

Winter Sports – Safety and Conditioning

The winter season is here, and athletes of all ages may be as active as they were during the summer. While the cold weather sports are great forms of exercise and a lot of fun, injuries can always occur. It is helpful to know how to protect yourself from painful and potentially dangerous situations. In some countries, the number of injuries that require medical assistance due to sports is double the amount caused by car accidents. Proper equipment, knowledge of the sport, and specific preparation, such as stretching are a must. With just a few simple precautions, you will be able to avoid needless injuries, whether it is on the court or on the slopes.

Every Year:

- Roughly two out of three runners are injured.
- Among all age groups, 75% of joggers experience an injury, keeping them out of commission at least one week.
- Half of all football players in American high schools are injured.

Sports injuries are usually caused by:

- Inadequate conditioning by the athlete.
- Poor-fitting or broken-down equipment.
- Lack of maintenance of sports facility or area.
- Too little rehabilitation of previous injuries, and a premature return to the sport after an injury.

The normal progression of muscle soreness for relatively inactive people who suddenly participate in strenuous activity is:

Day1: Muscles feel OK.

Day 2: Some soreness.

Day3 Cramping, tightening.

It is during this third stage that serious injuries are most likely to occur.

Sports-specific conditioning optimizes particular muscle groups for one type of activity or another. This method of preconditioning targets unique stresses put upon specific muscle groups and prepares your body to meet the demands of your favorite sports.

The goal of a good conditioning warm-up is to reduce the risk of injury (especially in areas of previous trauma), as well as to improve athletic performance by balancing the force effects of muscles and ligaments.

Off-season preparation should include general fitness training. Skiers, snowboarders, swimmers and those involved in racquet sports should begin focus on the particular musculature necessary to perform the sports well.

Snowboarding/skiing

One of the most popular activities during the winter months is to hit the slopes with either a pair of skis or a snowboard. Beginners and experts alike are drawn to snowcap peaks, ready to meet any challenge the mountain presents.

Going downhill at rapid speeds can be one of the most exhilarating feelings in the world, but be wary – these trails can be risky. It is important to be prepared, physically and mentally, for the extremes that these snow sports will take you, even if you're just going out for an easy cross country trek.

Any easy way to prevent injury is to make sure you are in proper shape. Certain exercises, such as ones that emphasize the quadriceps and lower back, are good conditioning routines for skiing and snowboarding. Bicycle riding, step training and running are all good examples. All of these should be practiced in advance of the actual day of skiing, so your body can adjust to your workout.

A warm-up right before you go out is a good idea – it will prevent soreness and perhaps unwanted injury. It is very important to stretch completely during this time, because your muscles tighten more than normal when exercising in cold weather. Make sure your equipment is in top condition, and check everything from the bindings to your poles – if your equipment is damaged, your risk for injury is increased greatly, no matter your skill level.

- Make sure your body is ready and in top condition for skiing.
- Be sure you stretch and warm-up before you ski – it loosens up the muscles and gets your heart rate accelerating.
- Check your equipment before going out, especially the ski bindings.
- Don't do anything you don't feel you can do. If a black diamond seems above your skill level, then don't hesitate to pass it over. It is better to do what you safely can than to risk injury.

Ski Techniques

For skiers, the most common injuries are to the knee, especially the anterior cruciate ligament (ACL). To decrease the chance of ACL injuries, you can change the way you ski downhill. When skiing with the “phantom foot” mechanism, where the tail of the ski is a lever that points directly opposite the foot, the risk of ACL injury is much greater than other methods. Another dangerous tactic is the “boot-induced” mechanism, where a loss of balance is corrected by hard landings on the foot. Training programs are available to show ways of reducing the chance of injury, and should be considered for beginner and advanced skiers. Following these tips, as well as using common sense, will help you enjoy the slopes without injury or pain.

Snowboarding

Besides regular skiing, a popular mountain sport that has emerged during the past couple of years is snow boarding. Snowboarding provides the user a chance to perform daredevil tricks on a fiberglass board, not entirely unlike a skateboard without wheels. Snowboarding is growing in popularity at a skyrocketing rate, and is now an Olympic sport. All of this makes it a sport with a high injury rate.

Statistics shows that most snowboard injuries occur to males in the 20-30 year old age group, and most involve solo snowboarders rather than collisions. Snowboarding injuries are more common with rigid boots than with soft ones. Also, studies show that more injuries occur when the rider is in the “regular” position. Either way, the leg placed forward on the board tends to be injured more than the back leg. Note that a high percentage of snowboarding injuries are to beginners, due to the complex nature of the sport. If you are a beginner, lessons are strongly recommended. Injuries are more likely to involve the hand, wrist and upper extremity, as compared to skiing.

- If you are a beginner, training courses are recommended.
- Don't tire yourself out. Both skiing and snowboarding are very taxing on your body, and if you are tired and not alert, you risk injury.
- If you are falling don't try to stop it – you can twist your legs and risk serious injury.

Physical Fitness

Everyone knows that exercise is good for you – it improves your health, it gets you into shape, and you feel better after a good sweat. But exercising may be more helpful than you think – research tells us that chronic exercise benefits patients with heart disease, diabetes, osteoporosis, depression, and other illnesses and conditions. Also 12% of the annual deaths in the U.S. can be linked to a lack of physical activity, a statistic that can be improved. Exercising is easy – if you make time for it. Recommendations for adults are least 30 minutes or more of some form of moderate exercise – daily slow jog to vigorous workout. It doesn't matter how or where you get it – 10 minutes of work-out 3 times a day is just as effective as 30 straight minutes.

An easy way of getting your daily dose of exercise is by using stairs. Instead of taking an elevator or escalator, walking up a flight of stairs is an easy way to better your health. Another easy way of getting your exercise is to walk. Walking to and from places you normally wouldn't is a good way to reach 30 minutes a day, and can be done creatively – some examples are to walk from the parking location further away from work. If you are pressed for time, both of these simple tasks will help you live healthier and feel better.

Air glider

Although an air glider machine is a very popular complement to home gyms, they aren't the best choice for serious exercisers trying to improve their fitness levels. Working out on one of these machines at its maximum potential is only equal to the workout received by a quick walk or slow jog. It is better to use something like a ski machine, elliptical trainer or treadmill if you are looking for tougher workouts.

Stationary Bicycles

A stationary bike is a great exercise machine, but it should be kept away from children. Children can easily get their hands caught in the spokes or chain and sprocket areas of the bike, which can result in severe hand injuries. It is possible to shield the spokes and chain mechanisms, and it is recommended not to let children have access to the bike.