

Cold Weather Riding



To stay warm and dry, it helps to dress in layers.

[Gale Bernhardt](#)

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Years ago, I attended a seminar given by Papa Bear Whitmore, a noted authority on wilderness survival. He made an important observation based on his years of experience surviving the wilderness, teaching wilderness survival and looking for people lost in the wilderness.

He said that when the weather is cold, say 20 or 30 degrees Fahrenheit, people know it is cold, and they prepare for it appropriately. It is when people don't think of the weather as cold that there is a higher risk for problems.

It seems problems are more likely to occur when the temperature is in the 40 to 50 degree Fahrenheit range because people are unprepared for a stop in activity or a sudden weather change. An approaching storm that makes conditions wet and/or windy can cause big problems, beginning with wind chill.

Wind chill can make bearable air temperatures very uncomfortable at the least, and depending on the combination of weather conditions and the athlete's condition, the situation can become downright dangerous.

For example, a 40 degrees Fahrenheit ambient temperature changes to 33 degrees Fahrenheit on your skin with 10 mph wind. Add a cycling speed of 20 mph to that headwind and the wind chill takes the temperature to a frigid 28 degrees.

Wind chill is only part of the equation, and you don't have to be moving at 20 mph to have trouble. Lawrence Armstrong, author of *Performing in Extreme Environments*, notes a personal experience with cold temperatures in his book. He, along with many other competitors, began a Boston marathon running race in only a T-shirt, shorts and socks because the conditions when the race began were sunny and warm.

As the race progressed, the clouds and wind moved in, causing ambient temperatures to drop. He experienced hyperventilation by mid-race as his body lost heat due to radiation, convection and evaporation. In the final miles, he experienced shivering, muscle spasms and incoordination because his exercise intensity and metabolic heat production had decreased.

You don't have to succumb to cold stress, or an [indoor trainer](#) for three solid months, as winter continues to present challenges. It is possible to continue to cycle outdoors when winter envelops your favorite route as long as you know some safety tricks. You should also be able to recognize the early signs of trouble so that exposure to the cold does not become dangerous.

Symptoms of Cold Stress, Hypothermia

There is some disagreement among experts about the number of stages of hypothermia and what body temperature range dictates which stage. The most important things to know are the warning signs.

One of the first warning signs is the body shivers to exercise muscles and produce heat as core temperature drops from around 98.6 to 96 degrees Fahrenheit. A two-degree drop from what is normal for you will probably produce shivering. If you are shivering, it is your first signal that you're heading for trouble. Do not take chattering teeth and shivering lightly.

When body temperature drops to between 91 and 95 degrees Fahrenheit, from 98.6, shivering becomes violent, speech is difficult, thinking is slow and amnesia may occur. Additional symptoms include skin turning to a grayish color, irritability or behavior that becomes combative, drowsiness and an inability to stand and move after resting.

Hopefully you will never experience more than the shivering; the first-warning sign of hypothermia. Keeping yourself warm and dry are two ways you can prevent hypothermia stress.

Tricks to Stay Warm and Dry

One trick to help you stay warm is to fill a Camelback hydration system with warm energy drink. A favorite is apple flavor, since it is similar to hot apple cider. The warm fluid on your back--and eventually in your stomach--helps keep your body temperature up.

A second trick is to use or carry chemical hand or toe heaters. These are small packs that generate heat once the package is exposed to air. For athletes that get cold toes, place the thin product in the bottom of your cycling shoe.

I carry a package of these instant heaters with me all winter. They are perfect to warm my hands after I've had to change a flat tire. I just put one small package between my liner and my outer glove. You can find chemical heaters at sporting goods stores or online.

To stay warm and dry, it helps to dress in layers. The first layer needs to be a moisture-wicking fabric to transport moisture away from your body. If it's cold enough, use a second layer to insulate and a final layer or top shell to keep the wet and wind away from your body. If you get too hot, you can always take clothes off when you make a stop.

There is a wide variety of cold weather cycling clothes available. For your head, there are thin caps to wear under your helmet. Balaclavas and ear warmers become mandatory as temperatures drop.

For your torso there is everything from cool weather vests and arm warmers to wind proof, breathable fabrics designed for cold and wet conditions. Tights also come in a variety of fabrics. Be sure your tights have articulated knees and are designed not to put pressure on your knee cap as you cycle.

Toe covers and a range of full booties are available to cover your shoes. Some companies manufacture waterproof and breathable socks to use instead of booties.

Select an Appropriate Route and Ride With a Group

In cold weather conditions, select a route that has several opportunities to stop and warm up in food stores or gas stations if you get into trouble. If you are on a road bike, be sure the

road is free of black ice and snow. If you ride a [mountain bike on snow](#), ride with a relatively low tire pressure. If you are riding off-road, be sure to ride with a friend or two.

[Riding with a group](#) on or off-road is a good strategy for several reasons. On the road, as you rotate from the front position to a position at the rear of the peloton, you get a break from the wind. As you rotate leadership, members of the group can keep watch on each other for signs of cold stress. If someone gets a puncture or has other equipment trouble, other riders can lend a hand.

Don't Forget Your Cell Phone

Finally, when you head out into temperatures that are cold or may change from warm and sunny to cold, an important safety precaution is to carry a cell phone. If you get into trouble, you can always call to get a ride home.

In winter months stay warm, stay fit and be safe.

Gale Bernhardt was the 2003 USA Triathlon Pan American Games and 2004 USA Triathlon Olympic coach for both the men's and women's teams. Her first Olympic experience was as a personal cycling coach at the 2000 Sydney Olympic Games. Thousands of athletes have had successful training and racing experiences using Gale's pre-built, easy-to-follow training plans. For more information, click [here](#). Let Gale and Active Trainer help you succeed.

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