



## Layering for Winter Sports *The Three W's: Wicking, Warmth & Wind*

Winter can be one of the most fun times of year for outdoor sports. When the ground is covered in snow, there's no shortage of exciting activities—from tobogganing to skiing, skating, snowboarding, winter running, and even casual strolling. Whatever outdoor fun you choose, it's important to stay warm and dry by wearing the right clothes.

If you're not dressed properly for winter, you can lose heat in one of four ways:

1. **Radiative heat loss:** when your body heat escapes into the cold air due to a lack of insulation.
2. **Convective heat transfer:** when the wind draws heat off exposed body parts (your neck, hands, wrists, etc.).
3. **Conductive heat transfer:** when you lose heat by touching cold surfaces (like a metal ski lift).
4. **Evaporative cooling:** when your skin gets wet due to precipitation or sweat.

To avoid catching a chill or—worse yet—getting hypothermia or frostbite, experts at the National Ski Patrol recommend dressing in multiple, lightweight layers. An easy way to remember these layers is to think of them as the three W's: Wicking, Warmth, and Wind.

1. **The Wicking Layer:** The purpose of the wicking layer is to pull moisture away from your body and keep you dry. It's the first layer you put on and should be worn against your skin. Look for fairly thin fabrics in wool, polyester, or polypropylene.
2. **The Warmth Layer:** The warmth layer should create loft and trap air, much in the same way birds stay warm by fluffing up their feathers on a cold day. The goal is to add insulation and space for the warm air to stay trapped. Excellent options for your warmth layer include down, polyester fleece, and thicker wool.
3. **The Wind Layer:** The third and outermost layer should protect you against wind, snow and sun. Your first two layers have created some wonderful pockets of warm air, and the third layer will ensure they don't escape. Your wind layer should be windproof, waterproof, and breathable. Look for parka or shell-type jackets made of Gore-tex or similar.

Now that you've mastered the basics of layering, be sure to keep your extremities covered as well. Wear wool socks in your boots, and carry a pair of warm gloves or mittens at all times. Make a point of wearing a hat during winter months; otherwise, you'll lose a great deal of heat through your head. You can also carry a thermos of your favorite hot beverage to sip from time to time. It'll help keep your vital organs warm while bolstering your circulatory system.

Let it snow!