

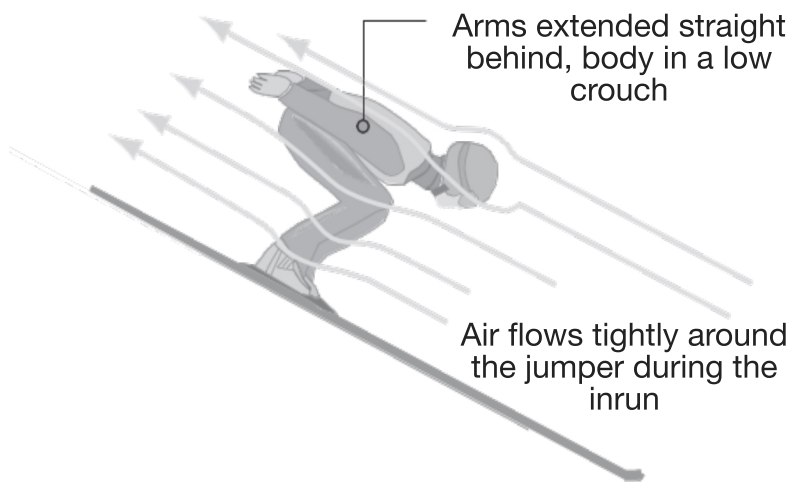


SKI JUMPING 101

FOUR PHASES OF A SKI JUMP

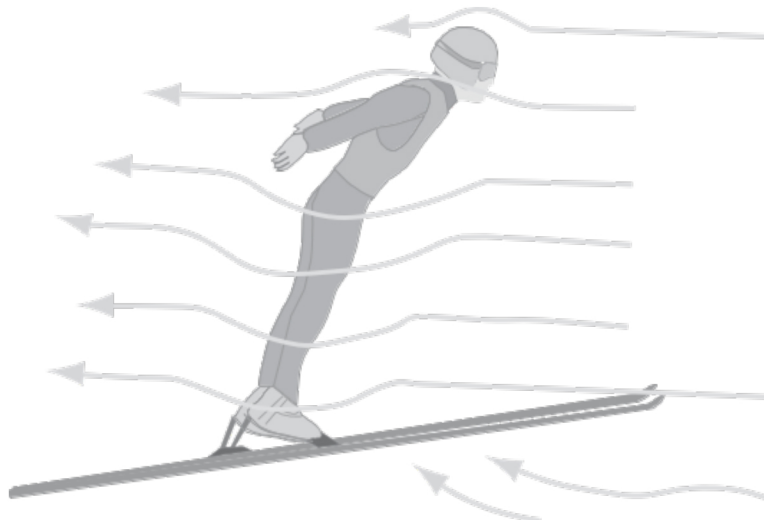
The sport of ski jumping, like any other activity, has its own terminology. For spectators, it is important to have a better understanding of the various stages a jumper goes through in an effort to attain the best possible results. As for the athletes, jumpers must meet traditional style standards as they try to fly.

- **The in-run** is the position the jumper assumes as they ride down the ramp. Their aim is to streamline their body to reduce drag and maximize speed.



- A good in-run is balanced and relaxed. The upper body is approximately parallel to the slope and the knees are forward to achieve good “shin angle” for a better takeoff. The face is the same angle as the shins and the balance is in the middle of the foot. Jumpers complete the in-run in about 3-4 seconds depending on the hill size.

- **During Takeoff**, the jumper’s body changes position rapidly and lift is greatly enhanced as the skier’s surface area increases.



- In a fraction of a second, the jumper tries to raise their center of gravity as high as possible without creating too much air resistance. The goal is to launch the body vertically and horizontally at the same time.

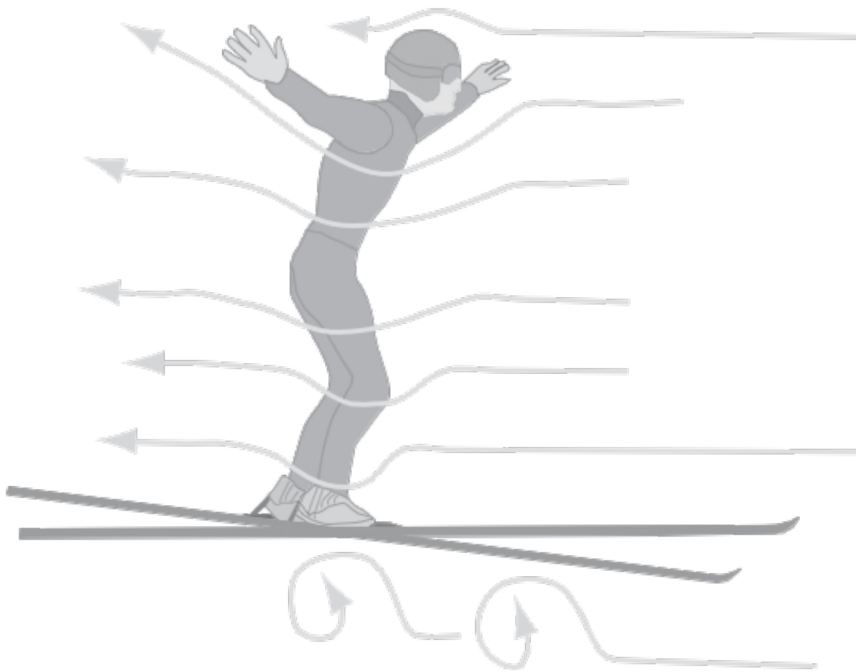
Timing is critical. If the jumper extends too late, the skis will point upward; too early and the skis will point down.

• The Flight

During the flight phase, the jumper's body is ideally parallel to the skis to enhance lift. By spreading out their ski tips, jumpers are able to maximize lift by increasing their surface area, keeping them in the air longer. This is called the "V" position.



- After flowing around the spread "V" form on the front of the jumper, air then flows over the neck, back and the rear of the legs. A jumper is typically in the air for about four to five seconds. Jumpers generally are no higher than 10-15 feet above the landing hill at any point in the jump. The jumper's downward arc roughly parallels the fall of the slope and landing is usually soft because of the angle of the hill.



• The Landing

The quality of a jump's finish is a key factor for style points. In the Telemark position – a traditional form that earns the most points – the jumper places one foot in front of the other. The weight is evenly distributed on both feet with a slight bit more on the front foot.

- Lift increases during landing in a phenomenon known as "ground effect," where the wind patterns around the skier form a cushion of air between he/she and the ground. After landing, jumpers ski into the out-run area, where they must keep their skis parallel and cannot touch the snow with hands or body.