



Orindawoods Tennis News

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Orindawoods Tennis Club: 925-254-1065; www.orindawoodstennis.com

"I like this place, and willingly could waste my time in it" – Celia, As You Like It, Act II, Scene IV

Club Rules:

OW Tennis Rules Update: Singles & Doubles (in masks)

As I'm sure most of you know, we have updated our court rules to include singles, plus doubles (with masks).

Effective immediately, **singles and doubles (with masks) will be allowed among members.**

Water breaks, change overs, entering and leaving the court / Club, standing in the parking lot, as well as picking up balls we need to maintain a healthy physical distance for each and everyone's safety. Wearing a mask helps but doesn't completely solve the transmission problem. (Rules around what is exposure and required quarantining clearly point that out).

So our current COVID Tennis Rules are:

- Singles allowed.
- Doubles allowed with masks.
- No food or beverages when around others (within 6 feet)
- Four members of the same household playing doubles is permitted w/o masks.
- Ball machine is permitted as well as practicing by yourself (serving, backboard).
- Private lessons are permitted.

Our other COVID rules remain in effect:

- Physical Distancing at all times (minimum 6 feet).
- Masks at all times (except while playing singles or with members of your household).
- Play and go (no socializing on club property).
- No Guests.
- As well as all other normal Club rules (not superseded by our COVID rules). Posted on the website under information / club rules. <https://www.orindawoodstennis.com/pages/index.cfm?siteid=94>

Thank you. As always, bring your usual joy and fun to the court and take care of each other.

Tennis Tip

The History of Tennis in Four Shots

If we were out on the court together, I could show you the history of tennis (the Open era, since 1968) in four shots. The whole demonstration would take about 30 seconds or so. But alas, here we sit in our favorite chair, in front of the warm fire, with a nice soothing beverage and our iPad. It may even be raining outside. We've had a bit of that recently. And so we will call upon our imagination for this valuable lesson.

This brief description of tennis (as it has developed in our lifetimes) is such a valuable lesson, and informs so much the way we play, our strengths and weaknesses, and what is possible given our style, that I will attempt to do this "demonstration" in words on the page. It's challenging, for it is said, "A picture is worth 1,000 words." If I fail, and some or all of this is beyond comprehension, I'm more than happy to show you next time you are up at the Club.

Phase One: The First Ball Demonstration: 1975 and Before

I begin with dropping a ball and demonstrating the era of the arm swing. Remember the classic instructions: "racquet back, follow through". Ashe, Billie Jean King, Newk, Nasty, Stan Smith, Connors, Evert, Rosewall, Gonzales, Kramer, Hoad. The one exception might have been Laver's forehand, which had some very "modern" elements to it, almost in the 3rd or even 4th phase (see below). If you learned in this era, our arm was moving (taken back, then forward), in a

2021 Lesson Rates

Keith & Patric

1/2 hour private	\$45
1 hour private	\$80

Jennifer (is taking time off)

1/2 hour private	\$40
1 hour private	\$75

Club Dues: \$140 / month (no change)

Weekly Lessons

Hit and Fit, Ladies, Men's clinics:

Canceled due to COVID-19.

Ball Machine

Ball machine is open again! The cost is \$40 through March. Reserve Court 3 to use the ball machine.

Quote of the Month:

"When a great moment knocks on the door of your life, it is often no louder than the beating of your heart, and it is very easy to miss it."

-- John O'Donohue, *Anam Cara*

swing, a pendulum, predominately forward and circular (around the body). Strokes produced some spin, either topspin or slice, but these shots would be called "flat" today (500-1,000 rpms or less). Strolling by any teaching court in the world circa. 1970, you would hear, "Racquet back, watch the ball, follow through." You might even hear a, "Bend your knees." If there was talk about the contact itself, it would be, "pretend you are hitting a series of four balls in a row."

Phase Two: The Second Ball Demonstration: 1975 to 1985

Low to high. This era exploded on the scene with Bjorn Borg, who at times was almost unbeatable (Wimbledon, French Open), followed by Vilas, Solomon, Tracy Austen, Sabatini, and other topspin practitioners. Old schoolers like McEnroe and Connors, Evert and Navratilova fought the good fight from the swing era, but the style of tennis changed forever. "Spin for in" was the new mantra, and it caught on like wildfire. It ushered in defensive, endurance tennis.

There was a lot of lifting, with the arms, the legs, the body. The racquet started low (as opposed to back in the previous era) and finished high, the idea was "to brush the ball." There was more topspin than had ever been seen before, but not a lot of forward power. These were players who had more control and outlasted their opponents, often giving them awkward, high bouncing balls. Rallies were longer, and the finest practitioners incredibly fit. Austen's moon balls were are real "low" [watching] er, "high" bouncing point. The arm was more raised, lifted, rather than swung forward. We still saw net players in this era (McEnroe, Martina), as the ball speeds had not become overwhelming and net play was still very possible and rewarding. Today you can watch a Boys 12 or Girls 12 and under USTA match and get a feel for this brand of tennis. Bring a pillow (not just to sit on, though that is not a bad idea either).

Phase Three: The Third Ball Demonstration: 1985 to about 2000

Still some lifting, but more and more racquet head rotation as this period developed. It started with Lendl, then Graf, Agassi, Courier, Sampras, Chang, Seles, Hingis and many others. There was much more power than in Phase Two, and these players made short work of the generation before. Of these, Agassi, Graf, Seles were kind of the transition into the next phase (Phase Four). Shorter preparation, acceleration on contact. The preparation in Phase Three was generally more of a loop than Phase Two, starting high, dropping low, with a racquet head rotation at contact, and the racquet arm finishing high again. There was more racquet head speed, more spin, and harder shots than the lifting topspinners of Phase Two. As this era progressed, a player like Chang who was closer to Phase Two was no match for Agassi who was closer to Phase Four. Players struggle to play the net against these new, powerful groundstrokes.

In Phase Three, contact was part a roll, and part a lift, with the roll increasing and the lift decreasing as the game evolved towards Phase Four. Contact was more of a point, than a contact zone or area. Offence was back in tennis, but it was attacking from the baseline, not the net.

Sampras, who often dominated this period, was a mixture of styles, with a forehand that had even Phase Four elements at times, yet a style of play almost more like Phase One (especially on grass). Sampras had a serve (the most important shot) that kept him dominate while the groundstroke game changed radically beneath him. In Phase Three we had players like Graf or Sampras who had Phase Four forehands, but Phase One or Two on the backhand side. For Example, Seles or Hingis were closer to a Phase Four Player than Graf b/c they had weapons on both sides.

Phase Four: The Fourth Ball Demonstration: Since 2000

The modern game. It is fast, powerful, explosive. Makes pre 1985 tennis look like tiddlywinks, yet there is tremendous control. Federer, Nadal, Djokovic, Murray, Wawrinka, Thiem, the list goes on and on. Nadal, the most successful defensive player of the era, hits the ball harder than anyone else. This tells you that where once control and power were opposites (Phase One and Phase Two), now they come together, in the same package. That is a huge change. The best players hit the hardest, with the most control. This was impossible with earlier styles.

The arm is rotated in the shoulder joint. There is very little lifting, and in fact, the hand is usually positioned above the contact point just prior to contact, while the racquet head is below the contact point. The arm, and thus the racquet, is rotated up, catching the ball in a predominately upward motion, but one that also involves a corkscrew or propeller element (see below), where the rotation also adds the forward drive (leverage) to the shot. Contrary to Phase One, where the stroke goes around the body, this Phase Four stroke goes around the contact point. The center of the tennis universe had changed, radically.

For topspin, the racquet strings start on the low inside part of the ball, rotate to the back of the ball and then continue to the high outside part of the ball. Almost in an orbit pattern, on an axis. The ball is caught, driven and released in a short, quick, flowing motion. The ball acts like a bullet shot out of a rifle (the bullet rotates as it leaves the barrel of a rifle as opposed to a musket where the musket ball is pushed straight forward by the gunpowder explosion).

Contact is at a precise point, not a zone or area. Long gone are the days of going through the ball, or four balls in a row (like Phase One). There is little forward or upward transition (swing or lift) with the arm at all, just rotation. In fact, through the contact phase, the hand hardly moves (forward or up) but rotates (from the shoulder). The greatest practitioners of this style, Nadal and Federer, actually reach out to contact with a straight arm. What is now called, "The ATP Forehand" in geek tennis teacher circles.

Don't be misled by the follow through (Nadal up, Fed in the hip pocket), they are the reaction, not the cause. It is the dissipation of energy (no active muscle movement, no "trying"); they are not the source of energy or force.

Biomechanics. An arm / racquet can be swung forward at about 500 degrees per second (Phase One). Lifted at about 300 degrees per second (Phase Two). And rotated at about 3,000 degrees per second (Phase Four). The modern

stroke is much more in align with how the body moves best, quickest, so the game is much faster, and that faster not only translates into power, but also into control (spin).

Today's topspin shots look flat, like the Phase One shots, but have tremendous spin that keeps them in (3,000 or more rpms, compared to 500-1000 or less – three to six times as much!), and forward speed because of it. The ball shoots off the racquet, rather than being hit (Phase One), or lifted (Phase Two).



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Physics, Not Physical. The power and speed in tennis has changed due to a shift from momentum (swing - Phase One) and lift (Phase Two) to torque and leverage (arm rotating in the shoulder - Phase Four). When we look at the muscles in the body, the muscles that swing the racquet, or lift the racquet are much stronger than the relatively tiny muscles that rotate the arm (racquet), but those rotators can move much quicker. Power is based on quickness, not on strength. Players try to be a light and loose as possible, basically as weak as possible. Tennis players look much more like dancers, runners or soccer players with lean, supple, flexible upper bodies, than weightlifters or football players with muscular arms, torso and chests. It's an advantage to be slight and quick.

The Serve. What is interesting in this discussion, is if I was to demonstrate the history of the serve through the same period, I would need really only one ball. The serve is pretty similar to the best practitioners of yesteryear. Gonzales, Kramer, Newcombe, Smith, McEnroe, Tanner did not serve significantly different than Sampras, Federer, Ivanisevic, Isner, Roddick, Raonic, and other great modern servers. It has always involved internal shoulder rotation. There have been tweaks, and adjustments, the tossing style has changed a lot over the years, the racquet take back has shortened (Thank you Mr. Roddick), but the action at contact of the shoulder, the arm and the wrist are very similar: rotation and extension.

Much More "Serving". What has happened in tennis, in those four balls, is that the groundstrokes (particularly the forehand) have become more like the serve. Because the forehand can much more replicate the service throwing motion than the backhand, virtually all players, even those who have great backhands (Wawrinka, Djokovic) all try to hit as many forehands as possible, 65-70% of the time. It's just a better throw. The one-hand backhand is a natural, Frisbee toss, but the forehand throw has real power and action (spin). Like pitching sidearm or underhand (submarine or fast-pitch softball). Even the two-handed backhand is nowhere near as powerful as the forehand. It's hard to throw two handed, much of the whip is lost by the constraint of holding on with two hands. Stronger, but less whip, doesn't help with tennis power or spin.

Tennis History. What is interesting to see is that the player who was able to figure out the next development in the game (in order): Laver, Borg, Lendl, Agassi, Federer had a huge advantage for a few years, a window of opportunity, to dominate, before the rest of the field caught up. The only one of these that was not unquestionably #1 was Agassi, and he had to deal with Sampras' serve, perhaps the greatest shot of all time. A shot that could defy time, defy progress. Serving is the ultimate throwing motion. Plus, Pete's forehand had modern elements as well, especially on the run. Only his backhand was Phase One.

In each case, once the other players of their era caught up, only Federer was able to adjust, grow, and survive to stay near the top for a long time in the next round of development. Like Sampras, he has a great serve, and a great forehand. Phase Four is where we start to see much more throwing on the backhand, and Federer really had to adjust and grow to keep up. Now we see much more external shoulder rotation on the backhand side, though it will never be the same as the internal shoulder rotation of the forehand. Good luck out there!

Tennis Tip:

The Propeller

This is another one of those tips that is better done in pictures, videos or a demonstration, than in words, but I will do my best because it is so important to real serious improvement and moving towards the modern game.

When we talk about the modern forehand, the "ATP Forehand" or Phase Four (see above), we are talking about a shot that is based mostly on a throwing motion, or shoulder rotation. There is very little swing, certainly not swinging or lifting of the arm (Phases One and Two above). So that begs the question that throws so many learners off: what makes the ball go forward, if I'm not swinging forward?

Well, first of all, we have to remember that the ball has an incoming speed, and it is hitting a trampoline (our racquet), so there is going to be some bounce back, just naturally from that. In fact, a lot of the power on a shot is really from the speed that is already on the ball, simply redirected. This is why, if you block a really fast serve, sometimes it will bounce off so much that it goes long on the other end, and you didn't even "hit it." The serve is the one shot that has to generate all its own power, but even there, the ball is bouncy, and the strings are still a trampoline.

There is bounce on every shot. We attempt to control that bounce with spin, if we are a skilled player. But we also desire to add (and subtract) speed to the ball as well. Once the ball is traveling fast, it is the spin that is required to keep the ball in play. In Phase Two above, we brushed the ball by lifting up to produce some spin. As we progressed through Phases Three and Four, there was still brushing, but it came much more from the rotating of the racquet, the racquet turning like a windshield wiper (Phase Three), or a propeller (Phase Four), than lifting the racquet or the body. How does this work?

If you consider your arm as a drive shaft on a boat, with the propeller at one end, and the engine at the other. The engine (shoulder, core) turns the drive shaft (arm) and thus the propeller (racquet) at the other end rotates. If you look at a picture of a propeller (see below), you will notice that the blades are not straight, but shaped at an angle, and with a certain curve. As the propeller rotates, parts of the blades rotate forward (drive), while other parts rotate back (drag), so that then they can rotate forward next as they come back around. The water (ball) is pushed against, propelling the boat through the water (or the ball through the air).

If I hold my racquet in a laid-back wrist position, it becomes like that propeller blade, and when my arm rotates, the racquet head is driven forward, at great quickness, like the propeller blade. The angle of the racquet is going to matter how much drive you get, so your grip (western, semi-western, eastern, continental), how flexible your wrist is, where you start the motion from (see below), is going to add or subtract force.

In essence, I have the racquet strings moving forward for a short period of time, without having to swing the whole racquet. Swinging your racquet causes all kinds of control issues in tennis, from timing, to coordination, to rebounding ball problems (Not to mention, it's hard to add spin when you swing, there is a big collision and the ball just bounces away).

In a tennis stroke, the ball only stays on the blade of the propeller (racquet strings) for a fraction of the rotation. And the arm can only rotate about 270 degrees, not 360 degrees like a propeller (see drawing below). In the time the ball is

on the strings, the turning motion drives the ball forward and up (spin). If I can time that turning of the racquet (propeller blade) at just the right time, I can unleash unbelievable power and spin (I am still brushing up on the ball, the blade / racquet is moving vertically, as well as horizontally – picture it turning like a screw or propeller).

In the crucial phase of the stroke, the racquet face goes from about 45 degrees down (height), back (depth) and in (width), to square at contact (strings pointed towards the target over the net) to about 45 degrees forward (depth), up (height) and out to the side (width). Then the follow through dissipates the force and motion generated by this turn. Note: we see a lot of variety in preparation and follow through among top players, but not much in this crucial contact phase.

While the hand stays roughly in the same place, at the end of the arm (like the hub on a propeller), the racquet tip rotating around it has gone probably four feet forward (depth), four feet up (height) and four feet out to the side (width). A ball caught in this rotation is grabbed, driven and released forwards. Leverage and torque. This is the basis of the modern game. Very different that swinging and colliding with the ball (Phase One above), which is momentum based.

This turning style is far easier to do than swinging at the ball, but it requires getting in the proper position (much of what we do as amateur

players that looks like swinging is moving our racquet to the ball because we are not in the right place). You catch and turn the ball, which drives and releases it (letting go of the ball produces a lot of the speed and spin).

Here's a funny thought: You would never imagine the drive shaft of a boat, car or plane moving around, chasing the water, road or air, and neither should your arm be chasing the ball. The ball should come to you (you "catch" it).

This means footwork, how you position yourself, as well as your judgement about the flight of the ball, are going to be essential. And yet this is much easier to play a shot successfully with this method, than swatting at the ball with a swing and spraying balls all over the court (and even beyond the fence).

What makes this so challenging to learn is: 1) we think we have to swing the racquet forward to produce force (not true), and 2) that is what we have been doing (in some cases for decades), and so it is tough to change paradigms. Yet this propeller method is far simpler, and produces much more speed, power, spin, control. A Phase Four shot.

As I often joke, "Tennis is an easy game. It's learning how to play it the easy way that is difficult." Good luck!

