Staying fit during winter’s “snow” problem for rowers who ski

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Photography by Amy Wilton

Unlike cross-country skiing, I discovered rowing relatively late in life. It was identical twin daughters rowing in high school, one of whom eventually became an Olympic rower, that lured me into the sport. On the other hand, I have been skiing since childhood. As such, learning to ski was a gift I passed on to my children from the time they could walk. My children, in return, urged me to become a rower. Both daughters and I have grown from the encouragement we’ve given each other.

Having completed more than 30 cross-country ski marathons during the last decade and now having three or four seasons as a competitive master rower behind me, I’ve learned much about each sport. Both sports, for example, put you outdoors at the mercy of the elements. Skiers must contend with varying snow conditions based on temperature and humidity. Rowers have wind and waves to worry about. Both sports are highly aerobic and require you to be in top physical shape. All things being equal, the better your aerobic “engine,” the better your results at the finish line. Both sports provide total workouts because so many different muscles are utilized. Balance is of paramount importance in both sports. Good skiers are able to make skiing look effortless just like non-rowers fall for that line that goes something like “the single sculler glides effortlessly.” Rowers know that sculler may be sucking wind big time at the end of some tough workout. Finally, cross-country ski and rowers both enjoy the serenity of the outdoors. So, if you’re fortunate enough to live in proximity to a snow belt, strap on a pair of cross-country skis and give your conditioning a jump start for the rowing season.

Skate or Classic Technique? Just as hatchet blades have changed rowing, so too did skiing skis change cross-country skiing. Until around 1967, skating on skis was almost unheard of. I remember standing at the start line with 6,000 cross-country ski marathons in 1988 and watching two Swedish national team skiers skate to a commanding lead within seconds of the start. The rest of the field was shuffling on classic skis with klister wax. The skating revolution had started.

As far as conditioning is concerned, either the classic (diagonal) or skate technique will get you into shape. If you’re just starting to ski, it’s probably easier to use the classic technique where skis are moved parallel, usually in groomed tracks. On the other hand, many high school ski coaches start their beginning skiers out using the skating technique, where the skis are splayed out at an angle, and the skier looks like he is skating on snow. I alternate my training and use both techniques. Each style of skiing uses many of the same muscles although each has its own set of unique muscle requirements, too. Skating, for instance, requires more upper body strength. If I’ve put in a hard day of skating, I’ll frequently choose to do diagonal the following day to give my upper body a rest. Choose the technique you’re most comfortable using. After a lifetime of skiing, I’m still refining both techniques. Just like rowing, there’s always room for improvement.

Heart Rate Now, some specific training advice. If you don’t yet own a heart rate monitor, go out and buy one. If it’s not in your budget right now, at least start monitoring your heart rate the old fashioned way—by taking your pulse on your wrist or the carotid artery of your neck. More than any other thing you do, monitoring your heart rate will focus your training. You must have a training plan if you want to become a better athlete. Last winter, I competed in three cross-country ski marathons, achieving a personal best in each one. I attribute my success primarily to the fact that I trained using heart rate data and monitored my heart rate during those races. In short, my heart rate monitor has taught me to train smarter.

One of the cardinal principles of aerobic sports training is to alternate your hard and easy training days. By monitoring your heart rate, you’ll have an accurate measure of your level of exertion. The standard formula used to determine your maximum heart rate is (220 - Age) = Maximum Heart Rate. In my case this computes to 220-53 = 167. While this formula isn’t perfect, it will get you close. Once you know your maximum heart rate, you can ski using the following guidelines and drills.

Steady State Training (60-70% of Maximum Heart Rate) During these workouts I don’t want my heart rate to rise above 130 beats per minute. I’m constantly monitoring my heart rate to make sure I’m going easy. My heart rate monitor even averages my pulse for an entire workout, so it’s easy at the end of a training session to see if I’ve kept in this range. Typically, these are the workouts I like to do classic skiing with my wife. She prefers to “smell the roses” when we ski, and the 130 bpm maximum allows me to ski beside her and forces me to hold my speed down. We talk about the scenery, the trails, our kids and other topics of interest. Talking helps me keep my pace in check.

Another strategy I use to keep my heart rate in check when skiing with a group of friends is to bring up the rear of a line of skiers. It’s a controlled way of keeping me from burning the upper reaches of my heart rate. It’s also a chance to socialize with the stragglers in our party. More importantly, it’s an excuse not to get caught up in the testosterone surge that occurs any time you put two or more males near each other, on snow or on the water.

These long slow distance workouts are excellent opportunities to work on technique. When I’m using the skating technique, for example, I practice seeing how long I can balance and glide on one ski. I focus on weight transfer keeping my weight over the ski on the snow. In skating, complete weight transfer over the gliding ski is crucial. Once you’re over that gliding ski, you’ll slowly start to feel more relaxed.
When I'm using the classic technique, I practice rotating my hips slightly and making sure they are up and over my gliding ski. I "preload" my kicking leg by bending it slightly before I kick down to push myself ahead. I continually think about skiing with my hips over my skis and try to maximize my glide from each kick. This is another good way to practice weight transfer, one of the secrets of efficient skiing.

Long slow distance workouts usually last three or more hours. When I'm training for a marathon, I do four- or five-hour sessions. During these sessions, it's important to carry lots of liquid and drink often. Sports drinks work well since they contain some carbo nourishment. I also eat, usually one or two energy bars. My big secret, though, is to suck on hard candies once I've gotten a half-hour or more into the training session. These sweets have gotten me through some grueling training outings and marathons. As I suck on these candies, I can almost feel the sugar's energy seep into my system. Don't worry about the "food police" looking over your shoulder. You're going to burn a lot of calories during this type of workout, so don't feel guilty about consuming some sugar. You'll be glad you did after a couple of hours. It's at this point you'll have exhausted your glycogen stores unless you've eaten along the way.

**Endurance Level**
(70-80% of Maximum Heart Rate)

Before I started monitoring my heart rate, the bulk of my workouts on the snow and water were in this range.

When I row without a training plan and with a group of other male rowers, this is the type of workout I'll almost always inadvertently end up doing. The same is true when I ski. It took a heart rate monitor to alert me to the fact that I was in a rut!

There's nothing wrong with endurance-level workouts. You simply need to keep in mind that there are times you need to go much slower as well as much faster. The danger for many of us is that we are weekend skiers. This means you'll probably do a Saturday and Sunday ski and unknowingly end up doing the same workout in this steady state range. It's much better to do a long easy training day on Saturday and throw in some short fast interval sprints on a Sunday short training day. The training effect will be greater.

During endurance-level workouts you want to see if you can apply the skiing techniques you've been
developing during those long slow distance sessions. Think about weight transfer. Try some double poling when you're on the flats, remembering to bend from the hips. Don't let your knees bend. You don't want to squat. Try to keep your weight up over your skis and let gravity compress your upper body toward the tips of your skis. These double poling sessions will build some big triceps and lats.

**Short Intervals (80-90% of Maximum Heart Rate)**

Short intervals consist of one- or two-minute bursts of speed. When I'm skiing, it means jumping out in front of our party and “running on the jets.” After an interval, I'll turn around and slowly ski back to the group. That's my recovery time. Early in the season, I may start out doing 10 of these. As the season progresses, I gradually increase the number of reps up to 20.

Another strategy a competitive skier friend and I will use is to do short sprints to a specific spot on the trail such as to a power line pole. We push each other to bring our tempo up to race standards. We know these sprints won't last for long, so it's easy to get psyched for a short, intense sprint. We give ourselves plenty of time for recovery after these efforts, usually talking to each other as we analyze our performance. And, just as in rowing, you want to ski (paddle) after these sprints to allow the lactic acid to be flushed from your muscles.

These short interval pieces are where you stress tempo. If I'm skating up a hill, I try to put a little “hop” in my step and be light on my skis. If I'm classic skiing, I crank up my rhythm to a rate faster than race pace. Your objective is to see if you can maintain your technique while pushing yourself for short distances.

**Long Intervals (80-90% of Maximum Heart Rate)**

These hurt. These are the lactic acid buildup sessions I do mostly on hills. Skiing uphill is an easy way to get your heart rate up into the 80% and above zone. Generally, long interval training for me consists of 3- to 5-minute sessions followed by an easy recovery of the same duration. Then, the session is repeated over and over until the workout is complete. I may start the season doing five reps and build until I reach 10 toward my peaking week.

The American Birkebeiner Cross-Country Ski Marathon provides lots of long interval experiences on the rolling glaciated terrain of the 52 km course between Cable and Hayward, Wis. Each of the hills gets your heart rate up, and then you recover on the downhill.

One of the centers where I ski has a trail system that gently climbs up the side of a mountain. It's a great place to practice long intervals because the hill seems to never stop. After a five-minute burst of speed, I'll throttle back and recover. Then I repeat the session again and again until I reach the summit. In ski racing circles, there's an old saying, “Races are won and lost on the uphill.” Use the terrain to help you get physically fit for skiing and rowing.

**Fartlek (Varying Levels of Exertion)**

These “speed play” workouts are my favorite. I like to do these training sessions alone on gently rolling terrain. It’s the perfect setting. Envision yourself as dancing through the forest while you’re skiing. When I'm skiing well, I can almost hear a Strauss waltz. I concentrate on technique, trying to be as rhythmic as possible, using good form and “waltzing” over the trails. On the uphill, I push relatively hard, and on the downhill I relax and enjoy the scenery. I always try my technique to becoming a better all-around skier. During these sessions, I try to put it all together by applying all the drills I've done into one fluid training session.

**Racing (Maximum Effort)**

Sooner or later you may want to get involved in cross-country ski racing. Races are a chance to measure the extent of your training and will teach you sessions you won't learn any other way. For instance, a 3.7-mile race up the Mt. Washington Auto Road in New Hampshire, taught me that even though I'm a much more efficient skater than classic skier, I'm not very efficient using the skating technique on hills that long or steep (12% average grade). The race also taught me that it's not smart to do a hard erg workout the day before the competition and to drive four and a half hours on the day of the race.

**Take a Lesson**

Any competitive rower can tell you the benefits of having a coach. The analytical eye of the instructor can identify weaknesses in your rowing technique and set you on the road to recovery. As a former professional cross-country ski instructor, I can't stress enough the importance of taking a lesson from a certified instructor. Videotape the lesson if possible. Seeing myself on skis or in a boat really helps me understand what the coach is trying to tell me. Just as the rowing stroke consists of a series of minute, connected movements, so too does cross-country skiing. A good instructor will be able to analyze your technique and quickly offer some helpful pointers.

In Europe, there are hundreds of cross-country skiing clubs that hire coaches to help their members. Unfortunately, the club/instructor phenomenon hasn't caught on in America. You'll have to hire your own personal coach for an hour. In the course of a season, take a couple of lessons. It will make your skiing both more efficient and enjoyable.

**Mix It Up**

If you're like most of us, your cross-country skiing will be done on weekends or vacations. Use your “down time” to strengthen your muscles to make your skiing and rowing more enjoyable.
One of the primary reasons to become a cross-country skier in the first place is because you don’t have to sit on an erg all winter. Nevertheless, erging is an excellent complement to cross-country skiing for those periods when you can’t be on skis. My hunch is that sooner or later, you’ll begin to compare your level of exertion on skis to that on the erg. Steady state, endurance, long and short intervals and fartlek sessions can be done on skis, your erg or on the water. The important thing is to remember to monitor your heart rate to see that you’re training in your desired zone, and don’t forget to follow the hard/easy-day training sequence.

In the fall, once the rowing season has ended and there isn’t snow for skiing, you may want to try roller skiing. Roller skis provide specific training for skiing. Many sport shops now have demo roller skis that they’ll rent. New roller skis usually sell for around $200-300. If you shop around, however, you may find a good deal. Sometimes dealers sell their demo equipment. This past winter, I found a pair of old classic roller skis for $10! I usually spend about one or two months on roller skis before the snow flies. Some people roller ski all summer. As a rower, however, I can’t seem to find enough time for both rowing and roller skiing.

Keep a Logbook. How many times have you heard the phrase “Keep a logbook?” Over the years, I’ve experimented with lots of different commercially available logbooks designed for runners, rowers, and cross-country skiers. I’ve finally settled on my own format that I keep on a computer spreadsheet program. Each day, I record the following information:

- Date
- Distance in Kilometers
- Total Training Time
- 500 Meter-Splits Average (for erg only)
- Description of the Activity (e.g., XC Skier-Short Intervals)
- Average Heart Rate
- Time Spent Training Above Training Zone
- Time Spent Training in Training Zone
- Time Spent Training Below Training Zone
- Detailed Description of the Training and Other Anecdotal Information
- Number of Kilometers Tracked Each Month
- Number of Hours Spent Training Each Month

Reviewing my training log lets me see if I’m alternating my hard/easy days and if I’m on schedule for upcoming competitions. It also allows me to use a four-week periodization training schedule and helps me taper before a big event such as a cross-country ski marathon or a head race. By this, I mean I increase my training load for three consecutive weeks and then back off slightly for the fourth week. When I start the fifth week, I pick up where I left off from week three of the first period.

Each year, I go back and see what type of training regimen worked and what didn’t. The log also serves as a diary, reminding me of some of my more pleasant memories competing or training with friends.

Some Final Advice. Keep your training perspective. In your quest to be competitive, don’t overlook the importance of friendship and companionship on the ski trails as well as at the boat house. You’ll be happier in the long run. Don’t become compulsive and obsessive about your training regimen. No one will want to ski or row with you if you can’t maintain some type of socially acceptable behavior.

Cross-country skiing is a complementary sport for rowing. Both sports stress balance, power, conditioning and being outdoors. Cross-country skiing can help you beat the wintertime blues and make you a better rower. Vary your training, monitor your heart rate, keep a logbook, and most importantly, have fun.

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