

## Warm Ups and Warm Downs

By Susan Ellis

Warming up before training/racing and warming down after is essential to preventing injury, lessening muscle soreness, and to speed recovery following training/racing.

In doing a good warm up you are not only more ready to complete a good training session or race, but you have also contributed to your overall fitness, flexibility, agility, and co-ordination.

Warm ups serve to get the blood moving to the specific muscle groups you are using and start the oxygenation process so your muscles are more ready to perform the work better, faster and longer. A good warm up:

- Promotes flexibility, agility, and co-ordination through static stretching and dynamic exercises.
- Increases the stretch – reflex response in specific muscle groups thus increasing the power in those muscle groups.
- Trains the muscles in the recruitment of specific fast twitch muscle fiber (starts and accelerations).
- Prepares the specific muscle groups to execute in as similar a fashion as possible in the best possible skating position.
- Prepares you mentally for the workout in specific skating drills, speed drills, power drills.

A good warm up should take a minimum of 15 to 30 minutes depending on the training activity and should be specific to the type of activity you are doing in your training session.

Warming up for a long run or bike ride takes less time (15') and is less specific than warming up for a dryland skating session or sprinting session (25-30') where you are maximizing speed of movement and/or range of movement. The higher the intensity of the training, the higher the intensity of the warm up and the more dynamic it should be. Warming up for a long run or ride may consist of 5-10' static and easy dynamic flexibility and 10' steadily increasing running or riding pace to get up to training pace as your aerobic system starts to kick in.

Warming up for a high intensity workout such as dryland skating imitations, hill runs, or sprints should include four parts:

1. **The aerobic portion:** 10' run – to get the heart pumping and the blood flowing to your muscles. You can include some low intensity dynamic work in the last 5'.
2. **The flexibility portion:** 3-5' stretch major muscle groups – back, hips, glutes, hams, quads, calves. (Save most of the static stretching for after the workout and just do the major work groups that you will use in the workout.)
3. **The dynamic portion:** 5-10' – dynamic flexibility, agility, and co-ordination drills.
4. **The specific portion:** 5-10' – specific skating drills.

By the end of the higher intensity warm up (dynamic and specific portions) your heart rate should be well into the lactate zone and you should already feel some lactates in your system. This is super important to get the lactate system to kick in and start the lactate buffering process. If you don't you will feel more tired and fatigue sooner than if you had spent a little more time preparing the lactate system to work with you rather than against you. Preparation is key to success. You prepare your equipment, you prepare yourself mentally, you train physically, so you **MUST** prepare to train to complete that success. It amazes me how many people skimp on warm ups because they are afraid to expend a little extra for fear they will be too tired in the race from the warm up, not realizing that just the opposite is true. It takes some trial and error to find just the right amount of warm up to have your ideal training session or race, but it's time well spent.

Here are some things you can include in your dynamic and specific warm ups. Next month's tip on agility and co-ordination training will include some video clips of these drills.

**Dynamic: 5-10' – the dynamic and specific portions can overlap for a total of 10'**

You can choose any of the following or add your own:

- low intensity skip – 2 x 20 meters
- high intensity skip – 2 x 20 meters
- power skip – 1 x 20 meters
- straight leg skip – touch toes – 1 x 20 meters
- high knee walk (knees touch opposite shoulder) – 1 x 20 meters
- butt kicks – 1 x 20 meters
- high knee lateral run – 2 x 20 meters
- low side shuffle (skating position) – 2 x 20 meters
- power monkey shuffle
- carioca – 2 x 20 meters
- high knee carioca – 2 x 20 meters
- power carioca – 2 x 20 meters
- backwards run – 2 x 20 meters
- lunge w/twist – 1 x 20 meters
- backwards lunge w/twist – 1 x 20 meters
- leg swings – forward back, forward side, arounds
- 2 x 5 tuck jumps
- 3 or 4 accelerations to max speed – 30m, 50m, 75m, 100m
- imitation starts with or without cable
- ladder drills – 5' (see more of these in next month's tip)

**Specific:– 5-10'**

- easy 2 foot hops forward in skating position – 20-30
- easy 1 foot hops forward – 10-15
- 5-10 broad jumps from basic
- 2 x 1' slow dry imitation feeling your position
- 10 side – up jumps, med intensity – (imitation jump to the side, then two foot straight up)
- 5 side – up jumps, high intensity
- Kihoon corner jumps – 2 x 10
- 2 x 5 power side jumps
- 10 power split jumps
- 2 x 5 explosive from basic, with or without pause
- 8 one leg tuck jumps
- 20 frequency jumps
- 20 low 2" jumps – together/apart, star, box, diamond
- Techni-Cords – 2 x 20 reps each leg for straights and corners

**Other warm up drills can include:**

- tapioca
- side to side hops
- side leg tuck jumps from basic
- split jumps
- overhead lunge
- elbow to ankle lunge
- bench drills (see more of these in next month's tip)

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Warming down after a session is important to helping the body recover from the effort and to assist in removing lactates from your system. A warm down should consist of easy intensity jogging or cycling for 10-15' and 10-15' of easy dynamic exercises such as leg swings, easy carioca, etc., and static stretching. See Flexibility Training a Must for Speed Skaters – May 2007.

Coming next month – Agility and Co-ordination drills.