

Jumping and Knee Injury Prevention Program By Orthopedic & Spine Therapy

Key Points for Athletes:

- Ligaments are tough bands that hold your joints together and guide joint motion.
- The most commonly injured knee ligaments are the ACL, PCL, LCL, and MCL.
- Strong hip and knee muscles absorb and transmit forces with correct knee joint alignment, preventing excessive strain on your ligaments.
- Weak muscles rely more heavily on the ligaments themselves, causing excessive ligament stretching and abnormal wear on your knee joints.
- Sometimes you can see hip and knee weakness when landing from a jump. Weak knees buckle inward or hit each other. This puts your knees at risk for injury.

Some Important Stretches (See attached sheets)

- Hip Flexors
- Hamstrings
- Tensor Fasciae Latae Muscles and Iliotibial Bands

Jumping Power Training Program

- Recommended for preventing Anterior Cruciate Ligament (ACL) injuries, particularly in female athletes.
- **Important:** Maintain the space between your knees. Do not allow your knees to buckle inward when landing. Stop and rest immediately if you get too tired to use good form.
- **Net Jumps:** Knees slightly bent, jump up at net as if blocking, repeat 10 reps quickly
- **Tuck Jumps:** Jump vertically, bring knees up to chest, repeat 10 reps quickly
- **Broad Jump:** Two-footed jump for distance, hold landing for 5 seconds, 5 reps
- **Squat Jump:** Jump vertically, land in squat, touch floor with hands, 5 reps
- **Sideways Jumps:** Two-footed side-to-side jumps, as if jumping over a cup, 5 reps progressing forward and 5 reps progressing backward
- **180-degree Jump:** Two-footed Jump, landing facing the opposite direction, 10 reps
- **Bounding in Place:** Jump vertically from one leg to the other, progressively increasing height, 10 reps

Keywords: handouts, knee injury prevention, athletes, knee ligaments, ACL, PCL, LCL, MCL, stretches,