



HAMPSON ATHLETIC THERAPY AND CONSULTING

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Warm Up and Cool Down for Cyclists

Warm up:

- The objective of a warm up is to optimize performance and prepare the body for activity by increasing tissue temperature through increased blood flow.
- Consists of a general aerobic component to raise the body temperature followed by stretching and finally by sport specific skills.
- You know you are warmed up and ready for activity when you begin to lightly perspire.
- 5-10 minutes total:
 - *aerobic*: walk/jog/knee bends with arm swings/jumping on spot
 - *stretching*: dynamic stretches
 - *sport specific*: slow cycling on flat terrain building speed after a few minutes.

Dynamic vs. Static Stretching

Dynamic stretch: where a stretch is performed through a comfortable but challenging large amplitude range of motion in a controlled, smooth, and deliberate fashion.

- It is becoming increasingly apparent that **it is most effective during pre-activity warm up** because it is proving to increase functional range of motion, increase tissue temperature, increase neuromuscular function and increase fluidity of movement.
- Slow, controlled dynamic movements of increasing amplitude repeated usually 10-12 times. End of range may be held for 2 seconds to ensure control.
- It is not like the old ballistic stretching that is uncontrolled, erratic and jerky.

Static stretch: holding the muscle in a comfortable but challenging position for 10-30 seconds.

- Studies are demonstrating that static stretching is **best used during cool down and post-work out** where increased range of motion is the goal. Done traditionally as part of a pre-activity warm up, research is indicating that it can cause impairments in performance by decreasing strength, power and reaction time as well as reducing tissue temperature and blood flow. These effects are more noticeable in strength, high speed, explosive or reactive type sports (e.g. weightlifting, sprinting) and less noticeable in aerobic sports (e.g. distance running, cycling).

Dynamic Warm-up Activities (limited by your imagination and Google!)

Perform the following dynamic stretches in a controlled, smooth and deliberate fashion. Repeat 10-12x. Holding the end of range for 2 seconds helps to ensure control.

Aerobic Knee bends/arm swings: bend knees and swing arms forward and backward rhythmically; bend knees and swing arms to side and hold before standing tall and swinging arms over head.

Leg swings: facing bike swing straight leg side to side in ever increasing movements. Repeat standing sideways to bike and swing leg forward and back. Add multi-directions.

Hip Extensors/Hip Flexors: Face sideways to a car bumper or bench; put R foot up and keep knee slightly bent; L foot is 3 feet away from car; bend forward so chest is touching thigh while trying to straighten leg; feel gentle stretch in back of R thigh (hip extensors); hold for 2 seconds; then glide forward with weight on R foot on bumper leaving L leg planted; feel a stretch in front of L hip

Hamstring/Calves: standing sideways to your bike in a forward backward straddle stride with toes of both feet pointing straight ahead; lean forward onto front foot but keep back leg straight; feel stretch in calf; then lean backward onto back leg keeping front leg straight; bend forward to bring chest parallel to the ground to feel a stretch in the hamstring of the front leg.

Quads/Hamstrings: standing sideways to your bike; pull one leg up to chest for hamstrings; then swing it back and pull heel to butt for the quadriceps.

Yoga positions:

Downward facing dog (inverted V) with butt kicks

Sun salutations

Cat stretch

Cool Down:

Cooling down is equally important to warming up because the body is then allowed to cool off slowly helping to flush the body of metabolic waste products (e.g. lactic acid, carbon dioxide) caused by the activity.

5-10 minutes total:

- **Aerobic:** Consist of slow cycling for 2 minutes at the end of the ride
- **Static stretching** of the muscles used during the activity:
 - hold 10-30 seconds
 - stretch gently, slowly and keep it comfortable
 - window of 30-45 minutes while your body is still warm
 - Calves; quadriceps; hamstrings; shoulders; wrists.

Sources:

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