

Plyometrics – USA Hockey

Plyometrics are exercises designed to enhance the athlete's ability to blend speed and strength training. This speed-strength ability is known as power. Power is the name of the game in Hockey. Plyometrics will allow an athlete to start quicker, change direction more rapidly, accelerate faster, and improve overall speed.

Plyometrics bridges the gap between strength and speed by utilizing the Myotatic Stretch Reflex. This reflex is called upon when the muscles are loaded in an eccentric contraction (muscle lengthening) and then immediately followed by a concentric contraction (muscle shortening). By performing plyometrics the hips, knees, and ankles are stressed upon. It is imperative that a strong base strength is developed before a program is started. In plyometrics the muscles in the hips, knees and ankles are used in exercises like jumps, hops, bound, leaps, skips, throws and pushes. When performing these exercises, the goal is to train the nervous system to react explosively with the maximum amount of force. Plyometrics also aids in injury prevention by teaching your muscles how to absorb shock.

Plyometric exercises can be divided into two separate categories; vertical (jumps for height) or linear (jumps for distance). Although hockey places a greater demand on the linear component, a proper plyometric program for hockey should include a fair share of exercises both in the linear and vertical planes.

Tips

- All plyometric and agility drills should be supervised until your form is perfected.
- Always perform a proper warm-up and flexibility program.
- When dry land training, be sure to wear the proper footwear (Basketball or Cross-training shoes.)
- Perform exercises on a soft surface whenever possible.
- Drills should be done for quality and not quantity.
- Each repetition should be both fast and explosive.
- Maintain core stability and perfect posture during exercises.
- Properly executed drills are performed with a quiet landing.
- Do not perform to fatigue; allow for complete recovery time. Remember quality.
- Drills are performed for a given number of repetitions.
- Plyometrics for the same body part should not be performed on consecutive days and never perform the drills more than twice per week.
- Low level, double leg exercises should be done by beginners and intermediate level athletes, and must precede any higher level single leg movements.
- As strength levels increase, plyometric intensities should increase.
- Movements should be as sport-specific as possible.

Plyometrics

Plyometric Program

Work on your plyometrics 2 times per week for 30-45 minutes.

- A. General Warm-up**
- B. Dynamic and Static Flexibility**
- C. Plyometric Workout**
 - a. Standard Plyometric Drills**
 - b. Box Drills or 4 Square**
 - c. Cone/Hurdle Hops and Moving Plyometrics**

When choosing which specific drills to perform, select the ones you are most comfortable with and which seem to have the greatest positive effect. Do not pick the ones that require the least amount of effort, pick the ones that challenge you. Get something out of your workout.

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Standard Plyometric Drills

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Tuck Jump – Butt Kick
Power Jumps
Two-Foot Ankle Hop
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Split Squat with Cycle
Double Leg Hops
Single Leg Hops

Boxes

Box Jumps
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Cone/Hurdle Hops

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Alternate Leg Lateral Cone Hop
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Moving Plyo's

Moving Lateral Cone Hops
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Cross Behind Bound
Alternate Leg Diagonal Bound

Other

Stationary Lateral Bounds
Hexagon Drill

Plyometrics

Plyometric Drills Explained

Standard Plyometric Drills

Tuck Jump – Knees Up

Stand with feet shoulder-width apart with your arms by your sides.

Drop hips into the power position and explode upward.

Bring the knees up to the chest and grasping the knees with the hands before the feet return to the floor.

Land without bending forward.

Repeat

Finish with a short quick sprint.

Emphasize grabbing the knees.

Variations: 90°, 180° and 270° turns



Tuck Jump – Butt Kick

Stand with feet shoulder-width apart and your body straight with your arms by your sides.

Drop hips into the power position and explode upward.

Swing the arms up as you jump.

Bring your heels to your butt.

Repeat the jump immediately.

Finish with a short quick sprint.

This is a quick-stepping action from the knees and lower legs.



Power Jumps

Stand with feet shoulder width apart and in an upright position. Drop hips into a power position and explode upward. Use your arms to jump as high as possible. Land in the same place, regroup and repeat.

Finish with a short quick sprint.

Emphasis on height and form.



Plyometrics

Two-Foot Ankle Hop

Stand with feet shoulder-width apart and the body in a vertical position

Using only the ankles for momentum, hop continuously in one place. Extend the ankles to their maximum range on each hop.

Finish with a short quick sprint.



Split Squat Jump (Lunge Jump)

Spread your feet apart, front to back, and bend the front leg 90° at the hip and 90° at the knee

Jump up, using your arms to lift. Hold the split squat position. Land in the same position and immediately jump again.

Finish with a short quick sprint.



Split Squat with Cycle

Spread your feet far apart, front to back, and bend the front leg 90° at the hip and 90° at the knee.

Jumping up, switch leg positions – the front leg kicks to the back position, and the back leg bends up and come to the front. While bringing the back leg through, try to flex the knee so that it comes close to the buttocks. Land in the split-squat position and jump again

Finish with a short quick sprint.



Double Leg Hops

Stand with feet shoulder-width apart and the body in a vertical position

Drop hips and while using arms, explode outward and upward.

Once you land, immediately jump forward again. Use quick double arm swings and keep landings short.

Finish with a short quick sprint.

Emphasis is on speed and distance.

Variation: Perform in a diagonal pattern



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Single Leg Hops

Stand on one leg.

Push off with the leg you are standing on and jump forward, landing on the same leg. Your opposite leg should swing to increase momentum. Once you land, take off again. Your feet should move as if you were on a hot plate.

Try to keep opposite leg off ground the entire time

Finish with a short quick sprint.

Perform sets on both legs.

Variation: Perform in a diagonal pattern



Box Jumps

Box Jumps

Begin drill with a 1/4 squat.

Using double arm swing, jump from the ground onto the center of the box.

Land with the knees bent, under control and on the balls of the feet.

The box should be 12" – 36" high, depending on the skill level.

Variations: Single leg jumps
Add weight



Depth Jumps

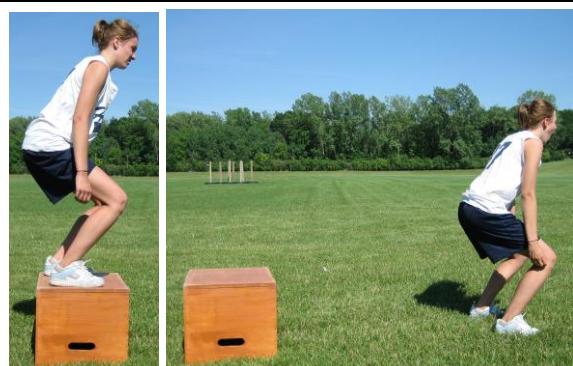
Begin drill with a 1/4 squat on top of box

Using double arm swing, jump up and out onto the floor.

Land with the knees bent, under control and on the balls of the feet.

The box should be 12" – 36" high, depending on the skill level.

Variations: Upon landing – Double Leg Hop



Plyometrics

Lateral Box Jumps

Begin drill with a 1/4 squat on side of box

Jump laterally from the ground onto the center of the box.

Land with the knees bent, under control and on the balls of the feet.

The box should be 6" – 36" high, depending on the skill level.

Variations: Add weight



Single Leg Lateral Box Jumps

Stand on one leg

From Single Leg jump laterally up onto box

Soft quite landing on same single leg – trying to get good stability

Walk down onto opposite side of box

Stand on one leg (same leg as other side)

Single Leg Jump up onto box

Soft, quiet landing on same single leg – trying to get good stability

Walk down onto original start side of box

Repeat for same leg

Try to keep opposite leg off ground the entire time

The box should be 6" – 36" high, depending on the skill level.

Variations: Add weight



Lateral Bench Squats

Left leg flexed, Left foot on box

Right foot on floor 2-3' away to Right of box

Use both legs to jump.

Land with Left foot on floor 2-3' to Left of box and Right foot on top of box.

Immediately jump back to starting position.

The box should be 12" – 36" high, depending on the skill level.



Plyometrics

Lateral Crossover Box Step Ups

Stand to side of box, 1 lunge step away.

Side lunge to step in closer to box.

Outside leg crosses in front of inside leg and up onto box.

Push off with leg on ground and bring up on to box.

The box should be 12" – 36" high, depending on the skill level.



Drop Jumping

Stand to top of box.

Drop (not Jump) to the ground facing the box.

Immediately Jump back up onto box

The box should be 12" – 36" high, depending on the skill level.



Cone/Hurdle Hops

Double Leg Lateral Cone Hop

Stand alongside a barrier

Start in an athletic position with feet together.

Jump laterally over the cone

Use a double arm swing to stabilize the body movement.

Bring the knees up to jump sideways over the barrier

Stick as soft and quiet as possible – trying to get good stability

Hold landing position before returning to start side



Variations:

Series of cones

Single leg hops

Don't hold landing

Plyometrics

Alternate Leg Lateral Cone Hop

Stand alongside a barrier

Start in an athletic position with feet together.

Push off on outside trail leg and jump laterally over the cone

Land on lead leg (opposite leg) Stick as soft and

quiet as possible – trying to get good stability

Hold position before returning to start side

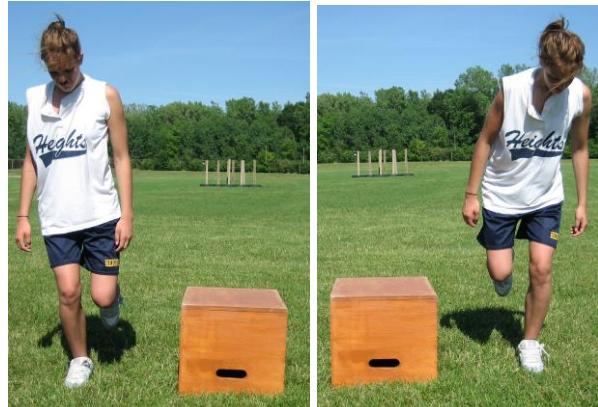
Use a double arm swing to stabilize the body movement.

Variations:

Series of cones

Single leg hops

Don't hold landing



Zig Zag Alternate Leg Lateral Cone Hop

8 Hurdles set touching each other in zig-zag pattern

Push off on outside trail leg and jump forward and laterally over the cone.

Land on lead leg (opposite leg).

Alternate Hopping over hurdles and holding landing (1 sec.) before returning to opposite side

Variations:

Double leg hops

Don't hold landing



Mini Hurdle Hops (Linear)

8 Hurdles set 1 yard apart

Start in an athletic position with feet together.

Jump forward over the hurdle

Use a double arm swing to stabilize the body movement.

Bring the knees up to jump over the hurdle

Hold landing position before next hurdle

Variations:

One leg hops

Don't hold landing



Plyometrics

Moving Lateral Cone Hops

Start in an athletic position with feet together.

Push off on outside trail leg and jump laterally
(same motion as Lat Cone Jump)

Explode outward and upward. Very aggressive
push-off, trying to get both height and distance

Land on lead leg (opposite leg)

Push off again on outside trail leg and jump laterally
in the same direction

Land on lead leg

Repeat



Cross Over Bound

Start in an athletic position with feet apart

Cross outside leg over inside leg

When crossing leg plants, push off on it aggressively
jumping laterally, swinging other leg laterally

Explode outward and upward.

Land on lead leg (opposite leg)

Cross outside leg over again and push off in the same
direction

Land on lead leg

Repeat

Emphasis on work being done by crossing leg



Cross Behind Bound

Start in an athletic position with feet apart

Cross outside leg behind inside leg

When crossing leg plants, push off on it
aggressively jumping laterally, swinging other leg
laterally

Explode outward and upward.

Land on lead leg (opposite leg)

Cross outside leg behind again and push off in the
same direction

Land on lead leg

Repeat

Emphasis on work being done by crossing leg



Plyometrics

Alternate Leg Diagonal Bound

Start in an athletic position with feet together.

Push off on right leg at a 45° angle (same motion as Lateral Cone Jump)

Explode outward and upward. Very aggressive push-off, trying to get both height and distance
Land on Left leg with the knees bent, under control and on the balls of the feet.

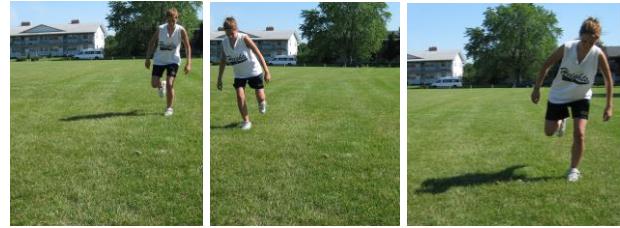
Hold landing position (1 sec.)

Push off on Left leg at a 45° angle

Land on Right leg

Repeat

Variations: Don't hold landing



Other

Stationary Lateral Bounds

Feet shoulder-width apart.

Perform skating motion between two marks on the ground.

Swing leg should come behind the planted leg.

Work on lateral movement.



Hexagon Drill

Stand in center of the hexagon with feet shoulder width apart

Jump across one line of the hexagon and back to the center over the same line.

Proceed around each side of the hexagon, always facing the same direction

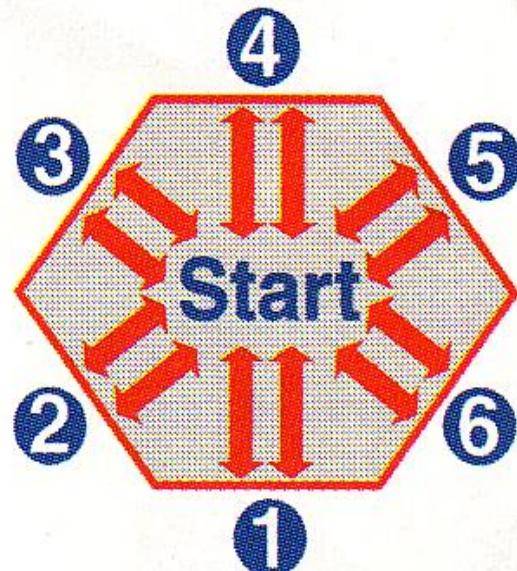
Maintain Head and shoulders square.

Focus on balance and quick, clean change of direction.

of trips or total time

(sides are 24 inches long)

Variation: perform on a single leg
reverse direction



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