Winter is Here. Learn How to Maintain Your Fitness Through the Colder Months.

NYU Langone MEDICAL CENTER

Sports Performance CENTER

Winter 2016

Maintaining Your Fitness Through the Winter Months

The winter months can present challenges to maintaining your usual fitness routine, with holiday travel, events, and loss of motivation in the cold weather. However, you can change your outlook and actually benefit from the seasonal changes. Even the most elite athletes need to periodize their training, taking lighter weeks to let the body—and mind—recover. Getting adequate sleep, nutrition and unstructured activity during lighter training periods will help you perform at your best year round.

Now is the optimal time to do activities that are not part of your normal

routine, using different muscles in different movement patterns than your body is used to. Varying your exercise is important for maintaining muscular balance, avoiding injury, and maintaining motivation.

Heather Milton, exercise physiologist at NYU Langone's Sports Performance Center offered more specific fitness motivation tricks in a recent *realsimple* article.

Read The Article Here

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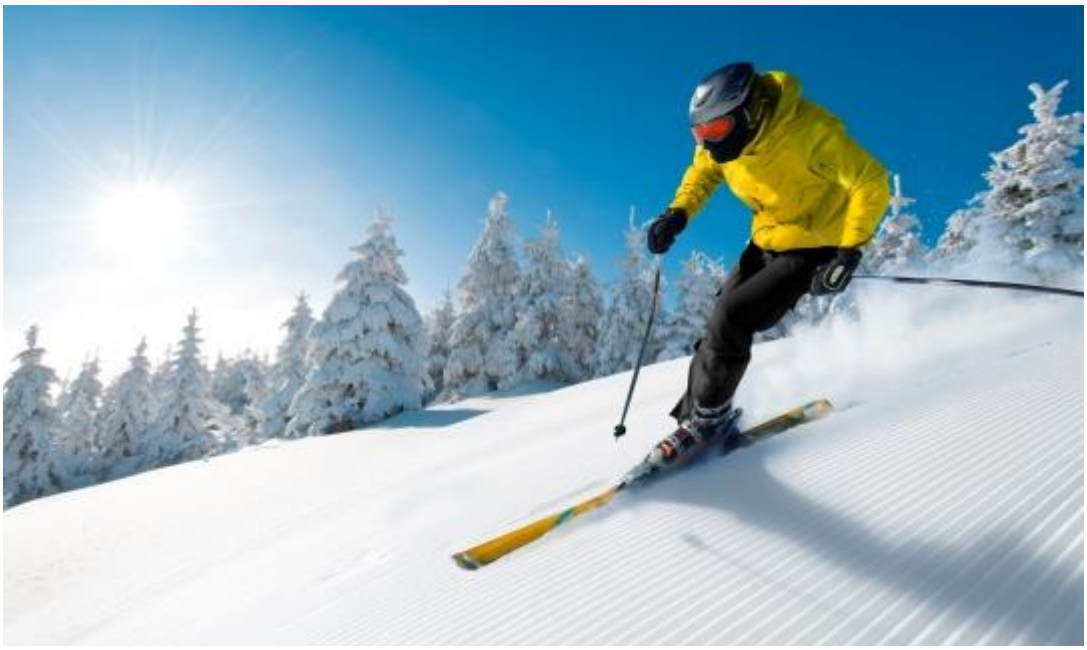


Preventing Injury and Maximizing Performance in Snow Sports

by Heather Milton

Prevent skiing and snowboarding injury, and maximize your performance on the slopes with these tips:

Prepare! Give yourself seven to eight weeks of dry-land conditioning before hitting the slopes. Start your land-based training with high repetitions (12-20 reps) of body weight exercises. Try planks, side planks, double leg squats, lunges, deadlifts and single-leg front and lateral squats. Performing these exercises over a high rep range will also begin to train the aerobic system while you condition your muscles and tendons.

Build a base. Skiing and boarding are sports that require many repetitions of similar movements and changes of direction, and building a stable, core training is paramount. This involves training not only abdominal muscles, but also gluteus medius and maximus muscles in your buttocks, and knee flexor and extensor muscles.

Balancing act. After you've built a strong base, start to add balance challenges similar to what you may experience on the slopes. Do your squats on a BOSU ball. Add kettle bell lateral lifts in place of deadlifts. Do lunges on balance disk lunges, and add leg lifts to your planks. This will train your body to make balance adjustments as well as increase core activation. As you work on improving your aerobic conditioning, you can add walking or running down a hill, zigzagging back and forth. Also, climbing stairs can mimic skiing strength and balance demands.

Progress appropriately. Yes, plyometric box jumps are great for training, but only if you've put in the effort in the rest of your training before adding them to your routine. Once you've done 4-6 weeks of strength and aerobic work and have no major injury history you're ready to go. Start with a low step and do lateral box jumps, squat jumps, and skaters .

Prep for the elements. Decreasing the amount of fatigue on the slopes can greatly decrease the chance of injury. Don't forget that when you are at altitude, there is less oxygen in the air, and you may feel your heart beating faster or feel more tired. To prepare, add one to two days of High Intensity Interval Training (HITT) to your usual routine a few weeks before your first ski or boarding trip. Start with sprint repeats (you can use whatever modality you prefer): 30 seconds all out, with 30 seconds recovery. Repeat eight to ten times. This will build aerobic and anaerobic capacity and prepare you for using both energy systems on the slopes.

A Physician 's Perspective on Common Skiing and Snowboarding Injuries

Insights from Wayne Stokes, MD, Director of Sports Medicine, Rusk Rehabilitation at NYU Langone Medical Center

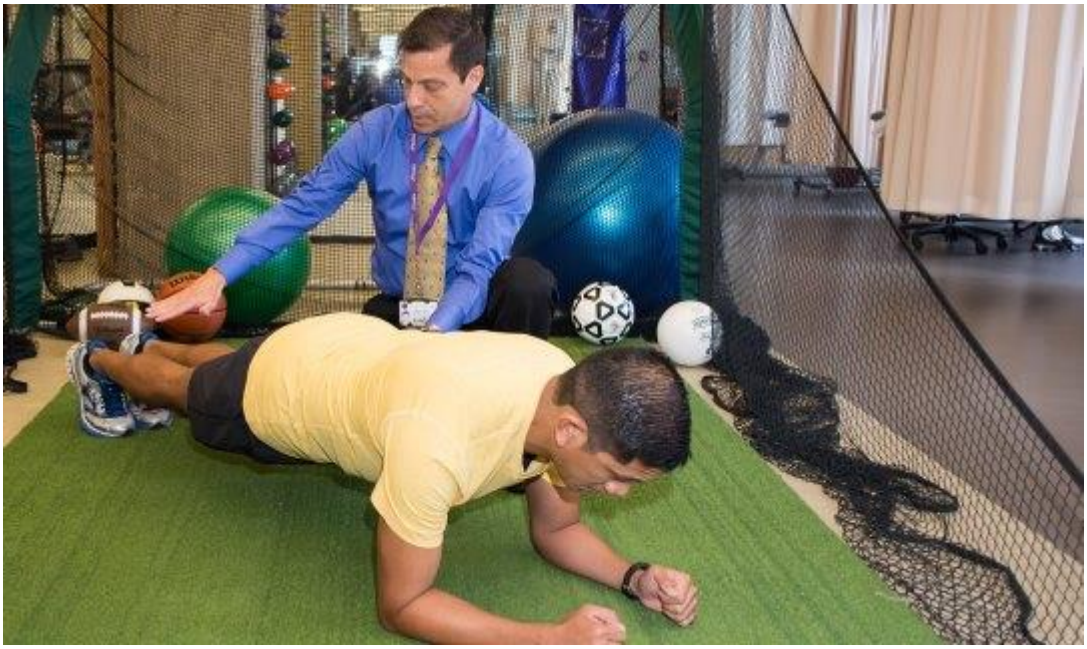
Dr. Stokes specializes in the comprehensive diagnosis and non-surgical treatment of musculoskeletal issues due to trauma or overuse. He has provided care for many skiers and snowboarders, most recently at a ski trauma clinic in Park City, Utah, where he treated patients with a wide variety of orthopaedic injuries on a daily basis.

Take the time to prepare before you hit the slopes, as fitness training incorporating strength, motor control from your central core, and aerobic and balance exercises will decrease your chance of an injury.

The most common injuries we see in the upper extremity are clavicle/collar bone fractures, shoulder dislocations, wrist injuries and fractures, and thumb injuries. They often happen very quickly and can end a season of skiing and snowboarding. Some of these injures are going to happen, but others are more preventable by focused training.

Lower extremity injuries, such as ACL and knee meniscal tears, happen on a regular basis to all level of skiers and often require MRI's to fully document the extent of injury. Traumatic knee leg fractures are not uncommon and often require direct transport to an ER. Ankle injuries are less in the booted skier but are seen in boarders more often.

Lastly, concussions are prevalent among winter athletes, and are best prevented by wearing a helmet and controlling your speed.



Get to Know Our Staff

Senior Clinical Exercise Physiologist, Harry Pino, PhD, at NYU Langone's Sports Performance Center is an expert when it comes to maintaining running through the winter. He is a Level 1 U.S. Track and Field Coach and has run a total of 18 marathons, including 13 finishes in the Boston Marathon.

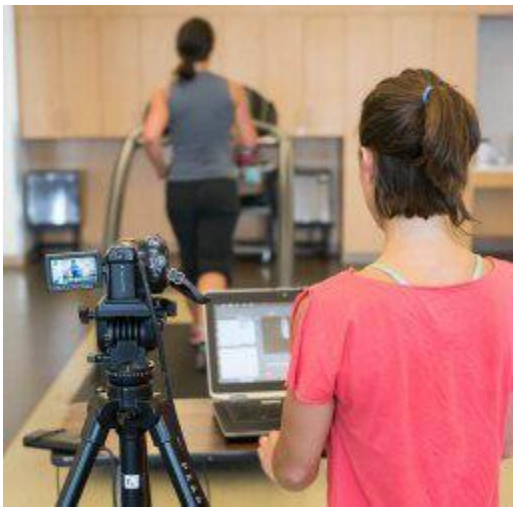
Dr. Pino, tells us how he maintains his running through the winter season.

My first goal during the winter season is to sit down and reflect on the past year. By celebrating my running accomplishments and analyzing difficulties during the 2015 running season, I can start to map out my running goals for 2016. One thing I tell all my running friends is to remember that there will always be ups and downs during the year as you cannot maintain peak fitness all the time.

The biggest mistake I see runners make during the winter is logging the same high mileage that they put in during the fall. This can lead to fatigue and burnout by early spring. The winter season is a great time to actively rest and let my muscles recover and rebuild. I introduce different fitness routines into my training. I may replace an evening run with light weight training, suspension system training, or even cycling. When I do run in the winter, one of my favorite winter activities is to run off road, as it improves flexibility and core strength.

Here are a few running strategies to use during the off season:

- Adding different types of training will help maintain the fitness that you've accumulated. I recommend running on the lower base of miles until about 18-20 weeks out from the marathon, and then building into the higher volume and intensity training. This will simply keep you staying fit and motivated. Doing so will allow you to maintain a solid foundation of mileage, give your body and mind a little time off from the demands of marathon training, and rejuvenate with a variety of workouts.
- Include different speeds such as fartlek, hills, tempo, and intervals. A mixture of workouts at shorter distances also allows you to train at a variety of speeds rather than just a long, slow runs. It's a fun way to run playfully and with a hint of purpose.
- Have some FUN! I enjoy other cross-training activities, this is the time to plug them into your schedule, even if that means running one less day during the week making the most of the winter season is an effective way to boost fitness, utilize a variety of muscles, and keep the program fresh. As I mentioned, a variety of endurance workouts during the off-season, will keep you motivated without losing fitness and the risk of burn-out or injuries from holding steady at higher miles too long.



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Fitness Apps: Why They Really Do Help You Exercise More

Heather Milton explains why fitness apps help improve motivation to exercise. Read The Article Here

What Happens to Your Body When You Stop Exercising?

Harry Pino, PhD, explains the benefits of exercise and what happens when you stop exercising. Read The Article Here

The 5 Best Ab Exercises You Need In Your Life

Heather Milton explains one of the five best ab exercises you need in your life in *Fitness* magazine. Read The Article Here

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Our mailing address is:

333 East 38th Street, 5th Floor

New York, NY 10016