

June 2015

## Physical Therapy for a Pinched Nerve



Imagine holding a straw in your hand and squeezing the middle as you sip a beverage. You will notice that not much liquid is able to pass through the straw and reach your mouth. Essentially, this is what happens when you have a “pinched” nerve. A pinched nerve ensues when a nerve is compressed, and when it occurs in the neck area, the constriction causes a pain that radiates into the shoulder then down the arm through the elbow, wrist, hand and fingers. The pinch may result from

repetitive motions or from holding your body in one position for long periods, such as keeping your elbow bent while asleep.

Because symptoms of a pinched nerve often resolve themselves after several weeks, surgery should be considered only as a last resort. There are several conservative, nonsurgical treatments that may help alleviate pain from a pinched nerve. Often, relief can be obtained by simply **resting** the injured area and **avoiding** activities that tend to worsen the symptoms. Pharmacological treatments include **nonsteroidal anti-inflammatory drugs** to alleviate pain and swelling and **corticosteroid injections** to reduce pain and allow inflamed nerves to recover. However, in some cases, conservative treatments may only offer temporary relief.

Perhaps more effective for symptoms that grow progressively worse is physical therapy. A **soft collar** limits neck motion, allowing the muscles to relax, and alleviates pressure on the nerve roots. **Massage** and **cold laser therapy** can lessen inflammation and muscle strain. Exercises to **strengthen** and **stretch** muscles in the affected area can relieve pressure on the nerve. Other therapeutic exercises can enhance muscular support of the spine and preserve a more **vertical alignment**, helping to prevent future episodes of a pinched nerve. Where compressed vertebrae have caused the pinched nerve, **traction** and other forms of **spinal decompression** can help take the pressure off the nerve roots.

If you continue to suffer from pain, numbness or other issues that limit your ability to enjoy life and perform everyday tasks, surgery may be required. After surgery, we can help you manage pain; provide information regarding lifestyle changes, such as finding a comfortable sleeping position; help you regain mobility and flexibility, and safely return to daily activity; and avoid a recurrence of your pinched nerve.

If you feel a tingling “pins and needles” sensation in your arm, elbow, wrist or fingers, call our office for an assessment. We will design an exercise program to address your pinched nerve.

June 2015

## Raising Early Awareness of Flat Feet and Fallen Arches



If the soles of your shoes show unusual wear patterns, one of the culprits might be the common condition of **flat feet**.

Flat feet are normal in babies whose arches have not yet developed. The arch develops in childhood, and by the time you reach adulthood, a normal arch should be present.

But what about that unusual wear pattern on your shoe soles? If your feet have always been a bit flat, it should not be much of a concern.

As long as you do not experience pain or discomfort, you might not even realize you're flat-footed. But if you start noticing a **progressive flattening** of a foot that previously had a rounded, normal arch, then this may be a problem that requires attention.

First, let's explain what having a "flat foot" really means. The arches of your feet are supported by tendons, and when the tendons work together as they should, they give the bottom of your foot a raised, rounded appearance. When they stop working, the arch flattens out ("fallen arches"). This can occur from a painful, progressive condition called **posterior tibial tendon dysfunction** (PTTD), where the tendon in the arch of your foot becomes inflamed, stretched or torn. Progressive flat feet may also be caused by injuries, nerve problems or conditions such as rheumatoid arthritis.

If you are diagnosed with PTTD, it is in your best interest to get treatment right away. Because this is a progressive condition, the longer you wait, the worse it gets—and early treatment can help reduce the need for surgery. Nonsurgical treatments involve **rest** and **ice** to relieve swelling and **nonsteroidal anti-inflammatory medications** (if your physician agrees) to reduce pain and inflammation. In addition, special **orthotic supports, shoe modifications, braces** and **casts** can give your arch the support it needs, while also allowing it the proper time to heal.

Physical therapy, including **ultrasound** to rehabilitate the tendon and **stretching exercises**, can help improve mobility and reduce pain. Should you require surgery, we can provide you with a regimen of exercises to perform once the tendon has healed. These include **heel raises, isometric resistance exercises** performed with a towel or rubber band, and **stretching exercises**.

If you suspect that your feet are getting flatter or that your arches have "fallen," we can provide an exercise program to address your feet by relieving your symptoms and restoring your arch.

June 2015

## The Mythical Powers of a Copper Bracelet



The myth that copper and magnets have some kind of curative effect on arthritis has been around for ages. However, there is no scientific evidence to prove that copper bracelets—or any type of magnet—actually relieve joint pain.

The belief in copper's healing power evolved eons ago when the powerful mythical Greek goddess Aphrodite was linked to the island of Cyprus, an area known to be rich in copper.

But modern studies have demonstrated that copper bracelets have no more impact on arthritis pain than do placebos.

Among the most recent studies was one performed in Yorkshire, England, and published in 2013. The researchers rigorously tested 70 patients, all with painful rheumatoid arthritis, for potential benefits from copper bracelets, as well as magnetic wrist straps also touted as therapeutic. When pain, inflammation and physical function were measured, none of the copper or magnetic devices proved to have pain-relieving effects.

The reason these bracelets may sometimes seem to relieve arthritis pain is that people with the most common forms—including osteoarthritis and rheumatoid arthritis—typically experience flares that come and go. If, when experiencing a bad flare, you put on a bracelet and feel better after a few days, you might conclude that the bracelet deserves the credit when, in fact, the flare would have subsided anyway. The **placebo effect** can be powerful, too—if you believe a therapy will work, that belief can actually influence how you feel, or how you think you feel, at least for a while.

If you have arthritis, come in and consult us. We can design a program of **aerobic, muscle-strengthening** and **water-based exercises** to help you feel better while also increasing your mobility and flexibility. And that's no myth.

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## Rehabbing a High Ankle Sprain



**A** high ankle sprain affects the high ankle ligament, connective tissue strands that attach the tibia (shinbone) to the fibula (outside leg bone). Because the ankle offers the stability you need to walk or run, injury to this ligament may lead to instability of the ankle joint. A high ankle sprain results when these ligaments are torn or damaged, usually from a **forcible outward twisting** of the foot and ankle, in sports such as football, soccer, wrestling, ice hockey, rugby and lacrosse.

Patients often report pain above the ankle that increases with outward rotation of the foot, pain felt upon walking, and significant bruising and swelling across the higher ankle rather than around the bony knobs on both sides of the ankle. There are three grades of high ankle sprains:

- **Grade 1:** mild
- **Grade 2:** moderate
- **Grade 3:** severe

These ligaments are directly involved in leg movement; thus, any weakening or injury to the ligament will affect its ability to bear the normal load and will inhibit normal maneuvering. The most conservative treatment is the **RICE** method—**R**est, **I**ce, **C**ompression and **E**levation. If needed, a **walking boot** can further stabilize the ankle and limit its movement to allow for proper healing.

During the healing period, therapy interventions and exercise will improve joint range of motion, muscle length and nerve function. **Weight-bearing** and **resistance loaded exercises** will strengthen your foot, ankle and calf muscles. And to prevent reinjury, we will assess your **balance** and **proprioception** (the sense of knowing where your body is in space) and retrain you to manage both by using a balance or wobble board.

If a fracture has occurred, screws will be inserted to stabilize the tibia and fibula and, by association, the high ankle ligaments. After the screws are removed, physical therapy will help restore joint range of motion, flexibility and strength.

A high ankle sprain does not have to mean an end to your athletic participation. We can start a physical therapy program to alleviate your pain and teach you how to prevent a high ankle sprain in the future.

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## Are High-Intensity Exercise Programs Safe?



**H**igh-intensity home exercise programs, such as Insanity or P90x, have been touted as safe and effective. This may be true, but only under certain conditions—and even if you meet the criteria to practice these programs independently, it still might be a good idea to use caution when engaging in one.

A high-intensity workout can be helpful when trying to **reduce systolic blood pressure** or **improve glucose tolerance**. That said,

similar results can be achieved with moderate-intensity training that, while more time consuming, carries less physical risk.

High-intensity training programs carry more than a few risks. For starters, such programs are intended for young and healthy people. If you have not engaged in a conditioning program for weeks, jumping into something strenuous such as Insanity or P90x can cause injury and harm to oneself. Heavy workouts can lead to rapid fatigue. This, in turn, can cause instability in your joints, which increases the potential of further injury. While these intense workouts can increase muscle mass, they can do so at a much quicker rate than your tendons can handle. This can cause tendonitis or a tear in the muscles and significantly impact your ability to exercise or participate in athletic events.

High-intensity training might seem like a good solution for someone who has little time and big fitness goals, but the risks can easily outweigh the rewards. The human body needs to be **treated with caution**, and many of these problems can be avoided with a few simple steps:

- **protection**
- **education**
- **prevention**

Taking care of your body should be as important a priority as anything else in your life. Find a way to make time for exercise, but don't force yourself to do more with less.

Given the drawbacks of high-intensity exercise programs, let us recommend an exercise fitness program for you based on your individual capabilities. A good exercise program should **keep you safe** while it helps you **attain your goals** through measures realistic for your body.