



# new england NORDIC NEWS

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## Special Respiratory Problems in Nordic Skiers

Donald M. Christie Jr., MD, FACP, FACSM; Chair, NENSA Sports Medicine Committee

As winter approaches many skiers will discover -- or rediscover -- certain breathing difficulties when training hard and competing in the cold, dry air, difficulties they don't experience in warmer, more humid weather, or with light exercise.

### The Problem

The chief problem -- found to afflict 30-50% of elite Nordic skiers when they are properly tested -- is exercise-induced bronchospasm (EIB), also called exercise-induced asthma (EIA) because the airway reaction in part resembles that seen in "real" asthma. EIB is a transient, reversible decrease in airway flow triggered by breathing large volumes of dry air, typically cold, dry air, for several minutes, a reaction also noted after one ceases vigorous exercise of at least several minutes' duration. EIB occurs only at the very high breathing rates and volumes associated with efforts that maintain heart rates of 80% of one's maximal heart rate, or greater. (This is threshold- or above-threshold-pace territory!)

The severity of airflow reduction may vary from time to time, and from person to person. Occasionally, there is a "late phase" reaction, in which EIB occurs more than an hour after exercise has finished. Once the initial EIB has occurred, there is a refractory period of 30-90 minutes, during which time intense activity does not provoke this phenomenon.

Asthmatic athletes appreciate that exercise, especially exercise in cold, dry air, is yet another "trigger" of their underlying condition. However, most discover that they can overcome this problem by carefully adjusting their basic treatment plan and using the warm-up phenomenon (See under "Treatment").

The Symptoms and The Diagnosis Affected athletes report a sense of burning or tightness in the chest during very intense activity such as sustained effort in a mass start, double-poling, long hill climbing, or making a surge. They sense that they are more short of breath than they ought to be for even that level of effort. A dry, hacking cough begins within seconds after one finishes exercise. Except in asthmatics, wheezing is usually not a feature of EIB. Proper testing (read below) can determine if one is simply experiencing the airway irritation we all know upon suddenly breathing our winter air, or truly suffering from decreased

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airway flow.

The diagnosis of EIB would seem simple: Just ask athletes if they have these symptoms and then test and treat them as indicated. However, experience has shown that even in those truly afflicted, a questionnaire is not a sensitive way to detect likely "victims." Long-time skiers are so used to the symptoms, and have usually accepted them as "normal" for so long, they do not give them a second thought. They don't understand what it's all about until they perceive the difference with treatment. ("It's as if I suddenly had another muscle 'down there' to breathe with!" exclaimed one veteran skier after first-time treatment for EIB.)

Recounting one's symptoms to an unsuspecting or unknowing physician likely elicits either no reaction, or an incorrect one (for example, a diagnosis and treatment of "asthma," or of a "chronic chest cold"). Standard pulmonary function tests performed in a warm room and at rest will be falsely negative. An appropriate medical interview and examination, followed by a sports-specific functional test, performed in cold, dry outdoor air, must be conducted to fairly affirm or refute the suspected diagnosis of EIB.

An experienced sports physician conducts a functional field test, using simple measurements of airway flow, along with clinical observation including heart rate monitoring, while having the skier (runner, cyclist) sustain a pace sufficient to

produce very high ventilation. The diagnosis of EIB can be  
Respiratory Problems, cont'd on pg.11

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### NEW ENGLAND NORDIC NEWS

NENN is published six times a year as a membership benefit of the New England Nordic Ski Association. If you are not yet a NENSA member, please join — support nordic skiing in New England!

To request a NENSA membership application, contact the NENSA Administrative Office. For fastest processing, send your membership fee in with your request for the membership form — as of 4/25/99, it's \$30 for the first member of the family (\$40 if not affiliated with a club), and \$20 for each additional family member (\$30 if not club-affiliated), payable to NENSA. When you return the signed membership form, you'll receive the NENSA competition guide and other membership benefits.

For information about life membership in NENSA, contact the Administrative Office.

### DEADLINES

Articles and pictures submitted for publication in NENN must be in the editors' hands not later than:  
Midwinter (January) issue: November 25  
Late Winter (March) issue: January 25  
Spring (May) issue: March 25  
Summer (July) issue: May 25  
Early Fall (September) issue: July 25  
Late Fall (November) issue: September 25

Photos and graphics are always welcome. If related to an article, photos or graphics should be submitted with the text.

### ADVERTISING

For complete particulars on advertising in NENN and/or the NENSA Competition Guide, contact the Administrative Office.

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## FROM THE EDITORS

This issue marks the start of our eighth year as the newsletter of the New England Nordic Ski Association. The fact that it's been seven years is stunning; what is equally astounding is how far NENSA has come since that spring day seven and a half years ago when a bunch of skiers sat around a meeting room at Stratton Mountain School and planned as best they could for the future. Now we have programs for skiers of all ages, ranging from our weekend Bill Koch League Festival to our Masters Championships weekend, with all sorts of events in between, such as the Marathon Series (with a touring class and gourmet feeding stations) and the Eastern Cup races that draw our finest regional racers (and now include citizens classes too!). We offer clinics for our coaches and officials that are run by best-in-the-world coaches and officials. We have mentoring programs as well as seminars, ski trips to wonderful places nearby or far away. We have a sports medicine committee that contributes to our understanding of our sport. There's more -- be sure to see Fred Griffin's column on page 12 of this issue. And be sure to regularly check the NENSA web site ([www.nensa.net](http://www.nensa.net)) for details on the schedule, programs, photos, travel accounts and resource articles.

None of this can happen without the support of a dedicated and enthusiastic volunteer base. You are the ones out there helping run races and clinics, waxing kids' skis, writing articles, carpooling to camps and races, talking to local sports stores and ski reps about donating equipment for youth programs, helping schools start up programs, talking up our Women's Ski Day at work or at the store. Without you there couldn't be a NENSA.

And none of this can happen without financial resources and the support of the wider community. Look at pages 7-10 of this expanded issue -- our special advertising section. Be sure to tell these sponsors "Thanks!" and give them your patronage whenever you can.

Have a wonderful early winter!

Mary Hamel,  
Anne Donaghy, co-editors

Did you know that this winter the U.S. Nationals will again be in the East?

Did you know that NENSA holds a roller ski championships (and that this year is the fourth year, and that they are going to be held at a place called Val Halla?!)

Did you know that NENSA is sponsoring ski trips to Russia and Canada this winter?

To find out about these things and much, much more go to the NENSA web site! [www.nensa.net](http://www.nensa.net)

## BILL KOCH SKI LEAGUE

Bill Koch skiers and parents: Be sure to check out the Bill Koch League link on the NENSA web site ([www.nensa.net](http://www.nensa.net)). It's a great resource, plus it has valuable contact information for you. The following has been reprinted from there:

### Building a "Ski Park"

A Ski Park is a snow playground which can serve many purposes: 1)

Gives kids who are dressed and ready to go more quickly than their peers -- the early birds -- a place to stay busy and stay warm

2) Provides a format for fun competitions: obstacle course races or relays, jumping contests, competitive drills

3) Provides a forum where kids learn skiing aptitudes:

- balance, agility, flexibility, strength, coordination

What You Need: cones, bamboo poles, rope, an existing playground or terrain with promising features and above of all, a sense of fun

Some Possibilities Include:

- set up a course where kids ski up a small hill and slalom down between cones or gates

- set up two parallel courses and kids can race each other

- groom a short course (300m?) that utilizes a side hill in a pattern that requires left hand lead and right hand lead, short sharp climbs and descents, sharp corners which require racing turns, etc.

- build a SMALL bump anywhere and you'll be a hero

- create an Obstacle Course that might include
  - a sharp 360 degree turn around a tree(s) or pole(s) or piece(s) of playground apparatus

- a rope(s) or 2x4's or plastic pipe(s) to jump over

- places where kids have to duck low or even sit on skis to get through e.g. existing playground apparatus, a picnic table, two bamboo poles tied together in a "vee"

- a section where they balance just on left ski and later on just on right ski

- little jumps

- cones in slalom pattern(s) to maneuver through

- a place to ski backwards

- a place to do a star turn

BE CREATIVE. Think like a kid. You can set up a simple Ski Park in minutes. You can hold relays and do organized activities in them or you can simply have them available as a place for the kids to go play.

### Forerunning At the 2002 Winter Olympic Games

By Morgan Smyth

Morgan began skiing with the Berkshire Trails Bill Koch League when she was 8 years old. In 9th grade, she enrolled at the Stratton Mountain School where she is a senior this year. Her results at Senior Nationals last year (when she was still a J2 skier) earned her a coveted invitation to forerun at the Olympic Games in Salt Lake City.

During the first two weeks of the 2002 Winter Olympics, I met 19 other cross-country skiers and biathletes from all different parts of the country who had the opportunity to forerun for the cross-country and biathlon events. This was the experience of a lifetime.

As a forerunner, each day began very early with traveling from our rooms that were created from partitions of a middle school gym in Park City to Soldier Hollow. Upon arriving at the Olympic venue, we went through extensive security checks, including metal detectors, and bag searches. We then ate breakfast at the athlete lounge. It was really exciting to be amongst the athletes. It would then be time to get waxed up and ready to head out onto the course.

A forerunner has many duties. Our primary job was to make sure that the course was skied on, creating equal conditions for all of the competitors. This job was most important on snowy days. On one day in particular, it was snowing very hard and the forerunners were set out in groups of two in order to insure that the tracks would not fill up with snow.

In addition to preparing the course, our secondary jobs included testing all of the race systems. To do this we went through ski marking and one person got to wear a timing chip on their leg. When we skied on the course we wore official blue racing suits and orange bibs with a big letter "F" on them. This notified the media, race officials and spectators of the racers on course.

The most exciting part of my experience at the Olympics was watching the finish of the women's pursuit race. After we completed skiing the course, the forerunners were able to watch the racers. We had a prime spectator location, which was right near the finish line. Only members of the media and coaches were allowed in this area. From this location I was able to see Canada's Becky Scott cross the finish line in third place. This was a podium finish! She is the only North American woman to medal in cross-country skiing. I was really inspired by seeing the ecstatic look on her face when she found out! Her reaction showed more happiness than I could ever imagine.

The 2002 Olympic Winter Games was an experience that I will never forget. I was able to be involved in a world-class event without the pressure of being a competitor. I interacted with people from around the world. Most of all, I was inspired to strive to be the best skier I can be. In addition, I left the Olympics with confidence that one day, North Americans will be a dominant force in cross-country skiing.

## CLUBS

NENSA Club members -- please send any news from your club to Rob Bradlee for our next issue! rbradlee@yahoo.com

NENSA clubs had a busy summer and have many fall and winter activities planned. The Maine Nordic Ski Club (formerly the Maine Masters) had a rockin' summer with a Women Training Weekend centered around a multi-sport umptathlon and gourmet dining. Another weekend saw the whole crew, boys and girls, trudging through a killer Presidential Traverse. Look out for them at the NE Masters Championships this winter. They plan a passle of events this fall with a focus on the October 20th Long Falls Dam rollerski marathon. They will be attending Coastal Nordic's big beach bash sand-skiing race on September 29th (see next issue for photos of the all-thong relay). [Ed. Note: It appears that Rob is really working to get readers to this column!]

The UNH team isn't content with being a great college ski power and has added an assault on the Norwegian Birkie next spring to its schedule. They plan a huge ski and snowboard sale on October 20th to raise funds for the trip. A little farther north, Cami Cardenali writes in that Dartmouth College will be hosting the NCAA's March 5-8 and they are looking for the participation of big crowds of spectators from New England.

Have you ever thought of coming to Boston to get a graduate degree? Do you know how to coach skiing? Both the Harvard Ski Team and the CSU Juniors are looking for coaching services this year. Contact Sara Cushman at scushman@fas.harvard.edu or 781-856-9790 for information on the Harvard job. Contact Rob Bradlee at 781-944-5595 or rbradlee@yahoo.com for information on the CSU opportunity.

In the junior racer realm, Craftsbury is hoping to send a large contingent from its expanding junior program to Alaska for JOs. They'll be hosting fund raisers throughout the year: an xc running race on their 5K racing trail on November 3rd, the Craftsbury Opener ski race on December 8th, and at the Marathon a big pre-race Pasta Feed and a 25K BKL tour. Call John Brodhead at 802-586-7767 for more info.

NE Nordic continues to lend a hand to juniors itching to make the big time. NENSA's own Fred Griffin and JO coach Jeff Hixon will host four non-profit camps for those ready to focus on excellence. Good work guys. Berkshire Trails, one of our region's strongest clubs, will again host a JOQ at Notchview on January 26th. With its high altitude and smooth trails you can count on good skiing and tip-top organization. The Berkshire folks are clearly doing good work as their own Matt Whitcomb has risen through their program from BKL to elite racer and now has been named head coach at Burke Academy in Vermont.

Special News: Stratton Mountain School has been named the USSA Cross-Country Club of the year. Congratulations to Head Coach Sverre Caldwell, assistant coach Amy Caldwell, the Stratton athletes and the supporting community of the West River Bill Koch Youth League!

## MASTERS

New England masters skiers are demonstrating a creative commitment to training as fall arrives. Where else do you find otherwise sane and rational adults finding interesting ways to squeeze their fall training around the demands of work, community involvement, youth soccer games and piano recitals? Yet this group somehow manages to achieve an impressively high level of fitness as they prepare for the white stuff of the 2002/03 winter season.

This coming season, there are a number of fun and compelling competitions that many New England masters skiers will be aiming for. Most prominent among them will be the Club Series races (including all three marathons) and the New England Masters Championships. This year the preliminary expectation is for the New England Masters Championships to take place on January 18 & 19 at Ole's in Waitsfield, Vermont (look to the NENSA web site for more details). It is anticipated that the race format will change slightly relative to past years. There will still be an individual classic race and freestyle relay on Saturday, sandwiched around BKL races. However, Sunday's freestyle race will be longer (20K-30K for men and at least 15K for women) and touring categories will be added for all events in an effort to open up the event to a broader audience.

We look forward to having a broad level of masters participation this coming winter and we encourage each of you to bring at least one friend or family member to the sport we love.

John Eldredge can be reached at jeldrid1@maine.rr.com.

### 2002-2003 Zak Cup Schedule

Peter

Harris is running the Zak Cup races and has started a NE Masters e-newsletter. He can be reached at pharris@NCHSI.org.

(Be sure to check the NENSA web site for up-to-date information on all events)

Dec. 29	Mt. Hor Hop
Jan. 12	Bogburn
Jan. 18-19	NENSA Masters Championships
Jan. 21	CSU Sprints
Feb. 1	Craftsbury Marathon
Feb. 16	Holderness Eastern Cup
Feb. 23	Coastal Nordic
March 1	Rangeley Loppet
March 23	Bretton Woods/Mt. Washington Cup

Masters skiers -- Be sure to mark your calendars! -- Masters short classic technique clinic with Dorcas Wonsavage will follow the Holderness Eastern Cup, Feb. 16, at Holderness School, Plymouth NH.

## SKI FOR LIGHT

**“Ski for Light Reflections: How a blind woman used cross-country skiing to look inside herself.”** By Kathy Strahan

Life changing events don't happen very often but when they do, they're usually unexpected. This is what occurred for me while learning to cross-country ski with the Ski for Light, Inc.® program in the beautiful Colorado Rocky Mountains.

While Ski for Light (SFL) was not my first experience with the great outdoors, it was my first try at skiing. It had been quite a while since I was last required to push myself to the limits of my abilities. I was inspired to surpass these limits by the commitment and effort of Richard Epstein, the sighted instructor/guide assigned to me for the week.

Held at a different U.S. location early each year, Ski for Light is an international, week-long, cross-country skiing event which pairs visually and mobility impaired “Skiers,” like me, with nondisabled “Guides,” like Richard. At SFL, the Skiers set the pace, asking their Guides to assist with skills, technique, endurance or simply enjoying the outdoors. The week ends in a Race/Rally and for many Skiers the goal is simply completing the 5K or 10K course.

As you can imagine, the first day was a wake-up call that set up my challenges for the rest of the week. I had to learn everything, from managing to stay upright with these long, flat things on my feet, to going up a slippery hill? And, oh yeah, these poles are used how and for what? It was quite a day.

My biggest challenge was not a lack of fitness or athletic ability but rather my lack of trust in what Richard was telling me and my tendency to be impatient when learning new skills. Especially while wearing long, flat things on slippery snow. This is when Richard's commitment and style of teaching became so critical. Whenever I tried to complain about the numerous new skills I had to learn, he would ask me to find the strength within and just do it! I had to re-educate my entire being; body, mind and spirit. I spent a lot of time overcoming preconceived notions about learning to ski, concerns about what I thought were physical limitations and, of course, fear. It's safe to say that in facing a very steep learning curve, I had to face myself as well.

By the middle of the week we both knew we were finally together on the same page. A deep mutual respect grew between us after I began to trust Richard and commit to spending the rest of the week learning to ski with great technique. Anyone can manage to move along haphazardly on their skis, Richard insisted upon using proper technique and I am glad because now I have a firm foundation on which to build.

Well, I finally did it! At the end of the week I competed in the 5K rally and, for the first time, Richard and I skied the entire course. After struggling much of the week to get my act together, it turned out that completing the 5K course was a piece of cake. During the rally Richard and I were rewarded by the

compliments I received for my good technique. Reaching the finish line, we surpassed our predicted time by 24 minutes!

My ultimate reward is my memories of the wonderful people I met and with whom I still maintain contact. When all is said and done, Ski for Light is a really good fit for me. I have renewed my commitment to keeping fit and strengthening my ability to persevere when things get tough. Through skiing I learned that just when you think you can't get up that hill, you need to focus your mind and push on; otherwise, all your prior efforts are for naught -- a good lesson for the rest of my life.

The 28th annual Ski for Light will be held in Anchorage, AK, February 23 - March 2, 2003. SFL is always seeking new Skiers and Guides and those interested in attending SFL may contact the appropriate coordinator. Visually impaired individuals may contact Lynda Boose at 906-250-7836 or [lynda@sfl.org](mailto:lynda@sfl.org). Mobility impaired individuals may contact Jeff Pagels at 920-494-5572 or [jeff@sfl.org](mailto:jeff@sfl.org). The application deadline for Skiers is November 1, 2002.

To be a Guide, no experience with visually or mobility impaired people is necessary. For those who are confident on skis, SFL holds an intensive one-day training session with seasoned Skiers and Guides. Contact Brenda Seeger at 507-274-5502 or [brenda@sfl.org](mailto:brenda@sfl.org). The application deadline for Guides is December 1, 2002.

Ski for Light, Inc.®, a nonprofit organization, also maintains an extensive Web site, with application forms, at [www.sfl.org](http://www.sfl.org).

### Experience Ski for Light Close to Home: Attend a Regional Program!

If you're interested in seeing what Ski for Light, Inc.® is all about but you can't make it to the annual week-long event (or you just can't get enough of a good thing!), give your nearest Regional a try. Regionals are similar in structure to SFL but are shorter, generally held over a weekend. Regionals are being held on various dates January through March (many Regional programs are also active year-round).

New England Regional Ski for Light (Dates Pending)

P.O.Box 234

Foxboro, MA 02035-0234

Voice mail: 781-667-9270

Web site: <http://www.nersfl.org>

Email: [info@nersfl.org](mailto:info@nersfl.org)

As with SFL, no prior experience with visually or mobility impaired people is necessary. If you're confident on skis, you can share your love of the outdoors by being a Guide.

## SKI SELECTION

### Ski Selection: Classic Skis

by Zach Caldwell

I have spent the past two days flexing and selecting skis at the Fischer and Madshus warehouses and next week I'm headed to Atomic. All of this is part of the pre-season ski selection service that I offer through my stonegrinding business - a service that has given me an opportunity to build a really cool flex tester and test a whole bunch of skis. While my ski selection procedure is quite equipment intensive it's possible to do a pretty good job by hand and using a few simple tools. Whether you're using high-tech flex testers or your hands, the trick is to know what you're looking for. I'd like to share some of the qualities that I look for in classic skis and some tricks for assessing these qualities.

There are a number of measurable factors that will determine the quality and fit of a pair of skis. After determining that the skis aren't warped or twisted the first thing I check for is the quality of the match of the pair. Just as there are no two identical snowflakes, there are no two identical skis. Pairs are designated in the factory when the skis are flexed individually after production. Sometimes the two skis that make up a pair are alarmingly different from one another and I like to check to be sure that I'm working with a well-matched pair before doing any further work. This can be quickly and easily done on a flex tester. It's a little more subtle when you're checking by hand. The best way I've found is by squeezing the skis together and sighting the contact line of the bases toward the tips to see if one ski "dominates" the other. If the contact line between the bases is dead straight then it's likely that the skis match fairly well. If it bends one way or the other then one ski is stiffer than the other.

The industry-standard measurement for fitting skis is the closing flex. This is the amount of force it takes to compress the ski to within 0.1mm of dead flat. A fairly thin coat of wax is about 0.05mm thick and most people allow for a couple of coats of wax in determining the closing flex of the ski. This has carried over from classic to skating (because the same testing equipment is used). Closing flex is generally expressed in Kilograms of load and we're looking for the flex to be within a specified range of the skier's body mass. For classic powder skis that range is usually about 60-70% while klister skis can be from about 70% up into the 80s.

The closing flex is easily quantifiable (with the right equipment) but somewhat arbitrary with respect to the performance of the ski. You don't spend a lot of time with 60-70% of your body weight on the ski so what should it matter that the ski closes at that load? The closing flex is a forecast of the flex characteristics at more important load numbers: half weight and full weight. If you don't have a flex tester you'll have a very hard time determining the closing flex of a ski, but you've got everything you need to examine the ski at half weight and full weight. This is where the true performance characteristics of the ski will come to light.

A classic ski needs to hold the wax off the snow until the skier impulsively increases the load on the ski during the kicking

motion. In point of fact, classic skis never actually hold the wax physically clear of the snow - they simply avoid loading the wax pocket in a meaningful way until the skier kicks. The length and shape of the wax pocket are critical in fitting a classic ski. To measure these characteristics the ski needs to be loaded at half weight. This can be easily done on a flex tester and almost as easily done on a flat surface with the skier distributing his weight equally between both skis. I like to mark the wax pocket directly onto the ski at several different camber heights. I'll look at the pocket length to a height of 0.1mm, 0.2mm and 0.3mm. That's roughly two, four and six coats of wax. If those camber lengths are only a couple centimeters apart then I know I've got a well defined pocket with "steep" edges - probably a better hard snow ski. If the numbers are spread out it's a more gradual pocket that will be less decisive but will allow the skier to vary the length of the kick zone for softer snow conditions. You can perform these tests with the skier standing on the skis by sliding paper under the kick zone. A piece of 20lb copier paper is about 0.1mm - just double or triple it as necessary. I look for a wax pocket to be well defined at least 25cm in front of the balance point.

For Klister skis the height of the camber needs to be greater than for powder skis. Rather than use the paper test I find it easier to evaluate this visually by squeezing the skis together with a C-clamp. If you watch the kick zone while the skis come together you'll see that the wax pocket is pretty well defined. At a certain point the contact point of the bases won't continue to move toward the balance point. Instead the bases will just get closer together. I back the clamp off until the wax pocket is defined by a pretty light load and then look at the shape of the pocket. Where the bases are far apart (over 2mm) I mark a klister "cushion zone" and know that I can build the thickness of the cushion in that area. Where the bases are a little closer together I know that I have to taper the klister down to keep it from dragging.

I also like to look at the ski at a full-weight load. A klister ski should still have some camber showing at full weight. A hard snow powder ski will likely have a very little bit of camber showing (but it may be thinner than the sheet of paper used in the paper test) and a soft snow powder ski will most likely be pretty well closed down. Most skis are constructed to close much more dramatically as the load is focused and applied closer to the balance point of the ski. This forward loading of the ski is essentially what happens when the skier kicks. Full body weight applied near the balance point should fully close most skis for most skiers.

It can also be helpful to pay attention to the glide zone and particularly to the flex characteristics of the tip and shovel. In very soft conditions (like slush) you want a ski with a very soft tip and something of a "hot spot" pressure point in the fore-body. Fischer even makes a race-stock model with built in tip-splay for this purpose. However, for standard conditions you want to be sure that the pressure distribution through the tip and shovel are even and smooth. A ski with a particularly stiff

Ski selection, cont'd on pg. 11









## SPORTS MEDICINE

(Respiratory problems, cont'd from pg.1)

confirmed by the response to a retest after use of an inhaled medication like albuterol (Ventolin, Proventil).

In some other countries, hyperventilation induced by having a seated, resting athlete breathe a dry gas mixture containing a much higher proportion of carbon dioxide than usual is used to produce sustained high volume ventilation without causing fainting. In this country, however, athletes like to "do their own thing" on the track and trail, not breathe weird gas mixtures in a laboratory!

**Athletes, Beware: Mimickers**

Less common conditions, often mistakenly labeled as EIB or EIA by unsuspecting or unknowing practitioners and athletes, alike, are vocal cord dysfunction (VCD) and anxiety-related hyperventilation. These two conditions are usually seen in younger, less-experienced athletes, especially in girls and women, and are frequently manifest during warm weather activities like fall cross country, spring track, and cycling, in contrast to EIB, which is much more frequently noted in cold, dry weather. An astute clinician can usually distinguish between these mimickers and EIB.

In VCD, there is a paradoxical movement of the vocal cords, in which they tighten on inhalation, instead of opening up. Thus, one senses a problem getting air "in," instead of in getting it "out," the opposite of the situation in true bronchospasm. The person with VCD often makes a whooping sound upon inspiration. People with anxiety-related hyperventilation may be observed to over-breathe, even to gulp air, relative to the respiratory effort necessary for a given level of effort. These participants often focus their attention on their breathing, whereas athletes with EIB are usually oblivious to their plight until one confronts them with it!

These individuals are helped by slowing down, "taking it easy," making fewer demands of themselves, and practicing voluntary breathing control, in which one inhales through the nose and exhales through the mouth. The situation calls for understanding and supportive physicians, coaches, and parents.

**Treatment of EIB**

Once a correct diagnosis is made, prevention and control are the goals. The beneficial warm-up phenomenon is preventive treatment many susceptible athletes discover quite on their own -- a "nice little secret" known to many outdoor winter athletes and most asthmatics. Timing one's warm-up to end immediately before the race begins may forestall onset of EIB within minutes of the start. A "warm-down" right after the race lessens the post-race cough. (How many skiers, upon crossing the finish line, simply stand around to watch others finish -- and begin that dry hack?!)

Pre-exercise treatment can be accomplished with one or another of the same compounds found in an asthmatic's medicine chest, but used in a somewhat different fashion:

## TITLE SPONSOR

albuterol (Ventolin, Proventil), salmeterol (Serevent), cromolyn (Intal), montelukast (Singulair), and fluticasone (Flovent). Used under the supervision of a physician who understands the special problems of outdoor winter sports as well as asthma, these medications are very safe. In a pinch, doses of caffeine (strong coffee) or theophylline (strong black tea) may help. (Beware the diuretic effect!)

The ski-racing season is also the colds and flu season, when we coop ourselves up in buildings and vehicles with coughing and sneezing competitors and camp followers. To compound the situation, central heating produces very dry, irritating air for us to breathe, and forced hot air systems spew all sorts of house dust around. For many athletes, particularly those who train hard and compete in cold, dry air, exercise-induced bronchospasm adds yet another item to consider while preparing for the long-awaited snow. Dr. Christie practices sports medicine in Lewiston, ME, where he takes a special interest in the physiology and clinical problems of Nordic skiers. He can be reached with comments and questions at [dchristie@adelphia.net](mailto:dchristie@adelphia.net).

(Ski Selection, cont'd from pg.6)

tip will tend to plow snow and be slow in all but the hardest conditions.

If you have questions please contact me.

Zach Caldwell  
[www.engineeredtuning.net](http://www.engineeredtuning.net)  
[zc@engineeredtuning.net](mailto:zc@engineeredtuning.net)  
 802.345.5498

## Banknorth: Title Sponsor for 2003

Banknorth has assumed title sponsorship of the New England Nordic Ski Association for the 2003 season. "This is an important partnership for cross-country skiing in New England," according to John Upton, NENSA's chief officer. "Banknorth will be supporting programs for youth at the community level all over the region. At the same time they will be helping our most talented athletes reach the Olympics."

The Banknorth New England Marathon Series will hold events in Craftsbury VT, Great Glen/Bretton Woods NH, and Rangeley, ME. The Banknorth Eastern Cup Series for BKYL through masters age groups will feature eight cross-country races in ME, NH, VT, and MA. End-of-season age group championship events include the Banknorth New England Masters, Banknorth New England Bill Koch League Festival, the Banknorth J2 Championships, and Banknorth Eastern High School Championships.

## NENSA

### Season Preview

by Fred Griffin, NENSA Executive Director

There has never been a better time to be a cross-country skier in New England. This was true when I said it 5 years ago, and it is true now. Take a quick look at what's new in 2003:

- new BKL Website with district schedules, race results, BKL member benefits that can be accessed by kids in November, Festival Info, features and more
- vastly expanded NENSA website augmented by merging with Cross-Country Skiing in New England site maintained for many years by Bob Haydock
- New England Marathon Series 25k and 50k timed and touring, gourmet foods and exquisite courses—bigger, better and like nothing that exists anywhere else!
- New England Women's Day returns, this year at Bretton Woods
- "Citizen" class divisions in NENSA Eastern Cups
- Gaining Ground, April 3-day on-snow clinic; Coaches Certification at Levels I, II, III
- Race Officiating Program with mentoring, workshops, certification
- International Exchange program to St. Petersburg, Russia, for our high school-aged kids
- NENSA Raffle with terrific prizes donated by Toko and Yoko
- Trek to Silver Star special membership benefit
- Maine Winter Sports Center programming:
  - symposium on Youth Development in November,
  - two Eastern Cups 12/30, 31 that will truly be events to remember—banquet, dance, shot at 8000.00 prize money all for the cost of race entry!
  - 2003 International Spring Series
- 2003 US National Championships in Rumford

There is no question about it -- cross-country skiing is cool!

### Coaches' Clinic Report

by Dorcas Wonsavage, coach and NENSA Media Coordinator

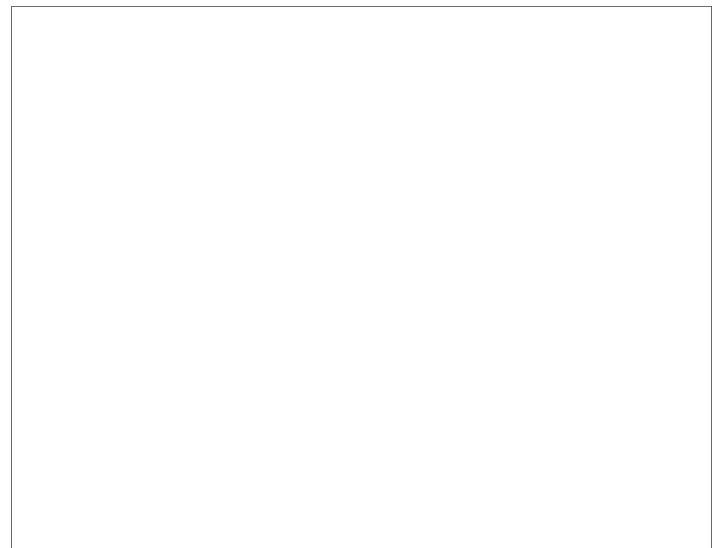
US Ski Team Development Coach, Chris Grover, led nearly 30 coaches and athletes through the US Ski Team Technique and Progression series for classical and skate skiing at Pinelands, in Gray, ME, September 14th. NENSA staff arranged this clinic for coaches and athletes in conjunction with the fall USSA meetings. Participants came from as far away as the Maine Winter Sports Center to the north, Concord, MA to the south and Burlington VT to the west. Grover was assisted by NENSA's Program director, Pat Cote and Jon Engen, USST athlete representative, from Sun Valley, ID.

## FALL CLINIC REPORTS

Participants moved carefully through the series of form-building drills, first on foot, and then on rollerskis. The Technique and Progression series, developed by Grover, former USST Head Coach Miles Minson, and former NENSA Program Director Zach Caldwell, breaks down the classic and freestyle techniques into a three-part process: 1) establishing basic body position, 2) adding fundamental movements, 3) applying power. These progressions can be practiced on dryland, as well as on rollerskis or snow and are the foundation training done weekly by US Ski Team athletes. Several coaches commented that the progressions finally gave them the tools and confidence to teach technique to BKL kids as well as to junior skiers and adults.

The National Cross Country Ski Education Foundation offers a video tape "U.S. Ski Team Skating and Classic Technique and Progressions, Instructional Series VI019" at <http://www.nccsef.org/home2.htm>.

The next clinic in NENSA's acclaimed "Gaining Ground" series of coaches education and certification clinics will be held on snow in early April. Check the website or contact Fred at the Administrative office for more information.



Combining a drill with prayers to the snow gods for the upcoming season... (Dorcas Wonsavage photo)

### NENSA Officiating Clinic

Fred Griffin

by

John Aalburg is applying the same formidable organizational skills he brought to the 2003 Winter Olympics to the USSA Officiating program, which he now heads. Close to twenty participants profited from John's expertise as he guided us through a four-hour interactive presentation on stadium layout and grooming at NENSA's officiating clinic in Pinelands, ME, on Saturday, the 15th of September. Testing for regional (cont. on next pg.)

## NENSA TESTING DAY

certification was conducted at day's end.

NENSA's officiating program awards regional certification based on a combination of job-shadowing, where candidates work with certified Technical Delegates at Eastern Cup events, interview, and written testing. NENSA's program serves as a pipeline for the national program headed by John Aalberg. Information on NENSA Officials Certification Program and USSA Officiating can be found on the website at [www.nensa.net](http://www.nensa.net)



David Chamberlain helping USST coach Chris Grover demonstrate falling forward from the ankles. (Dorcas Wonsavage photo)

### NENSA Testing Day

from Pat Cote, NENSA Program Director

NENSA Testing Day is November 9th. Testing will take place in Stowe, Vermont and Waterville, Maine with more sites to be announced. Check the NENSA website for updates. On NENSA Testing Day sites sometimes choose to host BKL games and activities for younger athletes and often choose to have food and other festivities available for participants.

Equipment Needed: A running track and a few stop watches.

Volunteers Needed: A couple of people with stop watches and clipboards can usually get the job done.

Tests: 3000 meter run, sit-ups, push-ups, (dips and pull-ups are optional additions.)

Testing procedure:

1. Complete the 3000 meter run. It is often easiest to have people run in groups on this test. 3000 meters is exactly 7.5 times around a track. Start at the end of the backstretch and finish at the end of the homestretch (where the 100m dash ends.) Record times.

2. The strength tests. The procedure is generally the same for each test. The athletes work in partners with one person counting and the other person performing the task at hand. Athletes do as many repetitions as possible in one minute, take a one minute break, then do another minute with as many repetitions as possible.

## MWSC SYMPOSIUM

Technique for strength tests: Sit-ups: For sit-ups, participants' hands should clasp the inside of the opposite elbows so that the arms create a square in front of their chests. Athlete lies on the back with knees comfortably bent. Starting from this position, one full sit-up is counted when the elbows touch the knees. Push-ups: Athlete starts in push-up position with hands shoulder-width apart and arms straight. From this position, one push-up is counted when the athlete's arms form a 90 degree angle at the elbows. One way to ensure that the athletes are going low enough is to have their partner hold a fist under the athlete's chest and counting when the athlete's chest comes in contact with the fist. Dips also require going from a straight armed starting position to a 90 degree angle at the elbows. Pull-ups begin by hanging from a bar with straight arms and are counted when the athlete's chin is pulled up to the level of the bar.

### The Trail to the Top 2002: New directions in skier development

The Maine Winter Sports Center and NENSA invite you to attend this symposium on Youth Development on November 16-17, 2002. Join former USOC Endurance Training Coordinator Tim Gibbons for an in-depth discussion of the factors which contribute to long term success as a cross-country skier or biathlete. Learn about the route that many of our national and international champions have followed from avid youth skier to successful World Cup competitor. Coaches will explore methods for designing appropriate training plans for skiers aged 10-19. We will discuss physiology, motivation, measuring training effort, sampling training effect, and more!

Sunday morning is reserved for a panel discussion on male coaches working with female athletes. NENSA Media Coordinator and Olympian Dorcas Wonsavage will head a panel of female leaders in winter sport from across New England. This session will offer valuable insight for coaches and athletes alike.

Additional short technique sessions and lesson plans will be offered by NENSA Program Director Pat Cote and the MWSC coaching staff.

Program Fees: Symposium: \$50. Symposium with NENSA Coaches' Certification Testing: \$80. Short sessions, tours and dessert: Free!

For further information, contact: Will Sweetser, 328-0991 or [will.mainewsc@ainop.com](mailto:will.mainewsc@ainop.com)

## NENSA CAMPS

### Thanksgiving Camp (an Alexei tradition!)

When: Fri. Nov 29 - Sun. Dec 1

Where: Sugarloaf, ME

Why: If you want to start your ski season with one of the strongest groups of junior skiers in NE, make adjustments on your technique after roller ski season, interested in discussion of how to ski fast in the winter - You will find this camp a great one!

Cost: \$225 All inclusive: two - three sessions on snow working on both styles (classical and skating), accommodations at Sugarloaf Inn, with access to swimming hall for recovery after the training days, three meals a day at CVA, trail fees, coaching, transportation from Southern VT (for the first 15 people expressed interest)

Interested? - Send \$100 nonrefundable deposit to Alexei Sotnikov, PO Box 500, Saxtons River, VT 05154

Need additional information? Contact Alexei Sotnikov: 802-869-8652, [asotnikov@vermontacademy.org](mailto:asotnikov@vermontacademy.org). First come - first serve. Only 20 skiers will be accepted for this camp!

### NENSA/NE Nordic Fall and Winter Camps

NE Nordic Ski Club is again conducting four highly intensive non-profit camps in fall and early winter, targeted specifically at J-2 and EHSC athletes who are seeking success on the NENSA Eastern Cup Junior Olympic circuit—but who lack a home program or club that provides weekend support. Camps will focus on building solid fundamental technique, strength, and conditioning. Slots are limited to 8-9 athletes per camp. Applicants are encouraged to sign up for more than one camp. Race support at Eastern Cup races throughout 2002 - 2003 will be provided at no additional costs to all camp participants. There is one slot per camp open to coaches wishing to intern.

Please go to the NENSA web site for all pertinent info. ([www.nensa.net](http://www.nensa.net)).

11/23-26 and 11/29-31: Thanksgiving Camps; Fairfax, VT

12/5-8: Mt. Ste Anne's Camp, Mt Ste Anne's Quebec

12/27- 31: MWSC Christmas Camp, Presque Isle, ME

NE Nordic Staff: Jeff Hixon, co-coach NE Nordic; 2002 and 2003 Team Leader for New England Junior Olympic team; Fred Griffin: co-coach, NE Nordic; NENSA director

Athletes and coaches should apply directly to Fred Griffin at [fred@nensa.net](mailto:fred@nensa.net) or 802-849-2270

### NENSA Thanksgiving Trip to Silver Star, B.C., Canada

Hey Skiers, don't be left out in the cold with little snow over Thanksgiving! Join the NENSA membership Trek to beautiful

## TRAVEL OPPORTUNITIES

British Columbia, November 23 - December 1. NENSA members have the opportunity to travel to beautiful snow covered Sovereign Lake and Silver Star Mountain in British Columbia, Canada to ski for fitness, or to train for races. And, if you come ready to race, The Canada Cup Series, the last weekend of Nov., offers a high-powered competitive venue.

The NENSA Membership package includes lodging, great meals, trail passes, seminar and coaching fees and more! Check out all the details at [www.nensa.net](http://www.nensa.net). Payment in full must be received by trip coordinator, Annie Upton, 4 Julie Ann Lane, Cape Elizabeth, ME 04107 by November 15. Questions? Contact Annie at [annesupton@hotmail.com](mailto:annesupton@hotmail.com) or call (207)767-5837.

### 2003 NENSA/Russian Exchange

In 2003 NENSA is offering an exciting opportunity for high-school-aged athletes. Last year we hosted eight Russian athletes and two coaches from St Petersburg. This year they are returning the favor and 8-10 New England juniors will have the chance of a lifetime. Read on and decide if you want spend your February holidays in St Petersburg!

Purpose: To expose developing New England athletes to the social and athletic culture of the St. Petersburg, Russia area.

Itinerary: 2/23 - 3/5, built around the Russian Regional Championships, 2/27 - 3/2, on one of the newest World Cup courses in the world. This will high-level competition.

Transportation: By Air from Boston to St. Petersburg. Ground transportation provided by hosts.

Accommodations: With host families, possible hotel stays for competition.

Coaching: Alexei Sotnikov is the 2003 Trip Leader. Alexei graduated from St Petersburg University, completed in the World Cup, and has coached nordic combined on the Olympic level. A second coach will be selected by application letter to the Administrative Office.

Athletes: 8-10 athletes will be chosen for this trip with at least one boy, and one girl from NH, VT, ME, and MA. Selection will be done by the Trip Leader, Program Director and Administrative Director based on letter of application, two letters of reference, and results at any 3 of the first 5 Eastern Cup/JO qualifying races. Participants will be academically motivated, aspiring athletes of high character.

Cost: Approximately \$1000 per athlete, depending on airfare. Athletes will cover airfare, plus provide \$150 for personal travel, food, and spending money. Some scholarship money may be available.

Contact Fred at the NENSA Administrative Office for more information

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## NENSA Board of Directors

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NENSA Board of Directors, 2002

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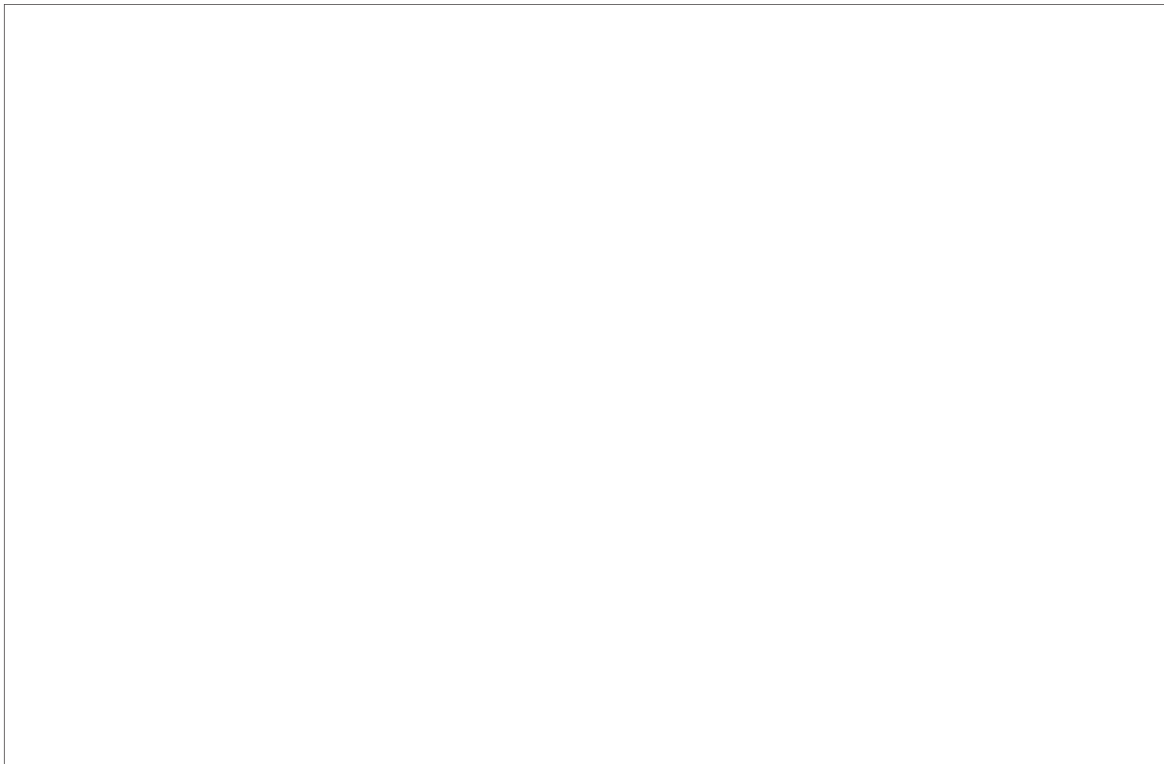
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(George Atkinson photo)

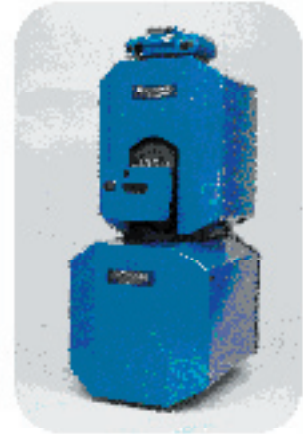
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