



# KNEES *for* LIFE

## Preventing ACL Injuries in Young Athletes

ACL injuries are skyrocketing in the U.S. At Midwest Orthopaedics at Rush, the number of ACL patients doubled in five years, while the ACL patients under age 25 tripled in the same time period.



### Stay in the Game

Every year, anterior cruciate ligament (ACL) injuries sideline nearly 400,000 athletes and can have an impact on their knee health for a lifetime. Studies show that ACL injuries in childhood can lead to arthritis of the knee later in life. So, it is important to minimize the risk of an ACL injury by participating in a prevention program. Research shows that athletes can reduce the risk of ACL injuries by as much as 72 percent through proper strength training. At a minimum, athletes should incorporate 15 minutes of warm-ups and ACL injury prevention exercises before practices and games, both in-season and off-season.

### How to Protect Your ACL

The Illinois Athletic Trainers Association and Midwest Orthopaedics at Rush sports medicine physicians recommend athletes play multiple sports and take breaks between seasons to give their bodies a chance to rest. In addition, they urge athletes to perform ACL prevention exercises before practices or games. It is important to maintain proper technique for best results.

### Make these ACL injury prevention exercises a part of your routine:

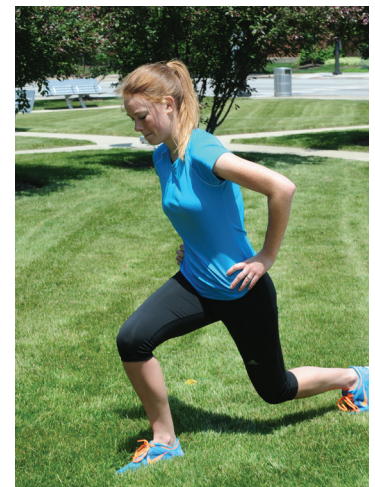
**1. Warm Up** so that your body is prepared for physical activity.

Jog from one end of the field and back. Repeat, but this time run sideways and then backwards. Remember to land on your toes each time.

**2. Strengthen** the muscles around your legs to create more stable knee joints.

#### Walking lunges

Lunge forward leading with the right leg and alternate legs across the field and back. Remember your knees should not extend over your ankles.





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The Illinois Athletic Trainers Association (IATA) and Midwest Orthopaedics at Rush (MOR) have joined forces to launch "Knees for Life," a public awareness program that recommends high-school and college athletes be properly screened for ACL injuries, and if at risk, participate in a prevention program. The program should focus on providing exercises to improve strength, agility, balance, coordination and flexibility, which will decrease the risk of an ACL injury.

For more information about the campaign, log on to [KneesForLife.org](http://KneesForLife.org).

### Russian hamstring stretch

Begin by kneeling on a mat with your arms extended and a partner holding your ankles. Gradually fall forward to lie on your stomach on the mat and then quickly bend up to your starting position.



To obtain your free gym bag tags with ACL prevention exercises, log on to: [KneesforLife.org](http://KneesforLife.org).

**3. Plyometric** exercises cause muscles to exert maximum force in a minimum amount of time and can help athletes with agility, stamina and strengthening of the muscles around the knees.



### Sideways double/single leg hops (30 each)

Hop on both feet back and forth over a line or cones on the field. Land softly on the balls of your feet and maintain a slight bend in the knee. Repeat with single leg hops.

### Scissors lunge (30 each)

Jump up and spread legs apart vertically and then land in a lunge position. Alternate legs.



### Vertical jumps (30 each)

With arms above your head, jump straight up and down. (first on two legs and then on one leg)

**4. Agility** exercises can improve an athlete's strength, coordination and power.

### Running with three-step deceleration and cut

Start sprinting from one end of the field to the other end. While approaching the opposite end, decelerate on your last three steps. Once you reach the end of the field, pivot 90 degrees and repeat. Do this four times or 360 degrees.

### Bounding run

Run with high knees pulled toward your chest from one end of the field to the other end.

**5. Cool Down** by stretching your muscles.



**Quad stretch** Stand on your left leg and grab your right ankle and pull it behind you. Alternate legs.



**Calf stretch** Lunge one leg forward while keeping the back leg straight. Alternate legs.



### Hip flexor stretch

While lying on the ground, hug your right knee to your chest while keeping the other leg straight. Alternate knees.

