## Speed Endurance by Adam Smotherman, SCCC, CSCS, USAW-L1

You have been in the weightroom training hard to develop your posterior chain, your core, your overall strength, power, and mass. You have spent countless hours on the track, on the field, or on the gym floor practicing and perfecting your sprint mechanics. You have read these articles and applied the wisdom to your training regimen. But, for some reason, you still don't seem to see much improvement on the field, right? You can run a 4.5 in 40-yard dash, but is your energy spent after that? Can you line up with minimal rest time and run a 4.5 again? If not, then your speed endurance needs work. As an athlete, what is the point in being fast if you cannot move quickly rep after rep, play after play and game after game? Speed endurance is essential if you are to be an elite playmaker.

If you play a sport which requires continual bursts of speed with limited rest intervals such as football, basketball, soccer, tennis, or lacrosse; your training needs to have more substance than sprinting a 40-yard dash and resting five minutes before your run again, or hitting a set on squat and sitting down for three minutes while you recover. You must train to prepare your muscles, tendons, bones, heart, lungs, energy systems, mind, and everything else you have to become physically fit for the sport in which you compete. If your sport requires semi-constant movement, then you must train yourself to dominate in that environment over and over again.

This concept applies to your time in the weightroom as well as on the field. You should work to avoid resting more than one minute between strength training sets if you are to improve your speed endurance. Powerlifting principles are great for developing strength, speed, and power; but you should do away with prolonged rest intervals between sets if your speed endurance is to benefit from strength training. Training with minimal rest intervals and applying supersets of multiple exercises in the weight room elevates your work capacity, and allows you to produce great force over and over again when you are engaged in sprint competition or training.

Many athletes and coaches see the word "endurance," and think the one-mile, two-mile, or multiple 800 meter runs. This type of training will not suffice if you are to develop explosive power and SPEED endurance. There is a place for this style of training depending on the energy system requirement of the sport; but for the aforementioned speed sports, speed endurance training should be limited to distances no greater than 200 yards between rest intervals, in my opinion. A team jog around campus might work for the unity of the group, but will not develop speed; and if long, slow cardio exercises are performed enough times for abundant duration, speed output amongst the athletes will become inhibited. As the old saying goes, "Cardio helps you run away slowly. Conditioning helps you stay and fight longer."

There are many ways to train for speed endurance, and likely you are already involved in these types of drills if you are affiliated with a school sports team. Some examples of speed endurance training include, but are not limited to: short (10-50 yards) sprints with minimal rest intervals; the classic football conditioning test, 110s; 150s; 175s; 200s; half gassers; quarter gassers; full gassers; and many others. The point is not always the mode of training, but the method. The way in which your training is implemented, specifically in terms of intensity and rest intervals, is the key to determining the level of effectiveness of your speed endurance training.

A final thought to remember as you grind out your sets and reps is, as an athlete, your focus during drill work should always be upon that for which you are training. You should be training to improve your performance as an athlete on the field, court, or diamond. Training is not about looking good, it is about preparing yourself to compete at the height of your abilities. Remember, many coaches do not limit their film study of a recruit to the athlete's highlight tape. Everybody has a highlight tape and they all look good. That is why they are called highlights. If a coach watches an entire game from start to finish that you have played in, will he or she see you sprinting full speed every play, or will that coach see you taking plays off because you are tired? Will he or she see you on the back side of the ball loafing because you are trying to conserve energy? The answer to those questions could determine your future opportunities as a competitive athlete. If you are a slacker on the field because you have not trained yourself to handle the demands of being an elite competitor, you'd better get your butt in the weightroom and on the field to train your body and your mind for battle!

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