

The gear tips of the ol' nordic guide

everything you always wanted to know to avoid freezing your b...

The basics!

1 – Dress up like the onion!!

Simple strategy:

Too hot (during effort) – remove a layer

Too cold (at camp, in the wind,..) – add a layer

The effort is intense, it is more common to be too hot than too cold.

2 – Avoid sweating at all cost!!

Cold sweat freezes!

3 – COTTON KILLS!

Cotton never dries ! Everything has got to be made of synthetic fiber. Wool is acceptable for the sweaters and hats.

4 – Windchill factor

It's the wind that cools most
Wear windproof gear!!



Search ID: Jpm101
"I TOLD YOU: WHEN IT IS TOO COLD,
NOTHING IS BETTER THAN WEARING LAYERS."

In practise

First layer (body heat)

Upper body: 2 thin synthetic underlayers, long sleeves. =>



<= Lower body: 1 thin synthetic long john,
tight on the skin.



Second layer (warmth)

Upper body: polar fleece or softshell,
medium thickness =>

Lower body: 1 thick synthetic long john



Third layer (wind/snow/water proof)

Upper body: Gore-Tex jacket or similar breathing fabric. **MUST** have an adjustable hood that covers all head! Take it rather a bit large, you'll fit extra layers underneath.



Lower body: Gore-Tex pants or similar, has to reach high on the belly. Overalls are good, braces are useful. **MUST** have zippers all along the legs (to open when too hot). A pee/poo zipper is a nice feature!

Extremities

Head: a hat that covers the ears **AND** a bank-robbing style balaclava



Hands: 1 pair of thin undergloves, 1 pair of gloves, 1 pair of mittens, 1 pair of wind-proof over-gloves (mittens could be in two parts: fleece and wind-layer separate, so the wind-layer can also be worn above the gloves)



Socks: 1 thin pair, 2 thick pairs, thermal synthetic fabric.
Thin and thick can be worn on each other.

Extra warm “evening” layer for the camp:
The coldest moments happen when we don't move. A down jacket is a great friend at the camp. Down can be compressed into a tiny volume, and is very light compared to its insulation. It is generally too hot to be kept while skiing though. Instead of a down jacket, a second synthetic fleece jacket will make do!



Glasses: 1 pair of sunglasses, cat 3 at least

Mask: the ski mask is a MUST in the snow storm!



Head torch: doesn't need to be extra powerful, since skiing at night is better avoided anyway. A must for the camp.

Rechargeable NiMH batteries can be used, but take a spare set!



Sleeping

Ground insulation - the solution: foam mattress + “self-inflatable” mattress



The “self-inflatable” mat (which actually does not self-inflate much in the cold) ought to be of a good brand such as Thermarest. If used in combination with a foam mattress, take the “light” version, and even a half-size version such as the “S”.

Sleeping bag: down or synthetic? That's the question. Both are suitable. At equivalent warmth, synthetics will be heavier. However, down does not keep its fluffiness and isolation once wet. For long winter trips in tents, the condensation from sweating at night will progressively condense into ice crystals inside the insulation. In case of a thaw (if the temperature rises above 0°C in the tent), the bag will get wet and stop insulating.

In any case, the sleeping bag should be rated -25°C.

Drinking



Two insulated bottles (shock-proof aluminium), to hold 2l of hot tea for the day.

One of the bottles could be replaced with a non-insulated “Nalgene” type bottle with a large opening, to be wrapped in clothes and drunk first, before it freezes.

Avoid metal bottles and bottles with a small opening!





Pee bottle: a comfortable complement in the tent, unless you like the refreshing snow storm feeling. For men: your bottle will need a large opening! For women: some great stuff is available too!

Now, don't get mixed up with your drinking bottle..

Personal safety equipment



Avalanche beacon:

Although it is considered standard equipment for ski touring in the Alps, it is not yet used by all in the Scandinavian terrain, based on the false assumption that the avalanche risk is very limited. As soon a slope along the trip could be steeper than 25°, or if there is a risk of localised snow ridges, take it!

Snow shovel and probe:

It's hardly any use to locate a victim in an avalanche if there's nothing to dig them out. In principle, each member of the group should carry a probe and shovel. However, when the group is large enough, there could be one set per two people, or per tent.

The shovel is also needed every day to stabilise the tent, make a snow wall against the wind, and in case to dig an emergency snow shelter.

Ski gear

The ski gear for nordic ski is different from alpine skis or touring (“randonnée”) skis:

- * the skis are lighter, narrower and longer
- * the skis are very arched
- * the binding system is lighter and less steady, the heel can always be lifted but never locked
- * the shoes are less rigid
- * the ski poles are longer

Thanks to these characteristics, this gear is far more efficient for sliding on flat terrain.

It is less suitable to very steep slopes and for going down, however.

Shoes:

The warmer and steadier type for back-country tour skiing is preferred over lighter models for smooth ski track. Take them large enough to fit two pairs of socks.



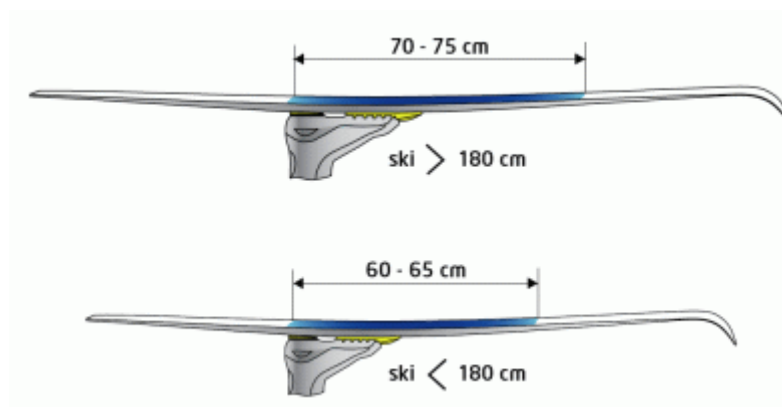
Skis:

For back-country skiing, a slightly larger ski is needed compared to cross-country skis designed for groomed track. The larger surface prevents them from sinking into deep snow. Back-country skis also have metal edges for sideways grip on hard snow.

Some skis feature a texture resembling turtle scales on the middle of the sole, in the so-called “kick zone” underneath the foot. This provides the friction force to push forward.

The skis that are not equipped with a texture need to be smeared with “kick-wax” in the kick zone.

The wax interacts with the snow crystals to provide the forward friction.



Bindings:

There are two main alternative type of bindings nowadays:
NNN (New Nordic Norm) – most common
SNS (Salomon Nordic System)

In both cases, the shoe has a metal bar at the tip, which rotates on a hinge on the binding.

These systems are not compatible! => The bindings and shoes have to correspond.



Use back-country type bindings, which are steadier (known as NNN-BC or SNS-BC).



Poles:

They need to be about 20cm longer than for alpine skiing (reaching a little below the armpit), and have large baskets to avoid sinking in deep snow.



Skins:

When the slope is too steep for the scales or wax to grip, “skins” are glued under the ski. These skins do not need to cover the whole surface of the ski (they can be narrower and/or shorter). It is common to take two sets of skins of different size. Some skins have a system to be fitted only under the kicking zone, which reduces friction in the sliding phase.



Gaiters:

Unless the pants are already equipped with integrated gaiters, you'll be thankful to these guys for preventing the snow from entering the shoes!



Taping:

And finally, the life saver against blisters! Taping the feet in the friction zone can save your ski trip. Never leave without it!

