

July 2010

## Weight-bearing Following Total Knee Replacement



**H**ow much weight will you be allowed to place on your leg after total knee replacement surgery? This is a very important question, the answer to which depends on a number of factors.

Weight-bearing following the surgery may be partial or full, depending on the surgeon's approach. A critical part of the question is whether the surgeon uses a **cemented** or **uncemented** device when performing the procedure.

Years ago, total knee surgery frequently required six to eight weeks of walking with a cane, crutches or walker, but if the cemented approach is used, you can put weight on the leg almost immediately. Typically, you will use an assistive device for a few weeks as needed, often beginning with a walker or two crutches and

soon transitioning to a single crutch (under the opposite arm/side) or cane (again, in the opposite hand/side).

Physical rehabilitation will begin in the hospital almost immediately. Since mobility is essential, you may be fitted with a **continuous motion machine** that will slowly straighten and bend your knee as you lie in bed, allowing you to pedal and pump your ankles to promote blood flow in your legs, and regain range of motion and muscular control of the knee.

When you go home, you will continue the exercise program so you can progress. Most programs include walking short distances several times daily. If your knee becomes sore after your walks, use a cold pack and decrease the distance of your walks but do not stop. Sticking to your exercise regimen is vital to your continued improvement and ultimate recovery.

Our staff has extensive experience in total knee rehabilitation, and we will be happy to talk with your surgeon and you to develop a rehabilitation program that will get you back on your feet. Feel free to call us or visit our offices to see how we can assist you during your rehabilitation.

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## Concussions Call for Caution



**C**oncussions result from **a blow to the head** that causes the brain to be shaken inside the skull. Especially among children and young adults who participate in impact sports, such as football or basketball, concussions can be quite common. However, because concussions are often described as “mild,” we may forget that they are **significant brain injuries**.

Neuroscientists estimate that the brain is not fully mature until a person reaches his or her mid-20s. Therefore, even a mild concussion can result in problems with cognition and day-to-day functioning. And experiencing a second concussion, called **second-impact syndrome**, before the effects of the first concussion have completely resolved can cause

**major long-term brain damage—even death.**

Symptoms of a concussion include **headache, nausea, vomiting** and **dizziness**. Because a person who has sustained a concussion may feel no symptoms when at rest, anyone who has experienced a possible head injury needs to move around a bit. If any symptoms of a concussion ensue, the person should not return to the field of play.

If headache, nausea, vomiting or dizziness lasts longer than 15 minutes or the athlete shows any indication of **posttraumatic memory loss**, even if there is no loss of consciousness, the athlete should **not return to action** until he or she has gone at least one week without exhibiting any symptoms at rest or during exertion. If the person loses consciousness for any length of time, no matter how brief, he or she should not return to sports for several weeks or even months, depending on individual response. Symptoms usually go away without treatment.

The best recovery technique involves physical therapy—to teach the brain to compensate for the injured or unhealed areas—and rest. If your young athlete has been diagnosed with a concussion, we can design an exercise program that will enable him or her to **return safely** to sports activity while lessening the risk of another concussion.

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## Can Exercise Prevent Falls?



**F**alls. They are the fear of many older adults. They can range from harmless stumbles to severe accidents, the effects of which can take years to heal. One of the best methods of avoiding falls might be the proactive use of exercise. Usually thought of for sculpting the body and improving cardiovascular conditioning, exercise can also be very effective in the prevention of injuries, including falls.

Regular exercise will **improve strength, muscle tone and balance**, all of which are essential to avoid falls. In addition to exercise, **checking your vision and hearing regularly** is also critical to fall prevention.

One of the current trends in exercise is use of the **kettle bell**, one of the oldest free weights in history. The kettle bell challenges users because of its unique shape and method of use. Kettle bells are swung away from the user, which

- **builds core muscles**
- **promotes better balance and body control**

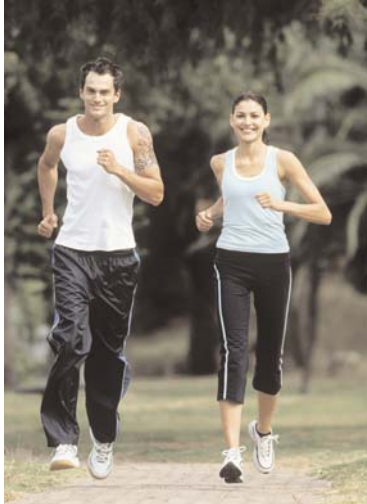
Performing exercises that involve a **range of motion** and the **isolation of different movements** can also help lessen the risk of falling. Studies have also shown that tai chi (which features slow, controlled weight-bearing movements) has been very effective.

Most effective fall-prevention programs offered to seniors have reduced falls by 30–50%. Before beginning any fitness regimen, make sure you are physically able to perform an exercise routine. Discuss your situation with your physician, and ask about specific exercises to prevent falls.

Let us help you or your loved one by designing an exercise program to minimize falls and injuries. Our experienced staff of professionals will work with you to address your health concerns and develop strength, balance, body control and muscle tone.

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## Using Physical Therapy for a Safer Run



**R**unning may seem like a simple activity, one that results in many health benefits, but it can bring with it the risk of related injuries. This is especially true during the warm summer months, when outdoor running is more pleasurable. Fortunately, proper training can help to reduce this risk.

Most running injuries occur from overtraining, overuse, or poor posture and form during running. Common injuries include stress fractures, plantar fasciitis, shin splints and Achilles tendonitis. Even more frustrating for runners is that when injury does occur, rest is advised—the last thing a runner wants to hear.

Some of these situations can be prevented by engaging in an exercise program that reduces the risk of injury. However, the right training depends on a number of factors, such as a person's

- **fitness level**
- **overall health**
- **body type**
- **running environment**
- **previous injuries**
- **fitness goals**

For many runners, improving their distance run each week is important. To prevent injury, many professionals use the 10% rule, which means increasing the intensity or distance of a run by a maximum of 10% each week.

To ensure that you meet your fitness goals while staying safe and healthy, call us about a strength-training exercise program. Regular exercise will proactively protect your legs from injury and enable you to get the most benefits from your run.

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## Pinpointing a Low Back Pain Problem



**F**ive is an unlucky number for many people with **spondylolysis** (spon-dee-low-LYE-sis), because this condition—a weakness or stress fracture of a spinal bone—is most often found near the fifth lumbar vertebra in the lower back. It may, however, occur in other lumbar vertebrae, as well as in the chest area.

Spondylolysis is often caused by **overuse**, especially in such sports as weightlifting, football and gymnastics that typically stress the lower spine. Or, a person can be **genetically predisposed** to developing spondylolysis, having been born with thinner-than-average vertebral bone more prone to fracture.

Spondylolysis can cause considerable discomfort, although many people show x-ray evidence of the condition but feel no pain. Once a diagnosis has been confirmed, many conservative measures can be employed to help you heal. If the condition is related to sports, for example, you need to take a hiatus from participation. In general, rest can be useful, but not so much that your back muscles become weak.

Other treatments include

- **learning and utilizing proper posture and spinal alignment**
- **walking, sitting and lifting in ways that minimize lower back strain**
- **temporarily wearing a back brace**
- **taking medication as necessary to relieve inflammation and pain** (prescription or over-the-counter, such as acetaminophen or ibuprofen)

When these strategies are not enough, other options such as steroid injections or surgery are available, as well.

Strengthening and controlling your back muscles and abdominal muscles often alleviates discomfort from spondylolysis. We can suggest style, technique or equipment changes to improve your performance and prevent future problems. If you have been diagnosed with this condition, see us about a physical therapy program that can help you heal and resume an active life.