

Maximum Running Speed: Great Marketing, Limited Application

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SPEED IS THE QUINTESSENTIAL component demanded by almost every athlete, team, and sports organization. The sports-training industry has responded to that demand by marketing hundreds of programs that promise to deliver this elusive performance component. Welcome to the speed panacea.

Speed is important in sports, and its development is warranted. However, a distinction should be drawn between what kind of speed we are talking about: maximum running speed, or what has been coined “sport speed.” We should also look at other athletic components, such as balance, reaction, agility, acceleration, and deceleration. These components collectively play a major role in the success of an athlete.

If you look at most sports, outside of track

and field running events, you will notice that most distances sprinted are less than 15–20 m. Many times, these short distances are



broken up by multiple changes in direction. Most plays, points, rallies, or exchanges in sports last less than 5–10 seconds. Even the so-called speed position players, such as receivers and defensive backs in American football, rarely run in an uninterrupted, straight line for more than 15–20 m. Additionally, an athlete needs more than 20 m to hit top speed. Therefore, outside of a 50- or 100-m sprinter, few athletes ever hit maximum speed.

Now what about sport speed? Sport speed is really a misnomer, because few times will an athlete stay at a constant running velocity. Sport runs are fast and short, and most of this distance is spent breaking inertia or manipulating momentum. Sport speed is technically an average speed between point A and point B: the distance covered divided by the time it took to cover it.

This average speed is more a mishmash of various athletic components, rather than maximum running speed.

The main argument for focusing and enhancing maximum speed is that if your maximum running speed is enhanced, then your speed at any given percentage of maximum speed will be increased as well. This looks great on paper but it is misleading.

First, greater maximum speed, or an increase in running speed at a relative percentage of maximum speed, is not the deciding factor in most sports. It is how fast you can achieve it. This quality is acceleration. Although running speed is the product of stride length and stride frequency, and acceleration is characterized by an increase in stride frequency, acceleration is more dependent on explosive strength (i.e., stride length), rather than turnover rate (i.e., stride frequency). Running speed, in general, is more dependent on stride length, which is a function of power. If one understands and accepts this argument, maximum speed development becomes similar to the bench press, a nice “beer and peanuts” topic with limited sports application.

Now, I know what people will be saying: “You know, Johnny was really slow at the beginning of the summer and now, after 6 weeks of the “jet propulsion” program, he’s much faster.” Well, many athletes that are exposed to many speed programs have never really had any guidance in their training; they never really worked at locomotive skills. Most of the time, young athletes go into these pro-

grams during the preseason when they are not in the best of shape (or downright out of shape). At this point, even with elite athletes, any conditioning will show significant improvements. Coincidentally, most world-class sprinters focus on strength, power, and technique work; speed equipment occupies a modest portion of their training.

I believe the success of many speed programs is based on their novelty and the influence their marketing has on parents and coaches. Some big-name figures endorse these programs because they have financial interest in them. Many of these programs are not individualized and run athletes through in an assembly-line fashion. They provide a shotgun approach to programming, using every toy they can get their hands on.

Do not get me wrong. I support the use of different pieces of equipment when appropriately utilized. Speed equipment has its place in training as a supplemental tool for athletic development, but it certainly should not be the feature of any performance program. Equipment is only part of the equation. It is similar to creatine: just because it works, would you give it to your 15-year-old athlete who is starting weight training for the first time? Like speed equipment, its proper use would be to take a developed athlete to a higher level.

Developing athletes should focus on fundamental locomotive skills and strength and power development to see how far they can go with this approach. Once a respectable training age has been achieved and corresponding skill

acquisition realized, various pieces of equipment can be brought in to stimulate and further develop the athlete. The proper use of any equipment is to take an athlete past an elevated level of proficiency, not to enhance already deplorable techniques.

I certainly have a problem with a young athlete being placed on any piece of equipment if he or she has not strength trained or learned fundamental locomotive skills—period. These athletes have no business doing overspeed training on a high-speed treadmill, pulley-cord work if they cannot skip, or shuffle or run without excellent form and without having exploited the benefits of strength and power training. As usual, proper progression is key to speed and sound locomotive skills. “Let’s first run fast, then try to run faster.”

Equipment may be cool and fun to play with, but its appropriate use remains supplemental to fundamental training of various performance components. However, if it helps a bored or uninspired individual begin or stick to a training program, then perhaps that could be a reason (although not the best of reasons) for using it.

In my opinion, there is nothing that will ever replace the trained eye of a caring coach, science-based progressive training, and hard work. But that is the hard road to athletic success, which is not very marketable in this day of gadgets and quick fixes. If you ask for the bells and whistles, you are going to get them. Just wait a bit longer: the “Speed Pill” is coming to a facility near you. ▲