

May 2010

## Bracing for a New Arthritis Treatment



**K**nee pain from osteoarthritis is no walk in the park. In fact, the pain probably keeps you from walks in the park. Could wearing a knee brace help you overcome this discomfort?

Often, arthritis affects only one compartment of the knee. This can result in your lower leg angling awkwardly and appearing “bow legged” (varus) or “knock kneed” (valgus). Special braces, called **unloader braces**, shift the

workload from the arthritic compartment to the healthier compartment of the knee, pushing the knee toward a more normal position in the process. According to several published studies, these braces can **increase the distance** a patient can walk comfortably. Even better, for patients who cannot tolerate pain medications, braces can offer **drug-free relief**.

But unloader braces tend to be bulky and uncomfortable. Unless you invest in an expensive, custom-made brace, you may find yourself with bruised thighs and additional discomfort caused by poor fit. Nor are unloader braces suitable for all forms of osteoarthritis. Some rehabilitation specialists warn that extended or improper use of a brace can even **hinder physical therapy**, because it may decrease movement and circulation to the knee. Despite these caveats, the American Academy of Orthopaedic Surgeons stated in 2003 that unloader braces “may provide significant reduction in pain when properly fitted in selected patients with osteoarthritis of the knee.”

Rather than thinking of a knee brace as a cure, consider it another tool in your arsenal against arthritis—a crutch that can help you while we work toward building strength and flexibility in the knee. Talk with us about an exercise program that will strengthen the quadriceps muscles in your knee to improve the functionality of your brace. In time, you may even eliminate the need for your brace entirely.

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## Pedaling Your Way to Health



**Y**ou probably remember learning how to ride a bike. But most likely, your six-year-old self had no clue just how beneficial this newly acquired skill could be to your overall health and wellness.

One of the most popular and enjoyable fitness activities, cycling was recently celebrated in the medical community for enhancing cardiac health, thanks to a 2009 study published by the *Scandinavian Journal of Medicine and*

*Science in Sports*. Physical therapists had embraced the bike long before this, however, for its role in post-surgical, post-injury rehabilitation.

Bike riding has **specific advantages** for people who suffer from back and knee problems. Cycling builds the large muscles in the hip, back and thigh. It specifically helps strengthen the muscles responsible for stabilizing individual vertebrae and nourishes discs as they heal.

Lower down the body, where a breakdown of cartilage is often responsible for knee pain, the action of pedaling a bike encourages nourishment of cartilage in a low-stress manner. Plus, the **overall health benefits** of cycling—enhanced cardiac health, improved circulation and better all-around strength and flexibility—can enhance any rehabilitation program.

Cycling is not without risk, however. To avoid stress injuries, you need to follow a few simple procedures. Here are a few tips to get you started:

- **Find a seat that allows for an upright, balanced position.** Many seats encourage a “forward bent,” which places stress on your back, neck, elbows and wrists. Sitting totally erect is the most ergonomically healthy way to ride.
- **Employ a precycling workout** that improves strength and flexibility in hamstrings and quadriceps.
- **Take frequent breaks** to stretch your neck, arms and shoulders when riding for long periods of time or at high intensity.

We can design an appropriate **stretching and strengthening** routine to ensure that your body is ready to ride, whether on the race track, in the mountains or on an indoor recumbent bike in the comfort of your living room. Soon, you will be riding your way to better overall health and physical well-being.

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## Getting a Grip on Extensor Tendon Repair



**E**xtensor tendons allow you to extend your wrist and open your hand. They run along the forearm to the wrist and then along the back of the hand. Because these tendons have little protection, they are quite vulnerable to injury. You could injure your extensor tendons in several ways:

- **lacerations** (for example, if your hand goes through a glass window)

- **blunt trauma or crush injuries**
- **deep burns**
- **animal bites**
- **disease**

In people with rheumatoid arthritis, these tendons can erode and rupture at the wrist. And someone with ruptured extensor tendons will **lose movement** in the fingers.

Most extensor tendon ruptures must be surgically repaired, but surgery alone will not restore the hand to the fullest function possible. To regain dexterity, it is essential that surgery be followed by **several months of physical therapy**. Because the wrist and hand are complex structures, each extensor tendon repair requires a slightly different approach to rehabilitation, depending on where the rupture occurred, how many tendons were injured and whether there are other surrounding injuries such as broken bones.

Physical therapy can **prevent scar tissue** from forming between the tendon and the bone so that the gliding motion of the tendon is restored. This allows the hand to open and close smoothly through its complete range of motion (ROM). But care must be taken to balance exercises that increase ROM against putting too much tension on the repair site before it is fully healed.

Only properly guided rehabilitation can return full use of your hand following extensor tendon surgery. We can work with your doctor to develop a physical therapy and home exercise program appropriate to your injury.

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## Getting Your Ankle Off on the Right Foot Again



**A**lmost everyone has heard of total hip replacement and total knee replacement. But fewer people are familiar with **total ankle replacement** (also called total ankle arthroplasty).

Although the ankle looks like a simple hinge joint, it actually involves much more complex movement, absorbing forces up to five times body weight. Many conditions, such as severe osteoporosis, rheumatoid

arthritis and post-traumatic arthritis, can cause degeneration of the ankle joint, leading to severe pain, swelling and immobility.

Until recently, the only choice to repair a degenerated ankle was to fuse the shin bone (tibia) to the top foot bone (talus), a procedure called ankle arthrodesis. This eliminated pain but left the ankle completely immobile.

When total ankle replacement (or TAR, for short) was first performed in the 1970s, the two-part prosthesis implanted was not very successful. Nowadays, ankle prostheses are made of three pieces of plastic and metal. While not perfect, they **relieve pain** and **allow movement** of the joint. These improvements have enabled TAR to become part of the treatment used to correct ankle arthritis.

Ideal candidates for TAR

- **are older than 50 years of age**
- **have a degenerative ankle that has not responded to nonsurgical treatment**
- **are physically active but do participate in activities that put heavy stress on the ankle**

People who undergo TAR need **six to 12 weeks of rehabilitation** to adjust to their new joint. Physical therapy can improve range of motion and strengthen the ankle while controlling pain. Because the ankle prosthesis does not move in quite the same way as a natural ankle, gait training, initially with an assistive device, is necessary. If you and your doctor decide that TAR is right for you, we will be glad to work with your surgeon to develop a postoperative rehabilitation program that will get you and your new pain-free ankle moving again.

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## Get Your Golf Game in the Swing



It is a glorious Saturday morning; you have put the stress of work behind you. All week long, you have been looking forward to playing golf. But when one of your foursome suggests walking the course, you suddenly become a little nervous. Yet riding in a golf cart robs you of much of the health benefits of golfing.

Golf can provide a terrific workout. In addition to exercising the muscles used to swing a club,

golfers who walk the course frequently cover as much as **four miles** in 18 holes, a distance that passes quickly as you think about your game and talk with friends. And you gain even more health benefits when you **carry your own clubs** and burn more calories in the process. If the clubs are too heavy to carry, walk anyway and use a pull cart for your bag.

Technique is very important for more than just your score. Because the golf swing contorts the body, you can injure yourself. Therefore, you must **warm up properly**. Stretch several times a week to increase your flexibility, making it easier to swing your clubs. Strengthening your core muscles will give you a looseness in your backswing and follow-through, and help you hit longer drives.

Stretching and strength training will give you better body control and power, critical elements for a successful golf game. But they must be performed correctly for you to realize their benefits.

Realistically, your golf swing is a reflection of your physical attributes and limitations. We will be happy to work with you and analyze your needs, developing a program that will increase your flexibility and functional strength, give you better balance and the power to hit drives far down the fairway, and help you prevent injuries. Before your next tee time, call our offices or stop in to set up an appointment and see what we can do for you and your golf game.