

# SPORTSMEDICINEONLINE.COM IN CAMBRIDGE

Joe Bouscaren, M.D. 18 Hemlock Rd. Cambridge, MA 01238 O: 617-354-7254 [JBouscaren@comcast.net](mailto:JBouscaren@comcast.net)

9-27-06

## Fall Training Ideas and Silver Star Trip preparations

### Measuring workout intensity: aerobic vs. muscle demands

Imagine if your heart rate monitor gave heart rates in a plus or minus 50% accuracy range! This would mean that if you were trying to do an over distance workout at 130 hr, your monitor might read anywhere between 65 and 195 beats per minute!

In a sense this is what we are doing if we look only at heart rate as a marker for intensity of training. Heart rate is used as a marker for intensity because its rise with effort closely follows the rise in oxygen consumption. However, we must not forget what the muscles are doing, and take that into account when quantifying and planning our training.

Recently I have started to embed some bounding within a 2.5 hour over distance workout; the longer part of the workout is roller skiing at HR 120-130, while the shorter (but harder) part of the workout is 30 minutes of bounding. Try going to a football or soccer field and taking a medium long step with one leg and then sink your other knee to the ground. Use the forward leg to stand up again and repeat, alternating legs for 50 yards (meters) or so. (Walking lunges with body weight)

You will find that the heart rate may only rise to 120-130 but that after 2-4 sets of 50 yard efforts your legs will feel very wobbly and may even cramp up! After doing this, clip on your roller skis and feel how much that bounding took out of your muscle strength and control, usually a lot, unless you are in very good shape!

I liken this to the fatigue one experiences late in a race; the muscles may feel extremely fatigued, while your heart rate may be in a very manageable zone. This often happens on a long uphill late in a race; the muscles simply haven't been trained hard enough in the pre-season to even maintain a reasonably high race heart rate.

So: It is helpful to recognize that your heart rate monitor may only reveal part of the whole training process. Work those muscles hard in your fall training to prevent late in race muscle fatigue that may be unrelated to your aerobic power. Call me about good bounding and strength ideas: 617-354-7254.

### Silver Star packing tips (partial packing list):

1. 2 x-c suits, lycra tops and bottoms
2. 2 sets of long underwear
3. A small bottle of woolite- for quick in room washing
4. Synthetic-wool blend xc socks of light to medium weight (must be non-abrasive)
5. Warm cover layer for riding up the lift (done sometimes in the afternoon)

6. Sunglasses/snow shield
7. Glide and kick wax for cold, medium and warm conditions (can be bought there, but you WILL need these)
8. Cork for kick waxing
9. Fanny pack for carrying a water bottle and extra kick wax
10. Waxing iron
11. Plastic scraper with sharpener or 150 grit single sided sticky sandpaper to sharpen
12. 2 pairs of xc gloves (one for cold conditions)
13. Heart rate monitor
14. Classic and skate skis (boots and poles)
15. Book your flights NOW, prime times on the commuter planes from major airports to Kelowna book up early!

These are things I have learned over the years that make camp the most comfortable and worthwhile!

### **Who's got "the rockets" and climber, rookie, sprinter baseball caps:**

If you follow the Tour de France, you know that each day one person gets to wear a jersey signifying that they are the current leader in various categories such as climbing, sprinting, best rookie etc. I have always thought it would be fun to distribute baseball caps of different colors to the individuals in my groups, depending on how they skied that day. The caps would rotate among individuals as indicated and we would have a cap for every person in the group (perhaps we should have one for being 5 minutes late to workout and keeping everybody else waiting?!).

One of the great daily joys at camp is finding out whose skis are running really well that day (who's got "the rockets"). That person almost always has the most fun during the workout as they loaf along at less effort than everyone else! One can really learn a lot about waxing by trying to have fast skis (and good kick) every day; and don't worry about using expensive flouro powder except for an optional time trial/race day at the end of camp. Usually it is the low to mid flouro waxes that run well day in and day out.

I will look into adding colorful caps like the Tour de France leaders jerseys to my coaching protocols; I think it would generate some added intrigue!

As always, feel free to call me with any questions about the camps.

Joe Bouscaren  
617-354-7254