Ball Machine Myths are Just That

Ball machines get a bad rap. They are often viewed as only for beginners. Teaching pros look at them as competition or loss of lesson revenue, and clubs see them as a maintenance liability. In this article, I will debunk each of these myths.

To properly train for a motor skill sport like tennis, it has to be practiced in the same manner that it is played. Players have to practice all of the potential shots they could face in a match on the practice court. When was the last time you saw someone on court with a ball machine practicing a drop volley or drop shot, let alone an overhead?

First, let’s look at how players consider the ball machine as only for beginners. Better club players tell me they don’t feel like they need stroke work or ball machine training. They feel they have reached a level in their game where they only need more match play. In reality, all players should continually be training some aspect of their game on the ball machine, and how each level of player trains on the machine should be quite different.

Beginners need to work on stroke production, as well as movement to the ball to get it in the preferred strike zone for the shot being practiced. Footwork and recovery are also very important.

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for the beginner player. There are machines that can throw balls of different height, speed, spin, frequency and direction, in sequence and random. Ultimately the beginner’s biggest problem during play is that they rarely get a ball in their preferred strike zone. Therefore, being able to practice hitting balls with different characteristics, in sequence and random, with a ball machine allows them to focus, not only on their strokes, but on their ball recognition skill as well. Their ball recognition skill is their ability to track the ball in flight by its basic properties (speed, spin, height, depth and direction) to get the ball in their preferred strike zone for the shot.

More advanced players tend to be more successful with their ball recognition skills, however what is generally lacking is the number of shots in their repertoire. Most advanced players have a solid groundstroke, but lack any other specific shots, such as a high approach shot, low approach shot, various slices, hitting balls of different heights on the rise, etc. Advanced players should be using the ball machine to practice as many different shots as possible to increase their complement of shots, so that they can deal with and adapt to the many varied styles of play they will face in competition. For example, the advanced player usually dislikes playing a moonballer. In my observations, it is because they never spend time practicing these shots and how to counter them. When pro players (experts when it comes to ball recognition) train on the ball machine, they focus on one distinct shot. Whether it be a heavy topspin shot, backspin shot, or an on the rise shot, they hit it thousands of times, so when they face that shot in a match, they have a solution and the shot has become second nature. Knowing many distinct shots so well, then practicing observing the cues from an opponent that cause them to occur, will create instinctive behavior in the player’s game.

Here are a few quick tips to assist you to properly train your players on the ball machine.

**Targets**
Use three to four targets to create an area that simulates the target area for the shot being practiced. The player should hit the target area 70% of the time. Make the target area smaller before you increase the difficulty of the shot being practiced.

**Ball Frequency**
The ball frequency should be set so that when the player’s ball passes the machine opening it should throw another ball.

**Position of the Ball Machine**
The ball machine should be located where the particular shot being practiced would come from in a match. Most players place the ball machine in the center of the court, which causes a critical flaw to the practice environment. Moving the machine up close to the net to emulate doubles volleys, and off to the ad and deuce wings for doubles simulation, are just a couple suggestions.

**Speed, Spin, Height, Depth, Direction**
The player should be practicing each of these ball properties when on the ball machine, not just their rally ball.

Next, let’s look at how teaching pros view the ball machine as competition. Fewer than 10% of the tennis pros teach with the ball machine. Another staggering statistic - 95% of all ball machines are purchased by the club and not the teaching pro. Given these stats, it is easy to see that the ball machine is not viewed in a positive manner by teaching pros. I feel that the percentage of pros teaching with the machine would be substantially higher if change were not so difficult. Change means breaking the pattern of what is comfortable.

Tennis is an interesting sport from the teaching perspective. Standard lesson culture is that playing against or being fed balls by the pro is going to make the student better. Although it is fun for the student to play or engage in some way with a far more experienced player, it does not necessarily give them the best chance at learning. Tennis is one of the only sports I know where the coach actually competes against the student in an attempt to improve the student’s game. Sports like baseball, football, soccer and basketball have embraced ball throwing devices to enhance the player’s learning and training experience. These ball throwing device training techniques are widely publicized, and can be seen at all levels in training facilities around the country, from grade school to the professional level. Tennis probably has the most high tech devices for this purpose, but unfortunately, it is the sport where they are used the least.

I don’t use the ball machine exclusively in my lessons, however it always plays an integral role. It is plugged in at courtside and ready to go when I want to work on a specific aspect of a student’s game. I use the ball machine approximately 30 minutes during each of my one hour private lessons, and about an hour in my two hour team clinics.

The following are some important tips regarding teaching with a ball machine.

• Follow the tips previously listed.

• Know your machine inside and out before taking it to the lesson court.

• Change drills frequently (every 4-6 minutes). You do not want the student getting bored.

• Have the machine plugged in (but turned off) and off to the side of the lesson court, so when the time comes to use it, it can be set up immediately.

• Constantly interact with your student when they are hitting off of the machine. (Hold their racquet with them when working on volleys, so that they can get the feel of the volley with you in control.)

• You are now freed up from feeding, which is a great opportunity to video tape your student.
Unfortunately one of the biggest reasons a pro decides to start teaching with the ball machine is injury. An interesting fact is that almost all pros who begin to use the machine due to injury never go back to feeding by hand, even after the injury has healed. Prior to their injury, that pro may have said, “Members don’t want to use a machine in lessons,” and “My students would rather hit with me.” When forced to use the machine, the teaching pro quickly discovers that being next to their student accelerates the student’s learning development, and the student actually loves the ball machine as part of their lesson. Pros who have had this experience reveal that the ball machine stripped away the fluff of feeding and the verbal micro-managing of their students’ strokes, and forced them to actually teach once they were beside their student on the court.

The machine is valuable in the post-lesson curriculum as well. When a golfer takes a lesson, s/he is told to practice by hitting a bucket of balls at the driving range. When a tennis player takes a lesson, as homework, s/he too should practice with the ball machine before the next lesson. Taking a new skill to a match, without practicing it in a non-threatening environment, will surely result in frustration. It will be incredibly difficult for the student to transition and execute what was learned in the lesson without practicing the new skill or technical change on the ball machine first. I equate this to a trip to the doctor. When someone goes to the doctor with an ailment, the doctor gives them a prescription to get better. Think how silly it would sound if that patient returned to the doctor the following week still sick, and when asked if s/he took their medication, s/he said, “No, but I am still sick.” The patient did not take their medication, however still had the expectation of getting better. This is very similar to a player who takes a lesson, but never practices the skill, yet competes in match play. My experience has been that a player improves incredibly fast by follow up practice on the ball machine, and then gets obsessed with the tennis program as a whole.

For a teaching pro, the ball machine is a valuable asset and one of the tools to use for the betterment of their students. The number of powerful tools a teaching pro has in their arsenal enhances their chances of improving a player’s game, and gives the immediate perception of professionalism. The best way to look at this is to compare it a carpenter. Which carpenter would you hire, the one who shows up with a truck full of power tools, or the one who has only a hammer and hand saw?

Finally, let’s find out why a ball machine is often viewed as a maintenance liability at a club, and how to resolve this problem. Let’s go back to the statistic that 95% of all ball machines are purchased by the club and not the teaching pro. Those few ball machines that are purchased by teaching pro, whether for rentals or as a teaching device, are generally kept in immaculate condition. When pros invest their own money, they tend to care about the longevity of their equipment. However, since most ball machines are placed in service at clubs, they are rarely maintained until something breaks. This sudden breakage can cause down time and frustration by the members.

The ball machine, regardless of its features, is a complex mechanical device, housing electronics. Water of any kind, whether it’s from clay court sprinklers or a sudden shower, is kryptonite for a ball machine. Ball machines accumulate a tremendous amount of felt, debris and clay during use. Routine maintenance is extremely important for the ball machine. This routine preventative maintenance should be done on a schedule. It is recommended that if the machine is used fewer than 20 hours a week, it should be blown out with a standard leaf blower, top and bottom, every two weeks. If the ball machine is used more than 20 hours a week, it should be cleaned in the same manner every week. During these cleanings, it is important for the maintenance staff to make note of wear and tear, and see if any part may need replacing. These cleanings and general inspections can add years to the life of the machine and eliminate the hassle for emergency repairs and premature replacement of the machine.

In summary, the ball machine can be a tremendous asset to a teaching pro as a powerful teaching tool, as well as a great source of revenue through rentals. Owning tools, such as a ball machine, video equipment, etc., is what sets the more experienced teaching pro apart from a novice pro. Invest in your business and it will pay you back! My personal motto is, “It is easy to be good, but it is really hard to be great.” To be great, you have to be willing to change!

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