helpful brochures

ALEXANDRIA PODIATRY ASSOCIATES

Dr. Jeffrey S. Coster
Dr. Jeffrey L. Graziano
Dr. Joonhyun Yoon
Dr. Soraia Refq-Popal
703-379-0700 (office)

ORTHOSES

Controlling Foot Movement Through Podiatric Care

Control Movement Control Pain

Out of sight, out of mind, healthy feet are easily forgotten. But if your feet aren't moving right or you're working them too hard, foot pain may invade your life. And your tired, aching feet may be hard to ignore. Your doctor of podiatric medicine (podiatrist) may help control your discomfort by prescribing orthoses (also known as "orthotics"), shoe inserts custom-made for your feet.

When your feet hurt

Your can't go far without your feet. When it hurts to walk or even just to stand, your feet may slow down your whole life. Swelling, changes in the way your foot looks, sharp pain when you stand, an ache that won't stop --- these are only a few common symptoms of foot trouble. Your symptoms may be caused by the way your foot moves or by the way your legs developed. Or you may have a medical condition, such as diabetes, that puts your feet at risk for sores, infection, or other health problems.

Orthoses Can Help

With years of medical training in foot care, your podiatrist is an expert in treating foot problems with orthoses. Just as contact lenses improve vision, orthoses improve foot movement. These custom-made shoe inserts may relieve your symptoms by controlling the way your feet move. Orthoses may also help compensate for a problem in your hip or knee that causes incorrect foot movement. And orthoses may protect the tender areas of your foot from the wear and tear of constant use. Even if your foot problem is best treated by surgery, orthoses may delay the need for surgery and help maintain your surgical correction afterward.

Understanding Your Feet

Your feet work hard. They support your weight. They absorb the shock of your body pounding against the ground, and they adjust to the many different surfaces you walk and run on. Wash foot contains 26 bones, 33 joints, and many types of soft tissue, including muscles, tendons, and ligaments.

helpful brochures

ALEXANDRIA PODIATRY ASSOCIATES

Dr. Jeffrey S. Coster
Dr. Jeffrey L. Graziano
Dr. Joonhyun Yoon
Dr. Monique Rolle
703-379-0700 (office)

ORTHOSES

Bones Form the Framework

Bones give shape to your foot. The bony structure of the arch also helps your foot support your weight and protect your body from jarring shocks. The joints allow you to bend and move your foot and toes.

Soft Tissue Links Parts

Your muscles are connected to your bones by tendons. As the muscles of your legs and feet tighten, your foot bones move at their joints. Ligaments connect bone to bone at the joint.

Your Feet On The Move

As you walk, your heel swings from side to side very slightly, like the pendulum on a clock. When your foot hits the ground, the contact stops the swing of your heel, and your arch begins to flatten. This flattering is called pronation. The opposite movement, Supination, happens as your heel lifts off the ground and your foot regains its arch.

When your heel touches the ground, the soft tissue connected to the bones and joints relaxes. Your foot is now able to flatten, adapt to uneven surfaces, and absorb the sock of striking the ground.

During midstance, your heel reaches the midpoint of its side-to-side swing. Now, your heel is below your ankle bone, and the front and back of your foot are aligned. Your foot now bears your full weight.

As your heel lifts, soft tissue connected to the bones and joints tightens. Your foot regains its arch. This allows your toes to push your weight off the ground, with your big toe exerting the most force.

Why You May Need Orthotic Support

If your heel swings too far when you walk, your foot may be overpronating, or flattening too much. This incorrect movement stresses and weakens parts of your foot. Over time, you may develop symptoms in your feet, ranging from a change in shape to pain when you walk. If a medical problem places your feet at risk, you may need help protecting their tender areas.

helpful brochures

ALEXANDRIA PODIATRY ASSOCIATES

Dr. Jeffrey S. Coster
Dr. Jeffrey L. Graziano
Dr. Joonhyun Yoon
Dr. Monique Rolle
703-379-0700 (office)

ORTHOSES

Bone and Soft Tissue Changes

Changes in the shape of your foot may be caused or aggravated by overpronation. Some shoe types, such as high heels, or strenuous sports activities, like running, may also stress bones and soft tissue. This irritation may speed up changes or increase pain.

- Bunion: The big toe joint shifts position, creating a bony bump.
- Flat Foot: The arch is unstable or weak, resulting in a foot that looks flat.
- Plantar fasciitis: The plantar fascia running along the bottom of the foot becomes inflamed.
- Callus : Skin builds up where bone presses against the bottom of the foot.

Variations in Body Structure

Your foot may overpronate because of a hip or leg problem. Too much flattening of the foot may be your body's way of offsetting faulty limb development. The incorrect foot movement sometimes makes your hips or knees hurt along with your feet.

- In – or Out-toeing: A child's legs, knees, or feet may develop in a way that forces the foot to turn in or out.
- Joint problems: Too Much or too little motion is allowed by the joints in the hips, knees, ankles, or feet.
- Limb Length: Corresponding bones on the right and left sides of the body are different lengths.

Medical Problems

Some diseases damage the nerves in your feet, making you unable to feel a cut or a sore. Other illnesses may limit your body's healing ability. Under these conditions, a minor skin break on your foot can lead to serious infection, threatening your overall health.

- Diabetes: This health disorder may cause loss of feeling in the feet and may also slow healing.

ALEXANDRIA PODIATRY ASSOCIATES

Dr. Jeffrey S. Coster
Dr. Jeffrey L. Graziano
Dr. Joonhyun Yoon
Dr. Monique Rolle
703-379-0700 (office)

ORTHOSES

- Vascular disease: Heart conditions may reduce blood flow to the feet, slowing healing.
- Arthritis: This disease may cause inflammation or even destroy the joints in the feet.

Incorrect Movement Strains Your Foot

When your foot flattens too much, some bones and soft tissue are forced to support too much body weight. Muscles may pull harder on these areas, making it difficult for your ligaments to hold the joints and bones in place. Over time, the strain on the soft tissue and joints may cause foot problems.

Orthoses Control Movement, Stop Strain

By limiting the swing of your heel, orthoses control the amount your foot flattens. The stress of weight bearing is better distributed throughout your foot, reducing strain on soft tissue and joints. Existing bone or soft tissue changes may not disappear, but orthoses can help reduce or eliminate your foot pain. If your hips or knees also hurt, orthoses may relieve this symptom, too.

Your Podiatric Evaluation

To determine your best treatment, your podiatrist looks for the cause of your symptoms. A medical history and a foot exam help diagnose your problem. Your podiatrist may also test the range of motion in your joints, from hips to toes. If necessary, you may be scheduled for imaging or lab tests to help confirm the diagnosis.

Your Medical History

Does foot pain interfere with your job or keep you from a sport you enjoy? To learn if orthoses may treat your problem, your podiatrist asks about your symptoms and how they limit your activities. You may also be asked about medical conditions affecting your overall health.

Imaging and Lab Tests

Your podiatrist may order x-rays to study the bones of your feet. Sometimes special imaging

ALEXANDRIA PODIATRY ASSOCIATES

Dr. Jeffrey S. Coster
Dr. Jeffrey L. Graziano
Dr. Joonhyun Yoon
Dr. Monique Rolle
703-379-0700 (office)

tests, like CTs, are ordered to assess damage to soft tissue. Routine lab tests, such as blood analysis, may help evaluate your general health.

Your Foot Exam

During this hands-on examination, your podiatrist looks for the problem causing your symptoms. He or she may feel for displaced bones or swollen soft tissue. Your feet may also be examined for sores or other skin changes. To evaluate blood circulation, your podiatrist may check the pulse, skin color, and temperature of your feet. The strength, reflexes, and sensation in your feet may be tested, too.

Testing Your Range of Motion

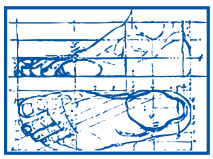
To help diagnose your problem, your podiatrist may test how far and how smoothly your joints move. Depending on your symptoms, range of motion may be tested in the joints all the way from your hips to your toes. Your podiatrist may also watch how your lower body moves when you walk or run.

Your Treatment Plan

After making a diagnosis, your podiatrist may recommend orthoses as the best treatment for you. Before prescribing your particular orthoses, your podiatrist may wrap your foot with special tape. This “temporary orthosis” may reduce symptoms by supporting your arch or realigning other foot structures. Taping may help your podiatrist determine if orthoses will be effective alone or whether to prescribe them along with surgery or physical therapy.

An Orthosis for Every Need

Orthoses come in a variety of materials, ranging from rigid plastic to soft foam. All of these materials can be shaped to fit your individual foot. The rigid orthoses offer the most control of movement, while the softer ones provide better cushioning and protection. When prescribing your orthoses, your podiatrist makes the best match between your needs and the qualities of the materials.



ALEXANDRIA PODIATRY ASSOCIATES

Dr. Jeffrey S. Coster
Dr. Jeffrey L. Graziano
Dr. Joonhyun Yoon
Dr. Monique Rolle
703-379-0700 (office)

ORTHOSES

Customized Support

Unlike shoe inserts bough in a store, prescription orthoses are built to meet the unique needs of your feet. Ask your podiatrist about constructing orthoses to fit the special shoes you wear often. Orthoses can be made for dress shoes, athletic shoes --- even ski boots.

Rigid Orthoses

Rigid orthoses are made from sturdy materials such as steel, graphite, or special plastics. They offer the greatest control of foot movement. In young, growing children, rigid orthoses may improve the way the bones of their feet develop.

Semi-Rigid Orthoses

Semi-rigid orthoses control foot movement and increase shock absorption. They are often made of flexible plastic, and may help reduce strain on soft tissue overused during strenuous activities.

Soft Orthoses

Soft orthoses cushion your feet when they're on the ground, but offer only limited control of foot movement. Made of spongy plastic or foam, soft orthoses are lightweight but slightly bulkier then the more rigid varieties.

Accommodative Orthoses

Accommodative orthoses protect your feet from the stress of weight bearing. Made of cork, foam, or leather, these orthoses may have indentations or raised areas to take pressure off tender parts of your foot.

Fitting Your Customized Orthoses

To meet your unique needs, your orthoses will be custom-built from casts of your feet. Afterward, you'll try out the orthoses to make sure they do fit correctly. During this fitting, your podiatrist may instruct you about breaking them in. You may also discuss proper shoe selection.

ALEXANDRIA PODIATRY ASSOCIATES

Dr. Jeffrey S. Coster
Dr. Jeffrey L. Graziano
Dr. Joonhyun Yoon
Dr. Monique Rolle
703-379-0700 (office)

ORTHOSES

Making a Cast of Your Foot

Your podiatrist makes casts of your feet so your orthoses can be built to exact detail. After covering the bottom of your foot with gauze and plaster of Paris, your podiatrist may hold your foot in position as the cast dries. The cast hardens quickly and will be removed from your foot in a very short time.

Building Your Orthoses

When both feet have been cast, the set is sent to the lab. Along with the casts, your podiatrist sends a prescription detailing the correction you need. At the lab, each cast is filled with plaster to make an exact model of your foot. Trained technicians then craft your orthoses to meet your prescription and fit the model of your foot. You can expect to receive your orthoses in about three weeks.

Trying Out Your Orthoses

After your orthoses arrive from the lab, your podiatrist will make sure they fit and correct your movement problem. You may be asked to walk with your orthoses in your shoes to check for sharp edges or rubbing. Minor adjustments may be made by your podiatrist, but extensive changes may require returning your orthoses to the lab.

Breaking In Your Orthoses

Getting used to your orthoses takes time. They may feel strange, even uncomfortable at first. But if you build up your daily wearing time as your podiatrist instructs, you can get used to the feel of your orthoses. You'll probably be wearing them full-time by the end of two or three weeks.

Selecting Shoes for Your Orthoses

Orthoses usually work best in shoes with a closed toe and low heel. You may be able to use your pair in similar types of shoes. But if you wear different shoe styles or enjoy a sport that makes special demands on your feet, you may need more than one pair of orthoses. When you're shoe shopping , remember to wear your orthoses. You want to be sure they fit and don't slip in the shoes you want to buy.

helpful brochures

ALEXANDRIA PODIATRY ASSOCIATES

Dr. Jeffrey S. Coster
Dr. Jeffrey L. Graziano
Dr. Joonhyun Yoon
Dr. Monique Rolle
703-379-0700 (office)

ORTHOSES

Living With Orthoses

The success of your orthotic treatment depends greatly on you and your expectations. If you maintain your orthoses in good condition, you can expect them to last for years. But as you age or face new physical demands, the needs of your feet may change. Follow up visits with your podiatrist may help control new foot problems before symptoms develop.

Realistic Expectations

Your foot problem took time to develop, so don't expect your symptoms to go away overnight. But if you wear your orthoses as instructed, your symptoms can lessen over time. Also keep in mind that your orthoses can help you move more comfortably, but they won't change the structure of adult feet.

Orthotic Care

Your orthoses must be in good condition to do their job. By replacing a torn or badly worn covering, you can extend the life of your orthoses. Lost posts or additions should be replaced to avoid new foot movement problems. If your orthoses crack, begin to lose their shape, or start rocking in your shoes, they may need replacing.

Follow – up Visits

One you're wearing your orthoses full-time, regular podiatric checkups can help you maintain the health of your feet. As with contact lenses, your orthotic prescription may change over time, and your podiatrist may recommend new orthoses. Children, athletes, and people with health concerns affecting their feet may require special care. Your podiatrist will recommend a follow-up schedule to meet your individual needs.

Moving With Support

Your feet no longer have to ache with every step. By controlling foot movement, your orthoses can make it easier to get on with your life and the activities you enjoy. Help yourself keep this symptom – free pace by wearing your orthoses daily and visiting your podiatrist regularly.