

## Cross-Country Ski Technique Tip Sheet

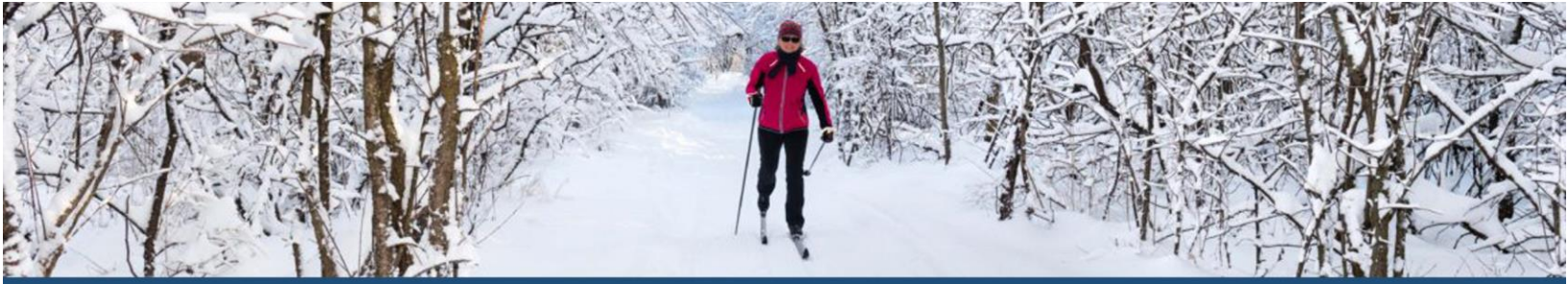
### Diagonal Stride (Classic)

- \* Completely move body weight from a balanced position on one ski to a balanced position over the other ski.
- \* Keep the recovery foot unweighted until it is just in front of the support foot.
- \* Balance completely over the support leg during the glide phase.
- \* Maintain the same forward lean of the torso throughout the stride cycle.
- \* At the end of the push phase, form a straight line with the push leg and torso from the shoulder to the snow.
- \* As the legs pass each other to begin the push phase, make sure that the hip is in front of the ankle of the support foot.
- \* Bring the recovery leg forward as quickly and forcefully as possible.
- \* During the glide, straighten the front knee to minimize the muscular effort of the support leg.
- \* Preload (flex) the push leg to enhance the power of muscle contraction early in the stride.
- \* Work the arms with a relatively straight front-to-back motion; keep the hand at or below shoulder height in front when planting the pole.
- \* Follow through completely with the arms from shoulder extension at the front to pole release at the back.
- \* Flex the elbow joint to provide power to the first half of the poling push.
- \* Make precise and coordinated body movements – given the terrain and tempo – to ensure maximum efficiency.

### Double Poling (Classic/Skating)

- \* Extend the arms forward, extend the body forward by flexing the ankle joints, and then fall forward onto the poles.
- \* Bend the upper body forcefully at the waist to load the poles; then drive the arms down and back. Let the upper body sink to between 60 and 90 degrees from the vertical.
- \* Bend the legs just enough for comfort.
- \* Follow through with the arms until the ski pole forms a straight line with the shoulder.
- \* Make sure that the shoulders lead the arms when returning to the starting position.
- \* The upper body rises visibly before the arms begin reaching forward.
- \* Make sure that the arms recover in a circular motion.
- \* Use more pronounced front-and-back motion from the ankle as skill improves.





## One-Step Double Poling (Classic)

- ❄ Start in the gliding position with hands even with the hips.
- ❄ Transfer weight completely to one ski and execute an effective push phase.
- ❄ As the push phase occurs, both arms move forward in preparation for the double-poling phase.
- ❄ As the upper body drops and the double-poling motion occurs, recover the rear leg to a position beside the support foot.
- ❄ Double-pole and recover to the upright position as for double poling.

## Herringboning up a Hill (Classic)

- ❄ Maintain the weight shift, body position, arm action and rhythm of the uphill diagonal stride.
- ❄ Increase both the angle between the skis and the edging on the insides of the skis.
- ❄ Move the legs straight uphill. Increase the V and edge the skis only enough to maintain traction.

## Uphill Diagonal Stride (Classic)

- ❄ Maintain excellent weight transfer.
- ❄ Assume the same body position relative to the ground as for the diagonal stride.
- ❄ Drive the foot of the striding leg as far uphill as possible on each stride before weighting it.
- ❄ Make sure that the toes and ankle of the leading leg are in front of the knee.
- ❄ As the legs stride through, keep the hips low to the ground.
- ❄ Make sure that the push leg is still in a straight line with the torso at the end of the push phase.

## Free Skate (Skate)

- ❄ Before each push, turn the head and torso to face the new direction of travel.
- ❄ During the recovery phase, transfer all body weight to the glide leg and balance it over the glide ski.
- ❄ Push downward and to the side with push ski.
- ❄ Start the push at the heel and extend it to the mid-section of the foot.
- ❄ Fully extend the push leg.
- ❄ Before the push phase begins, return the recovery foot to the heel-to-toe position.
- ❄ Keep the body relatively upright throughout the manoeuvre.
- ❄ Keep the arm action rhythmic, as in the diagonal stride.ique - Skate Skiing.pdf





## One Skate (Skate)

- \* Double pole on each leg push.
- \* Leg push is equal on both sides.
- \* Direction in the first half of the manoeuvre is toward that of the push ski, while in the second half it is toward the new direction of travel.
- \* Use the same leg action as in the free skate.

## Two Skate (Skate)

- \* Double-pole on every second leg push.
- \* Leg push is equal on both sides.
- \* Recover the arms smoothly.
- \* Direction in the first half of the manoeuvre is toward that of the push ski, while in the second half it is toward the new direction of travel.
- \* Use the same leg action as in the free skate.

## Offset (Skate)

- \* Before each push, turn the head and torso to face the new direction of travel.
- \* During the recovery phase, transfer all body weight to the glide leg and balance it over the glide ski.
- \* Push downward and to the side with the push ski.
- \* Start the push at the heel and extend it at the mid-section of the foot.
- \* Fully extend the push leg.
- \* Before the push phase begins, return the recovery foot to the heel-to-toe position.
- \* Keep the body relatively upright throughout the manoeuvre.
- \* Keep the arm action rhythmic, as in the diagonal stride.
- \* Start with both hands at just about the shoulder and pull straight down and back.
- \* Use a three-point touch to plant the poles and the push ski.
- \* Move the torso and head (as for the half skate) without a lot of up and down motion.
- \* Finish the poling push and the ski push at the same time.
- \* Increase the tempo and shorten the stride to maintain glide on steeper uphill terrain.





## Snowplow Turns (Downhill Technique)

- \* Control speed by completing turns.
- \* Use a narrow wedge to start by adopting a wider wedge through the turn as ankles and knees are flexed.
- \* Turn both feet in the desired direction.
- \* Press and slightly edge the outside ski.
- \* Keep the upper body relatively square with the skis.
- \* Create continuous, round turns.
- \* Rise up to the alpine stance as the turn is finished with a narrow wedge.

## Basic Christie Turns (Downhill Technique)

- \* Ski at a slow to moderate speed.
- \* Steer in a wedge through most of the turn.
- \* In the last part of the turn, pivot the uphill foot parallel to the downhill foot.
- \* Finish with a skidded arc with the skis parallel.
- \* Skier flexes toward the end of the turn.
- \* Form round, linked turns.
- \* Skier extends to form a wedge and start the next turn.

