

January 2008

## Minimizing the Risk of Ski Injury



If winter weather has you prepared to hit the slopes, be sure to take the necessary precautions to keep yourself injury-free this season. In addition to using the proper gear and sticking to the slopes that match your skill set, proper strengthening and stretching exercises can prepare your body for the physical demands of this winter sport. Preparation for the ski trip should begin several weeks earlier to allow enhanced fitness to be developed.

Skiing puts a lot of strain on specific muscle groups and joints, such as your quadriceps, hamstrings, abdominals and knees. **Strength training these areas can help prepare these muscles and joints for the additional use required during skiing.** Some ideal **preskiing strengthening exercises** include:

- **Leg presses;**
- **Squats;**
- **Hamstring curls and stretches;**
- **Lateral leg raises;**
- **Side bends; and**
- **Crunches and/or sit-ups.**

It is also important to keep in mind that the majority of ski injuries take place at the end of the day when muscles are tired. A regular routine of aerobic exercise can increase your physical endurance, which can help prevent fatigue and keep you going on the slopes during the day. Good **aerobic endurance exercises** include:

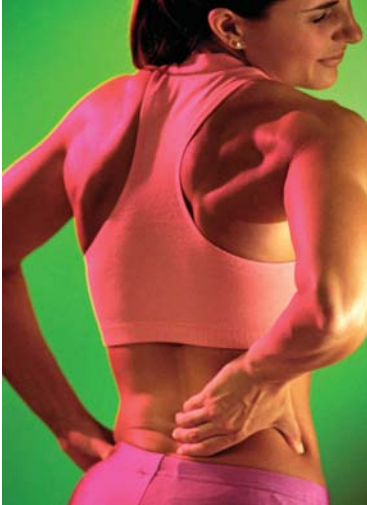
- **Biking;**
- **Running;**
- **Swimming;**
- **Jumping rope; and/or**
- **Stairmaster or elliptical training machines.**

Stretching is also important in preventing ski injuries, as it prepares your muscles for the hard work and minimizes the likelihood of serious injury in the event of a fall.

We can be an excellent resource in creating a specific workout routine to prep your body for the strain of ski season. So, if the dropping temperatures are tempting your inner skier, take a moment to talk with us about exercises you can do to reduce your risk of injury this season. The key: Prepare ahead—don't wait.

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## Getting to the “Core” of Back Problems



**A**ccording to recent studies, 70–80% of Americans will experience back pain at some time in their lives. For most people, back pain will resolve with conservative treatment. One of the treatment options available is increasing strength and flexibility in what are referred to as your “core” muscles.

Lower core muscles are the muscles surrounding your trunk and pelvis that stabilize your spine, keep you balanced and help initiate all movement in your body. When these core muscles are weak, back pain is often the result. Other factors that can contribute to poor core strength include bad posture, excess body weight or long periods of sitting or standing. An exercise program designed to strengthen the core muscles can help minimize back pain. The following guidelines can help you get started. Still, be sure to consult with your physician to rule out an injury before beginning any exercise program.

- **Choose exercises that work your core muscles simultaneously**, so muscles are “balanced” and strengthened equally.
- **Quality, not quantity.** Learn proper technique for maximum benefit and to avoid injury. Quantity will come over time.
- **Take a break.** Alternate exercises frequently, especially when you get tired. You are more likely to get injured or not perform your exercises correctly when tired. So if you become fatigued, either stop or switch to an exercise that works different muscle groups.
- **Lose weight.** Extra pounds around the abdomen add pressure to your back.
- **Improve your posture.** Poor posture also puts extra pressure on your back.
- **Learn about ergonomics.** Design your workstation for proper body alignment and look for furniture that provides good lower back support.
- **Sleeping position matters.** A firm mattress is recommended, and sleeping on your side with a pillow between your knees, or on your back with a pillow under your knees, is often helpful.
- **Develop a “total fitness” approach.** Incorporate flexibility, weight training and aerobic exercise into your core strengthening program.

We can help you develop a program to strengthen your core and help relieve back pain.

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## Exercise and Osteoarthritis



**A**fter receiving a diagnosis of “arthritis of the knee,” which is the most common form of osteoarthritis, you might be surprised when your doctor recommends exercise. Because osteoarthritis involves a progressive deterioration of the protective joint cartilage, the bone is exposed within the joint—leading many to believe that exercise would only intensify the condition. This, however, is not the case, but not just any type of exercise is sufficient. Recreational activities are not a substitute for therapeutic exercises designed by a physical therapist.

**Designing a program:** Finding an exercise program that fits your unique lifestyle and osteoarthritis symptoms is important for managing your condition. We are well versed in osteoarthritis treatment, particularly in the knee, and will discuss your symptoms, lifestyle and any challenges and risks that may compromise treatment. Many current studies support the success and safety of both aerobic and strengthening exercises for osteoarthritis. It is important to keep muscles active and strengthen the muscles around the knee, which then encourages proper knee functioning. Goals of physical therapy for osteoarthritis include:

- **Reducing** pain;
- **Improving** function and range of motion; and
- **Strengthening** key muscles.

Physical therapists will use therapeutic, custom-tailored exercises to provide maximum benefit for treating your osteoarthritis. Methods vary, but may include one or more of the following:

- Active and passive **range of motion** exercises;
- **Manual therapy** exercises;
- **Moderate aerobic** exercises; and
- **Strength-training** exercises.

Osteoarthritis can be very painful, and when it strikes the knee, it can be particularly debilitating and frustrating to manage. Fortunately, our skills and experience can support the provision of a successful exercise program. This will aid in preventing further deterioration of the knee while simultaneously strengthening the surrounding muscles and improving the fitness and mobility of your entire body.

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## Reverse Total Shoulder Replacement



**T**hose who have suffered from severe arthritis for many years may receive a doctor recommendation for a “reverse total shoulder replacement” procedure. The term could be a new and confusing one for you to hear, but the procedure will offer enough relief to allow us to design a synergistic program to:

- **Enhance** range of movement;
- **Strengthen** your shoulder; and
- **Relieve** pain.

**What is a reverse total shoulder replacement?** In a normal shoulder, the round head on the end of the arm bone—the humerus—slides against the small, cup-like socket known as the glenoid, which lies in the shoulder

blade—formally called the scapula. The reverse total shoulder replacement allows patients with severe arthritis and rotator cuff damage that is beyond repair to resume arm mobility. By placing a rounded surface on the shoulder and a cup-shaped structure on the upper arm bone, the reverse total shoulder replacement stabilizes the joint and allows other muscles to support the shoulder, thereby relieving arthritis symptoms in the damaged area.

**Physical therapy and recovery:** Physical therapy is a vital part of the recovery process after undergoing a reverse total shoulder replacement procedure. A carefully planned, comprehensive rehabilitation program that commences immediately following the procedure will allow for a much more rapid and successful recovery process. We will employ the most effective means to promote healing, which may include:

- Prescribing **home exercises** 4–5 times a day.
- **Personalized exercises** to promote healing of the soft tissue and maintain joint integrity.
- Gentle **isometric exercises and stretching**.

Reverse total shoulder replacement can make an enormous difference in the quality of life experienced by individuals suffering from severe arthritis. Many find that the procedure coupled with consistent physical therapy allows them to experience less pain, significantly improved motion and strength, and better functioning overall.

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## Take a Break From Your Computer— Your Body Will Thank You!



**Y**ou may already know that repetitive body movements from sports such as golf, tennis or running can create wear and tear on muscles and bones that, over time, can lead to serious injuries or degenerative arthritis. But you probably don't know that working or playing video games on your computer for long periods of time can also lead to bone and muscle problems.

While the types of problems that can develop through lengthy computer use may seem small, failing to recognize the early warning signs of fatigue or injury can turn small problems into serious injuries. **Sitting at a computer, whether for work or fun, for long, uninterrupted hours can expose small muscles to thousands of repetitive motions.** Without adequate rest between motions, these small muscle and bone groups can become fatigued and more easily injured. When small muscle groups are fatigued, larger muscle groups may compensate, which can lead to other potential problems.

In order to avoid these types of strains and injuries, try to follow these guidelines while using your computer:

- **Use an adjustable workstation** that allows you to change seating positions and postures. This gives one set of muscles a break while other muscle sets are being used.
- **Substitute keystrokes for mouse clicks** if your work is “mouse intensive.”
- **Take frequent, short breaks;** stretch, stand and move around.
- **Alternate computer tasks with noncomputer tasks** to encourage movement as well as rest for different muscle groups throughout the day.
- **Learn about posture and ergonomics** so you are aware of symptoms and potential problems.
- Make sure your workstation is set up to **promote both functionality and a comfortable working posture.**

If you develop any pain that is not relieved by rest, talk to us.