

The PEP program (Prevent injury and Enhance Performance Program)

This is a warm up program that can reduce the incidence of ACL injury by 70%. This is important for people who have ruptured their anterior cruciate ligament who have a higher rate a re rupture in the injured knee and the uninjured knee. Those injured under 21 years are especially at risk.

It consists of a warm-up, stretching, strengthening, plyometrics (such as jumping, and balance drills), and sport specific agility training.

It is important to use proper technique during jumping moves (jump straight up and down jumps without excessive side-to-side movement), and aim for soft landings. The program should be performed at least 2-3 times per week during the season.

Patients and their trainers should familiarise themselves with this program to prevent further injury.

Basic Components of the PEP Program to start at least 6 months after reconstruction

1. Warm-up (50 metres each):

- A. Jog line to line of soccer field (cone to cone)
- B. Shuttle run (side to side)
- C. Backward running

2. Stretching (30 s x 2 repetitions each):

- A. Calf stretch
- B. Quadricep stretch
- C. Figure 4 hamstring stretch
- D. Inner thigh stretch
- E. Hip flexor stretch

3. Strengthening:

- A. Walking lunges (20 metres x 2 sets)
- B. Russian hamstring (3 sets x 10 repetitions)
- C. Single toe-raises (30 repetitions on each side)

4. Plyometrics (20 repetitions each):

- A. Lateral hops over 2 to 6 inch cone
- B. Forward/backward hops over 2 to 6 inch cone
- C. Single leg hops over 2 to 6 inch cone
- D. Vertical jumps with headers
- E. Scissors jump

5. Agilities:

- A. Shuttle run with forward/backward running (40 metres)
- B. Diagonal runs (40 metres)
- C. Bounding run (45–50 metres)

Additional details and supplemental replacement exercises available from the developers of the program, The Santa Monica Orthopaedic and Sports Medicine Research Foundation at www.aclprevent.com. (There is a video presentation of the rehabilitation technique)

Further Reading: Gilchrist et al. (2008). A Randomized Controlled Trial to Prevent Noncontact Anterior Cruciate Ligament Injury in Female Collegiate Soccer Players. Published in American Journal of Sports Medicine. 2008; Issue 36; pages 1476- 483