Off-ice training for Skating Skills

To develop your skating skills to an optimum, on-ice training alone will not be sufficient. To perform the complete skating stride there are so many components involved. These components, such as balance, flexibility, coordination, strength, etc., have all to be developed to enable a person to utilise his/her potential as a skater. To accelerate this development, off-ice training is often far more effective than on-ice. On ice, there are so many factors that limit the efficiency of the training.

Imagine you want to develop leg strength. Most likely you would go to a weight room and learn how to execute squats and other similar exercises. If the instructor told you to do the squats on ice, with your skates on, you probably would not even try it. Certainly you would agree on, that weight training is more effective and far less risky if you have solid foot support and are doing the exercise i.e. in a squatting rack, than on slippery ice. So, if you agree that you need to develop your leg strength to become a better skater, you also have to agree on that this strength training is better done off ice.

Even if weight training on ice is an extreme example, the same relation can be made to any other quality you would like to develop. Developing your balance, and start doing it on a three-millimetre wide and very slippery skate, with pucks and sticks to coordinate at the same time, is not the best way. If flexibility were better-developed on-ice, all our rinks would be packed with gymnasts. And if coordination was easier to improve when you simultaneously are trying to keep balance on a pair of skates, divers would not try out their new acrobatic jumps on the trampoline, they would do them on ice first.

In short, to develop the athlete to his/her potential a combination of on-ice and off-ice training is essential, and the off-ice training is much more than just strength and fitness. Off-ice training for hockey players is mainly skills and coordination.

Bjorn Kinding
The basics of the skating stride differ a great deal from the walking and running step.

<table>
<thead>
<tr>
<th></th>
<th>Skating</th>
<th>Walking / Running</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knee Bend</td>
<td>90°</td>
<td>160° - 170°</td>
</tr>
<tr>
<td>Ankle Bend</td>
<td>45°</td>
<td>90°</td>
</tr>
<tr>
<td>Groins</td>
<td>90° split</td>
<td>5° legs parallel</td>
</tr>
<tr>
<td>Stride / Step</td>
<td>Sideways</td>
<td>Forward / Backward</td>
</tr>
<tr>
<td>Direction</td>
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</tbody>
</table>

For this reason, the off-ice training has to focus on developing for skating the necessary strength and flexibility that doesn't come naturally through walking and running. In other words, to be able to skate, the body has to be rebuilt in its proportions and turn a running construction into a skating machine.

**Skating Drills:**

The following drills are not to be exaggerated. Most students will get sore muscles from even very little training of this kind. So, initially use the drills sparely and more for demonstration, “try-it-out” and teaching purposes. Do a bit of teaching and a bit of demonstrating.
Skating Steps

1. **Sweden Steps**

   **Active Muscles:** Quads and Gluteus  
   **Primary Effect:** Power Endurance  
   **Starting Load:** 10 steps  
   **Maximum Load:** Speed skaters do this exercise for several kilometres. Increase load by walking up and down a hill. Carry a weight or a weight jacket to increase the load.

   **Variations:** Walk Backwards

   Walk with long steps (straightforward). Touch the ground with your knee on each step (by touching the ground your knee bend will exceed 90°). Come to a complete upraised position in between each step.

*Taken for the CHA's Canadian Hockey Skills Academy Instructional Curriculum.*
**Skating Jumps**

**Active Muscles:** Quads and Gluteus / Abductors and Adductors

**Primary Effect:** Power

**Starting Load:** 10 jumps (5 with each leg)

**Maximum Load:** 10 x 30 seconds.
Carry a weight or a weight jacket to increase the load.

**Variations:**
- Turn toes to the outside.
- Turn toes to the inside.

Jump sideways back and forth. Try to jump high and wide. It’s very important to land in a deep squat, trying to absorb the impact (from landing) with one leg, as well as to land deep (below 90° knee bend) on one foot. For balance the other foot (and hand) may touch the ground lightly, but again the force should be absorbed (as much as possible) by the landing leg.

* Taken for the CHA’s Canadian Hockey Skills Academy Instructional Curriculum. *
Jump and Dribble

Active Muscles: Quads and Gluteus
Primary Effect: Power Endurance
Co-ordination
Starting Load: 15 seconds
Maximum Load: 10 x 30 seconds
Use a weight jacket to increase the load.

Variations:

a. Jump and dribble in the same rhythm
b. Do an extra dribble each time you land.
c. Jump in one rhythm and dribble in another.
d. Slip the ball under a partner's stick
   (as you dribble the ball back and forth)
e. Pass the ball back and forth with a partner.
f. Use a heavy ball
g. Carry a weight jacket

Jump back and forth over a bench. Keep balance on one foot. Land in a deep squat and try to jump high and wide. Bring feet together before jumping back again.
Goalies use goalie stick

Taken for the CHA's Canadian Hockey Skills Academy Instructional Curriculum.
Teaching Skating Skills with Slide Board

- Keep board and sliders clean at all times.
- Don't step on the floor and then on the board.
- Stay low (knee bend: 90° and lower)
- Extend knee fully on every stride
- Bring feet together
- Keep back straight
- Turn toes outwards to simulate forward strides
- Turn toes inwards to simulate backward strides
- Keep stick in one hand or two hands.
  The top hand is always right in front of the belly.

*Taken for the CHA’s Canadian Hockey Skills Academy Instructional Curriculum.*
Cross-over Pull

Active Muscles: Quads and Gluteus

Stretching Muscles: Abductors and Adductors

Primary Effect: Strength and Flexibility

Starting Load: 10 metre

Maximum Load: 10 x 25 metres

Variations: Walk up-hill
Wear a weight jacket
Take turns in the 5-step rhythm

Same motion as in Cross-Over Walk, but pull a partner as you walk. The partner gives limited resistant.

Work on the 5-steps-rhythm
(regular step, cross-over step,
regular step, cross-over step,
regular step, bring feet together
and change directions)

When you change directions, the partner starts pulling
Stay Low (knee bend below 90°)

It is challenging to stay low. Most players will find it natural to stand more straight up, but if you do the drill with long steps and as the hip-flexibility improves they players should become capable of executing the drill in a deep squatting position. (The illustration does not clearly indicate how deep the knee bend should be)

* Taken for the CHA’s Canadian Hockey Skills Academy Instructional Curriculum. *
**Starting Step Pull**

<table>
<thead>
<tr>
<th>Active Muscles:</th>
<th>Quads and Gluteus</th>
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<tbody>
<tr>
<td>Stretching Muscles:</td>
<td>Abductors</td>
</tr>
<tr>
<td></td>
<td>Hip flexors</td>
</tr>
<tr>
<td>Primary Effect:</td>
<td>Strength</td>
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<tr>
<td></td>
<td>Flexibility</td>
</tr>
<tr>
<td>Starting Load:</td>
<td>10 metres</td>
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<tr>
<td>Maximum Load:</td>
<td>10 x 30 metres</td>
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<tr>
<td>Variations:</td>
<td>Up hill</td>
</tr>
<tr>
<td></td>
<td>Wear a weight jacket</td>
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<tr>
<td></td>
<td>Push the partner</td>
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<tr>
<td></td>
<td>(holding on to his/her hips)</td>
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<tr>
<td></td>
<td>The resisting partner can twist his/her toes inward</td>
</tr>
<tr>
<td></td>
<td>to work on the outside part of the quads.</td>
</tr>
<tr>
<td></td>
<td>One player pulls a partner</td>
</tr>
<tr>
<td></td>
<td>Use long, powerful Flat Foot Starting steps.</td>
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<tr>
<td></td>
<td>The partner gives limited resistant.</td>
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</tbody>
</table>

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Roller Blade Drills:

**Backward-Forward Turn**

Skate backward and turn to forward

The first couple of times make the turn 90° only.

Concentrate on:

a. staying low  
b. bringing heels together  
c. pushing off with a powerful stride

Make the complete 180° turn (or more likely 165° a turn). Again, emphasis on the points (a, b and c) above

*Taken for the CHA’s Canadian Hockey Skills Academy Instructional Curriculum.*

Unihockey

A training session is only as good as the game at the end of the session. A fun and really good for your skill development at the same time, is unihockey. [Check it out!](#)