



Classic Ski Technique

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BODY POSITION

- Tall, keep pressure on the front half of the foot, keep good flexion in ankles and knees
- Weight on ball of feet- bounce on balls of feet to reinforce
- Power circle- keep elbows bent, hands/poles close to body, keep power within the power circle to propel body forward (think of a hoola-hoop)
- Tall body position with weight on your toes will secure the grip in the snow

BALANCE

- Fully balanced on one ski, then fully balanced on the other ski
- Balance, hop on two skis- on the spot, hop on two skis around in a circle, hop from one ski to the other ski into a tall position (switch)
- Ski in tracks lifting kick ski off the snow (if kick ski comes off the snow it implies a fully balanced glide ski (rather than shuffle with some weight on both skis).
- Drill- bicycle motion on skis in the track, encourage lifting the unweighted ski beside the gliding ski, place unweighted ski down or in front of the gliding ski (looks/feels like a bicycle motion)

COMPRESSION OF SKI INTO SNOW

- Introduce compression of the ski into the snow (think press down, not kick back)
- Pump arms to coordinate timing with press in the snow
- Advanced- kick is a pop
- Body will naturally swing side to side but the “pop” of the press in the snow results in an up and down motion.

TIMING & COORDINATION

- Often when you introduce poles, the new skier loses the timing. Have new skiers hold poles in the middle of the shaft and while skiing in the track, then progress to tapping poles in snow while skiing in the track, until they eventually have the timing to plant.
- Skiing is like walking or running- timing of the arms is alternating with the legs. If timing continues to be an issue, encourage thinking of running (hands pumping, swinging from shoulder joint) then tap poles, then plant poles. If timing goes off, go back to no poles and/or thinking of the progression from holding poles to tapping poles to planting poles.

4 PRINCIPLES FOR EFFICIENT SKIING

1. From a side view, more of the body is forward of centre line
2. Movement is in a forward direction, not up and down
3. More time is spent in the recovery/glide/ready to plant poles phase
4. From a head on view, body is fully aligned over one ski, then the other ski

TEACHING PROGRESSION FOR CLASSIC

- Step from one ski to the other, flex ankle, flex knee
- In tracks without poles- walk on skis
- In tracks without poles- keep skis moving, no pauses, like a run/jog
- Add balance- hop from one ski to the other, good flexion in knees and ankles, hop 3x, then switch- hop 3x, get comfortable- hop 2x, switch, repeat
- while sliding on skis, shift balance from one ski to other ski, when balance is fully on right side ski, left foot/back of left ski is off of the ground
- Add poles- carry them in your hands, glide down track getting weight off push ski after the push; poles should move with arms from horizontal to vertical (arms bent at 90 degrees)
- With poles, tap with ski glide; if losing ski glide go back to carrying poles
- With poles, tap then use poles alternately with ski (like walking- alternate arms with legs)
- With poles, increase speed or lengthen glide by pressing ski into snow (get grip in snow to optimize the glide)

Progression of Nordic ski lab drill: ankle flexion and flexion/movement of lower limbs

1. Shuffle, shuffle - ankle flexion is exaggerated, both legs, should feel both quads activated/flexed; not the way we ski but a good drill to understand what flexed ankles really feel like
2. Shuffle, shuffle, glide - same as above but add a glide on one side, then the other side, stay in both ankles flexed position
3. Add balance - shuffle, shuffle, glide with kick(press) ski off the ground
4. Add change in position from flexed ankle to extended leg on glide ski - shuffle, shuffle, glide (in ankle flexed position), then standing up (extension of leg) onto glide ski, the ready to kick/press position for the next cycle
5. Pull it all together - diagonal stride with correct rhythm without poles aiming to feel the ankle flexion and movement to standing up (extension of leg)
6. Pull it all together - add emphasis on arm movement, 90 degree angle all the way through, arm movement parallel to skis (rather than movement across the body)
7. Pull it all together - add poles, initially holding pole shaft at approx one third of the way down, then progress to poles fully on

Coaching tips - demonstrate the full skill, then build the skill; provide one piece of the progression at a time; add elements as you build toward the whole technique

TEACHING PROGRESSION FOR DOUBLE POLE

- Keep flexion in knees and ankles
- Get pressure on front of ski by bending the knees, weight on the balls of the feet
- Plant pole beside your face, shoulder width apart (ready position), flex knees, drop weight onto poles, load with trunk (abs + shoulders), pole thru to hips (iliac crest/water belt/pockets)
- Back to ready position- poles beside your face, weight on balls of the feet
- Repeat
- Use slight uphill terrain to force good mechanics
- Double pole often used on slight downhill terrain, on flats, slight uphill.

HILL CLIMBING TIPS

1. Remain on top of the kick zone as you approach and climb the hill, aim to feel like you are standing tall; the common tendency is to bend too far forward and thus no longer be on top of the kick zone, think of a re-set of the body position (tall and upright) as you approach the hill
2. Maintain uphill glide for as long as possible, before shifting to shorter, higher tempo steps.
3. Transition efficiently from diagonal stride (re-set body position as you approach hill, emphasis strong press onto kick zone) to shorter, higher tempo d/s, to herringbone
4. Herringbone is much easier when leg is bent, knee forward and placed up the hill, using hip flexor, rather than straight/stiff legs
5. When coaching hill climbing ensure you select a grade appropriate to the skill/ability of the group; too steep a hill will not reinforce good d/s

VIDEO OF CLASSIC REFRESHER WITH A STAPFF JAN 31, 2021

Neil Smith videoed the Classic Refresher with Andrea Stapff on Jan 31, 2021.

Thanks to Neil for making this resource available. The link below is a private link, and you may need to request permission to view. Please do not reproduce without permission.

<https://drive.google.com/file/d/1o5JkPYb6kGCWQhke9aa28PZsxu2BNmR0/view?usp=sharing>

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