

Fit Facts

Training for Elite Goalkeepers

By Richard Bucciarelli

he goalkeeper position has always presented unique challenges to soccer fitness coaches. While some of the physical attributes required of goalkeepers are similar to those required of players (strength, speed, jumping power) the actual energy system(s) used by goalkeepers in match play are completely different, and thus require specific training exercises to produce specific adaptations that will improve performance.

At the Soccer Fitness Training Centre, we have developed Goalkeeper-Specific Training Protocols, which combine traditional, functional training methods with our own unique and revolutionary new equipment and programming. In this two-part article, we will explain both the science, theory and methodology of our Goalkeeper-Specific Training Protocols, as well as profile the specific exercises and training plan used with 2011 Canadian U20 Men's National Team training camp participant, York University Lion, 2010 National Champion, and 2011 FISU Team Canada goalkeeper Sotiri Varlokostas, in preparation for the 2011 Ontario University Athletics (OUA) season.

When developing our Goalkeeper Protocol, we first needed to examine in detail the exact physical requirements of the position. In order to do this, we used both visual / observational data (while watching goalkeepers in training and games) as well as data taken from match analysis studies that have involved goalkeepers. Based on this background research, we have identified the following essential components of goalkeeper fitness:



Speed Over 5 - 10 Metres

Why It's Important:

Goalkeepers must make maximal speed, short duration sprints 5-10 times during a game. These sprints are often made at crucial times, including when intercepting through balls or making clearances

How We Train For It:

Soccer Fitness' Incline Treadmill Training improves explosive leg strength to help with lengthening the sprint stride. Soccer Fitness' Running Cord Training adds resistance to sprint starts, making goalkeepers quicker off the mark

Single-Leg Vertical Jumping Power

Why It's Important:

Goalkeepers perform 15-20 single-leg vertical jumps per game. These jumps involve maximal power and occur when

York U Men's goalkeeper, Sotiri Varlokostas, took part in the elite goalkeepers training program. His credentials include 2010 CIS National Champion (Canadian Interuniversity Sport), 2011 FISU Team Canada Goalkeeper (World University Games), 2011 Canada Men's U20 National Team training camp participant.

reaching to intercept crosses and aerial balls. While most goalkeepers may have a preferred leg to take off from, there are several times when they must jump off of their non-preferred leg to meet the demands of the situation.

How We Train For it:

Soccer Fitness' Plyometric Box Jumps and Plyometric Hurdle Jumps challenge goalkeepers to produce maximal and

supra-maximal force on one leg, in a controlled environment. Intensity is increased by increasing the height of the boxes and hurdles.

Single-Leg Lateral Jumping Power: Why It's Important:

Goalkeepers must perform single-leg lateral jumps when diving to make saves on either side. This movement is unique to the goalkeeping position, in that it involves moving laterally while taking off from the more lateral leg (as opposed to taking off from the medial leg, which occurs in most other lateral movements). The more power the lateral leg can produce, the more distance the goalkeeper can cover to make saves.

How We Train for it:

Soccer Fitness' single-leg lateral Box Jumps and Hurdle Jumps replicate the movement pattern which occurs in diving, while challenging the muscles to overcome added resistance based on the height of the boxes and hurdles.

Strength and Stability in the Core / Trunk Muscles:

Why It's Important:

The muscles of the core and trunk need to be strong in order for optimal force to be developed in the execution of throwing and kicking movements. When throwing, goalkeepers produce forces which start with the leg muscles, then transfer through the core, or middle of the body, before finishing at the upper extremity as the ball is released. During kicking, the planting leg must strike the ground hard and maintain stability in the body as the kicking leg swings back, connects with the ball, and then follows through. It is the core and trunk muscles that produce this strength and stability as the platform for optimal throwing and kicking power.

How We Train for it:

The Soccer Fitness Plyometric Protocols are designed specifically to challenge the core muscles, by forcing athletes to remain stable as the feet, or base of support, moves away from the body's centre of mass. These 'high speed' core exercises are interspersed with 'low speed' core exercises targeting the superficial and deep abdominal muscles, lower back, and hips.

Upper Body Strength and Power:

Why It's Important:

Upper body strength and power is essential for goalkeepers in the execution of shot stopping, as well as interception of crosses and aerial balls and throwing and rolling movements.

How We Train For It:

Soccer Fitness uses both general and specific exercises with weights, medicine balls, and resistance tubing, to improve upper body strength and power. Our Upper Body Functional Strength Protocols, as well as some specific medicine ball throws, are

aimed at creating increased muscle size and strength, as well as preventing injuries to the surrounding joints and tissues.



Richard Bucciarelli is the President of Soccer Fitness Inc. Soccer Fitness is now offering Goalkeeper-Specific Training Protocols, which include specific Treadmill, Plyometric, and Strength Training, at the Soccer Fitness Training Centre, located on the 2nd Floor of Trio Sportsplex, at 601 Cityview Blvd. in Vaughan. For more information, please visit www.soccerfitness.ca.

