

ACL Injuries

Diagnosis Explanation:

An ACL (anterior cruciate ligament) injury is a tear or sprain of the ACL, a key ligament that stabilizes the knee joint. This often occurs during sports or activities that involve sudden stops, changes in direction, or direct impacts. Symptoms include swelling, instability, and pain, often making it difficult to bear weight on the knee.

Specific Work Modifications:

- **If your job requires standing or walking:** Use a brace to support your knee and take frequent seated breaks.
- **If your job involves lifting:** Avoid heavy lifting to prevent knee instability. Use proper body mechanics and consider a knee brace.
- **If your job is desk-based:** Elevate your leg when possible to reduce swelling. Perform seated knee mobility exercises.
- **Avoid:** Squatting, twisting, jumping, or prolonged standing without support.

Specific Activity Modifications:

- **If you play sports (e.g., basketball, soccer, running):** Avoid pivoting, cutting movements, and high-impact activities until cleared by a physician.
- **If you enjoy hiking:** Use trekking poles, brace the knee, and stick to flat terrains initially.
- **If you go to the gym:** Focus on upper body workouts; avoid deep squats, lunges, and plyometric exercises.
- **Avoid:** Any activities that involve rapid changes in direction, jumping, or heavy strain on the knee.

Recommended Supplements:

- **Collagen Peptides** - 10g daily to support ligament healing.
- **Vitamin C** - 500mg daily to promote collagen synthesis.
- **Turmeric (Curcumin)** - 500-1000mg daily for inflammation reduction.
- **Glucosamine & Chondroitin** - 1500mg/1200mg daily for joint health.
- **Omega-3 Fatty Acids** - 1000mg daily for inflammation control.

Recommended Nutrition and Hydration:

- **Increase Protein Intake** (chicken, fish, eggs, tofu) to support tissue repair.
- **Eat Anti-Inflammatory Foods** (berries, leafy greens, nuts, fatty fish).
- **Consume Collagen-Rich Foods** (bone broth, citrus, tomatoes).
- **Limit Processed Foods & Sugars** to reduce inflammation.

- **Hydration:** Drink at least **8-10 cups of water daily** to maintain joint lubrication.

Home Exercise Prescription:

Early Phase (First 2-4 Weeks Post-Injury):

- **Quadriceps Sets** - Tighten thigh muscle, hold for 5 seconds, repeat **10x, 3x/day**.
- **Heel Slides** - Gently slide heel toward buttocks to improve knee motion, **10 reps, 3x/day**.
- **Straight Leg Raises** - Keep knee straight, raise leg, hold 5 seconds, repeat **10x, 3x/day**.
- **Ankle Pumps** - Move ankle up and down to improve circulation, **10 reps, 3x/day**.

Strengthening Phase (4-8 Weeks):

- **Mini Squats** - With support, bend knees slightly, hold, then stand, **10 reps, 2x/day**.
- **Seated Knee Extensions** - Straighten knee while seated, hold for 5 seconds, repeat **10 reps, 2x/day**.
- **Balance Exercises** - Stand on injured leg for 10 seconds, gradually increase time.

Advanced Phase (8+ Weeks, if stable):

- **Stationary Bike** - Light resistance, **10-15 minutes/day**.
- **Step-Ups** - Step onto a low platform, push through heel, repeat **10 reps, 2x/day**.
- **Resistance Band Leg Press** - Strengthen quads and hamstrings, **10 reps, 2x/day**.

Helpful Books:

1. *The ACL Solution: Prevention and Recovery for Sports' Most Devastating Knee Injury* - Robert G. Marx, MD.
2. *Sports Injury Prevention and Rehabilitation* - David Joyce & Daniel Lewindon.

Click here for more orthopedic patient information.

Contact a Key West orthopedic clinic or reach out to Dr. Jason Pirozzolo.