

PROGRESSIVE TENNIS ARTICLE



BY Paul Lubbers, PhD is the Director of USTA Tennis Coaching Education

One of the most controversial subjects in junior development is how to teach young players, and what to teach them when, especially when it comes to grips and swing patterns. To understand the issues involved, I think it is important first to discuss two terms that are often confused in coaching. The first term is "technique." The second term is "bio-mechanics." The terms are sometimes used interchangeably. But really they are different.

"Technique" is the actual striking of the ball. Technique is related to grip and swing path and follow-through. These are things that are unique to tennis. "Bio-mechanics" refers to the underlying principles of how the body works, principles that should guide us when we look at technique. Biomechanical concepts include things such as center of gravity, balance, and loading and unloading.

When we look at children from a biomechanical perspective, what do we see? They don't have strength. They have minimal muscle development. This means they have a very low center of gravity. Because of this they can do things really well down low to the ground. But if we start asking young children to do things higher up they will start losing their balance. Five, six, seven, and eight year olds are good down low but they can't do it up high. Just watch a young child reaching up trying to catch or trying to strike a ball.

This is really important to understand when it comes to starting children in tennis. We tend to start children with an adult racket that's heavy and a ball that bounces above their head. We're asking little children to play an adult game. We think that will help them advance faster. But no other sport takes this approach. We don't play little league games in professional ballparks using major league balls and bats. It's the same in peewee football, and youth basketball and soccer, and in golf, where the course is shortened and so are the clubs.

But in tennis children start with adult equipment and balls that force them to hit the ball up high, where they are least prepared. And in order to hit a high ball what do they have to do? They have to go underneath the racket with an extreme grip. Extreme grips allow young children to hit topspin when the balls are bouncing high. They allow them to strike the ball in a way that lets them win. That's the environment we put them in. The only way you can be successful in that environment is to adapt and adjust.

It's a short-term fix. These young players are forced to try to do things they aren't ready to do physically. They can't have a good swing path, because they don't have the strength to really control the weight of the racket. The players who are successful in the 12 and under, especially the boys, are often children who mature early and are bigger and stronger than everybody else. And these players are usually not around later on, and typically don't become elite players.

Alternatives

There is another approach that teaches children a different game of tennis, a game that uses age appropriate rackets, and balls, and especially courts. Mini tennis is actually a competitive sport in most of the European countries. If you have the opportunity to watch it, you see young players with wonderfully complete games. When you give them the right equipment, they look the way you would like players to look like when they are adults. It's a powerful testament to what young athletes can do.

There is a great Belgian video that shows a group of children from six up to about ten years, hitting mini tennis balls, on a little court, with little rackets, and they look like mini pros. The video shows them having a great time playing and enjoying the game, with very sound strokes. Then the tape shows another group of children with adult rackets and balls bouncing high on a full size court, and the strokes don't look sound at all. The players are not following consistent swing paths. They are off balance; they're out of control. They are using extreme grips. The punch line is that it's the same group of children.

The video shows so clearly what young players can do when they aren't forced to use an adult racket, and hit a ball that bounces over their heads. You can actually have them looking very solid technically. You can teach them a sound grip, somewhere between an eastern and a moderate semi-western, as opposed to an extreme western grip with the hand is all the way under the handle. The fact is that if you put appropriately sized rackets in the hands of 5-year olds and show them a ready position, they can get in a good ready position. And if you ask them to turn and do a unit turn, they can get that. They can get their weight balanced. And you can start getting balls to them, for example, oversize sponge balls that bounce at their waist. Then all of a sudden they can perform a controlled swing path.

Power

You can't ask a young player to perform adult movements that they're not capable of performing. I think that's something that's really important in coaching. A common example is trying to get young players to hit the ball really hard. Let's say a young player has a good swing path and looks solid. So you start asking the player to hit the ball harder. But the player doesn't have the core strength or the leg strength to develop force. And so trying to develop force, all of a sudden, technique goes away and the player starts doing something very different with the body to generate power.

You can teach young children grips, the unit turn and contact and swing paths. But you have to be extremely careful when you start working more on the power and racket acceleration to generate different types of spin. This includes teaching pro backswings and follow-throughs. The follow-through for young children is going to look a lot different than the follow-through for adult performers, because the children don't have the muscle strength to decelerate the racket as quickly.

A child who tries to rip the ball with incorrect technique can end up with injuries and long-term damage. The analogy is the history of the curve ball in little league. It's against the rules now. But a lot of young pitchers had promising careers cut short by throwing curve balls before their bodies were ready or strong enough. In extreme cases, the elbow can actually fall apart and require reconstructive surgery.

We have to be careful when we ask children to follow pro models. Elite players are physically mature and can do things that young children cannot. Another example is the use of the legs in the serve. You see a deep knee bend in the serve if you look at Sampras or Roddick or Federer, or Henin-Hardenne. But most young players don't have leg strength to imitate this.

There are many things that young players can model from the pros. Balance, ready position, and head position for example. Young players can work on footwork patterns, the split step, the crossover step, the recovery step, and moving forward. But these things are based on technique of movement rather than increasing the loading in the muscles.

We lose a lot of young people in tennis in this country because they can't succeed. It's not fun. The game as it's taught doesn't link to where they are physically, mentally and emotionally. I think it's clear that when you teach the game in an age appropriate manner you're going to have better athletes with proper fundamentals. If we had organized mini tennis, it would allow us to evaluate the potential young players more accurately. It would give us a chance to have a broader base of players.

It's probably not a coincidence that smaller countries with developed mini tennis programs including Belgium and other European countries have produced great players with one-handed backhands and all court games, players like Justine Henin-Hardenne. With the adult rackets, a two-handed backhand and a baseline style is almost mandatory. But if the court and the equipment are tailored to the developmental stages of the players, then they can learn to hit one-handed backhands if that's their preference and play a complete game.

This is something that we are talking about seriously at the USTA. What would be the benefits of incorporating mini tennis in the structure of competitive tennis in the United States? In the future it's possible we could have sanctioned 10 and under mini tennis events at the sectional level, as well as a developed curriculum about how to teach it.

Potentially it's a better way to start and a healthier way to start. If we change the structure a bit and start making tournaments available then coaches would become involved, and this could change the culture of how tennis is taught in this country. I think it links to the mission of the USTA to grow the game because children who get into tennis will stay with it because it's fun, and because they can be successful. All of a sudden you can have a junior development program that doesn't just start at age 12, you can have a junior development program that starts at 6.

This goes back to the 10-year or 10,000 hour development model we talked about in the first article. It ties in with educating parents. We have to realize that winning and success at an early age mean nothing. Real success is learning appropriate skills and fundamentals and having fun in the 10-14 range.

Helping families understand this, could be another potential benefit of developing mini-tennis in this country. You will have parents coming in at a younger age so you actually have an opportunity to teach them about long-term development and what it means and what's going to give their children the best chance to succeed in tennis and to enjoy playing their whole lives.

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Before coming to the USTA, Paul was a working teaching pro for 5 years in Atlanta, Georgia. He was also a Division 1 college tennis coach for 8 years at the University of North Carolina, Greensboro, where he received his PhD in exercise and sports science.