



Community Coaching Fundamentals

Step 9: Teaching skating technique



Reference Material



PARTNERS IN COACH EDUCATION

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Patrimoine canadien

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Coaching Tip: The underlying rhythms of skiing manoeuvres are more important than the technical perfection of their components.

Source: Teaching Children to Ski

This section on Teaching Skating Technique is directed primarily at supporting you in your role as a coach working with children in the FUNdamentals stage of development. For a more comprehensive explanation on how to teach skating techniques to coaches and older athletes, refer to section 4 of the CCI-Learning to Train Reference Material.

9.1 Teaching Skating Technique

9.1.1 Skating Technique Checklists

To simplify the detection and correction of technique errors when you are out on the snow, a series of checklists has been developed.

Keep in mind that there are some aspects of good technique that are not included in these checklists - for example, smooth transitions and switching technique at the appropriate time. Skiers need to be relaxed, but at the same time have dynamic movements. They may have the proper body position and timing when skiing fast but give the overall impression of being stiff or tight – particularly in the shoulders and hips. The timing of the kicks and recovery movements may be correct but they also need to be dynamic. Determining if these factors are correct or not is much more of a judgement call than is commenting on body position, and thus doesn't fit into technique checklists easily.

Common Checkpoints

The following checkpoints are common to all skating techniques:

Overall

- ✓ All techniques originate with the general athletic stance, modified for the specific technique being learned.
- ✓ Weight shifts fully from ski to ski.
- ✓ The skier is balanced on the gliding ski.
- ✓ Power is generated equally from both sides of the body.
- ✓ Motion of arms and legs is snappy and forceful.
- ✓ Hips and upper body stay generally oriented down the track.

Lower Body

- ✓ The skier drives knee and hip forward allowing body to be vertically aligned over ski.
- ✓ The leg pushes to the side and slightly back.
- ✓ The gliding ski is flat for as long as possible before edging for push off.
- ✓ Pushes come from flexed hip, knee and ankle.
- ✓ Hips are forward over the glide foot.

□ **Upper Body**

- ✓ Poles are planted close to skis.
- ✓ The skier reaches high and forward with bent arms (elbows down and pointing slightly outwards).
- ✓ Shoulders are parallel to the ground.
- ✓ Compression occurs during the Double Pole-type motion.
- ✓ There is a slight forward body lean from the ankles.

Specific Checkpoints

The following checkpoints list the characteristics that are unique to each skating technique:

□ **Offset**

- ✓ Timing is keyed by a three-point landing (two poles are planted and new gliding ski touches snow at the same time).
- ✓ There is a Double Pole-type motion on the lead side, with staggered pole placement.
- ✓ The skier “falls” up the hill on the lead side, stepping onto a moving ski.
- ✓ Knee and hip are driven up the hill, and are aligned over the ski on both sides.
- ✓ The centre of gravity is constantly moving; there is no “lingering over glide ski” as in One Skate and Two Skate.
- ✓ The ankle, knee and hip joints are flexed as required by terrain.
- ✓ The skier executes a maximum leg push on each side, as with the other techniques.
- ✓ Leg push off (kick) is from an edged ski.
- ✓ At the completion of the leg push, the ski is raised slightly off the snow. The tip and tail of the ski leave the snow at the same time.
- ✓ Power comes relatively equally from the upper body and the pushing (kicking) leg.
- ✓ The upper body is dynamic, with a relatively shallow compression during the poling action.
- ✓ The follow-through of the arms and hands is short, and generally stops at or just past the hips (depending on slope of trail and skier speed).
- ✓ The upper body remains somewhat flexed forward, with back and upper body slightly rounded.
- ✓ Tempo increases as the slope of the hill increases.
- ✓ The slope of the hill dictates how wide a stance the athlete will take.

□ **One Skate**

- ✓ The skier executes a shallow Double Pole-type motion with each leg push.
- ✓ Arm and leg movements are the same on both sides of the body.

- ✓ The timing of the arm, body and leg movements is one of the most important features; the skier plants the poles (two points) when the legs are closest and just **before** stepping onto the new gliding ski (one point).
- ✓ The skier assumes a “high” position for the initiation of each Double Pole – hips are high, legs relatively straight, upper body is erect with slight forward lean.
- ✓ The upper body crunch and pole thrust are initiated together.
- ✓ Core muscles are engaged in the form of shallow upper body crunch.
- ✓ The skier begins to move over onto the new glide ski just before the arms reach the level of the hips.
- ✓ The Double Pole action and the skating push are complete as the new gliding ski hits the snow and the skier’s weight shift to that ski is completed.
- ✓ While the skier is gliding, the arms and trunk recover to the starting high position to initiate another Double Pole and skate.
- ✓ The Double Poling push initiated by the upper-body is energetic and powerful; the amount of trunk compression depends on terrain.
- ✓ The arm positioning throughout the poling motion is very similar to that in Double Poling in Classic technique.
- ✓ The follow-through of the arms and hands is short and stops just past the hips.
- ✓ Recovery of the arms after the completion of the Double Pole is rapid in order to position the arms forward to key the timing of the next side of the cycle.
- ✓ The recovery ski is raised only slightly off the snow.
- ✓ During the recovery of each leg, the foot passes underneath the hip of that side (feet come fairly close together).
- ✓ When placed on the snow, the gliding ski is pointed forward down the trail as much as the skier’s speed and the gradient of the track permit.

□ **Two Skate**

- ✓ The skier executes a shallow Double Pole-type motion with each second leg push.
- ✓ Timing is the same as for One Skate, with poles being planted slightly before the recovery ski is placed on the snow.
- ✓ The technique is smooth and very rhythmic – akin to ballroom dancing.
- ✓ The method of propulsion on the poling side is identical to that of One Skate.
- ✓ The skier assumes a “high” position for the initiation of the Double Pole on the poling side – hips are high, legs relatively straight, upper body is erect with slight forward lean.
- ✓ As the Double Pole begins, the leg compresses and the hips are lowered slightly in order to load the leg and permit power to be generated as the leg extends.
- ✓ Core muscles are engaged in the form of shallow upper body crunches as the poling action is executed.
- ✓ Body compression results in a slight lowering of the body by the end of the poling motion.

- ✓ The return to the poling side is accomplished from the lower position with a skating push aided by the momentum of the arms swinging up, forward and over to the poling side.
- ✓ The arm recovery from follow-through to new pole plant is uninterrupted.
- ✓ The arm positioning throughout the Double Pole-type motion is very similar to that in Double Poling in Classic technique.
- ✓ The follow-through of the arms and hands is longer than in One Skate – past the hips or further, depending on speed, glide length and the skier's tempo.
- ✓ At the completion of the leg push, the left ski is raised slightly off the snow; the tip and tail of the ski leave the snow at the same time (if the binding is mounted in the correct position on the ski).
- ✓ During the recovery of each leg, the foot passes underneath the hip of that side (feet come fairly close together).
- ✓ The glide on the left and right skis is consistent.

□ **Free Skate**

- ✓ The skier remains low with pronounced flexion at knees and ankles.
- ✓ Upper body remains low similar to the tuck position.
- ✓ The skier maintains good balance and makes a complete weight shift from ski to ski.
- ✓ The arms swing from side to side (or are in front of face depending on speed).