



A Guide to Cross-Country Skiing

You'll probably already be aware of Alpine skiing and what that looks like. Alpine skiers are fixed, in heavy, rigid boots, to two skis and slide down a mountain, usually doing turns on the way.

Cross-country skiing covers a wide range of activities on an even wider range of equipment but it all has one thing in common; the lightweight boots all have a free heel and they are only attached to the skis towards the toe. The free heel means that cross-country skiers can go *uphill*, and on the flat, as well as down, so that they are not tied to ski resorts or ski lifts.

What are the different types of cross-country skiing?

Cross-country skiing can take place almost anywhere where there's snow, ranging from prepared tracks in ski resorts through low-level touring across fields and tracks to serious mountain touring. People who ski to the North or South Pole are cross-country skiing! It's popular in many regions of the world, with major ski areas in the Nordic countries, the Alps, North America and Russia.

Unlike Alpine skiing, which needs mountain slopes, cross-country skiers can ski along the flat, up hills and down hills, so often takes place at lower altitudes. Depending on the terrain, cross-country can be physically demanding; skiing slowly along flat, well-prepared tracks can be easy; a multi-day tour involving climbing and descending mountains can be demanding. But many people love the physical side of it (and without the need to stand in lift queues), and it is certainly a good, low-impact way to get fit.

At one extreme is cross-country racing, which is nearly always done using racing skis on prepared tracks. Race distances vary widely. Elite races range from sprints (about 1.5 km) up to 50 km (with shorter distances for women). Mass-participation races range typically from 25 km up to 90 km. If you've seen cross-country skiing at the Winter Olympics, you'll know that the skiers can propel themselves along and uphill very quickly. The top racers will do a marathon distance (with hills) in about 1½ hours compared to running where the world record is over 2 hours.

In between, ski touring (sometimes called back country skiing) can take place on prepared tracks within the area of the ski resort itself or, in some countries, such as Norway, trails are often prepared over longer distances including mountain trails. Sometimes these tours involve hut-to-hut tours and can take several days. Equally, some skiers enjoy breaking their own trail and exploring the countryside off-track. At the most demanding end of mountain touring comes Alpine touring, with equipment which looks similar to Alpine skiing.

At the other extreme, popular in England when there's snow, is simply skiing, not on prepared tracks, wherever the snow is thick enough to allow for it. Forest trails, parks

and golf courses can be used for this, but anywhere with snow is possible, especially for people with their own equipment.



Cross-country ski racing



Mountain touring

Techniques

Cross-country skiers propel themselves forward and uphill with one of two techniques. The more traditional technique is the "classic" technique. The skis remain side by side, held in grooved tracks where they exist, as the skier moves along. Classic is also usually the technique most suited for off-track touring.



Classic skiing in tracks

As the skier puts weight on the ski, the middle part of it grips the snow either mechanically or with special grip wax so that the skier can push forward and then glide on the other ski. Poles help with forward propulsion.

The skating (or free) technique is similar to the way ice skaters propel themselves forward except that cross-country skiers use poles to add an extra push.



Skate skiing on snow

There are various downhill and turning techniques. Hills may be run in or out of the tracks and speed can be controlled with snowplough techniques, while step turns, stem turns and parallel turns are all possible in the right conditions.

Equipment

There is a wide range of equipment, both in design and price, which varies according to the type of skiing. Racing skis are very thin, about 3 fingers wide, and very light, and are used with lightweight boots and poles.

Mountain touring skis are wider and heavier, sometimes with metal edges and side-cut to assist downhill turns. In between race skis and touring skis there are light-touring skis of varying widths and with different constructions, some with metal edges, but made specially to suit such activities as recreational skiing in tracks, touring in the forest and touring in the mountains.



Racing skis



Touring skis



Track/racing boots



Mountain touring boots

Roller skiing

In England the snowfall is too unreliable for cross-country skiers to practice regularly or to improve their technique. Instead, skiers practice on roller skis, which is the best replication yet found of skiing on snow. Both cross-country skiing techniques can be used and roller skis also have the same bindings and boots as found on cross-country snow skis. Poles are used for additional propulsion in the same way as on snow.



Classic and skating technique on roller skis