

## **Jump and Plyometric Training Progression**

### **Goals**

1. Safely condition the knee and lower limb for the demands of jumping and landing during sports activity
2. Provide a logical sequence of progressive drills for pre-sports conditioning
3. Provide objective criteria for safe progression from training to sports participation

### **Phases of Training**

Double-leg training

Double-leg complex training

Single-leg training

**Recommended Frequency** 2 times per week

### **Sequencing**

Begin each training session with a warm-up routine. Perform the jumping drills listed in the appropriate phase of your rehab. Be sure to limit your total contacts (or jumps) to the suggested amount listed for each training session to prevent injury. Progress within the phase as you master each exercise, performing each jump with proper technique and without pain.

### **Warm-up and Stretch**

Generally, you should cycle, jog or use an elliptical trainer, rower or other device for 15 to 20 minutes so that you break a sweat before starting the program. After completing the jumping drills, cool down by stretching for 15 to 20 minutes.

### **Criteria to Progress**

Do not progress to the next step in the phase until the present step is pain free, and you can perform with proper technique and without difficulty (muscle soreness or fatigue).

### **Technical Essentials**

Each hop or jump should be performed with concentration on good technique. Perform each jump with a 'stick' landing, i.e. you should land and hold your balance momentarily before proceeding to the next jump. Keep the feet apart and do not let the knees rotate inward when taking off or landing. Soften the impact by landing on the balls of the feet and land with some bend in the knees and hips.

### **Precautions**

Do not begin jump/plyometric training without clearance from your doctor and physical therapist. Jump training places heavy loads on the kneecap, patellar tendon and knee joint surfaces. Pain at these areas during jumping exercises should be reported to your physical therapist.

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### **Phase 1**

60 foot contacts/session

Double Limb (DL) hops on mini-trampoline  
DL hops on soft surface (carpeted floor, gym floor)  
DL Jump rope

#### Suggested Final Workout:

DL hops on mini-trampoline x 30 repetitions  
DL hops on soft surface x 10 reps  
DL hops with jump rope x 20 reps

### **Phase 2**

90 foot contacts/session

DL forward hop, 6-12" distance  
DL side-to-side hops, 6-12" distance  
DL broad jumps, 12-18" distance  
DL broad jump-to-vertical jump  
Jump rope, alternating single limb (SL) hops

#### Suggested Final Workout:

Warm-up with DL jumps on mini-tramp or jump rope x 30 reps  
DL forward hop x 5 reps  
DL side-to-side hops x 5 reps each side  
DL broad jumps x 5 reps  
DL broad jump-to-vertical x 5 reps  
Jump rope, alternate SL hops x 30 reps

### **Phase 3**

120 foot contacts/session

90° DL Jump  
180° DL Jump  
DL broad jump-to-vertical with 90°-180° turn  
Single limb (SL) hops in place on mini-trampoline  
Jump rope, double/triple SL hops, alternating feet  
SL forward hop, 6-12" distance  
SL side-to-side hops, 6-12" distance

#### Suggested Final Workout:

Warm-up with mini-tramp or jump rope with DL SL hops x 30-60 reps  
DL forward hops (x 5 reps) and side-to-side hops (x 5 reps each direction)  
90° to 180° DL Jumps x 5 reps each  
DL broad jump-to-vertical with 90° to 180° turn x 5 reps each  
SL forward hops (x 5 reps) and side-to-side hops (x 5 reps each direction)

During this phase, drills can be advanced with exercises jumping over cones/hurdles and use of an agility ladder.

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