

## 2-2 TWO ESSENTIAL MOVEMENTS



*Skiing demands coordination*



*Completing the turn*



*Sideway movement*

### **2-2 TWO ESSENTIAL MOVEMENTS**

It can actually seem as though skiing is fairly straightforward. You take the ski lift to the top of the mountain, ski down selected runs to the bottom of the hill - and so the story is repeated. However, there's actually a lot that needs to be considered. Skiing is a physical activity that demands a certain amount of coordination and involves different actions. In addition, a number of different external forces come into play when we ski. Even experts have difficulties in understanding the smallest details of skiing, as well as the physical influences that are a part of the sport.

In this section we describe the fundamentals of alpine skiing, including general alpine movements and the turn itself. We will also give you some good advice on how to adapt your skiing to the speed you prefer and the terrain you can best cope with.

#### **2-2.1 MOVEMENTS AT DIFFERENT LEVELS**

You can, as a skier, move on four different levels: back and forth, from side to side, up and down, and round your own axis.

The two central movements of skiing are the ones from side to side (the sideway movement) and up and down (the vertical movement) - and those we shall focus on.

#### **THE SIDEWAY MOVEMENT**

If you ski straight down and move your body from side to side, your skis will be edged in relation to the slope. The skis dig into the snow and begin to turn. The action of angling the skis as we describe here is called edging.

The movement from side to side is therefore essential and extremely important to learn. Try this little exercise to understand the fundamentals behind edging: Stand up and lean one foot sideways towards the other foot. The foot is now angled in relation to the floor. We also say that the foot is edged against the surface. Now try to lean both feet from side to side. Finally, try to lean your feet at the same time as you lean your body to the same side. This exercise shows what has to be done to edge your skis to begin the turn.

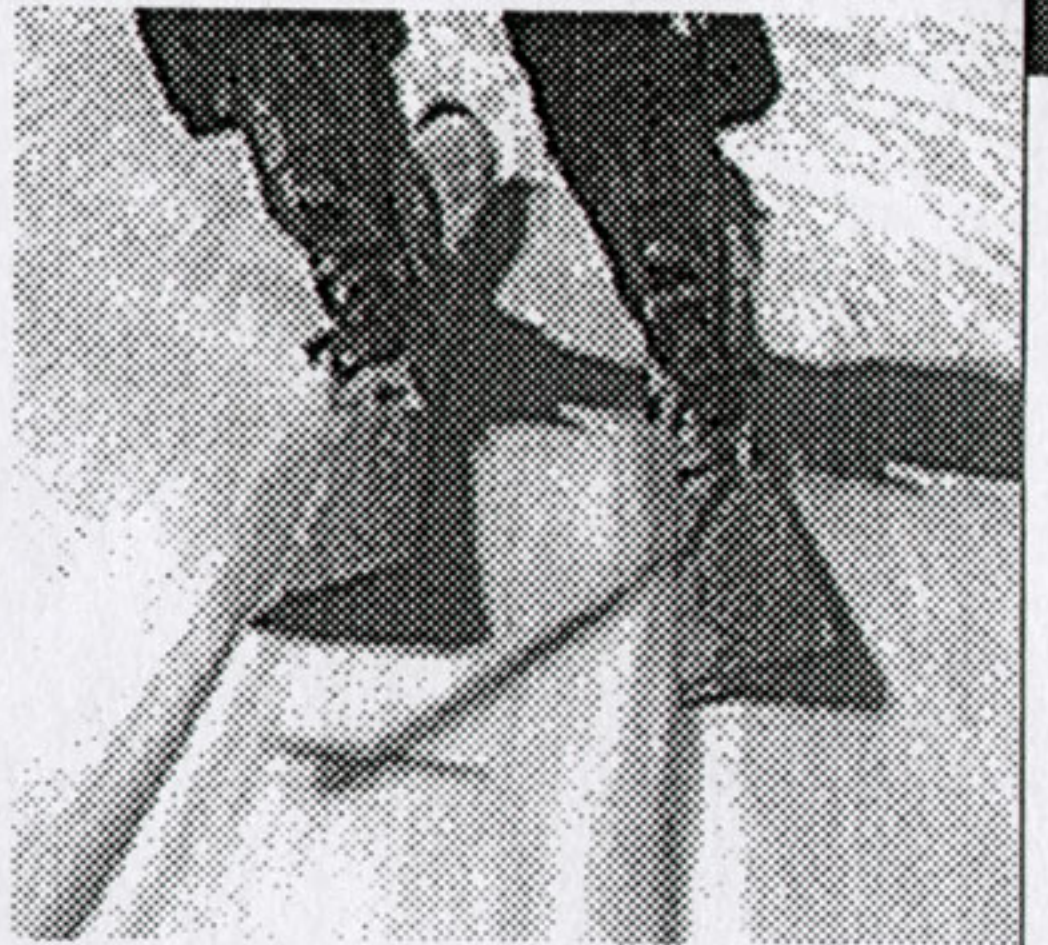
**Tip 1: The edging of your skis starts from your feet and ankles!**

It is, of course, always easy in theory! Without a doubt, it feels harder when you have ski boots on and are on your way down a slope. Still, try to edge the skis enough to dig into the snow and thus begin turning. Be careful not to force your skis into a diagonal position in order to make them turn. Have patience and, instead, tip the skis onto their edges so that they first dig into the surface of the snow, and then secondly form an arc that ends up in a turn. The skis will edge more or less depending on how much you lean into the turn, and how much you angle your ankles and knees. Be careful not to lean your upper body too much into the turn, especially if you are skiing slowly. Instead, use your ankles and knees primarily to tip the skis on to their edges.

**Tip 2: You can influence the size and form of the turn by edging the skis at a greater or smaller angle!**



*Both skis are edged*



*Edging at high speed*



*Reducing the pressure of your skis*



*Increased pressure at the end of the turn*



*The transition phase between two turns*

### **THE VERTICAL MOVEMENT**

You can influence the actual form of the turn through the pressure you put on the skis. During the turn, you can put more pressure on the skis, thereby bending them even more, so that in the end they turn more and more sharply. Likewise, you can reduce the pressure on the skis while you are turning, thus making the arc flatter and longer. You increase the pressure by pushing your weight down towards the skis. On the other hand, you can "pull" your legs up towards your body to reduce the pressure on the skis. You can actually make the skis turn more or less by increasing or reducing the pressure from your up and down movements.

Try the following exercise: Stand on a bathroom scale. Crouch down by quickly lowering your body. You will notice that the numbers on the display fall rapidly. Conversely, when you "land" again and begin to straighten out, the numbers rise rapidly over your normal weight. This exercise illustrates that you yourself can influence the amount of pressure that you put on the skis.

**Tip3:** By actively using your weight you can increase or reduce the pressure of your skis.

The correct up and down movements help to form the turn. By not influencing the skis too much during the start of a turn, the transition from the old to the new turn becomes easier. You should, therefore, save your strength and energy at the beginning of the turn, so that it is much easier to steer the skis in a new direction. When you have started the turn, and the skis have begun to dig into the snow, you can increase the pressure on them with the help of your weight to increase the edge grip. Therefore use only a little strength to pressurize and edge the skis so you can steer them through the last part of the turn.

**Tip 4:** By "pulling" your legs up to your body, you can reduce the pressure on the skis and ease the transition between two turns!

The transition phase between turns is, from experience, a critical point in skiing. You should try to get through this phase as quickly as possible. A ski with pressure on it is far more stable than a ski without it.

### 2-2.3 YOUR SPEED AND THE TERRAIN DETERMINE YOUR MOVEMENTS

In order to adjust to your speed and terrain that you are skiing, you need to vary your movements.

The terrain, your speed and the size of the turn are essential in deciding how much you will need to edge your skis and how much pressure you must put on them, in effect, how much you need to work with the skis.

As a general rule:

- The steeper the slope and the harder the snow pack, the more you need to edge your skis and put pressure on them.
- The flatter the slope and softer the snow pack, the less you need to edge your skis and put pressure on them.
- Sharp, small turns require more edging than longer and flatter turns.
- The slower you ski, the less you need to edge your skis and put pressure on them.

These examples illustrate that you should not always ski in the same way. In other words, you should adjust your movements to the way you ski, the speed at which you ski and the type of terrain you are skiing in.



*The steeper the slope, the more edge is needed*



*Long turns*

*Short turns*



*High speed skiing in a low position*

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*An open stance at higher speed*

You can, for example, allow yourself to stand more upright or relaxed at low speeds, but crouch over a bit and tighten your body and muscles when your speed increases.

It may sound logical that you need to adjust your movements to your surroundings but in our experience, many skiers ski and turn at speeds that are not appropriate to either the condition of the snow or the slope.

**Tip 5: Adjust your movement according to speed and terrain!**

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### 2-2.4 SUMMARY: TWO ESSENTIAL MOVEMENTS

**Tip 1:** The edging of your skis starts from your feet and ankles!

**Tip 2:** You can influence the size and form of the turn by edging your skis at a greater or smaller angle!

**Tip 3:** By actively using your weight you can increase or reduce the pressure on the skis!

**Tip 4:** By "pulling" your legs up to your body, you can reduce the pressure on the skis and ease the transition between two turns!

**Tip 5:** Adjust your movement according to speed and terrain!



Tip 1



Tip 3



Tip 5