

Dr Merritt's "Weekend Warrior" Protocol for the Prevention of ACL Injuries

Understanding the Knee Mechanics is very Helpful in Understanding ACL Prevention and ACL Injuries. I made an entire video series on this topic and goes over the information below:

Dr Merritt's ACL Anatomy Video: <https://youtu.be/MGLFQBTXril?si=FAol5RKCUkgDwtFe>

This routine is built on the core principles of neuromuscular training, which has been shown to reduce ACL injury risk by teaching the body safer movement patterns.¹ The primary goal is not exhaustion, but the mastery of high-quality movements. Throughout every exercise, the focus should be on maintaining proper form: landing softly, keeping the knee aligned over the foot, and actively preventing the knee from collapsing inward (a position known as knee valgus).³

The 10-Minute No-Equipment ACL Prevention Warm-Up

Phase	Exercise	Duration/Reps	Key Instructions & Coaching Cues
1. Dynamic Warm-Up (2 minutes)	Jogging in Place (alternating High Knees & Butt Kicks)	1 minute	Start with a light jog, then mix in 15 seconds of high knees and 15 seconds of butt kicks to increase heart rate and warm up the leg muscles. ⁶
	Walking Lunges with Torso Twist	1 minute	Step forward into a lunge, keeping your front knee over

			your ankle (not past your toes). ⁹ As you lower, twist your torso over your front leg. Push off and alternate legs. This warms up the hips, legs, and core. ¹⁰
2. Activation & Strengthening (4 minutes)	Bodyweight Squats	1 minute (15-20 reps)	Stand with feet shoulder-width apart. Lower your hips back and down as if sitting in a chair, keeping your chest up and knees aligned over your feet. ⁸ Go as low as is comfortable while maintaining good form.
	Glute Bridges	1 minute (15-20 reps)	Lie on your back with knees bent and feet flat on the floor. Squeeze your glutes to lift your hips until your body forms a straight line from shoulders to knees. ¹² Hold for a second at the top before lowering slowly.
	Plank	30 seconds	Hold a straight line from your head to your heels, supported on your forearms and

			toes. ¹⁴ Brace your core and squeeze your glutes to prevent your hips from sagging. ⁴
	Side Plank	30 seconds per side	Lie on your side, supported on one forearm. Lift your hips to create a straight line from head to feet. ¹⁵ This targets crucial hip and core stabilizing muscles. ⁴
3. Plyometrics & Neuromuscular Control (4 minutes)	Vertical Jumps (Focus on Landing)	1 minute (10-12 reps)	Jump straight up, but focus entirely on the landing. Land softly on the balls of your feet, rolling to the heels with your hips and knees bent to absorb the force. ¹⁰ "Stick" the landing for two seconds, ensuring your knees do not collapse inward. ¹⁷
	Single-Leg Hops (Forward/Backward)	30 seconds per leg	Imagine a line on the ground. Hop forward and backward over the line on one leg. ⁶ The goal is control, not speed. Land softly and maintain balance, keeping your knee stable and aligned over

			your foot. ¹⁹
	Lateral Hops (Side-to-Side)	30 seconds per leg	Stand on one leg next to the line. Hop side-to-side over the line. ⁶ This trains the muscles that prevent the dangerous inward knee collapse during cutting movements. ¹⁷
	Deceleration Runs	1 minute (4-5 reps)	Run forward for about 10 yards, then come to a complete stop in exactly three steps. ²² Sink your hips back and down to absorb the force, finishing in a balanced athletic stance. ¹⁰ Walk back and repeat.

For these programs to be most effective, they should be performed consistently, ideally before every training session or game.² Regular practice helps make these safer movements automatic, providing protection when you're fatigued or reacting instinctively during sports.²