

Nordic News

June 2005

Issue 28

New Zealand Cross Country Ski Association Newsletter

The Editors Say...

The NZCCSA committee have been busy over the summer, with some interesting new developments, which should make this winter an exciting one! Firstly, committee members have been involved in NZ Olympic Committee (NZOC) meetings, and planning for the 2006 Winter Olympics in Torino, Italy is well under way. Our Olympic team hopefuls, Samantha Bondarenko, Don Harris, Zach Hill and Ben Koons are already or will shortly be, members of the Winter Olympic Performance Programme (WOPP). The Snow Farm was also the venue for an Olympic Team meeting in May, which gave us the opportunity to raise the profile of cross country skiing. For the first time winter sports are receiving the recognition they deserve from the NZ Olympic Committee and the Academy of Sport. The new WOPP programme is a joint venture between the NZOC and the Academy of Sport. It is exciting that cross country skiing can be involved in this programme.

This year the Snow Farm will also be the venue for the first ever FIS Continental Cup races in New Zealand. Continental Cup competitions are one level below World Cup. The Continental Cups are regionalised and in this part of the World the competition is called the Australia/New Zealand Cup. At last it has a real New Zealand component to it with competitions being held in both Australia and New Zealand. Our events will be on the weekend of August 13 and 14. Our contribution to the events include a distance classic race and a freestyle sprint. There will also be two weekends of events in Australia. It will be great to watch a truly international competition on our home tracks at the Snow Farm. In addition to some of the Australian national team we are expecting the USA and Canadian teams as well as a number of international individuals.

Running events like this does cost a significant amount. Costs include flying a Technical Delegate to New Zealand, providing international standard timing systems, and course preparation. The race committee has been busy attempting to fund raise to offset costs. We would be very grateful to hear from anyone who could assist with fundraising. Also a considerable number of volunteers will be required on the race days. If you would like to be involved in an international event as a volunteer please contact Mary Lee at the Snow Farm. (marylee@snowfarmnz.com)

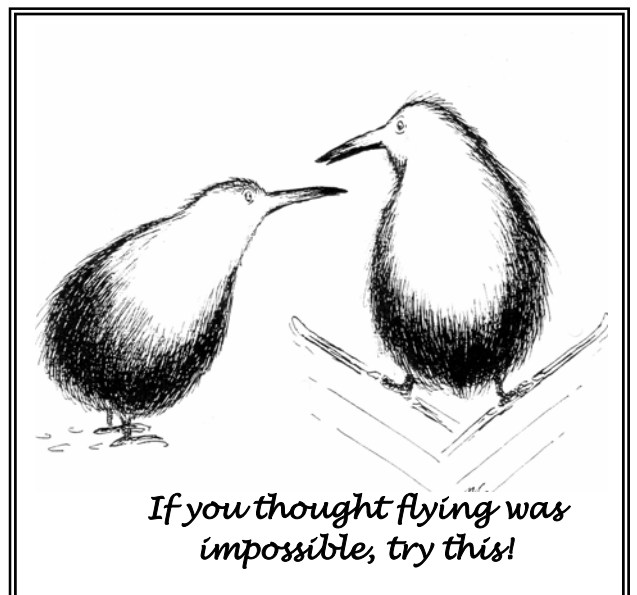
As I am writing this we have heard that some lucky skiers are already on the snow at the Snow Farm. The season opening is just round the corner!

Happy skiing!



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Skier Profile

Skier Profile

Don Harris, St. John's University

1. **Where are you from?**

Alexandria, Minnesota.

2. **What high school or club did you ski for and what was your best result in high school?**

I have been skiing my whole life, but I got a late start in racing, as my high school did not start a boys' ski program until 1999, my junior year. During my senior year, I was the first boy from our team to qualify for State. Unfortunately, I had a really bad race at State, but the next day I finished 10th in the MN Finlandia 25k, where I skied faster than in the state 5km skate race. Also, I was born with dual US-New Zealand citizenship, and was named to the NZ National Ski Team last August.

3. **What do you like best about SJU? What do you like best about the ski team?**

I like St. John's' academic atmosphere; it is very stimulating and engaging, interactions with professors are very open and friendly, and I have had the opportunity to pursue very intense independent research in my major. I also love the campus, which includes literally thousands of acres of undeveloped woods and several lakes. It is a great setting for both school and training, and my experience here has been wonderful. The ski team is a very flexible and accommodating program that makes it very easy to balance training and racing with academics. The team is a great and diverse group of athletes, and we have a lot of fun together. Also, having 15km of groomed trails right on campus is awesome, especially since we seem to get more snow than the rest of central Minnesota.

4. **What are you majoring in at SJU? What do you intend to do after college? Do you plan to ski after college?**

I am a biochemistry major, and I am going to attend

medical school after graduation. I plan to take a year off to do some more racing for the New Zealand National Team and do some volunteering, and I hope to fit in as much skiing as possible during and after med school.

5. **SJU has one of the larger men's rosters in CCSA. How has having a large and deep team affected your development as a skier?**

The SJU ski team is very diverse in ability and goals, but we all enjoy skiing and fully support and encourage each other. Personally, this has helped keep the sport fun through both success and failure.

6. **You were one of a few skiers on your team to compete at U.S. Senior Nationals. How was that experience? What do you think about CCSA using that event as a qualifier?**

Utah was a good experience. I think that integrating the CCSA series with Senior Nationals and the SuperTour is great. It increases the level of competition, and is a means of allowing us to do more USSA and FIS races, which is especially important for skiers who hope to pursue racing after college.

7. **How do you feel about your season thus far? Have you met your goals?**

Since our first six NCAA races were part of USSA Nationals and the SuperTour series, and the six men's qualification slots for NCAA Nationals were all but guaranteed to go to the top three men at NMU and UAF, my primary focus for the season was getting FIS points on my New Zealand license. I have been chasing the still-elusive 100 point Olympic qualification standard--a challenging goal for me, but one that I believe I can achieve by January 2006.



AGM

The NZCCSA AGM will be held at
2.00pm, Sunday 7 August at the
Snow Farm

Letter from Simon Heard

Hi to everyone in NZ

First of all, thank you very much for asking how my season went. NZ has been in my thoughts lately. I've been trying to convince the GB team to train at the Snow Farm, and to come down and meet John, Mary and the rest of you.

The 2004/5 season went well. Now the main question, which I need to come to terms with is, "How long can I afford to ski"? I want to try for the Olympics; there is a chance, it is a once in a life time opportunity, and I am willing to dedicate another year to skiing, to try and achieve it.

Racing on the European circuit was a quantum leap, as was coping with the realities of living on the road, being your own ski technician, and trying to not over stretch the budget. These factors were included in my goals at the start of the season, along with: some physical and technique development, some specific race results, and continuing to appreciate the whole life experience. As usual, there were obstacles. In May 04, I seriously damaged my ankle, spent some time in plaster and nearly 3 months trading off rehab against training. This was a constant issue whilst I was at the Snow Farm, but the conditions were too good to resist. The consequence was some muscular imbalance in my back, which later caused me to miss training and a few races in 2005.

I skied the Snow Farm from July to September, and then after a short break with my family in Somerset I joined the GB pre season camp at the end of October in Beitostolen, Norway.

Snow conditions throughout Europe were "variable", and some event locations had to be re-arranged. This meant that before Christmas there were two European Cup biathlon events held in Geilo, Norway, and then two in Obertilliach, Austria. I raced well in both, and learned lots. The top European Cup athletes are comparable with the World Cup, which is an amazing standard.

My journey after Christmas took me to events in; Austria, Italy, France, Germany, Austria, Russia, Italy, Austria, Switzerland. The highlights were the European Biathlon Champs in Russia, and later meeting up with Trond and the US team at a XC event in Italy. Biathlon results were consistent, which was pleasing, but my aim started to focus more to pure XC. I enjoyed some good long distance training races, and my best result was 125 FIS points, and I am sure I can go below 100 points for Olympic selection.

Since then, I forced a recovery phase, and managed to find some employment to raise the all important funds.

I've recently started summer training. This will be my last season dedicated to full time skiing, and my aim is to race competitively at the Torino Olympics. I believe I can achieve the selection standard and be better than the rest of the candidates. As I write, I am increasingly convinced that to achieve this I need to return to the Snow Farm. After all, it's the best skiing in the world from July to September. I have some planning to do! If I can make it happen, I will look forward to seeing you on the snow.



Ski well
Simon Heard

NZ Cross Country Ski Association Committee 2004-2005

President: Alastair Smaill

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Newsletter Editors: Alastair & Ann Smaill

Committee:

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Norman Clark

Jimmy Donaldson

Mary Lee

Sue Wales

The closing date for contributions to the next edition of Nordic News is:

30 September.

Anything you would like to see printed in the Nordic News such as Letters to the Editors, Articles, or Reports on your own or other Member's activities, please contact the editors:

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Race Results

In August 2004 the NZCCSA announced the New Zealand team for the 04-05 season. The team this year had a completely different look about it. Three of the four skiers are dual US/NZ citizens and live permanently in the US. Don Harris (St Johns University, Minnesota) and Zach Hill (Denver University), joined later in the season by Ben Koons (Dartmouth College, New Hampshire) made up the men's team. Samantha Bondarenko was the sole woman. Samantha has been overcoming injuries, and did not race in the northern winter.

The main goal of the team was to lower their FIS points and hopefully get under the magic 100 points required for selection for the NZ Team to the Torino 2006 Olympic Games. Although none of the athletes broke 100 points there were many excellent performances. Ben Koon's closest performance was 116 FIS points at the NCAA championships (and he was sick during the race!) The team will have further opportunities to better the Olympic qualifying standard at the Continental Cup in NZ and in the Northern Hemisphere prior to January 10 2006.

Below are a summary of the men's results:

<i>Ben Koons</i>					
Date	Race	Distance	Time	Place	FIS Points
05/01/05	US Nationals	10 km classic	31:39	63rd	
03/01/05	US Nationals	30 km freestyle	1:32:55	60th	
04/02/05	University Race	11.7 km classic	33:52	2nd	128.79
05/02/05	University Race	20km freestyle mass start	58:50	14th	200.50
10/03/05	NCAA	10km classic	33:25	27th	116.60
12/03/05	NCAA	20km freestyle	1:03:41	37	241.90
<i>Don Harris</i>					
17/12/04	Nor-Am Cup	15km freestyle	45:02	41st	218.07
03/01/05	US Nationals	30km freestyle	1:40:23	51st	268.17
05/01/05	US Nationals	10km classic	34:18	84th	228.84
07/01/05	US Nationals	10 km freestyle	30:48	72nd	192.28
09/01/05	US Nationals	sprint		68th	316.66
22/01/05	Nor-Am Cup	10km freestyle	30:39	38th	202.48
23/01/05	Nor-Am Cup	10km classic	30:58	34th	173.87
29/01/05	Nor-Am Cup	10km classic	36:40	29th	187.17
30/01/05	Nor-Am Cup	15km freestyle mass start	38:19	28th	202.52
05/02/05	Nor-Am Cup	Sprint		20th	315.85
<i>Zach Hill</i>					
12/12/04	Nor-Am Cup	10km classic	25:57	24th	125.22
13/12/04	Nor-Am Cup	Sprint		23rd	199.72
07/01/05	US Nationals	10km freestyle	30:46	71st	191.56
09/01/05	US Nationals	Sprint		40th	218.92
14/01/05	FIS Race	10km classic	36:05	20th	146.56
15/01/05	FIS Race	15km freestyle	49:25	24th	311.59

Pete Moysey continues to fly the NZ Flag in biathlon. His results are recorded below:

Date	Location	Event	Over-all Place	Time	Time behind winner
<i>Pete Moysey Biathlon Results</i>					
<i>European Cup</i>					
23/11/04	Geilo	20km	58	1:18:44	+19:49
27/11/04	Geilo	10km	108	37:44	+9:54
24/11/04	Geilo	10km	80	39:06	+10:54
<i>World Cup</i>					
2/12/04	Beitostolen	10km	118	30:59	+8:28
9/12/04	Holmenkollen	20km	112	1:15:32	+24:40
11/12/04	Holmenkollen	10km	115	30:28	+8:24
15/12/04	Oestersund	10km	116	36:01	+9:48
7/1/05	Oberhof	10km	111	40:47	+13:30
15/1/05	Ruhpolding	10km	117	32:20	+8:34
21/1/05	Antholz-Anterseva	10km	119	36:01	+8:54
9/2/05	Cesana	20km	119	1:19:31	+26:12
11/2/05	Cesana	10km	121	37:21	+10:37
16/2/05	Pokljuka	10km	95	33:52	+8:56
16/3/05	Khanty-Mansiysk	10km	99	37:46	+10:53
<i>Nations Cup 36 out of 41 nations</i>					

and the teams from the Northern Hemisphere will be staying at different periods throughout the season. The American, Canadian and Japanese National teams are returning as are the Bourke Mountain Academy and the Sun Valley Ski Teams.

Collette Bourgonje of the Canadian Disabled Team will be back and we have skiers from the American and Japanese Disabled Teams staying for the first time. The US Biathlon Team will be training at Snow Farm and Simon Heard of the British Biathlon Team is returning for another season to continue his training.

We have been joined by Matt Unkles for the second year running. Matt was a ski instructor during 2004 and this year he returns to manage the ski school whilst keeping up with his training.

Curtis Hogarth has decided to stay in Australia this year. We are sorry Curtis is not returning but wish him all the best and thank him for all his hard work and effort in the past two years.

A new addition to the grooming team is Karl Johnson. Karl is joining us from America where he works at Sugar Loaf Cross Country Ski Area in New England. He is a keen cross country skier himself and has groomed for FIS races in America.

Dave Harwood is now back in New Zealand after a winter at Royal Gorge. Dave enjoyed instructing in California and is now juggling training and working back in Wanaka. Dave will be lycra clad and helping out with the kids days during the winter.

The Snow Farm Scholarship Programme, scheduled for the school holidays is looking to be just as popular this year as ever before. Lou Corcoran, New Zealand's top skeleton racer and athletes from the Canadian Team will spend an afternoon with the scholarship kids.

Ben Koons will be at Snow Farm from early July. Ben will be progressing the Winter Sports Academy, coaching the Academy members and keeping up with his training too.

All in all, Snow Farm is set and ready to go.

Bring on the snow and here's to a great 2005 Winter Season!

Snow Farm News winter 2005

Caroline, the Ski Promotions Manager at the Snow Farm has this to say about the up-coming season.

As the early snow lines the trails, the Snow Farm team are geared up and ready for the coming winter.

This season sees the lodge full from July through into September. The ski week packages have been more popular than ever before

2005 Event Calendar

25 June	Opening Day
26 June	Open Day for Local Businesses
2 July:	Season Opener Kick off the season with a Classic Race
9 July:	Skate Race
10 July	Kids \$10.00 day
13 July	Kids \$10.00 day
16 July	Biathlon Experience the sport of biathlon; the contrasting disciplines of cross country skiing and shooting.
17 July	Kids \$10.00 day
18-22 July	Secondary School Scholarship Week This week is for secondary school athletes who are seriously considering cross country skiing as a sport. Application Forms available from the Snow Farm.
23 July:	The Adventure Outfitters Snow Triathlon Run, mountain bike and cross country skiing.
30 July	Ski Orienteering
6 August:	One Day Pursuit (Seniors, Masters and Juniors) Classic style leg, followed by a freestyle leg with a triathlon like transition between the two. (2 x 2.5km or 2 x 5km)
13 August:	FIS Continental Cup, FIS & Open Women 10km Classic; FIS & Open Men 15km Classic; Junior & Masters 2.5km, 5km or 10km Classic
14 August:	FIS Continental Cup Freestyle sprint
20 August:	Merino Muster New Zealand's premier cross country ski event. Distance to suit everybody. 42km Merino Muster, 21km Snow rake, 7km Straggle Muster
27 August	Gourmet Tour
3 Sept:	Mountain to Mountain (to be confirmed)
10 Sept:	Kids Day: Barbeque and games
17 Sept:	Sprint
25 Sept:	Kids \$10.00 day
28 Sept	Kids \$10.00 day
2 Oct:	Kids \$10.00 day
5 Oct	Kids \$10.00 day

***Enquires for all events contact the Snow Farm Ph (03) 443 0300 info@snowfarmnz.com, or
www.snowfarmnz.com***

Specialise Your Skis

The primary objective concerning skis is to have fast skis in competitions. Stone grinding is only as effective as the ski's owner allows it to be. Some racers have eight pair of skis with similar structure on them. Others have skis that had been stone ground and were flat, but now resemble the Snow Farm road after ten years of freezing and thawing. Optimally, when organising ski selection, a racer ought to have skis designed for different conditions. The ski's flex pattern and design do affect this and need to be considered when selecting skis for any particular condition. However, the most important factor when considering which skating skis to use and when to use them is the base structure.

A racer ought to have skating skis for cold, just below or around freezing and warmer conditions. This breakdown can be adjusted to fit the conditions the skier most commonly races in and the average conditions of that skier's most important event(s) of the year. The cold skis should have very little structure on them, the average condition skis should have a universal type grind (for where you live) and the warm skis ought to have a more aggressive grind on them.

The recommendation for Classic is more complicated as the structure is generally outweighed by the camber. In this case, a racer should have powder skis, hard track skis and klistler flex skis. Generally the klistler flex skis ought to have an aggressive grind on them. The other two pair should be ground to address the most common conditions that the skis would be raced in (cold or universal).

There are a few structure tools on the market that allow a skier to apply more structure by hand. These tools can be broken down into those that roll on the ski and those that are dragged over the ski base. One tool of each type is necessary to do proper structures in a multitude of conditions. Often times a rolled on structure (generally non-linear) is followed by a dragged-over structure (linear and generally deeper and wider). One point regarding the two types of tools is that the rolled on structure doesn't do nearly as much damage to the base since it doesn't last as long and is much shallower. The dragged-over type can be more effective in very wet conditions, but will also last for a long time (perhaps much longer than desired!). Rather than altering base structure (and then either dealing with it or trying to fix it with a metal scraper), a racer should make an effort to accomplish a proper ski selection.

Here is a scenario; a weekend involving two skating races. Going into the first race the forecast calls for a storm starting out warm and then getting colder. Saturday would bring either snow or sleet and Sunday probably

cooling off and clearing up. The issues are whether it is going to snow or rain on Saturday and, on Sunday, are we looking at an ice skating rink, slush or cold powder? Two racers are preparing their skis. Rachel has three pair of skating skis with cold, universal and warm grinds. Sue has three pair of skis that all have universal type grinds on them. Rachel waxes her cold grind skis with a wax appropriate for colder conditions, her universal grind skis for snow for just below freezing and her warm grind skis for wet snow.

Sue, unsure of the incoming weather, researches, talks on the phone with other skiers, stresses, and finally goes with two combinations of waxes for just below freezing on two pair of her skis. Afraid that it is going to rain, she heavily rills her third pair of skis and waxes them with a soft wax. Rachel sleeps great and wakes up relaxed knowing that regardless of the weather, she will have good skis. Sue stresses all night checking forecasts and looking out the window. As it turns out, it is snowing and just below freezing – an awesome powder day. Rachel uses her universal grind skis and Sue uses one of her two pair of skis with the universal grind and wax for just below freezing conditions. They both have good skis.

*Editors note:
Check out
www.skiguys.com
for more info on
stone grinding*

The next day's forecast is for probable clearing overnight leading to colder dryer snow. However, there is always still the chance for overcast skies and lingering snow showers. Rachel waxes her cold grind skis with cold wax and her universal grind skis with a just-under-freezing wax and goes to bed with confidence looking forward to the event. Sue sees the forecast and panics. She grabs the steel scraper and goes to work on one of her universal grind skis as they certainly have too much structure for cold, dry snow. She needs to scrape them or they will be slow. She scrapes the pair flat (yielding a finish that isn't nearly as good as a stone grind for cold snow conditions). Then she waxes her newly scraped skis with a cold wax and her one remaining pair of universal grind skis with a just-below-freezing wax. As it turns out, it's another beautiful day with lingering snow showers and temperatures just below freezing. Rachel and a sleepy Sue both race on their universal grind skis with just-below-freezing wax and have good skis.

Rachel still has three pair of skis that are in excellent shape and fast in their respective conditions. Sue has one pair of skis with a universal stone grind that still look good, one pair with a heavy rill on them and one pair of freshly metal scraped skis. Sue owns this mess after only one weekend of racing. Just imagine the contrast in Rachel and Sue's skis after eight weekends, and you get an idea of how important ski specialisation is.

Many people scoff at this suggestion. They think the suggestion is to run out and buy a quiver of skis. However,

had their past skis been properly managed, they would still be racing on them, instead of using them for rock skis or a coffee table.

Advanced Waxing Tips

By Ian Harvey (Toko US)

Here are some tips on preparing skis that hopefully will help you get to the next level as a ski technician.

1. When glide waxing skis for very cold conditions, it is essential to harden the base up. This is done by applying multiple layers of a very hard glide wax such as blue. These multiple layers are essential for fast skis in very cold dry aggressive snow where dry friction is a concern. This is important even for shorter races as the goal is to make the base as hard as possible.
2. When waxing with a very hard glide wax, a common mistake is to not use enough heat. This results in an air pocket between the ski and the wax. A sure sign of this air pocket is if when the skis are scraped the wax "springs" off the ski and goes all over the room. If the skis are ironed correctly, the wax should come off much like very fine sawdust. Another way of identifying improperly ironed cold wax is to look at the colour. If the wax is dark, there is no air in there, if it is light, then there is air between the base and the wax and it needs to be heated up again. Some people recommend scraping cold waxes when warm. This will result in a poorly prepared ski, although it is true that it is easier. A warm scrape takes the wax out of the most superficial layers of the ski base and also allows the scraper to dig into the soft warm base - all bad things for the long-term health and short term gliding speed of the ski.
3. It is regularly recommended in wax clinics to use mountains of fluorocarbon powders or to "brush up" the fluorocarbon powder after ironing for an extra good application job. After much testing and talking with wax chemists, I came to the conclusion that this must simply be an attempt to sell more expensive wax. If an appropriate amount of powder is applied and a very hot iron is used such that the necessary chemical reaction takes place, the job is done, period. There is no need to do anything else. You have certainly heard that it is not good for skis to apply fluorocarbons consecutively without multiple applications of hydrocarbon waxes in between? Why does this not apply to race day? My experience is that to apply multiple layers or a mountain of fluorocarbon powder results in more of a mess to take off the ski and polish, less disposable income and slower skis in the short term and long term. My recommendation is to simply do
4. A Copper brush is a necessary element in every waxer's kit. The Copper brush is the softest brush available. It does everything that any other metal brush does (remove wax, any hardened residue on the base, and dirt) except create structure which should be done with a stone grinder or with structure tools. If a brush is creating structure on the base, it is certainly creating lots of hairs that will slow the ski down, especially in powder snow. This isn't so important in Alpine skiing, but in Nordic skiing it is very important. The Copper brush should be used for general wax removal as well as especially after skiing and before waxing (every time), for cold wax removal (follow with nylon) and for removal of an HF wax in very dirty snow where it is critical to remove all paraffin based wax (HF waxes are paraffin based).
5. Rather than discarding old skis, specialise them. Have a pair stone ground for a particular condition such as cold and dry or for very wet. Then, when the conditions present themselves, there will be a good solution.
6. In dry climates, or in especially dry conditions, aim "cold" when waxing. This means rather than waxing straight off the wax chart with a wax such as Red, mix Red and Blue (in especially dry snow). Wax charts are made with average humidity and climate in mind.. This discrepancy needs to be accounted for when waxing.
7. In very dirty snow, the last "drip on wax" needs to be brushed out very well. A Copper brush is excellent for this purpose. Otherwise, the dirt will stick to the paraffin resulting in slow (and dirty) skis.
8. One condition that is especially difficult when using kick wax is when snow temperatures are around 0C and there is new snow present. Often Klister works in these conditions better than hard wax, but ices up. Carbon Silver Grip wax offers an excellent solution in these conditions – cover the klister with a thin layer of Silver hard wax which will result in faster glide and better kick (no icing).
9. Scraping technique is an integral and overlooked aspect of ski preparation. Make sure the scraper is not bending under the pressure of scraping the ski. Knees need to be bent to ensure even scraping strokes. The scraper needs to be held such that the waxer has complete control and the scraper is guided straight along the ski. I use one or both index fingers to guide my scraper so that it goes straight and remains flat. Remove wax with the scraper until

the scraper barely comes into contact with the ski base. At this point, a brush should be used to remove the remaining wax.

10. Often times we apply a binder klister indoors and then wax outdoors in the cold, perhaps on the following day before a ski race. What sometimes happens in this scenario is that the binder klister is so hard and cold that the klister that gets applied over it never really adheres to it resulting in just binder klister on the base after a few kms. The solution is to warm up the binder klister so that the klister of the day bonds to it resulting in better durability.
11. When kick waxing on a day when good skis are desired, the kick zone should always be sanded. The idea is to have fast skis with good kick. Some people anticipate loosing their wax and, for this reason, apply their wax extra thick in the hopes that after a while they will have perfect skis. The best solution is to sand the kick zone, apply a binder, and then the wax of the day. This results in good kick and glide for the entire ski. 180 grit sandpaper is generally appropriate.
12. There has been some confusion over Molybdenum and what it is used for. Basically every wax company now uses glide waxes with Molybdenum; it is clearly a better substance for ski waxing than Graphite in almost all scenarios. Molybdenum is best used for an underlying (or base layer on a microscopic level) layer to be followed by the wax of the day. This generally results in skis that are more static resistant, dirt resistant, more durable, and faster. Generally Molybdenum is not used as a final layer because it does not glide as fast as straight HF waxes. The only time Molybdenum is recommended as a final layer (followed by a Fluorocarbon) is in dirty snow.
13. In general, when a kick wax is slipping, wax should be reapplied thicker or a change should be made to a softer wax. To wax longer results in improved kick for a short while and slower skis. The bulk of the "kick" should come from the middle part of the ski. If this part is slipping, then it needs to be fixed. Waxing longer does not address this problem. Thicker or "warmer" will.

Future International Events

World Loppet Events 2005

- **Kangaroo Hoppet**, Falls Creek, Australia, 42km freestyle (27.08.2005) -also 21km and 7km races www.netc.net.au/~hoppet/
- **Jizerská Padesátka**, Liberec, Czech. Rep., 50km classic (15. 01.2006) www.jiz50.cz

- **Dolomitenlauf**, Austria, 65km freestyle (22.01.2006) www.dolomitensport.com
- **Marcialonga**, Italy, 70km classic (29.01.2006) www.marcialonga.it
- **König-Ludwig-Lauf**, Germany 55km freestyle (04.02.2006) www.koenig-ludwig-lauf.com
- **König-Ludwig-Lauf**, Germany 55km classic (05.02.2006)
- **Sapporo International Ski Marathon**, Japan 50km freestyle (12.02.2006)
- **Tartu Marathon**, Estonia 63km freestyle, open track (12.02.2006) www.tartumaraton.ee
- **Tartu Marathon**, Estonia 63km classic (19.02.2006)
- **Keskinada Loppet**, Quebec, Canada 50km Classic (18.02.2006) www.keskinada.com
- **Keskinada Loppet**, Quebec, Canada 50km freestyle (19.02.2006)
- **Transjurassienne**, France 76km freestyle (12.02.2006) www.transjurassienne.com
- **American Birkebeiner**, Wisconsin, USA 51km freestyle (25.02.2006) www.birkie.com
- **Finlandia Hiihto**, Finland 60km classic (25.02.2006) www.finlandiahihto.fi
- **Vasaloppet**, Sweden 90km classic (05.03.2006) Oppet Spar (26.02 & 27.02.2006) www.vasaloppet.se
- **Engadin Skimarathon**, Switzerland 42km freestyle (12.03.2006) www.engadin-skimarathon.ch
- **Birkebeiner Rennet**, Norway, 54km Classic (18.03.2006) www.birkebeiner.no

In addition to the World Loppet races, most of the events include a shorter race as an alternative. These range from a distance of 21km to 45km. Two of the events the Vasaloppet and the Engadin include separate race for women.

Masters World Cup

- 2006, Brusson, Italy
- 2007, Rovaniemi, Finland
- 2008 McCall, Idaho, USA

2006 Winter Olympics

Torino Italy, 10-26 February 2006

World Juniors and World Under 23

Kranj, Slovenia, 1-5 February 2006

Piriformis Syndrome in Cross Country Skiers

Piriformis Muscle Syndrome is most commonly a Problem of Poor Posture-Movement patterns rather than "Overuse"-

It is common in golfers, skaters, skate style cross country skiers (both of whom are pushing off a leg that is close to the faulty hip joint positioning described below), and cross country runners who regularly run hills.

This article is unique in that it explains the Faulty Posture and Movement Patterns that trigger and perpetuate Piriformis Syndrome. The full article is available on the web (see reference below).

The Author (Bruce Thomson):

Happy on Skis just 14 months after the onset of Piriformis Muscle Syndrome.



The Movement Pattern that causes Piriformis Muscle Syndrome:-

- Thigh bone swung too far back (hip joint hyper-extension).
- Knee pointing too far outward (hip joint lateral rotation).
- Thigh bone swung too far out to the side (hip joint abduction).

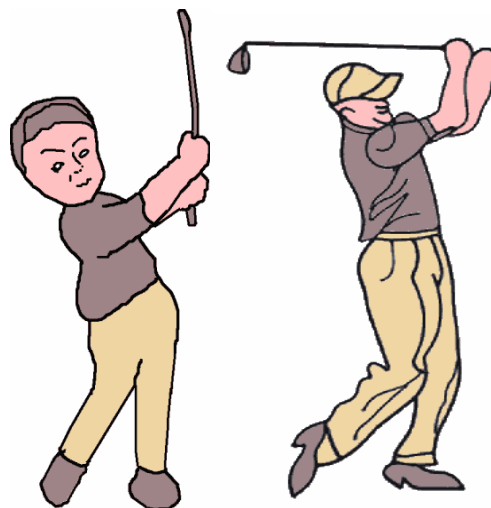
You can see this in the following cartoon pictures of golfers at the end of their swing:-

Picture to Left: Piriformis Syndrome in the making:

Junior perfectly demonstrates the Piriformis Syndrome Position! - There are many joints taken well beyond their strong middle range. Note especially the positioning of the right hip joint (see text above for precise description).

Picture to Right: Healthy movement pattern:

Approximates what we expect to see in a professional golfer. No joint is taken outside of its strong middle range. Note that the knee is bent, and this is the key to keeping the hip joint within its middle range.



The reasons that this movement pattern triggers piriformis syndrome:-

1. The Gluteus maximus is slow to activate in this positioning, leaving the Piriformis as the sole muscle of control for the rotational movements of the hip.
2. The Piriformis muscle is being asked to do its solo effort working over its shorter range. (A muscle cannot achieve maximal strength outside of its "strong middle range").

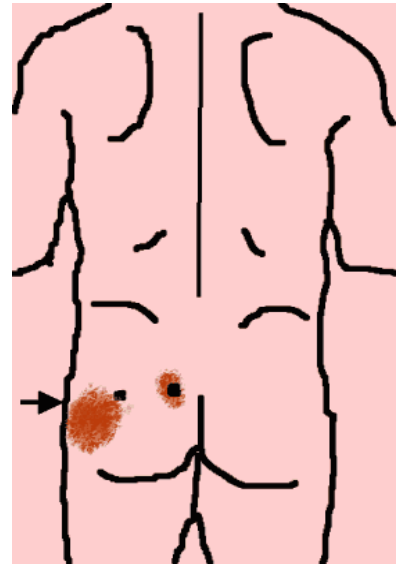
Piriformis Syndrome Symptoms

The patient with piriformis syndrome typically complains of tenderness in the buttock, and difficulty with prolonged sitting. A 20 minute brisk walk or run will cause an acute flare up for a number of days.

There may be sciatic pain down the side of the leg and foot. There may also be pain and stiffness just above the sacrum and along its entire edge on the affected side.

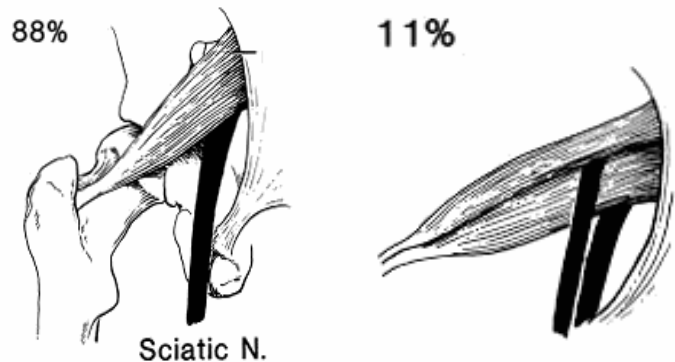
Diagram Right:-

Red: regions of Buttock Pain; **Arrow:** points to top of Greater Trochanter (top of thigh bone); **Black dots close to the pain patterns:** Location of Piriformis trigger points.



Piriformis Syndrome Muscle Diagram

The diagrams to the right show the Piriformis in relation to the Sciatic nerve. When the Piriformis muscle becomes inflamed and swollen, it may press on the sciatic nerve. Even if the piriformis does not press on the sciatic nerve, the muscle and its trigger points can still be painfully acute. 88% of people have the whole nerve passing under the belly of the piriformis, while 11% of people have a branch of the sciatic nerve passing through the belly of the piriformis. Contrary to internet myths, this anatomical variation bears almost no relationship at all as to whether or not you will develop sciatic nerve pain alongside your piriformis muscle inflammation.



Summary about Piriformis Syndrome for Skiers:-

- If you have “sway back”, skate style skiing will put your Piriformis muscle under a lot of extra stress, and may trigger or worsen Piriformis Syndrome.
- The Posture-Movement Cure for Piriformis Syndrome is to lean forward, encourage the Gluteus to engage, and to avoid the extremes of hip joint positioning described in this article.
- Therapeutic massage, a full stretching program and Gluteus maximus strengthening exercises are the other components of therapy.
- With the right approach, recovery is slow but virtually guaranteed – you don’t need to despair!

About the Author: -

Bruce Thomson is as veterinarian, currently retraining as a Pilates Fitness Instructor and Bowen Therapist. (Any excuse to find the time and fitness for cross country!) **Contact:-** brucethomson@xtra.co.nz

Full article available online, find it at:-

http://www.easyvigour.net.nz/xcskiers_corner/



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