

Speed Endurance: A Major Key To Success In Sports

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A key component to success in many sports is the ability to repeatedly attain maximum speed and sustain it for an optimal length of time.

This is especially vital to sports that have a large playing surface such as a hockey rink, basketball court, football or soccer field, singles tennis court, middle distance track and field events etc.

We've all seen the picture of a ball carrier in football slowing down within 10 or 15 yards of scoring a touchdown after a 70-80 yard break-a-way run. After dodging his way and sprinting through the entire team, the ball carrier begins to fatigue and a better conditioned defending player catches up to the ball carrier and makes the tackle, saving a touchdown.

The same thing happens in hockey when a player splits the defenders by virtue of their explosive speed, but their inability to sustain maximum speed results in them slowing down as they approach the net. Often, a better conditioned opposing player gets back in time to make a goal-saving defensive play by checking the puck carrier before he or she can take a clean shot at the net. In baseball, a player may lose steam as they round third base only to be tagged out at home plate.

It happens in every sport where the maximum ability to maintain speed for a given length of time is critical to performance.

The good news is that with some minor adjustments to your training or practice routine you can stimulate your muscles to adapt in such a way as to improve your speed endurance. So even if you're not the fastest athlete that ever lived, being able to sustain your maximum speed will often give you an edge over a naturally faster athlete, who can't maintain their speed for an optimal length of time.

Moreover, training your body to do repeated bouts of speed endurance training punctuated by a short recovery period between speed intervals will build the adaptations necessary to enable you to maintain your speed endurance ability well into the latter stages of the game.

Coaches know that speed endurance conditioning can be the difference between winning and losing no matter how much talent their players possess.

Speed Endurance Training

So, how do you train your speed endurance energy system in a way that is specific for your sport?

Well, on the two or three days a week that you may be putting aside for endurance or cardiovascular fitness (ie riding a stationary bike, jogging, stairmaster, rowing machine etc.), the trick is to combine this type of training with interval training. That means that instead of just jogging or cycling etc. for 24-40 mins. to burn fat and strengthen your cardiovascular system, set aside 10-15 mins. of that training period to include short bouts of interval sprints, followed by a return to a sub-maximal recovery interval. The sprint phase of high intensity work should closely match the demands of your sport and the recovery (sub-maximal) should also mimic the recovery interval of your sport. Here is a guide that will help you identify the approximate sprint to recovery intervals for various sports.

SPORT SPRINT INTERVAL RECOVERY SUBMAX. INTERVAL

Football 20 – 30 seconds 60 seconds

Basketball 20 - 30 seconds 60 seconds

Baseball 40 seconds 90 seconds

Soccer 30 seconds 60 seconds

Hockey & Ringette 30 seconds 60 - 90 seconds

Lacrosse 30 seconds 60 seconds

As a final note keep in mind that the sprint interval requires maximum, or near maximum, all out effort. During the recovery interval keep moving, but reduce your speed or the resistance of the machine so you can prepare for the next sprint interval.

When beginning to train this way, perform only 6-8 sprints per training session. As you become better conditioned you can increase the number of sprint intervals to 8-15 per session.

As a note to coaches, you should consider doing speed endurance training at the end of the practice twice per week.

For running sports have your athlete perform repeated bouts of 40 – 60 yard sprints from a coasting start as would be the case in most sports where acceleration doesn't begin from a standstill position (exceptions are football, baseball and track events).

For skating sports like hockey, have players sprint for 30 seconds followed by a coasting interval of 90 seconds to allow sufficient recovery. Refer back to the previous chart to identify the appropriate recovery interval for your sport.

Without a doubt training your speed endurance capacity can elevate the play of even the most average player enabling them to maintain peak levels of speed for the entire shift, even late into the game when many outcomes are decided.

References:

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