



Creative Ways to



Eliza Jacobs

Use a Ball Machine

by Joe Dinoffer

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14 Winning Coaching Trends & Using Ball Machines to Practice these Concepts

Ball Machines satisfy four important needs in sports by offering:

1. Fun
2. Exercise
3. A tireless Practice Partner
4. A Coach's Assistant

Three Practice Options

How many balls are hit per hour when practicing/playing?

Regular Competition	300 shots/hour
	(10 minutes of actual hitting is the match average)
Ball machines with 50-50 hitting and breaks	900 shots/hour
Backboards and Rebounders with 50-50 hitting and breaks	1,800 shots/hour

What's the Best Option?

All three are important, but the argument for a regular dose of ball machine practice is that they best help players gain rhythm, since they can feed consistent balls. Backboards and Rebounders are a next best option for this benefit, with real play being the most challenging. Of course, real play is also essential and cannot be replaced. The point in comparing is to emphasize that ball machine drilling has very specific benefits that are difficult to obtain during real match play. With this and so many other benefits to ball machine use, it's no wonder that most of the best coaches and teachers in the world use these wonderful tools regularly.

Creative Drills & Exercises

In this section, we will share a large number of tennis playing concepts or themes, along with examples of ball machine drills for various focus issues. The reason for this approach is that, while effective practices can certainly be 'open' or random (match play), much benefit can be gained from systematic and repetitive blocked or serial practice. Blocked practice means hitting the same shot over and over again. Serial practice means you are practicing a specific pattern, such as approach and volley, and that you are practicing that same pattern repeatedly. Most coaches agree that players who improve most quickly structure their practice with any specific shot or concept as follows:

Blocked Practice → Serial Practice → Random or Real Play

1. Shot Specificity

Focus on grooving one shot until you are confident that you can hit it at least several times in a row. Remember that improvement retention is highest when you focus on one shot at a time. Repetition, repetition, repetition. Practice alone does not make perfect. Perfect practice makes perfect.

2. Target Areas

Create realistic targets, whether primary (above the net) or secondary (on the opposite side of the net on the court surface). Make them large enough to succeed and build confidence, but also challenging enough to push you to improve. Use a 70% success rate as a good starting point and general guideline.

3. Timing

As players improve, ball recognition timing and racquet preparation also needs to speed up. Practicing with a ball machine can greatly help in this area since, with the simple turn of a dial, the machine can feed balls at faster speeds, as well as with faster frequencies. The rule of thumb is to recognize much of the ball's speed, spin, direction, and arc when it is still on your opponent's side of the net and to initiate your initial turn and movement into position before the ball crosses the net onto your side of the court.

4. Rhythm

Ball machines simulate players hitting with a consistent rhythm. An effective tactic against this type of player is to change the ball rhythm you hit with in order to break that opponent's comfortable rally rhythm. Here's the drill: Identify three ball speeds you can execute. Call them slow, medium and fast. Practice patterns such as slow, slow, medium, medium, fast, fast and repeat. Or, just one of each. Or slow, medium, fast, fast, medium, slow, slow, medium, fast, etc.

5. Shot Tolerance

Impatience is one of the biggest downfalls of otherwise very good tennis players. Having high shot tolerance means 'tolerating' hitting more balls in a row than your opponent. For example, if you feel that hitting 8 in a row is challenging for you, implement a 50% over-learning process. In this example, don't just hit 8 in a row, but try for 12.

6. Aerobic vs. Anaerobic Training

We all know that tennis naturally combines both aerobic and anaerobic exercise. Real play involves sequences of balls in various patterns or combinations, and most of these patterns are of short duration. While it is tempting to hit 30 balls in a row on a ball machine, avoid the temptation. The patterns that will best transfer over to real play are normally just 4-ball to 8-ball patterns, and not more. Hit your designated amount of shots in a row, then pause the machine and recover for about 15 seconds to simulate between point breaks, and then resume your practice with another sequence on the machine. If your intensity is high and you recover fully between shots, your workout can push both your aerobic and anaerobic limits.

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Creative Ways to Use a Ball Machine

7. Movement & Positioning

When most people picture someone hitting on a ball machine, they imagine a player standing still and hitting ball after ball after ball, waiting for the ball to come to them. This common mistake is the opposite of effective practice. In fact, it's like owning a car, but never learning how to drive it. Set up your practice realistically and as close to real play as possible. Move to the ball and recovery fully. Remember that a tennis ball is not a dog. It won't come to you, you must move to it.

8. Footwork Patterns

Getting on balance should be your goal before hitting any shot in tennis. The two subgroups of balance are static (stationary) balance and dynamic (moving) balance. It's inevitable to need both, since the one thing predictable about tennis is that it is unpredictable. The multi-directional and unpredictable nature of tennis demands that players are quick and agile, as well as proficiently fast at accelerating and decelerating. Use a ball machine two ways to develop these skills. First, identify one shot and its required movement and repeat again and again. Second, put the machine on random oscillation and practice putting your movement skills to the test.

9. Decision Making Drills

Tennis is a game of fast decision making. Whether it be on the execution end of the court or when you are judging/ reacting to the incoming ball, being decisive is essential. Here's a drill to help players react and make decisions according to the incoming ball they are about to hit. Add a number of multi-colored balls to the standard yellow balls in the ball machine's hopper. Decide in advance what a fed yellow ball or a fed colored ball means. For example, if a yellow ball is fed, hit that shot with topspin. If a colored ball is fed, hit that shot with backspin or underspin. There are numerous ways to practice this concept, e.g., lob or dropshot, hard or soft, cross court or down the line, etc.

10. First Strike Tennis

First Strike tennis is a catchy way to describe today's style of competitive play - aggressive, like a one-two punch in boxing. With this style of play, athletes look for their first opportunity to hit an aggressive dominating shot to put their opponent on the defensive. Statistics show that top players hit many more winners per match in today's tennis than in previous decades. And, although their unforced errors percentage has also increased, everyone feels it's statistically a good trade off and worth the risk. To begin developing this slightly risky first strike approach, it is helpful to use the consistent ball throwing capabilities of a ball machine. For example, feed a ball to your strongest shot, such as your forehand groundstroke. Then experiment by hitting harder than you feel you can control. This inevitably leads to multiple errors, and you need to remember that this is to be expected. Trust in the process that gradually you will become more consistent. If needed, create a larger than normal target area to help you feel successful and then make it slightly smaller at regular intervals.

11. Serve + 1

This concept is an extension of First Strike Tennis and it simply means to focus on the serve and then the very next shot. To practice this with a ball machine, you will need a remote or a partner to assist. Serve and then quickly press the remote to activate the machine to hit what is simulating a return of your serve. Set up a very aggressive target zone into which you should aim.

12. Return + 1

The return of serve is well documented as the most under practiced yet truly critical shot in tennis. Return +1 means that you are working on your return of serve AND the shot right after that! For this, you will need a ball machine that serves or place a lightweight portable machine on scaffolding or a platform created between two ladders.

13. Return of Serve

Use a serving machine to serve to start the point. Considering the importance of the return of serve (up to 30-35% of all swings at the ball in a tennis match), repetitive practice to various targets based on different incoming serves is essential. There are many instructional articles available on the service return. Just remember to identify your own style on the return of both first and second serves and practice consistently in order to become most consistent in real play.

14. Point Finishers

This concept can be used to practice overheads, swinging volleys, high volleys, high short groundstrokes, and other point finishing shots. Let's take overheads as an example and create a drill for it (note that this drill can be used for singles as well). Set the machine to feed a defensive lob to start the point. Set up the frequency of the feed very slow at 10 seconds. Here's how it works. If the machine throws the next ball before the previous point is completed, the receiving team scores that point. This encourages the team starting the point with an overhead to finish the point on that single shot as often as possible. Of course, since the team hitting overheads has an advantage, score just 1 point for overhead team and 2 points for the lobbing team. The goal of the defending team is obviously to keep the ball in play as long as possible. Remember to set the machine to oscillate from side to side or in random mode so all players get an equal opportunity to hit that first shot.



How the Best Teachers & Coaches Use Ball Machines

You just read how to use ball machines to accelerate the learning process. Now, we will identify how coaches use ball machines to enhance the overall learning experience for their students, in addition to their shot making skills. Let's identify three of the qualities demonstrated by the best coaches in the world.

1. They establish excellent rapport with their students.
2. They use a principle called 'guided discovery' to help their students become self-sufficient.
3. They use the best available teaching tools.

In all three of these qualities, ball machines can play a very important role. Let's identify how this works in each aspect of coaching listed above.

1. Excellent Rapport

First, the best teachers develop excellent rapport and personal relationships with their students. Unfortunately, the majority of group tennis lessons involve 'pro feeding' with the instructor calling out instructions and corrections from across the net. While feeding drills can be intermittently used without problem, coaches should avoid using them as the basis for all of their group instruction. In addition to pairing up students to hit with or feed to one another, ball machines enable and encourage close interaction between coaches and students. Let's call this format 'pro freedom', where the coach is free to rove and make corrections privately to each person. Remember the old saying, "Praise in public, but correct in private."

2. Guided Discovery

Second, the best teachers use the principle of guided discovery as the basis of their coaching. The students need to reach their own conclusions through reason, logic and experience. Then, on their own, they become self-sufficient problem solvers, instead of dependent learners waiting for their teachers to feed them new information. The consistent feeds of a ball machine definitely facilitate guided discovery.

3. Teaching Tools

Third, the best teachers use the best available teaching tools to accelerate the learning process. These would include video, ball machines, training aids that guide movement, and the regular use of highly visual target systems. These target systems provide immediate visual feedback encouraging players to recognize the four basic tennis errors and to make adjustments. The four major errors are: out, in the net, to the right of the target, and to the left. Players should always make intelligent corrections, seldom making the same mistake two times in a row.

Summary

Think about the machines you use every day. Cell phone, car, washing machine and vacuum cleaner. Toaster oven, microwave, computer and television. Electric toothbrush, hair dryer, air conditioner and heater. The list goes on.

In fact, for most of us, losing access to any one of these machines would be a sacrifice. Why? Because they make life easier, more efficient, and even more entertaining. Yet, the one machine we can use on a tennis court hardly gets used at all. And, what's most shocking is - it's one of the few machines that can actually make us money while making our lives easier, more efficient, and even more entertaining. What percentage of tennis pros use a ball machine every day they're teaching? Even being optimistic, the answer is in single digits. That's right, fewer than 10%. In fact, it's probably less than under 5%.

What can you do? If you're one of the non-users who wants to stand out from the crowd while making your life easier, more productive and more profitable, join the world of ball machine lovers. But beware. Once you start using a ball machine regularly in your teaching programs, it's as addictive as any other machine in your life. In fact, some people love their machines so much, they keep a working back up in storage, just in case they need it. After all, a small investment that improves the services you offer, generates extra income, and extends your career by decreasing the wear and tear on your legs, arms and voice, is a good thing, right? Okay, pep talk over. Now go out there and fire up your machine! Your students will love you for it!

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