

## **Polar Pedaling: The Art of Winter Cycling**

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Ah, it's that time of year again. Fall is over, the nights are longer, there's a hint of snow in the air and a young man's thoughts turn to bicycle riding...

To answer your first question: No. I am not crazy!

Years ago I decided I would ride, no matter the weather, as long as the roads would let me. I found myself frequently not riding when the mercury dipped below 40 because it was usually wet or icy, or there was snow on the ground. I decided that I could ride more if I dressed for the wet and the cold, and I resigned myself to not riding when there was ice and snow. In my search for clothing, I stumbled across the Ice Bike web site ([www.icebike.com](http://www.icebike.com)). There I learned that other people rode their bikes year round and, amazingly, many of them rode when there was ice and snow on the ground. In fact, I discovered that winter riding is so popular in other parts of the world that the Nokian tire company makes (at last count) nine different studded winter tires for bicycles! I was hooked. I have been riding to work, to the store, and running errands on my bike during the winter whenever possible ever since.

Your second question obviously is "why?" Why would anyone in their right mind want to ride a bicycle in the winter? For starters, to improve your skills, maintain your fitness, and keep your bicycling muscles fresh. Add to those empty bike trails, less traffic, meeting a challenge, having fun, and boasting rights – being able to say to all those who sat it out that you conquered winter. Personally though, the look on my chief's face when I ride into the station during a snowstorm makes it all worthwhile!

The first thing you need to do if you are going to ride in the winter is figure out the kind(s) of weather in which you will be riding. Is it cold and wet, cold and dry, or is there lots of snow? Or do you experience it all? I do! Once you've figured that out, you can determine your limitations based on equipment.

### **BICYCLES**

The first piece of equipment you need is a bicycle. Weather determines the type of bike you will be able to ride. Road bikes are ok until you need snow tires or fenders. The best type of bikes for winter riding are hybrids, mountain bikes, and bikes designed for loaded touring. These bikes all can take big tires and have better foul weather brakes than road bikes. Most can also accommodate some type of fenders.

### **CLOTHING**

The next thing you need is proper clothing. Depending how cold it is in your area, this could mean anything from purchasing better raingear to adapting heavy winter clothes for cycling. There is very little cycling clothing that works well below 40 degrees Fahrenheit, and even less for riding at 30 degrees Fahrenheit or below. This means you don't have to spend a lot of money on fancy clothes and that you can wear your summer cycling shorts under whatever outerwear you choose. Clothes that breathe are a must, and so is rain gear that is well-vented and breathable. You will be in a constant wind, equal or greater than your riding speed, so your rain jacket can also be your wind top.

Keeping your feet warm is essential. Depending on how cold the temps are when you ride, you may be able to get away with only neoprene shoe covers over your regular cycling shoes. Lake

makes winter-specific cycling shoes, but many of us “ice bikers” have adapted winter boots with stiff soles to meet our needs. Neoprene covers or waterproof shoe covers are necessary if you will be riding in cold, rainy conditions, and lined neoprene shoe covers can work in some snowy areas too. PowerGrips are the accepted pedal retention device if you wear non-standard cycling shoes, and they make extra long straps to accommodate many winter shoes. Some people have had success with putting SPD cleats on winter boots, but I think the PowerGrips solution is probably the easiest unless you buy a winter bicycle shoe.

For really cold temperatures, mittens are the only viable option. However, if you are going to ride in cold, rainy conditions, a waterproof glove is a must. “Lobster” mittens are a good choice because they allow you a little more dexterity. And for extreme riders, there are handwarmers, which look like huge mittens, that attach to your handlebars.

Headgear is another item that is not only ride dependent but a personal preference. This could range from any combination of head bands, winter caps, helmet liners or face masks. You will need to see what works for your conditions and what is comfortable. Many helmets are instantly adjustable and can be adapted by making a quick adjustment to the fit ring and loosening the chin strap to accommodate your winter head gear. Many of us dress a little cool for our winter rides because it is very hard to change layers in the middle of your ride. You warm up from exertion while riding and if you want to get warmer, all you have to do is increase your effort. As a result, you can regulate your temperature throughout your ride by regulating your cycling effort.

#### **EYE PROTECTION**

Eye protection in the winter is a whole new ball game. You will need to experiment to find a product that is suitable for your riding conditions while at the same time comfortable. If you are lucky enough to not wear corrective lenses, the choices are much easier. Normal glasses fog easily and much of the fogging comes from your own breath. At higher temperatures, fogging tends to only happen when you’re not moving. At colder temperatures, it can happen all the time. Some of the newer glasses made by ESS and Wiley-X do well at moderately cold temperatures, but once the temperature dips past the mid-twenties, I go for skeleton-framed ski goggles. I haven’t had them fog at -20, though they do restrict my peripheral vision a little bit. Again, you need to find out what both works well and is comfortable.

#### **LIGHTING**

One important safety consideration in winter is lighting. Winter days are shorter and you will need to either plan your rides around this or invest in a good light set. Winter road conditions usually require better lights than what you need in the summer. If all your riding is done on snow-packed trails, you can get away with cheap lights because the snow is a great reflector. However, potholes on a wet road are hard to see with a cheap light, and seeing ice on a road is next to impossible. The biggest problem with light sets in the winter time is batteries. Cold weather shortens battery life and extremely cold weather can make some batteries almost nonfunctional. There are a couple schools of thought on this. One is that only batteries that have an exothermic property (give off heat when it discharges) such as Li-Ion Ni-cad should be used. Lead acid batteries should be avoided as they will lose 50% of their capability if left out in these cold temps. Another school of thought is to keep the battery warm; many of those people advocate using helmet lights with flat battery packs that can be worn under the coat. Still another school says to skip batteries and use a dyno/generator. The type of dyno once again is weather dependent. Wheel-driven dynos don’t work well in snow, while dyno hubs are not

affected by any weather. If you choose to go with a dyno, price becomes a factor as most dyno hubs start at \$100 just for the hub, which then has to be built into a wheel.

Lighting choice is driven by money and personal preference. Good lights are costly no matter which option you choose, though there are quite a few plans on the internet for do-it-yourself bike lights. My personal choice is a mix. I have a wheel driven dyno for wet and dry weather. I also carry a 10w halogen helmet light with the battery pack inside my coat. This gives me extra light when I need it or a replacement for the dyno when snow is on the road.

## **TIRES**

The final item is tires. The tires you use in the summer will work in the winter until there is snow and ice on the ground. If you want to keep riding in snow and ice, studded tires are highly recommended. Good studded tires have studs made out of a very hard material like carbide to reduce wear. I ride on Nokians but Schwalbe also makes good tires. I've had the same set for four years and still haven't worn the studs off, despite the fact that I frequently ride them on dry roads whenever I hear there is a chance of snow. Many people think that studs are only needed for ice and that knobby tires are good for deep snow. Personally I keep two sets of rims on hand. One has a mixed tread that is suitable for wet streets and thin layers of wet snow. The second set has an aggressive set of Nokian studded snow tires on it that I use whenever the roads are snowy or icy.

## **CONCLUSION**

A few final words need to be said. Riding in any type of weather has its challenges, but cold weather requires a few extra precautions. Be aware of the signs of frostbite and hypothermia. Once you know what to look for, winter riding is no more dangerous than riding when the thermometer is in the 90's. Also, winter riding is difficult. Riding in the cold is strenuous; add ice or snow and it's a real workout! Riding in snow is like riding in beach sand; add ice to that and you ride harder and more slowly, so if you're planning to ride to work, don't forget to take that into account. You need to be in shape no matter what the weather!

The rest is up to you. Winter riding is about discovery and much of it is trial and error. Discover what works, what you've been missing, what you need to keep going and how to keep your bike upright on the ice!

## **WINTER RIDING WEBSITES**

*General riding information and an email list:* [www.icebike.com](http://www.icebike.com).

*Chicago winter riding site:* [www.bikewinter.org/main.php](http://www.bikewinter.org/main.php).

*Nokian tires:* [www.suomityres.fi/](http://www.suomityres.fi/).

*Schwalbe tires:* [www.schwalbetires.com](http://www.schwalbetires.com).

*Peter White Cycles is one of the main studded tire dealers. Peter is also the main dealer for many fine bicycle lighting products:* ([www.peterwhitecycles.com](http://www.peterwhitecycles.com))

*Track-driven bicycles for extreme terrain:* [www.ktrakcycle.com/](http://www.ktrakcycle.com/).

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