



Off-Ice Conditioning Jump & Plyometric Training

**Designed Specifically for
Novice/Junior/Senior
Skaters**

JUMP & PLYOMETRIC TRAINING

Purpose: For the skater to begin age and level specific jump and plyometric drills emphasizing the following:

- Correct program design
- Correct jump/drill technique
- Safety of jump/plyometric drills

A Correct Program Design Will Utilize the Following:

- Basic strength program of 8 weeks in duration. This is necessary because this preparation prepares you physically prior to implementing Plyometrics. You must be strong enough to tolerate plyometric drills. Good trunk and pelvis control is critical before progressing to the higher-grade plyometric skills.
- Proper progression of drills; increase gradually to allow adaptation of muscles, bones and joints to these types of exercises
 - Dry land rotational jumps: double-leg and single-leg landing
 - Jumps in place: double-leg and single-leg
 - Longitudinal jumps for distance height: double-leg and single-leg
 - Box jumps: double-leg and single-leg
 - Medicine balls and weighted jumps
 - Torso, rotation drills
- Periodization of the jump/plyometric program design:
 - Volume: total number of foot contacts (also same as rep X sets)
 - Intensity: measured by the height and distance of the drill or type of drills performed (Example = double-leg or single-leg, 10" box or 18" box)
 - Drills/exercises: variation of drills is important
 - Rest: dependent upon the intensity of the drill, i.e. one minute of jumps in place, three minutes for box jumps
 - Recovery: amounts of time between jump/plyometric drill sessions. At least 48 hours of time is appropriate.
 - Frequency: plyometric sessions should only be performed one to two times per week
 - Variation: cycles should be appropriate to the competition season (progressing from double-leg jumps predominately in off-season, to single-leg jumps pre-season and in-season)

Skaters Should Implement Correct Jump/Plyometric Drill Technique Including:

- Explosive take-off – with double knee-bends, double-arm swing, and good vertical positioning of the trunk, torso and head. Jump take-off and landing should be on the balls of the feet.
- Good body control – tight/closed position of arms and legs and straight positioning of the back for rotational drills.
- Control the landing
 - Absorbing the force of the landing, bending at knee(s)
 - Upright positioning of upper body, head, arms and torso area is required
 - Landing should be on balls of the feet and not flat footed or on the heels
- The keys to success for jump/plyometric training are:
 - Maximal effort** on all jump attempts
 - Appropriate use of both **upper body** (arms) and **lower body** (legs/hips).
 - When landing and taking-off for another jump attempt, the skater must **minimize the time** spent on the ground, and rebound quickly back from the floor.
 - Correct posture or body positioning** (upper-arm, shoulders, head, middle body, trunk and back) on landing rotational jumps.

SAFETY CONCERNS WITH PLYOMETRICS

Proper Qualified Supervision Is Necessary For This Activity

- Jump/plyometric drills need to be appropriate for age/level of the skater (modify box height and number of foot contacts according to the age and skill level of the skater).
- A specific total-body strength preparation training cycle (eight weeks) must be implemented prior to beginning Plyometrics.
- Advance the intensity of plyometric skills gradually, such as double-leg to single-leg.
- **Use proper equipment** including:
 - ***Footwear** – basketball shoes or cross training shoes with adequate heel/ankle support.
 - ***Soft-landing surface** – soft grass, mats, cushioned aerobic floor or wooden sprung floor.
 - ***Durable boxes** – with appropriate range of heights (8"-28") landing surface of at least 24" X 18" with a non-skid landing surface.

SUMMARY

GUIDELINES FOR PLYOMETRIC JUMP TRAINING

Safety Concerns With Plyometric Training

- Qualified instructor for program design and supervising training sessions
- Program design and drills appropriate for age and level of skater
- Progression of drills from general motor-skill development to sport-specific, i.e. double-leg advancing to single-leg jumps and landings
- Proper equipment:
 - *Shoes: cross trainers or basketball shoes with good heel and ankle support
 - *Soft, non-skid landing surface: mats, grass. Cushioned aerobic or wooden floor
 - *Durable, stable boxes with appropriate range of heights
- A specific total-body strength preparation training cycle (eight weeks) prior to beginning Plyometrics

Technique

- Explosive take-off from balls of feet, utilize double knee-bend, double-arm-swing
- Good body control, tight/closed position, straight back, vertical body for rotation
- Controlled landing on balls of feet, bend at knees absorbing the load of landing
- Maximal effort on all jumps attempted
- Minimize time spent on the ground when landing and then taking-off for next jump

Progression of Drills

- Dry land rotational jumps – double-leg and single-leg landing
- Jumps in place – double-leg and single-leg
- Longitudinal jumps for distance and height – double-leg and single-leg
- Box jumps – double-leg and single-leg
- Medicine balls and weighted jumps
- Torso rotation drills

Variables of the Plyometric Program Design

- Type of exercise
- Volume – number of foot contacts
- Intensity – height of jump or type of drill
- Rest – time between sets, drills, and plyometric sessions
- Frequency – one to two times per week
- Periodization – variation in plyometric program throughout the year of training