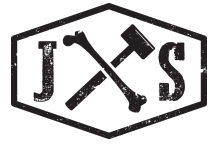




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## ACL Injury Prevention Guide

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ACL (anterior cruciate ligament) injuries are among the most common and devastating injuries in sports. Fortunately, research shows that up to 50% of non-contact ACL injuries can be prevented with the right combination of strength, neuromuscular control, and movement training. This guide provides actionable steps to reduce your risk.

### Understanding ACL Injuries

The ACL is a key ligament that stabilizes your knee. Injuries often occur during cutting, pivoting, landing, or changing direction. Athletes in soccer, basketball, football, volleyball, skiing, and gymnastics are especially at risk. Female athletes have a higher incidence due to anatomical, hormonal, and neuromuscular factors.

### Top 5 ACL Injury Prevention Strategies

#### 1. Strengthen Your Core and Hips

Weak hips and core muscles contribute to poor control of knee alignment during dynamic movement. Exercises: clamshells, lateral band walks, glute bridges, planks, and single-leg squats.

#### 2. Train Landing Mechanics

Learning to land softly and with good form significantly reduces strain on the ACL. Coaching cues: knees over toes, land on balls of feet, avoid inward knee collapse.

#### 3. Dynamic Warm-Ups

Incorporating agility, coordination, and balance drills prepares your muscles for sport. Sample drills: high knees, butt kicks, A-skips, carioca, and bounding.

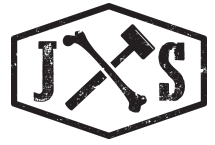


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### 4. Proprioception and Balance

Proprioception is your sense of joint position and motion. It improves coordination and joint protection. Exercises: single-leg stance, Bosu ball squats, balance board drills, Y-balance reach.

### 5. Address Muscle Imbalances

Ensure symmetrical strength between legs and balanced strength between quads and hamstrings. Unilateral exercises like single-leg deadlifts and step-downs are important.

## Sample Weekly ACL Prevention Routine

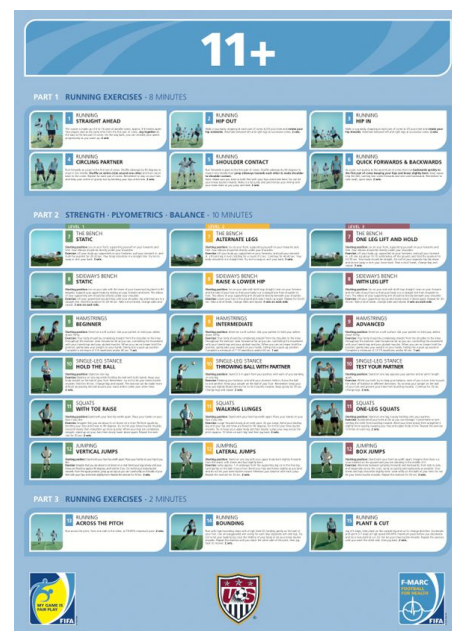
This 20–25 minute routine can be performed 3x/week and integrated into team warm-ups or individual training.

- Dynamic warm-up (5 mins): A-skips, lateral shuffles, high knees, lunges
- Strength (10 mins): Glute bridges, single-leg squats, hamstring curls, planks
- Neuromuscular (5 mins): Jump and land drills, ladder footwork, single-leg hops
- Balance (5 mins): Single-leg reach, foam pad stance, perturbation drills

## Proven Programs and Resources

- FIFA 11+ (soccer)
- PEP Program (Prevent Injury and Enhance Performance)
- KIPP Program (Knee Injury Prevention Program)

All of these programs are evidence-based and freely available online.





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## Final Notes

ACL prevention takes commitment, but the payoff is worth it. Whether you're a competitive athlete, coach, or parent, integrating these strategies can protect knee health and keep athletes performing at their best.

For personalized injury prevention assessments or to schedule a consultation, visit [www.SportsSmithMD.com](http://www.SportsSmithMD.com).