory arthritis or osteoarthritis that affects the little joints of the foot," says Ami Sheth, DPM, a podiatric surgeon in Los Gatos, California. One study found that rocker soles eased foot pain and helped people with big toe arthritis and gout walk more quickly.



DON'T wear slip-ons or backless shoes if you have toe arthritis or balance problems. "Any shoe that relies on the grip of toes or feet to keep it on can cause pain," Dr. Stewart says. Backless shoes also lack heel counters. "This makes them much less supportive and much more unstable, raising fall risk in people with balance problems or sensation loss in the feet," Dr. Joseph says.

DO look for Velcro straps and other easy closures if you have arthritis in your hands or fingers. You can also replace shoelaces with elastic laces that don't require tying.

DO choose uppers made of soft, stretchy, breathable materials. "Opt for super-soft, pliable materials that conform to feet, such as high-quality leathers, suedes and some synthetics," says A. Holly Johnson, MD, an orthopedic surgeon and foot and ankle specialist at the Hospital for Special Surgery in New York City.

DO select well-finished interior seams. Exposed stitching and seams can cause pressure points and friction, which can lead to blisters.

DO favor footwear with removable insoles. If a shoe's insole isn't right for you or wears down, replace it with an over-the-counter insole or a custom orthosis.

SHOE GUIDE

Ideally, everyone would wear shoes that are best for their foot and ankle health, but in real life, different occasions call for different types of shoes. That's OK. Find out from your health care provider what shoe features are best for your feet. Look for those features in any kind of shoe, from dress shoes to sneakers.

Although not all shoes are designed to support foot health, some manufacturers do make supportive, well-made options in a variety of styles. Here's what experts recommend looking for.

Casual Shoes

For men and women, focus on function and pick footwear that's appropriate for the activity, says Dr. Sheth. "If you're walking, you need stabilizing, cushioning features," she says. "If you're standing a lot, look for supportive cushioning, a roomy toe box and a rocker bottom to take pressure off the forefoot."

Dress Shoes

For women, high heels are not a healthy choice for your feet or body mechanics. "The higher and narrower the heel, the more pressure you put on the forefoot and toes, and the more pain you will have," says Dr. Sheth. Instead of stilettos or kitten heels, choose shoes with roomy toe boxes and wider heels. Rubber-soled wedges with thick front platforms can help reduce painful joint movement, soften impact when you walk and lower the heel-to-toe drop. This lets you stay stylish while keeping within the 1.5- to 2-inch heel height that experts recommend.

For men, choose shoes with stiff soles that bend only at the front of the foot. Stay away from narrow, pointy toe boxes. Dr. Joseph

says it may be hard to find dress shoes with rocker bottoms (which ease pressure on the foot and knees), but some brands do make stylish options with a steel or composite shank — an inner bar that runs through the footbed and stabilizes the foot.

Athletic Shoes

For both women and men, "a good pair of sneakers will help absorb some of the impact of each step," says Corey Feger, a physical therapist in Louisville, Kentucky. This can help protect your ankles, knees and hips. Look for sneakers with cushioned soles and arch support. For the best fit, go to a running store or a store just for shoes where you can get a professional fitting and a gait analysis. People with flat feet usually need motion-control shoes for better stability, while those with high arches do better with extra cushioning.

After you buy sneakers, wear them around the house for a while to make sure they're right for you before wearing them out for a walk.

Boots

Both women and men should choose boots with fitted ankles. They stay in place without needing your toes to grip.

Look for chunky or wedged heels, soft uppers and adjustable laces and buckles for a better fit. Just make sure straps don't press on painful areas. Avoid flat-soled boots that lack support or cushioning. A steel or composite shank can help reduce pressure and pain in the middle of the foot, says Dr. Joseph.

Sandals

Many sandals for both women and men provide little more than a flat sole and thin straps to hold your foot in place. If you have arthritis in your knees, ankles or feet, it's important to choose sandals with better support. "The strappier the better," says New York City podiatric surgeon Jacqueline Suter, DPM. "Straps let you adjust the shoe for a secure, custom fit. One of those straps must go across the back of your ankle. Without a back strap, toes 'overgrip' the edge of the shoe, and this encourages foot strain and hammer-toes." But avoid sandals with straps that press on sensitive areas of your foot, she adds.

Children's Shoes

"I recommend supportive, lace-up footwear for any children with arthritis and associated foot pain," says Alexa B. Adams, MD, a pediatric rheumatologist at New York's Hospital for Special Surgery.

But the best shoe may vary from one child to another — and it can change over time, says pediatric physical therapist Needles. "A certain type of shoe that works at a younger age may not be the same type of shoe to support a teenager's foot," she says. In general, she recommends a well-fitting pair of sneakers. "'Don't be afraid to try several types of shoes to find the one your child decides is the most comfortable for their needs'" she says.

For children, Needles recommends avoiding Crocs-type shoes, as well as heels and flip flops. They offer little or no arch support, which can overwork the small muscles in the feet, and they increase the risk of tripping.



It's **GREAT** *To Meet You*

We're so excited to have you in our community and can't wait to help you **Live Your Yes!**

Helpful Resources

To get started on your personal journey, we hope you'll take advantage of some of the many tools and resources designed for you. Here are a few to get you started.

- ▶ Join a **Connect Group** today to make connections and get information and resources to help you manage your pain.
- ▶ Have questions? Our licensed clinical staff is available to you to provide **one-on-one personal support**.
- ▶ **A variety of tools** are accessible online to help you reduce pain, promote your independence and live your best life.
- ▶ Ready to connect locally? Check out programs and **events in your area**.

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