



Helen James wrote this article for the beginner skier who wants to stay warm and dry. The new skier should study it very carefully.

## **KEEPING NOT TOO WARM**

### Layering

The secret to staying warm while cross country skiing is to dress in a number of layers. Layering is important for two reasons. First and foremost it allows you to adjust your clothing according to the amount of energy you're putting out, your metabolism that day and the weather.

When you first start the day you will need three or four layers to maintain your body temperature. After you've skied a while, usually at the top of the first hill, you'll need less clothing. That's the time the hat comes off. As the day progresses and you put out more energy and the air temperature increases you may need to shed a layer to stay comfortable.

If you don't unzip or shed something you can get overheated, perspire and then get chilled because your clothing may be damp. You'll also get fatigued. There is nothing more tiring than being overdressed. Wear fabrics that wick perspiration to stay dry.

The second reason to layer your clothing is that it's actually warmer. Three thin layers are warmer than one thick one. The effectiveness of layers is enhanced by the still air trapped between them. It's a case of one plus one equals two and a half or three. Dressing in layers allows us to shed one or two as we warm up and so not to get overheated.

The layers usually should be quite thin. Start with long underwear. It should be made of fibres that do not absorb water, or provide wicking. Those fabrics are polypropylene, polyester, nylon, or orlon. Wool or silk will absorb water but will still keep you warm. Cotton is the worst possible choice because the fibres themselves absorb water and hold on to it. The other fibres named do not absorb water, they allow your perspiration to travel through the fabric and dissipate to the great outdoors.

Since I'm a lady I wear, over my long underwear, a cotton-polyester shirt. I don't like to sit around in the chalet in my underwear when I take off the outer layers at lunch time.

On the top, the outer layers can be a sweater and a shell-type jacket. The weight of the sweater is the easiest way to adjust your clothing for the temperature. Depending on your metabolism and the weather this can be as thin as a polyester v-neck sweater a man would wear under a business suit or as thick as that hand-knit turtleneck sweater your mother gave you. Avoid cotton sweat shirts. The jacket can often be just a shell, a single layer of woven fabric, perhaps lined in the front only, to cut the wind as you whiz down the hills. Make sure your jacket can breathe. A windproof jacket will hold your perspiration inside and you'll get wet and cold. Down-filled or thick insulated jackets designed for downhill skiing are not suitable.

On the bottom, over your long underwear, you'll need pants. Practically anything will do as long as it's not made of pure cotton. Cotton jeans are a mistake - they grab and hold on to all the water that's within reach, your perspiration and the snow. Wearing jeans can really chill a skier.

There are cross country ski outfits available and they can be wonderful. Make sure the jacket breathes (blow through it to test it).



**Socks and gloves or mittens** should be wool (warmest), silk, polypropylene or similar man-made fibre. You'll have the warmest feet in wool socks and boots not too tight. Cotton sport socks will grab the moisture as your feet perspire - a sure way to get cold feet.

**Gloves** can be knitted wool or polypropylene or fleece. Leather gloves should have a warm lining. Many people, and I'm one of them, wear leather mittens with a wool knit lining. On really cold days most people will need mittens. If your gloved hands are cold, change to mittens and or put your hat on and climb a hill.

**Hats** - anything goes as long as you like it and it keeps you warm when you need it. Remember that up to forty percent of your body heat can be lost through your head.

Where can you get all this stuff? You probably have a lot that's suitable in your closet already. The rest you can get at a good sports store or running store - and be prepared to pay top price. I wait for the sales at the end of ski season. Or try Mark's Work Wearhouse. They provide clothing for outdoor workers at reasonable prices. I especially like their underwear and socks. My leather mitts I found many years ago at Canadian Tire. Every few years I knit new linings for them.

As you get to be a better skier and put out more energy you'll need less clothing. When you find you're getting over heated, take off your hat, unzip your jacket, wear a thinner sweater, or on a warmer day discard that sweater altogether. On a sunny day toward the end of winter you may even see skiers in shorts and t-shirts.

**Keep warm, but not too warm.**