

# Sport Specific Speed Training



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The key to improving speed is a systematic and progressive approach to speed development. Systematic refers to a structured approach, never losing sight of the specific objective: A FASTER ATHLETE. My system of speed development, evolved over 33 years of coaching, is called the 3S System® – Sport Specific Speed.

In my system, speed is broken into its component parts-Straight Ahead Speed and Lateral Speed and Agility. Each of these broad components is developed sequentially through detailed progressions. The system is also progressive. Each step in the progression must be mastered before attempting the next step.

Over the years I have developed a number of practical tips that will make your speed development program more effective.

1. Always prepare for each speed training session with a thorough, active warm-up.
2. Eliminate distance running! It reduces explosiveness that compromises speed. If conditioning is a concern, condition specifically for your sport. There are many ways to get in shape for explosive sports without doing slow, aerobic work which diminishes explosiveness.
3. When do you focus on speed development? It should be at a time when your body is in a non-fatigued state. Therefore, plan your speed development emphasis at the start of the workout, following an easy workday or a day of complete rest.
4. For the very young, speed development work should be playful and game like. No formal drill work is required before the ages of 9-10. Everything should be quick, short bursts with rapid changes of direction. Tag games and short relays are very effective.
5. Maximal strength and acceleration ability are closely related. Spend time developing maximal strength through traditional means like squatting and utilizing derivatives of Olympic lifting movements.
6. Hip mobility is a key aspect of improving stride length and the ability to move laterally. This is best achieved through dynamic activities like hurdle walks.
7. Always stress correct mechanics. Relate the mechanics to the specific movements of your sport. Emphasize correct mechanics without making the athlete robotic. All for individual expression of each athlete.

8. Beware of a drill for the sake of having a drill! Each drill should be related to the "total action". No drill is an end unto itself. A drill should always lead somewhere. Know why you are using a specific drill and where it fits into your entire training program.
9. Maximum speed is highly dependent on the optimum combination of stride length and stride frequency. Do not get caught up on developing one to the exclusion of the other.
10. Optimum Speed is the goal. Speed that you can use and control in the game. Never lose sight of the "moment of truth". When you least expect it and are most fatigued, speed will be the deciding factor.
11. Speed is a motor task. You can learn to run faster through correct mechanics and situational awareness.  
Correct arm action is very important in sprinting. In acceleration, arm action helps with force application. In maximal speed, the arm plays more of a role in balance.
12. Starting is extending ankle/knee/hip. This triple extension is highly related to work done in the weight room.
13. Stopping is bending ankle/knee/hip.
14. Reaction can be improved by working on the primary stimulus: auditory, visual or kinesthetic depending on the sport or the situation.
15. Assistance training (overspeed) methods develop specific strength to improve stride frequency as well as stride length.
16. Resistance training develops specific strength and improves acceleration.
17. Remember the 10% rule. Never add more than 10% of bodyweight to a sled. A corollary to this rule is that you should never slow the movement down for a particular distance more than 10% slower than the athlete's best time. Greater than 10% in resistance or time will change the dynamics of the movement and speed development will be negative.
18. Speed work demands a high level of motivation and concentration.
19. 6-8 reps is the optimum number for speed development work.
20. Vary speed training methods and intensity to avoid building a speed barrier.
21. In your session, develop speed before speed endurance (microcycle and macrocycle).
22. In a strength development program designed to improve speed, address postural needs first and foremost (The Core). Strength to stabilize the trunk is essential. It provides a strong pillar through which the limbs may transfer forces essential to improving sprint mechanics.