



Winter Cycling Tips The Extremities – Head-Hands-Feet

For most people keeping the extremities comfortable is one of the greatest challenges. After all, when the body is exposed to cold the natural reaction is to gradually divert blood flow away from hands and feet and move it to the core – it's one of those survival mechanisms that sometimes messes things up.

Raynaud's Phenomenon is a reaction by the body to cold, stress, and emotional upset. Spasms in blood vessels that feed fingers, toes, ears, knees, nose and even the nipples constrict blood flow prematurely. With reduced blood flow those areas become cold and frost bite is inevitable. It is important to understand that hats, gloves, mitts, big woolly socks etc. limit heat loss, they do not magically produce heat unless they are electrically heated. So those people affected by Raynaud's Phenomenon will not benefit from thicker insulated products. It's a little like adding huge amounts of insulation to your home, putting in triple glazed windows, and sealing all the cracks when the furnace doesn't work – the house will still be cold.

So, with that said, you are one of two types of people:

1. You have a normal reaction to cold and will benefit from some carefully chosen pieces of clothing for head hands and feet.
2. You are affected some one degree or another by age, Raynaud's Phenomenon, or a similar disease that affects blood flow to the extremities and will need to use some form of external heat to remain comfortable.

Head

It was once said that humans lose 40 to 45 percent of body heat through their heads. This has now been proven to be false. A study from 2006 now pegs that number at 7 to 10 percent. However, our perception of cold is important too. I personally find that my overall comfort improves remarkably when I put on a head covering when temperatures dip.

You may need to purchase a larger helmet to accommodate some head coverings. Here are some items that you might want to add to your cold weather cycling arsenal:

Helmet Cover

Key points:

1. Provides minimal insulation for those plus 1 to 10 degree days
2. Is waterproof and windproof.
3. Often has reflective areas for better visibility.
4. Can be combined with other head coverings to make a system that will handle almost any condition.
5. On its own, does not impair hearing in any way.
6. Look for ones with a rear flap that directs precipitation off and down over the back of your shell.



Goggles

Key points:

1. An essential piece of gear for many riders to prevent excessive tearing.
2. Models are available for glasses wearers. A cut-out on the sides of the foam surround allows the arms of the glasses to pass through and out.
3. Always bring your helmet when fitting goggles, as the goggles have a variety of top profiles and rise dimensions from the bridge of the nose to the top of the frame. The top of frame profile should match the profile of your helmet to prevent cold spots across the forehead.
4. Some models have interchangeable lenses to cover all conditions, while others are photochromic and react to different light conditions. Common lens colors include **clear** (night riding) **amber** (night riding and flat light conditions) **rose** (increases contrast for flat light conditions) **gray** (bright conditions).
5. **Avoid any eye covering that is polarized, as it may prevent you from detecting ice.**



Filter Masks

Key Points:

1. On-road cycling exposes the rider to increased exposure to exhaust fumes. Due to the slower speeds in traffic and being forced by snow and ice buildup on shoulders to ride closer to vehicles, many commuters prefer to use a filter mask.
2. These masks have replaceable activated charcoal filters.
3. Take your helmet and goggles with you to the fitting of the filter mask.
4. Purchase additional filters so that you can trade out soggy filters (from respiration) for dry ones.



Ear Bags

Key Points:

1. Minimalist product allows for a great deal of venting for the head and doesn't impact helmet fit.
2. Generally, comes in small, medium, and large.
3. Generally, do not have windproof/waterproof membranes, so hearing is not affected.
4. Very compact and easy to stow in a pocket.



Headband

Key points:

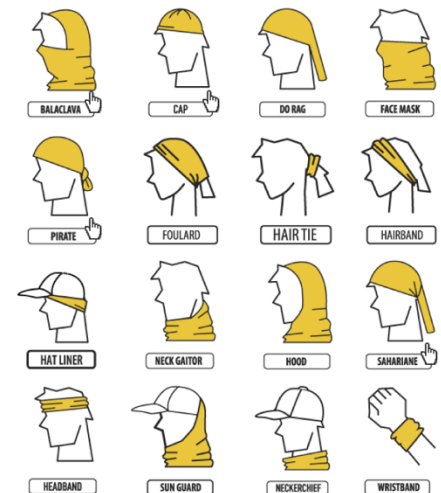
1. Allows lots of venting while keeping the ears and forehead warm.
2. Can impair hearing to some degree if it has a windproof membrane in it.
3. Some manufacturers punch holes through the headband centred over the ear canals to improve hearing.
4. Comes in different weights, but it must fit under the helmet, so do take your helmet with you for fitting.



Neck Gators (Ski Buff)

Key Points:

1. Very versatile - can be worn in number of different ways.



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2. Offers excellent breathability and moderate wind protection.
3. When worn around the neck, gives the warmth of a scarf without the bulk.
4. Lighter weight products don't affect helmet fit.
5. Also works well in your summer cycling apparel.

Skull Caps

Key Points:

1. Gives moderate to good insulation.
2. Most likely will affect helmet fit.
3. Usually have a windproof/waterproof membrane.
4. Can affect hearing but may have holes punched through - centred on the ear canals.
5. Reduced breathability - as compared to a knitted toque.



Toques

Key Points:

1. Almost a Canadian icon eh!
2. Good insulation – depending on weight.
3. Offers good breathability.
4. Comes in a variety of weights.
5. Almost always affects helmet fit.



Balaclavas

Key Points:

1. Offers good insulation including face.
2. Products with windproof/waterproof membranes impair hearing unless perforations are made in the ear area.
3. Will likely affect helmet fit.
4. When worn full-face the fabric can tend to ice-over and impair breathing. Some products put a mesh panel in the area of the mouth to prevent ice-over.
5. Not as versatile as a neck gator.



Snow Helmets

Key Points:

1. Snow Helmets offer the protection of a cycling helmet plus protection to the back of the head. MIPS helmets are available
2. Helmets are insulated and some models have removeable ear coverings.
3. Some have the option of adding ear speakers in the ear pads. **This feature is not recommended, nor would it be allowed on official EBTC rides.**
4. The added weight could be problematic in the ride position until you are used to the additional weight.
5. Some models have adjustable ventilation – definitely recommended.
6. Bring your goggles to the fitting to ensure the goggles work well with the helmet opening.



Hands

Keeping your hands warm is challenging because the hands and arms aren't doing a lot to keep them warm, and the hands are in constant contact with the cold handlebar grips – which draws heat from the hands. The very best solutions are to use electrically heated gloves or install electrically heated grips.



Heated Gloves

Key Points:

1. Liner weight gloves work best and are the most versatile as you can add as much or as little insulation over them.
2. It is recommended that liner weight gloves be worn with an over-glove or over mitt.
3. Batteries can be fitted to the gauntlet of the glove or can be connected through to a remote harness.
4. Some products can be plugged directly into a motorcycle or snowmobile electrical system. Eventually they may also be plugged directly into an e-Bike electrical system.
5. Run times range from .8 hours (high with the smallest battery) to 10 hours (low with the largest battery).

Heated Handlebar Grips

Key Points:

1. Not many downsides except that they can get damaged in a crash, and they may not work well with some models of SRAM Gripshift™

Gloves

Key Points:

1. Offer the best in terms of dexterity.
2. Many now offer compatibility with touch screens.
3. Since the fingers are separated no glove will offer the warmth of a mitt.
4. Gloves should be fitted with about a finger width of space at the ends of the fingers.
5. Thin liner weight gloves worn inside of gloves helps to keep the glove liner drier and allows extra dexterity when needed doing adjustments or repairs.
6. Gloves can have waterproof breathable membranes that make them windproof as well.
7. Gloves with gauntlets allow for draft free riding.
8. Nose-wipe patches on the back of the thumb are handy for those inevitable drippy noses.

Mitts

Key points

1. Mitts are generally not used in cycling since using trigger shifters is impossible.

Lobster Mitts

Key points

1. These seek to offer the dexterity of a glove with the warmth of a mitt.
2. Still do not offer the warmth of a mitt.
3. Lobster mitts can have waterproof breathable membranes that make them windproof as well.
4. Nose-wipe patches on the back of the thumb are handy for those inevitable drippy noses.



Pogies

1. Pogies come to us from paddling.
2. Pogies for cycling only have two openings – one for your hands and one for your handlebars to pass out of.
3. Paddling pogies have three openings – one for your hands and two for the paddle shaft to pass through. Don't use these for cycling.
4. Most pogies will be sized generously to allow for gloves or lobster mitts to worn inside of the pogyey but bring along your heaviest preferred gloves/mitts for fitting.
5. These may be made from 3mm or greater neoprene or may be a tailored windproof/waterproof fabric that is insulated with fibrefill.
6. These in no way prevent heat from being pulled out of your hands by the handlebar.



Feet

The challenge here is that the feet are exposed not only to cold but also whatever the front wheel kicks up while cycling. If you use a step-in pedal system (not recommended for winter cycling) that means that there must be a hole in any sort of covering to allow the cleat to connect to the pedal – ergo wet feet. So what are the options?

Toe Thingies

Key Points:

1. Reserved for only the warmest/driest of days.
2. These essentially block the venting on your regular cycling shoes.
3. Usually made from neoprene.
4. A good product for cool summer days as well.
5. Easy to stow in a back pocket.



Booties

Key Points:

1. May range in weights from very light polyester/nylon to heavy 3mm neoprene.
2. Some products may bond a waterproof/windproof breathable membrane to the face fabric. However, the product can't be considered waterproof since they are open in the bottom to allow for cleat access. A water-resistant zipper is a bonus.
3. Any product that is sold as waterproof must be seam taped.
4. Reflective tabs or heat bonded reflective areas help with visibility in low light or at night.
5. Bring your cycling shoes to the fitting as most booties tend to fit really small.



Winter Cycling Shoes

Key Points:

1. Perhaps the warmest and dries option, but they do tend to be expensive.
2. Can be used with or without cleats.
3. Wind/waterproof membrane is sewn into the upper and a water-resistant zippered gator encloses the laces.
4. Additional insulation can be added by using a bootie over top.
5. Take the socks that you would normally wear with you to the fitting.



Winter Boots/Snow Shoeing Boots

Key Points:

1. A more cost-effective alternative to the Winter Cycling Shoes.
2. Works well with Flats. Bring your pedal of choice with you to be sure the sole of the boot works well with your pedals.
3. A windproof/waterproof membrane is found in almost all boots in this category.
Exposed laces can be a problem both in terms of them icing up and in getting caught in the crankset, so a bootie may be required if lace keepers aren't one of the features.



Plus



Plus



The ultimate comfort – Electric Footbeds or Socks

Key Points:

1. Ski Instructors, Ski Patrol and On-Snow EMTs use these, and they are on the snow for hours at a time – yes they work that well.
2. They will have a range of heat settings.
3. Don't use any higher setting than is necessary. This improves battery run time and reduces the possibility of excess perspiration. The goal is to make your feet feel comfortable not toasty warm.
4. Both socks and footbeds are washable (usually hand wash)
5. The most expensive part of the system is the proprietary batteries. When shopping look into the availability of spare batteries and their cost. These are usually proprietary to the brand, so should the maker disappear from the market the possibility of getting replacement batteries will be slim. Buy extra batteries when you purchase your footbeds/socks and rotate them in service to get maximum life out of them.

