

# Cross-Country Skiing 101: An Intro to Sliding on Skinny Skis

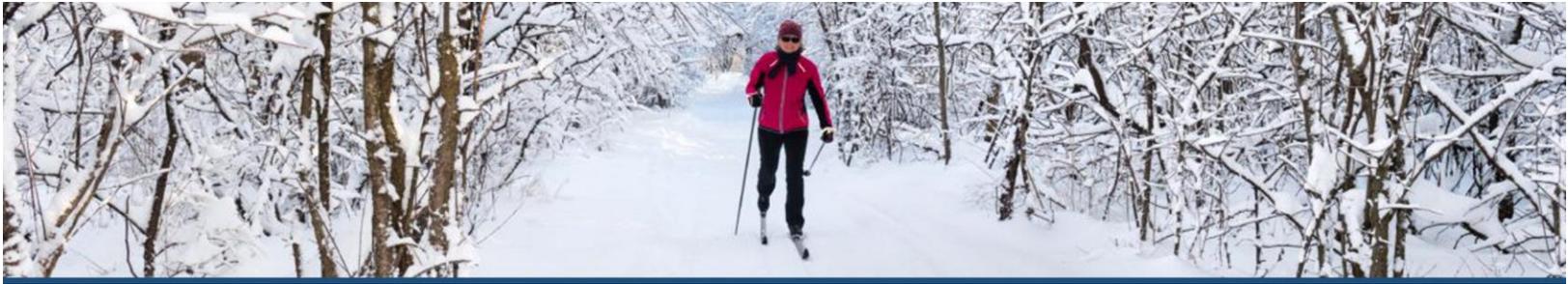
## Types of cross-country skiing

- ❄ Classic skiing – uses a technique with the skis parallel called diagonal stride (similar to walking or running); done in tracks set by a groomer; considered the most accessible technique to get moving on skis.
- ❄ Skate skiing – uses a lateral movement similar to ice skating with skis in a V shape; done on groomed trails outside the tracks.
- ❄ Backcountry skiing – classic skiing on ungroomed trails.
- ❄ Video showing classic vs. skate: <https://www.youtube.com/watch?v=qKUpNk7pVaM>
- ❄ It's fun to eventually know both classic and skate as they are suited to different conditions (e.g., hardpacked snow is great for skate, while lots of fresh snow is awesome for classic). I love both for different reasons.

## Skis, boots, and poles

- ❄ Classic skis – classic technique requires “gripping” the snow in order to push off and glide. There are two types of classic skis that grip the snow in different ways:
  - Waxable skis – grip the snow using “grip wax” that is applied to the base of the ski under the foot (the grip zone) before every time you ski.
  - Waxless skis – grip the snow using “scales” (a pattern etched into the base) or “skins” (a strip of mohair). Skins are newer versions of waxless skis and offer less resistance and thus better glide.
- ❄ Skate skis – shorter than classic skis; don't have a grip zone (because the ski doesn't need to grip the snow; rather, the skier pushes off the inside edge to move onto the other ski). The entire base will be smooth.
- ❄ Backcountry skis – generally wider, have steel edges, have heavier duty binding systems, and come in waxable or waxless versions.
- ❄ Generally recommend waxless skis for beginners and skiing in Ontario (where it is often challenging to get the grip wax right).
- ❄ Be sure to get fitted by a professional so that the ski is appropriate for your weight, the type of skiing you want to do, and ability.
- ❄ Get boots that fit comfortably. The boots you get will determine the bindings you need (Solomon uses SNS bindings; the rest use NNN). Skate and classic boots are different. Skate boots have much more ankle support. There are “combi” boots that can work for either, although I prefer my two pairs.





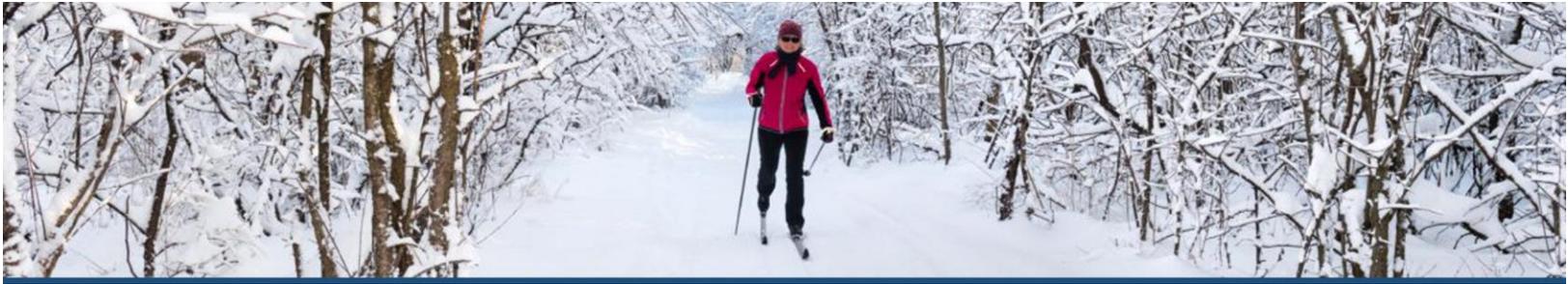
- ❄ Poles finish out your equipment. They need to be a particular height. Skate poles are longer than classic poles. The person fitting your skis will fit your poles.
- ❄ There are price points that range from relatively inexpensive entry level gear to super expensive race or performance-oriented gear.

## The mystery of wax

- ❄ Cross-country skis need to be waxed! All of them!
- ❄ Racers will glide and grip wax every time so they get the best grip and glide according to the conditions of the day. We don't need to be that fussy!
- ❄ Both waxable and waxless classic skis need to (or should) be glide waxed in order to get better glide when skiing. You glide wax the "tips and tails" (i.e., everything OUTSIDE of the grip zone/scales/skins).
  - You can "hot wax" in which you melt and iron on hard wax. But, you need equipment, space, and know how to do it. OR,
  - You can apply liquid glide wax before every time you ski. It's easy; you rub it on, then brush it with a nylon (not metal!) brush. They are much better quality these days and even the pros advocate using them. Vauhti, Swix, Toko all make liquid glide waxes.
  - I use liquid wax before every ski and then pay someone at the resorts to hot wax a few times a season (but I do a ton of mileage).
- ❄ Waxable skis need to have grip wax applied before every ski. The wax comes in different temperature ranges and the resorts will often tell you which is the "colour of the day". You will spread a thin layer on the grip zone, then rub it in with a cork. Repeat this 5-6 times.
- ❄ For skin skis, the skins need to be occasionally cleaned as they pick up gunk on the trail. This will lengthen the life and improve the performance of the skin. You can buy a spray cleaner to apply to a rag and clean them. Skins will eventually need to be replaced, but this is pretty cheap. And recreational skiers will get years out of their skis before needing to do this.
- ❄ For an excellent and accessible primer on waxing, please see this presentation by the Edmonton Nordic Ski Club. They explain it much better than me!

<https://www.facebook.com/patrick.g.moore/videos/10157972706782522/>





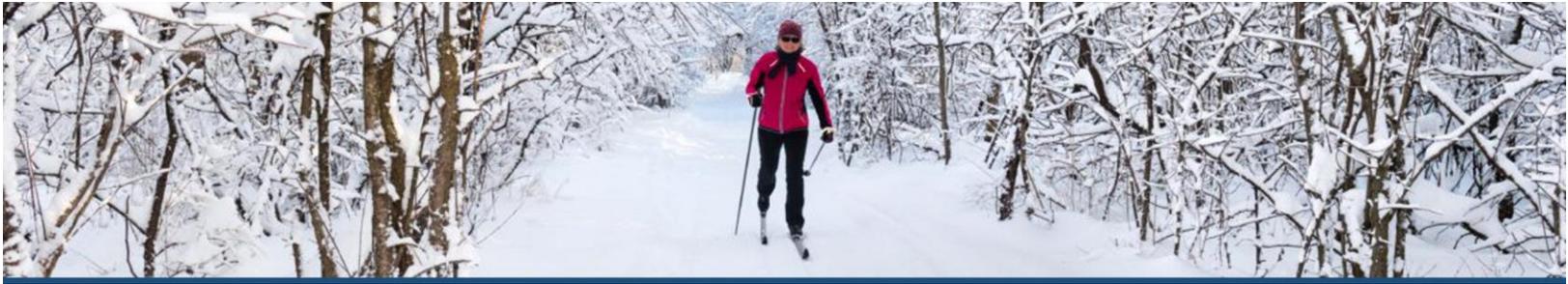
## Clothing

- \* You need to experiment to find out what works for you. You will fail at first – that’s how you learn!
- \* Like running, if you are warm before you even start skiing, you will overheat! You want to be chilly. When you start moving, you will warm up fast.
- \* You can carry a pack with you with water and food and then you can add or take away clothing as necessary.
- \* You can get XC specific clothing; however, winter running clothing works well.
- \* Rule #1 – No cotton. Wear natural (merino wool) or synthetic technical fibres. They will wick away moisture and keep you dry and warm.
- \* Rule #2 – Layers! Have a few base layers of differing weights + a jacket to cut the wind. Mix and match as necessary to suit you for the temperature. You can also add long underwear under your pants if necessary.
- \* Rule #3 – Keep those extremities warm! Toques, gloves/mitts, wool socks, buffs round out the essentials.

## Moving on the trails: diagonal stride

- \* Diagonal stride is similar to walking or running in that you move with your arms and legs in opposition (you pole with the opposite hand of the ski you are gliding on). It’s not hard – your body already wants to naturally move this way (it’s how you walk if you let your hands swing naturally while you walk).
- \* If you have never skied before, simply get on the track and think about walking with skis on, just to get used to moving with skis on.
- \* BUT, skiing is really about gliding. You want to glide on one ski, then push off of it and completely transfer your weight over to the other ski and glide on that one. This is easier said than done and requires excellent balance that takes time to develop.
- \* Most beginner skiers tend to “shuffle” along the trail with little or no glide. See this video for a comparison of the “shuffle” vs. gliding (or striding): <https://www.youtube.com/watch?v=L5qOjW8yxzU&t=116s>
- \* Achieving glide on skis is challenging and it has everything to do with body positioning. While skiing:
  - o You always want your weight forward on the balls on your feet in all phases of diagonal stride.
  - o You want to have bend in your knees and ankles (while feeling the weight on the balls of your feet)
  - o You want to completely transfer your weight from side to side. Think about your nose, knees and toes being in alignment over the glide ski. And bring the hips along for the ride!
- \* To get used to this body position on skis:
  - o Get your skis on. But leave your poles behind.





- Get into the ideal body position. Knees and ankles bent, feel the weight on the balls of your feet (we call this “athletic stance”).
- Then take small steps forward maintaining this body position. Don’t worry about gliding right now. You just want to get used to feeling this body position on skis. You can think about taking little “jogging” steps or think about being like a kid who is trying to sneak up on someone and not make any noise. When you push off of the ski to transfer to the other, pretend that you are squishing a bug under the ball of your foot.
- ❄ Once you get used to moving like this, you can try extending the glides. But don’t glide too long so that your glide ski gets in front of your body and your weight falls backward. All of the leg action takes place behind you!
- ❄ Tips on how to hold your poles:
  - You want your arms in a 90-degree position – this is the most efficient and powerful position.
  - Keep the poles angled back. Don’t let them swing in front of you!
  - Put on your poles, but don’t hold them (just let them hang from your hands) and drag them on the snow as you swing your arms. There will be a natural point at which the pole digs into the snow. That’s generally where you will want to pole!

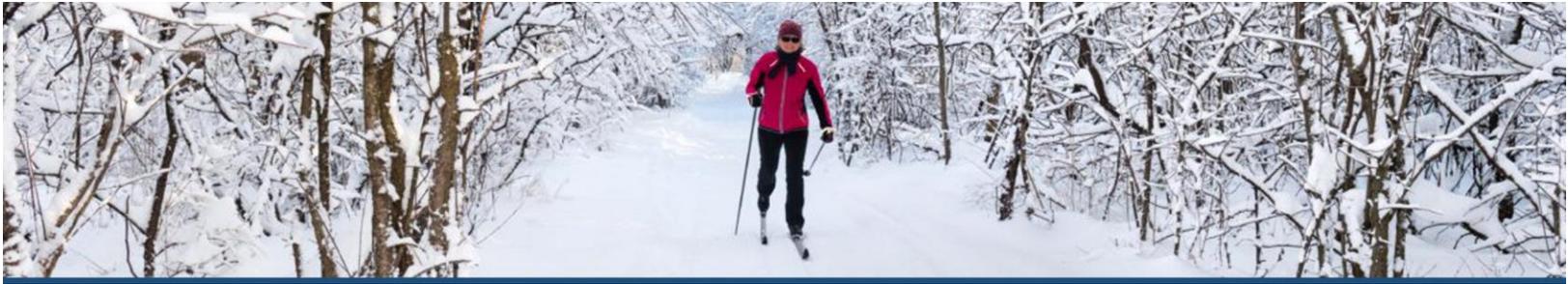
## Moving on the trails: double poling

- ❄ This is a move you can do when you are on a fast flat section (maybe it’s a bit icy) or a slight downhill and it’s hard to keep up doing diagonal stride. Instead, you can double pole.
- ❄ Example: <https://www.youtube.com/watch?v=EDJPH27giUo>
- ❄ You keep your feet together and both poles will hit the snow at the same time. You will hinge at the hips and knees as you drive the poles through.
- ❄ The power comes from your core, not your upper body!

## Moving on the trails: uh oh, there’s a hill!

- ❄ If you need to climb up a hill, the most efficient way is to diagonal stride up. You will need to shorten your stride and really make sure that you squish that bug with the ball of your foot in order to grip the snow so you don’t backslide.





- ❄ However, sometimes a hill is too steep to diagonal stride up. In this case, you can herringbone up it. You will get into a V and climb up on the inside edges of the ski (still doing opposite foot, opposite hand):  
<https://www.youtube.com/watch?v=7X4yJxpqcgA>
- ❄ To go down a hill, you have a few options. Basic keys to downhill – keep low! The lower you are, the more stable you are and the better you can control your speed. Also, keep that weight forward. That will give you better ability to dig into the snow.
- ❄ If the hill is not steep, the snow is slow, or you can see what’s coming ahead (e.g., it’s a long run out, there’s no turns etc.), you can just ride the track down. I recommend bending your knees and getting low, as you will be more stable. You can get into a tuck position, with the poles under your arms.
- ❄ You can get out of the track and ride the hill down. This gives you options – you can snowplow if needed, or just ride it down with the skis parallel if it’s not too fast for you.
- ❄ You can snowplow, just like in downhill! Get into your wedge and on the inside of the ski. The more pressure you put on the inside of the ski and the wider the wedge, the more you will slow down. It’s harder to do, however, on skis that are skinny and don’t have edges! If the hill is steep, it’s really important to get low (bend those knees...and then bend them lower!), keep your weight forward, and keep your hands out in front of you like you are holding a basket of laundry. This will be your more stable position and give you the most leverage to dig into the snow. Example: <https://www.youtube.com/watch?v=1rGOKDjTZE8>

## Trail Etiquette

- ❄ Pay attention to the signs on the trails. Usually (although not always), trails are one way. You don’t want to go the wrong way and get smoked by someone coming down a hill! If trails are two-way, just be aware and use common sense and courtesy.
- ❄ If in the track and you need to stop, be sure to get out and move to the side so you don’t impede others.
- ❄ Usually, faster skiers will get out of the track and ski around slower skiers. They may call out that they are coming and expect you to move out of the way (but I don’t often see this).
- ❄ You don’t have to stay in the track, but if you ski in the skate lane, be sure to stay out of the middle and ensure there’s enough space for skaters to pass you.
- ❄ Trail systems will generally be colour coded according to difficulty. Be aware that intermediate and advanced trails will be longer and have more (and steeper) hills.

