

# Training For Endurance In Soccer

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Over the last couple of years we have been collecting information on the fitness of youth soccer players and it tells us a great deal about the type of training being conducted at the club level. We test for speed, jumping power, anaerobic capacity, endurance and agility. What is most evident is that the endurance aspect of training for soccer needs more emphasis.

Why is endurance so important in soccer? This isn't a distance running event; soccer is a bunch of 10-50 yard runs. But remember, all those runs add up. And don't forget that while endurance builds up the ability to run long and hard, it also improves the ability to recover between runs which is likely the most important benefit of having high levels of endurance. But players don't have to hit the streets to improve endurance.

To understand the importance of endurance, consider work out of Norway, Eastern Europe and Milwaukee. In Norway, the endurance of the first-place team was over 10% greater than that of the last-place team. In Eastern Europe, final placings could just about be predicted based on their endurance test results. Over several years in Milwaukee, the final points (3 points for a win, 1 point for a draw) for a college team were correlated with endurance; the greater the endurance, the more points. Strength, power, speed and agility are not as predictive of final success.

The fitness tests were given to U12-U18 Classic players and the levels of endurance were not appreciably different between ages, especially in the girls. Among the boys, there is a jump from U13 to U14, but not much change from there on. This indicates that the bulk of the training is focused on technique and tactics.

So, a few questions about training need to be asked.

## 1. How do we train for endurance in soccer?

Endurance can be increased using interval training, i.e. manipulate the work/rest interval. Therefore, increase the intensity of training (work) and decrease the recovery (rest) periods. Remember the demands of the game and direct training toward that. Lots of shorter, higher intensity runs, but limit the rest periods.

A drill that is two minutes of work and two minutes of rest is too much rest in soccer. Also, remember that the most intense aspect of soccer is dribbling. So to increase intensity and decrease rest, make the sides smaller (e.g. 3v3, 4v4) which keeps the players more involved in the play.

To increase the volume of running in training games, make the field of play larger. Instead of 4v4 in the penalty area, play the game in twice the size of the penalty area.

## 2. How often should intensity be a focus in training?

Three days per week is a good figure. You have to assume that the game itself is a training stimulus. So, 1-2 sessions with some emphasis on fitness would be appropriate. In many cases, games are on the weekend and training is Tuesday and Thursday. So, each practice should have some fitness component.

Don't train for fitness on successive days. They need either a day of rest or low-intensity training.

### **3. How much each session?**

No more than one third (1/3) of any training session needs to be devoted to high intensity work. So if training is 90 minutes, plan on about 20-30 minutes being directed to fitness. These need not be successive minutes. Two or three 10-minute segments of high intensity training are better than one long segment.

### **4. How can I modify practice to push fitness?**

Economical training means to train two of the three factors of play (fitness, technique, or tactics) at the same time. So, let's say you play a game that requires wing play (tactics). Do this for a while, then require a 10-yard sprint after each pass (fitness).

Or make the game faster by playing two-touch, or require a player to beat an opponent with the dribble prior to passing (technique), or combine two or more restrictions (5v5 wing play, beat a player dribbling, then sprint 10 yards after passing). Play this for 10-15 minutes and you have had a good hard segment.

### **5. What must I be concerned about?**

First, after the hard segment, give the players a rest period. Second, in high intensity training, more is not better. Excessive high intensity training can lead to injury, over-reaching or over-training. Third, don't start training with the hard segment, build up to it, break, then build up to it again.