Athletic Conditioning for Soccer

Train Like a Pro

By Josh Hewett
Soccer (also known as “football”) is one of the most popular sports in the world, with a growing number of enthusiasts and players world-wide. Despite this fact, strength and conditioning programs for soccer are often neglected or outdated. Except at the professional level, many athletes and coaches still focus only on skill development and endurance training (ie- running), and ignore other important elements of fitness such as:

- **Strength** and **strength endurance**
- **Speed** and **power**
- **Flexibility**
- **Agility**
- **Nutrition**

Athletes of other popular sports such as hockey or American football typically understand the importance of a complementary strength and conditioning program (especially off-season) to improve their performance, but it seems that some soccer players don’t believe that elements such as strength or power development are necessary for their sport. This couldn’t be further from the truth.

In this article I will take a closer look at the different components of fitness involved in the sport of soccer, and then suggest a simple way to organize your high performance training program. I will not be discussing skill development in this article.

**Endurance in Soccer**

A soccer fitness program should be built around developing a good aerobic base. Several studies into the physiological demands of soccer have shown that outfield players can travel up to 13 km or 8 miles during a 90-minute game. This places a significant demand on the athlete’s cardiovascular system and muscular endurance. Having said that, I believe this is one aspect of training that is already over-emphasized in this sport.

It’s not uncommon to hear of soccer players running for at least an hour at a time several days per week in an attempt to improve their performance on the field. However, if you start to analyze the ‘sport-specific’ requirements of the athletes, you will realize that they are actually engaging in varying intensities of activity for different durations while playing, including: walking, jogging, running, and sprinting, and in various directions. Incorporating interval training into your program, that involves high and low intensities of activity, will provide better results than long duration, low intensity jogging alone.
Strength in Soccer

Strength is an important component of fitness that can benefit athletes in any sport, although it is often viewed as having little importance in soccer. However, strength forms the basis for power and speed. Soccer players also need strength to hold off challenges from opponents. Other benefits of strength training include:

- injury resistance
- leaner body composition
- faster metabolism
- more energy
- greater explosiveness
- improved balance, stability, and agility
- faster recovery
- greater bone density

High level soccer players don’t need to have the same absolute strength as American football players or rugby players, but a properly designed ‘off-field’ strength training program will definitely improve your in performance! **Relative** strength is more important in soccer than **absolute** strength. Relative strength is simply your absolute strength in relation to your body weight.

Your strength training program should focus on compound, functional exercises (such as lunges, squats, step ups, pushups, dips, chinups), and take into account balancing the strength of opposing muscle groups (ie- quadriceps vs. hamstrings). Don’t waste your time training solely on machines, and avoid useless, non-functional exercises such as leg extensions. The majority of your exercises should be ground-based, using bodyweight or free weights as resistance, and should involve movement of your full body. Train all the major muscle groups, with emphasis on your lower body and core. For more information on functional training, check out my strength training article entitled, “What Really Works: Effective Strength Training Principles.”
Speed & Agility in Soccer

Another significant component of a soccer fitness program is speed and agility training. The speed of play in today's game is quicker than ever. While endurance and strength are very important to improving your performance, faster players have a definite competitive edge. You may have better endurance than the next guy, but if he makes it to the ball first it won't matter that you can run marathons!

A simple speed test is a sprint over 30 yards from a standing start. You can try this yourself and have someone else time you. A sprint time under 5.0 seconds is good. Professional players average around 4.0 seconds.

Power is the combination of strength and speed. A more powerful player is a more formidable player. To improve your speed and explosiveness you should include power movements in your program, such as jump squats, high pulls, power cleans, and push presses, as well as plyometric drills such as box jumps, alternate push-offs, lateral shuffle, and split lunge jumps.

Because it is important to have speed endurance, I recommend incorporating these exercises into a circuit training program with high intensity intervals. A typical workout would alternate between power movements for lower body and upper body, with plyometric exercises as intervals. You can conclude your training session with sprint drills and agility work (such as the 'ladder drill').

Flexibility in Soccer

Another important aspect of fitness is flexibility. Maintaining a healthy range of motion can be very beneficial, however, few people understand the most effective methods of stretching or when to use them. Many athletes still do passive stretching before their workout or practice, when actually this can diminish performance and increase risk of injury! The safest and most productive way to integrate flexibility training into your routine, is to do a dynamic warm up (walking lunges, bodyweight squats, high knees, butt kicks, arm circles, etc.) before a workout, practice or game, and then spend some time stretching at the end. Also, a better alternative to static passive stretching is static ‘active’ stretching (using your own muscular effort to hold the position). Read my article "Stretching: The Long and Short of It" for more information.
Nutrition for Soccer

I won’t get too deeply into the subject of sports nutrition here… that’s a whole other article. Suffice it to say that what you eat will directly affect your energy levels, recovery, performance, and health. Here are some basic tips to consider regarding your diet:

- Drink ALOT more water.
- Eat 4-6 smaller meals / snacks each day.
- Eat after exercise, not directly before.
- Each meal should include protein (fish, chicken, eggs, lean meat, poultry, protein shakes, some dairy, etc), and fruits and vegetables, as well as whole grains.
- Starchy carbs (ie: pasta, potatoes, rice, bread, grains, etc) should be eaten after exercise, or the night before a big game, but otherwise reduced in your diet.
- No sugars, pastries, junk food, pop, chips, alcohol, tobacco, etc.
- Don't eat before sleep.
- Take fish oil daily.

The Program

Here is a simple way to organize your training, on and off the field:

Your off season weekly gym program should include two strength training days (superset opposing muscle groups using functional exercises) and a speed / power day (explosive weightlifting movements in a circuit, with plyometrics as intervals), in addition to your athletic skill training / practices on the field. Do some agility work and sprint starts at the end of your speed / power circuit. Then include 2 to 3 endurance / cardiovascular training sessions each week as well, running for about 30 minutes with short sprint intervals and hill running… not just long endurance runs.

For in season training, just reduce your training volume and cut back to only one strength workout and one speed / power workout per week. You can adjust the number of endurance training sessions as well, depending on the number of practices or games you have each week.

A great model to refer to when designing a training program for young athletes can be found at www.ltad.ca. The Long Term Athlete Development model provides clear, progressive training guidelines for each stage of an athletes development.
Conclusion:

Keep in mind that this is only a basic overview of high performance training for soccer. For a complete program design, and detailed explanation of these exercises, go to www.SoccerAthletics.com to check out our instructional DVD. It is a complete and comprehensive resource for soccer athletes.

I expect that you have found this article informative and that I have adequately explained why serious soccer players need to follow a sport specific conditioning program. My hope is that this will help you reach your athletic goals by training like a pro!

Stay Fit,

Josh Hewett

About The Author:

Josh Hewett, BA Kin, is a certified trainer, coach, competitive strength athlete, and the co-producer of Building the Complete Soccer Athlete DVD. He is the owner of Top Form Fitness and the founder of Team Barbarian Strength Athletics (OPA affiliated). His articles have been featured on several popular websites, including Elite FTS, The Diesel Crew, Straight To The Bar, QFAC, and many others. Josh has been working in the fitness and physical conditioning industry for over 20 years, and has helped hundreds of people reach their fitness and performance goals using his proven training system.

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