

SWING SPEED RADAR INSTRUCTIONS

Faster swing speed = Faster ball speed

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Talking about swing speed in the “modern game” is now commonplace in tennis. Now you can actually measure your own swing speed and compare it to the pros!

The one-button control of the Swing Speed Radar makes the unit very easy to use (it is powered by 3 double “A” batteries - included) and has an accompanying detailed instruction guide to explain use not only for tennis, but for golf and baseball as well.

For the unit to accurately measure the racquet swing speed, the racquet tip needs to be 1-2 feet away. This is sufficient room for safety, but we suggest having players start off swinging slowly to get a feel for the space they have to avoid any accidents.

The real interest in swing speed is based on its relationship with ball speed. You will note from the Swing Speed and Ball Speed Relationship Chart, that we use a ratio range of 1:1.25 to 1:1.5. This is based on various studies and there is no single accurate ratio since there are persistent variables that include the stiffness of the racquet, the type of string and tension, incoming ball speed, the type of ball, and the amount of spin. An example of a recent super slow motion video analysis of Pete Sampras’ first serve showed a ratio of 1:1.35. His racquet swing speed was 90 mph and the serve speed was 121.5 mph. The bottom line is that players can generally expect that the ball speed will average 25% - 50% faster than the actual racquet swing speed.

There are 2 primary ways to use the Swing Speed Radar for tennis:

TIP #1: GROUNDSTROKES:

Hook the unit onto a fence (comes with easy-to-use clips) or mount onto a tripod. To get a feel for basic swing speed just a fence is needed as shown on the left below. The challenge with not hitting a ball is that players will tend to change their swing just to get a faster swing speed. This is when you can toss a ball along a fence to the player and have them alternate between swinging without a ball and actually hitting one. Better yet is to use a tripod (not included) and actually feed balls on the court by hand or with a ball machine. You can also compare forehands to backhands and open stance to neutral.



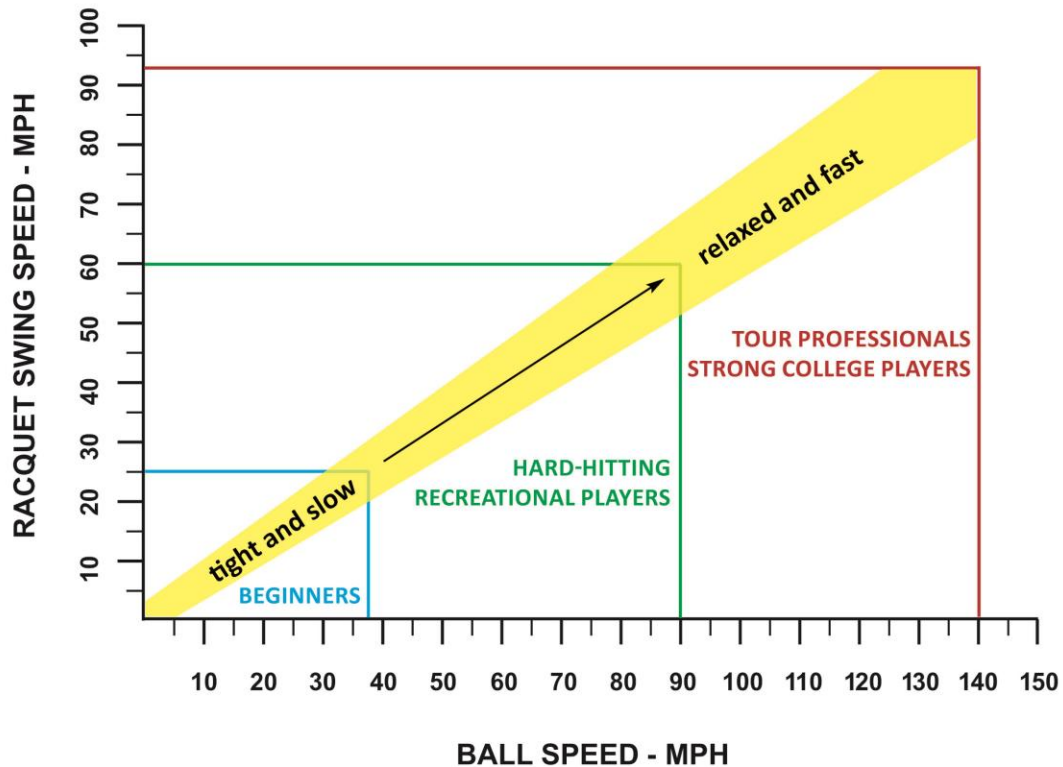
TIP #2: SERVE



Use a step ladder to hook the unit to a fence at the right height for each player. Like groundstrokes, take some shadow swings and then actually hit balls along the fence. Use the chart to determine the approximate ball speed based on the swing speed recorded on the unit. One tip to speed up serve swing speed is to drop a little finger off the bottom of the grip and swing. You should find that a more relaxed grip increases swing speed. Then, after getting a feel for a more relaxed grip, use all fingers on the grip and trip to maintain that same feeling and resulting swing speed.

Approximate relationship of tennis racquet swing speed and ball speed

NOTE: This chart is a visual representation of the ball speed generated by various swing speeds. In this chart, we used swing speed to ball speed ratios that range from 1:1.25 to 1:1.5 as revealed in clinical studies. It is important to note that exact ball speeds depend on the following variables: racquet stiffness, string type and tension, incoming ball speed, amount of spin hit, as well as type and condition of ball used.



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