

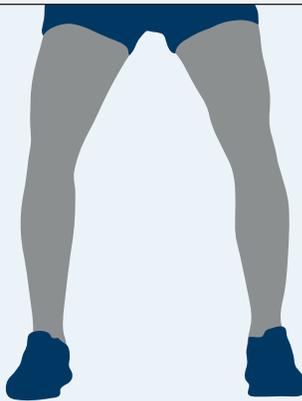
# LOWER EXTREMITY AGILITY PLYOMETRIC PROGRESSION (LEAPP)

LEAPP is a series of exercises that can enhance an athlete's level of performance, help decrease the chance of injury, and accelerate an athlete's return to play after a lower extremity injury. Incorporating these exercises into the training routine is a simple addition that can be an essential component to any workout.

## KEY POINTS FOR PROPER LANDING TECHNIQUE

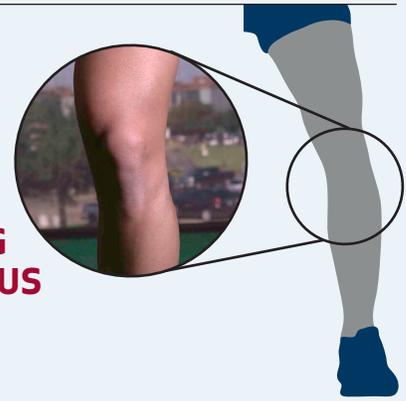
### DOUBLE LEG KNEE VALGUS

Knees should not collapse inward when landing.



### SINGLE LEG KNEE VALGUS

Knee should not collapse inward when landing.



### KNEES OVER TOES

Avoid allowing knees to slide over toes when landing.



### 30° KNEE ANGLE

Knees should bend greater than 30° when landing.



Video demonstrations of each exercise can be viewed at [houstonmethodist.org/LEAPP](https://houstonmethodist.org/LEAPP)



# PRIMARY LEVEL—3 SETS OF 5 REPS

Technique is emphasized primarily at this level of progression. Maintain proper landing technique with exercises 1 through 6.

## 1 WALL JUMPS

Jump straight up towards ceiling and reach wall with fingertips.  
Land softly in proper landing technique.



## 2 BROAD JUMPS FOR DISTANCE

Prepare stance while utilizing arm back swing for power.  
Extend hips and jump forward. Land softly in proper landing technique.



## 3 BOUND WITH A PAUSE — SPEED SKATER

Begin stance on one leg in proper landing position.  
Utilize arm back swing for power.  
Jump forward in a 45° angle and hold for a 2 second pause with each jump.  
Emphasize proper landing technique with each jump.



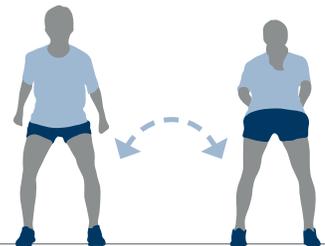
## 4 TUCK JUMPS

Prepare for proper jumping stance and utilize arm back swing for power.  
Extend hips and jump up while bringing knees toward chest.  
Land softly in proper landing technique.



## 5 180° JUMPS

Keeping in mind proper jumping position, extend hips and jump up while rotating body 180°.  
Land softly in proper landing technique.



## 6 DOUBLE-LEG LINE JUMPS

### FORWARD-BACKWARD, SIDE-SIDE

Jump forward/backward, side to side over line.  
Land softly in proper landing technique.



## INTERMEDIATE LEVEL—3 SETS OF 5 REPS

At this level of progression, exercises 7 through 12 emphasize speed and height. Keep in mind technique is also key.

### 7 TRIPLE HOP—NO CONE

Beginning on one leg, prepare for arm back swing.

Hop 3 times forward, while focusing on proper landing technique with each hop.

Stick third hop with 2 second pause before beginning next set.



### 8 PROGRESSION OF BOUNDING — EXPLOSIVE SPEED SKATER

As this exercise is an explosive movement, utilizing arm back swing is important for increase in distance.

Jump forward in a 45° angle, increasing speed and distance between each jump.



### 9 DOUBLE-LEG CONE JUMPS FORWARD-BACKWARD, SIDE-SIDE

Jump forward/backward, side to side over cone.

Land softly in proper landing technique.



### 10 SQUAT JUMPS FOR HEIGHT

Squat and utilize arm back swing for power. Jump straight up towards ceiling for height.

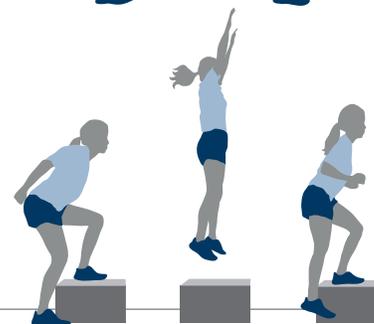
While maintaining proper landing technique, increase height and power with each jump.



### 11 BOX STEP JUMPS

With one leg on box and other on ground, jump straight up and reach for ceiling.

Maintain proper landing technique on the way down. Increase speed and height with each jump.



### 12 SCISSOR JUMPS

Begin with one leg behind the other. Synchronize arm back swing and hip dip.

Extend hips and jump while alternating legs in midair.

Land softly in lunge position while maintaining landing technique.



## ADVANCED LEVEL — 3 SETS OF 30 SECONDS

While maintaining technique, increasing speed and maximizing height for each exercise, endurance is emphasized primarily with exercises 13 through 18.

### 13 3 CONE SINGLE-LEG HOPS

Beginning on one leg, extend hips and jump over each cone while maintaining landing technique.

Although speed and endurance are emphasized at this level, keep in mind technique is key.



### 14 SINGLE-LEG HOPS FOR DISTANCE

Beginning on one leg, utilize arm back swing to prepare for jump.

Extend hips and jump forward for distance. Land softly in proper landing technique.



### 15 BOX JUMPS VERTICAL

Synchronize squat and arm back swing. Extend hips and jump onto box with both feet, keeping in mind proper landing technique.

Immediately jump off box into a vertical jump and land softly onto the ground in proper landing technique.



### 16 SINGLE-LEG CONE JUMPS

FORWARD-BACKWARD, SIDE-SIDE

Begin stance on one leg and utilize arm back swing for power.

Extend hips and jump forward/backward, side to side over cone.

Stick landing in proper landing technique before attempting next jump.

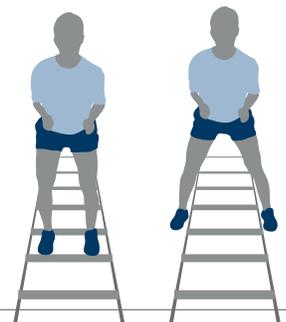


### 17 STAR PATTERN—DOUBLE-LEG

For this exercise, you may use a square tile or agility ladder if available.

Begin stance with feet split outside of the ladder. Hop in and out of box with both feet and avoid clapping your feet.

Repeat this pattern hopping back to start position. Progress speed and time to emphasize endurance.



### 18 LADDER—BOTH FEET IN/OUT

For this exercise, you may use a square tile or agility ladder if available.

Begin stance with both feet on one side of the ladder. Hop in the square with both feet, and then hop out. Remember to land softly with each hop. Repeat this pattern hopping back to start position.

Progress speed and time to emphasize endurance.

