

## ACL INJURY PREVENTION PROGRAM – PEP WARM-UP

Recent studies have documented that the incidence of ACL injuries can be reduced by up to 70% with the implementation of a specific warm up program. It has been found that the incidence of injury after 12 months from ACL reconstruction is 1% per year for the reconstructed knee and 1% per year for the opposite “normal” knee. This is higher than is seen in the normal population. The incidence is even higher in younger patients who have their first injury under 21 years.

The PEP program (Prevent Injury and Enhance Performance Program) has been shown to decrease both first time ACL injuries and further ACL injuries after reconstruction. This program is a highly specific session that replaces the traditional warm up. It consists of a warm-up, stretching, strengthening, plyometrics and sport specific agility training. Athletes can reduce their risk of ACL injuries by performing training drills that require balance, power and agility. Adding plyometric exercises, such as jumping, and balance drills helps improve neuromuscular conditioning and muscular reactions which decrease the risk of ACL injury. 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. Optimally, the program should be performed at least 2-3 times per week during the session.

We encourage all patients after ACL reconstruction to familiarise themselves and their trainers with this program to prevent further injury.

Basic components of the PEP program	
<b>Warm- up (50 metres each):</b>	
A. Jog line to line of soccer field (cone to cone)	
B. Shuttle run (side to side)	
C. Backward running	
<b>Stretching (30s x 2 reps each):</b>	
A. Calf stretch	
B. Quadricep stretch	
C. Figure 4 hamstring stretch	
D. Inner thigh stretch	
E. Hip flexor stretch	
<b>Strengthening:</b>	
A. Walking lunges (20m x 2 sets)	
B. Russian hamstring (3sets x 10 reps)	
C. Single toe-raises (30 reps on each side)	
<b>Plyometrics (20 reps each):</b>	
A. Lateral hops over 2 to 6inch cone	
B. Forward/backward hops over 2 to 6inch cone	
C. Single leg hops over 2 to 6inch cone	
D. Vertical jumps with headers	
E. Scissors jumps	
<b>Agilities:</b>	
A. Shuttle run with forward/backward running (40 yards)	
B. Diagonal runs (40 yards)	
C. Bounding run (45-50 yards)	

Credit to Dr Princzewski and Dr Roe from NSOSMC. For more info, visit [www.aclprevent.com](http://www.aclprevent.com). Video examples can be found on Youtube