

Introduction

by Tom Gullikson

The annals of tennis are filled with stories of overbearing tennis parents at all levels—junior tennis, high school, college, and the pros. However, it is possible to be both a parent who coaches and a parent who supports, while making it a rewarding experience for everyone. The key to doing this is understanding your role—as a parent, coach, and supporter.

Often when parents and offspring come together in pursuit of sports, all perspective, as well as fun, goes out the window. Not every child is going to be a Pete Sampras or Venus Williams. I hope that reading this book will help you as parents, and your kids as well, to understand what your respective roles are and how to keep it all in perspective. Two chapters in particular, Chapter 2, “Keeping Your Child’s Tennis in Perspective” and Chapter 3, “Helping Parents Make Good Decisions,” deal with this topic. Your role may change over the course of your child’s tennis-playing years, but you should never lose sight of the fact that you are first and foremost a parent and that your child needs your love, support, and guidance.

As a parent, your primary goal is to do what’s best for your child. You may need to ask yourself some difficult questions: “What is truly best for my child regarding tennis?” “Am I forcing him or her to play for me?” If the answer to the second question is “Yes,” it’s time to pull back and let a trusted coach take over.

I introduced my college-age daughters to tennis when they were

about 4 years old. They were never nationally ranked; they never played on the pro tour. But we had a lot of fun as a family playing tennis with them and watching them play high school tennis. FUN is the operative word here.

As a parent-coach, I made it very clear from the beginning that when we were on the court, I was the coach. I expected them to respect me and listen to me as they would a teacher at school. Off the court, I was their dad, a sucker for stopping for ice cream on the way home from the courts! There's no question that it can sometimes be difficult to separate the two roles. Hopefully, this book will help you to do that too.

If you're a parent-coach, you almost need to announce which hat you're wearing. If you just watched your son play a poor match and lose at a high-level event, it's okay to be disappointed that he didn't play up to his potential. But, as a parent, you need to accept it and move on. I always allowed my children (and, for that matter, any player I coach) a half hour of what I call temporary insanity after a match like that, after which



I'd say, "Okay, I'm going to put on my coaching hat for a few minutes. Let's talk about what happened on the court." After explaining what I felt happened and how they might correct their mistakes the next time, I'd take off my coach's hat and give them a hug.

Learning the basics. Most kids are introduced to tennis by their parents. You need to teach them right away that the basics of the sport are having fun, competing with honor, and having the right attitude toward the game and their opponents. Don't force your sport down their throats. It may make them turn away from it. Emphasize the social aspects of the sport from the very beginning. Group play is one way to do this and to increase the fun quotient at the same time.

Don't be afraid to push a *little*. In a perfect world, every youngster would have a great vision and dream for himself, coupled with the motivation and discipline to carry out an action plan to make it a reality. That is a dream! In reality, a parent or coach or both have pushed most good players. It's knowing how far to push and when to stop that's key, and this book addresses those issues.

In addition to knowing how far to push and when to stop, a parent or coach needs to know at what age it's appropriate to introduce

certain tennis skills and drills. Research tells us that a 5-year-old doesn't have the necessary physical or emotional growth to refine tennis skills or grasp abstract concepts, whereas a 15-year-old does. Chapter 4, "Child Development: Its Impact on the Young Tennis Player," provides some broad guidelines for understanding and working with your child at each stage of development.

Playing other sports. Don't be discouraged if your child drifts into other sports. Most kids want to try other sports, but come back to tennis. One trend in tennis that we've seen over the years is that talented tennis players are often gifted athletes in other sports as well. Playing volleyball, soccer, basketball, or baseball will only have a positive carry-over effect on your child's tennis.

Finding the right coach. At some point, it may become apparent that your child has some real talent and a desire to pursue tennis seriously. Once in this competitive track, your role will change. You will need to find some good local coaching. Taylor Dent, one of our very talented young players, was coached from childhood by his father, the great Australian Davis Cup player Phil Dent. But Phil recently turned over the reins to Eliot Teltscher. Why? Because it was time for Phil to step back from his coaching role and to really enjoy his son's success as a dad in the stands. And who has handled his talented child better than Tiger Woods's dad, Earl? He introduced Tiger to the game and coached him until it became apparent he needed high-level coaching. He then graciously stepped aside and turned him over to Butch Harmon. The rest is history.

Chapter 5, "The Role of Tennis Coaches," will help parents evaluate and choose a coach for their child. Your role will now become one of support and guidance—financial, emotional, and logistical. Planning tournament trips, worrying about meals, booking hotel reservations, and providing transportation are all a lot of work.

Playing competitive tennis: How the USTA can help. The U.S. Tennis Association (USTA), the national governing body for tennis in this country, is an invaluable resource for parents of competitive tennis players. The USA Junior Competition Department manages the USTA's national junior competitive tournament system and national rankings. This department also oversees any International Tennis Federation (ITF) events held in the U.S. and the prospective college student-athlete education program. You and your child will need to do your homework

and learn all you can about the way the USTA ranking and competitive systems work. Chapter 6, “Competing in Tournaments,” and Chapter 10, “About USA Tennis Player Development,” provide must-know information on these topics. “About USA Tennis Player Development” also explains the important roles of the USA Tennis Coaching Education Department and the Sport Science Department, both part of the USTA.

Setting appropriate goals. Well-known sport psychologist Jim Loehr said it best: “As coaches, we have to be seekers and deliverers of truth.” That applies to us parents and our children as well. You need to consider:

- *Does my child really want to play tennis or is this my dream?* A child needs to play for himself to enjoy it and be successful.
- *What are his or her goals in playing tennis?* Maybe it’s to make the high school team. Maybe to play well enough to get a college scholarship. Or maybe to go for a national ranking or even to take a shot at the pro tour. Whatever the goal is, you need to be honest about whether it is realistic. A good coach will help you answer this question.

Since the above-stated goals are quite different, they each need a plan of varying intensity. You, your child, and his or her coach will need to set up that plan and determine how to carry it out. Questions of financial commitment, physical training, perhaps even of whether to make special school arrangements or to attend a tennis academy, will need to be considered.

- *Is my child as talented as I think?* If you’re hiring a coach to tell you only what you want to hear, then you’ve got the wrong person. You as the parent and your child’s coach should respect each other enough to be honest with each other. Statistics show that less than 1 percent of players on the junior circuit will go on to make a living as a professional. But if you’ve got a potential Sampras or Williams on your hands, make sure your coach is talented and creative enough to work with him or her at a competitive level, while keeping the fun in the game. To play the best tennis, you have to enjoy it. A good schedule that combines competitive training with the three Rs—rest, recreation, and recovery time—gives your child the best chance of reaching his or her optimum potential as a tennis player.

And while we're talking about goal setting and preparation for competitive play, your high school freshman, sophomore, or junior should start planning for playing tennis in college now. Chapter 7, "Preparing for Collegiate Tennis," provides information on selecting a college with the right tennis program for your child as well as helpful guidance on obtaining scholarships or financial aid.

Staying fit and healthy. This book should help you answer many of the questions and solve some of the problems you'll encounter as the parent of a tennis player. In addition to those already mentioned, Chapter 8, "The Sport for a Lifetime: Health Benefits of Tennis," outlines the many health—both physical and emotional—benefits of playing tennis; Chapter 9, "Injury Prevention," explains how to avoid injuries during the game; and the Appendices provide useful information on the USTA's Anti-Doping Program and an abundance of recommended resources and reference materials.

Fostering Independence. Just as in all aspects of life, you will find that your role as a tennis parent changes over time. After you've spent years being the chauffeur, chaperone, supporter, planner, goal-setter, and motivator, there comes a time when your youngster needs to take on these responsibilities himself.

As parents, we have a role in virtually every step of the way toward our children's independence in decision making. Teach them ethics and sportsmanship. Make sure your child knows you value him or her as a person, win or lose. Never trivialize trying to win, however, but emphasize winning with honor because the pursuit of victory with honor is what you strive for in sports and life. You'll be pleasantly surprised to find that those lessons and the discipline and hard work of becoming a good tennis player teach life skills that last as long as this sport of a lifetime.



Keeping Your Child's Tennis in Perspective

by Paul Lubbers, Ph.D.

Tennis parents play a vital role in the development of their children as it relates to participation in sports. In order to have a positive impact on their development, parents, like the coach, need to understand why their child wants to participate. A recent study that examined the reasons children participate in sports found the two most important reasons were to have fun and to improve skills. Other reasons for participating included to be with friends and to make new ones, to experience the excitement of competition, to succeed or win, and to exercise or become fit. When parents understand why their children want to play tennis, they are able to help them meet their goals, which is fundamental to a child's success on the court.

YOUR RESPONSIBILITIES AS A TENNIS PARENT

Participation in tennis often requires parents to take on a more active role than just getting their child to practice on time. In assuming this active role, it may be useful to examine the following list* of some responsibilities of a tennis parent.

- Encourage your child to play tennis, but don't pressure them.

*Adapted by permission from American Sport Education Program, *SportParent* (Champaign, IL: Human Kinetics, 1994), 29.

- Understand what your child wants from tennis, and provide a supportive atmosphere for achieving those goals.
- Set limits on your child's participation. Don't make tennis everything in your child's life.
- Make sure the coach is qualified to guide your child through the tennis experience.
- Keep winning in perspective, and help your child to do the same.
- Help your child set challenging but realistic performance goals, rather than focusing only on "winning the game."
- Help your child understand the valuable lessons tennis can teach.
- Help your child meet responsibilities to the team and the coach.
- Discipline your child when necessary.
- Turn your child over to the coach at practices and matches—don't meddle or coach from the sidelines.

MODELING GOOD SPORTSMANSHIP

Children are good imitators. They become what they see and hear. Tennis is based on mutual trust and respect among players and coaches as well as adherence to the rules of the game. In today's sports world, good sportsmanship is not always the norm. But for young athletes to reap the rewards of their sport, when losing as well as winning games, they need to make good sportsmanship a way of life. Parents, more than anyone else, affect their children's behavior. To encourage good sportsmanship among their children, parents should speak and act in a manner that will encourage positive modeling. See page 8 for some guidelines for a tennis parent's conduct.

HELPING TO DEVELOP A WINNING PERSPECTIVE

Every decision parents make in guiding their children should be based first on what's best for the child, and second on what might help the child win. Stated another way, this perspective places *athletes first, winning second*. We're not saying winning is unimportant. Winning—or striving to win—is essential to enjoyable competition. Pursuing victory and achieving goals are sweet rewards of sports. But they can turn sour if, through losing, you or your child lose a proper perspective regarding

playing the game of tennis.

Maintaining a proper perspective can help some children achieve even more than they would if they were consumed with the idea of winning. An obsession with winning often produces a fear of failure, which can result in below-average performances and upset, sometimes even seriously troubled, children.

Helping Your Child Set Performance Goals

In working with your child, it is better to emphasize *performance goals*—those that emphasize individual skill improvement, such as foot work or the forehand—than the *outcome goal* of winning. Performance goals are in the athlete's control and help the athlete to improve his or her game, whereas an outcome goal of winning is only partially under the control of any one individual. Outcome is also determined by many situational factors such as the condition of the equipment and court, weather, the health of the players on a given day, and luck. Performance goals should be specific and challenging, but not too difficult to achieve.

You (and your child's coach) should help your young athlete set performance goals and focus on them before a game; this focus will help make the sport an enjoyable learning experience for your child. If you can't attend one of your child's games, don't just ask, "Did you win?" afterward. Instead, ask *performance-related* questions, for example, "Did you get your first serves in?" and "Were you able to shorten your stroke as you got closer to the net?"

Positive Conduct for a Tennis Parent

- ✓ Remain in the spectator area during competitions.
- ✓ Don't advise the coach on how to do the job.
- ✓ Don't coach your child during the contest.
- ✓ Help when you're asked to by a coach or an official.
- ✓ Show interest, enthusiasm, and support for your child.
- ✓ Don't make insulting comments to players, parents, officials, or coaches of either team.
- ✓ Keep control of your emotions.
- ✓ Don't drink alcohol at a match or come to one after having drunk too much.
- ✓ Thank the coaches, officials, tournament director, and other volunteers who conducted the event.

Adapted by permission from American Sport Education Program, *SportParent* (Champaign, IL: Human Kinetics, 1994), 30.

Working with the Coach

One of the key factors that can contribute to a child's success on the court is a healthy coach-player-parent relationship. Open lines of communication between parents and coaches are a must if the child's welfare and development are in the forefront. Utilizing a team approach where parents are aware of their role and responsibilities can lead to the creation of an environment where positive growth, learning, and development are possible.



Helping Parents Make Good Decisions

by James E. Loehr, Ed.D., and Stan Smith

To gain a high level of proficiency in tennis, young players will spend literally thousands of hours of their critical developmental years practicing and playing tennis. The game of junior tennis places great demands on players physically, emotionally, mentally, and even spiritually. Within the right context, these dynamic forces can become powerful catalysts for personal growth and contribute to the depth, dimension, and maturity of the developing player. The critical qualifier in the preceding sentence is “within the right context.” We’ve all witnessed the consequences of over-training—a nearly endless progression of injuries and physical breakdowns, some of which can have lifetime consequences. We’ve also witnessed the prima donnas, impossible egos, unconscionable cheaters, and disrespectful tyrants who denigrate themselves and the game with their tempers and immaturity. From our more than thirty years of experience with young players, we believe the foundation of “within the right context” lies in good decision making by parents.

DECISIONS, DECISIONS, DECISIONS

Who should be my child’s coach? My child won but called several balls out that were clearly in—should I say something? What should I do when my child uses profanities on the court? Is it normal to have so many injuries? My son wants to quit tennis. Considering all the

time and money invested, should we let him just walk away? How can I not be upset when my daughter plays so badly? Questions such as these require constant decisions on the part of parents, decisions that can profoundly influence the growth and development of their children, both personally and athletically.

In this chapter, we will attempt to answer these and many other questions and to outline what we believe are the most important considerations in making the right day-to-day decisions regarding your son's or daughter's tennis.

One of the first decisions you can make is to **take your kids out on the court and play with them**. You don't have to be a teaching pro or even a good player to show your kids how much you enjoy playing the game yourself. If you share an enjoyable experience, your kids will see what a great game tennis is and want to play some more. No matter what level of player you are, keep these introductory sessions short and fun. As children develop in both interest and skill level, it's good for them to play in clinic situations where they will meet and play with kids their own age. Group play not only makes it more fun, but also helps children realize that tennis is not an easy game for anyone to learn. Without this experience, they might think they're the only ones not picking it up fast and get discouraged. As the child's game improves, he or she will need appropriate individual and group lessons. Regardless of age or level, always remember that young people need a good combination of drilling, playing, watching, and just plain fooling around with different shots and games on the court to enjoy the game and take it up for a lifetime.

Above all else, make decisions based upon your child as a person, not as a player. The real measure of success in tennis, when it is all said and done, is the impact it has on your child's long-term health and happiness. Any tennis success that compromises your child's future health or happiness is, in reality, a failure. The parent's primary role is loving and caring for the child, no matter what he or she chooses to do. There is a fine line between enthusiastically encouraging and pushing the child too hard. Children need to know you still love and support them even when they are not successful on the court. It is easy to get carried away with wins and to tell your children how great they are and how proud you are of them. The problem with this is that when they have a tough loss, they may get the feeling either subtly or unmistakably that you don't love them as much and are not proud of their effort.

Tennis is a game, not a job. A primary component of tennis should always be to have fun. When the fun stops, trouble is not far behind. The first thing to remember is that kids take up the game originally because it is fun, and that should be the driving force that keeps a player in the game. As a parent, downplay the discouraging days and emphasize the fun moments around the game and on the court. One way to keep it fun while playing tournaments is for you and your child to take some time away from the court to enjoy other activities—play miniature golf, go for a boat ride, visit a mall, or enjoy a movie. Taking a tennis buddy or two along makes it more fun. It also provides an opportunity for young players to get to know each other, so that they'll realize they're all much the same and they won't view each other as the evil opponent. Sometimes these activities will be the highlight of the weekend so a bad couple of days on the courts won't ruin the experience.

In making decisions, constantly pose the question: "Do I like the person my son or daughter is becoming because of tennis?" Tennis places great demands on players emotionally and spiritually. Parents need to be involved to ensure proper moral development. For example, line calling in matches is a challenge for junior tennis players. Parents can use this challenge to accelerate moral growth and development. Parents must insist that their children call the lines fairly and not resort to cheating to win matches. This is a vital lesson that will carry over into all aspects of life. Most kids who cheat do so because parents put too much pressure on them to succeed. Parents must resist the temptation to encourage their children to be dishonest on the court. Instead, they should encourage them to play hard but to always be fair. The highest measures of success should always be sportsmanship, personal ethics, and respect for one's opponent.

Remember, tennis is for your child—not for you. Before making important decisions regarding tennis, remember that the needs of your child come first. Don't use your child's success in tennis to fill your own unmet needs for success and recognition. This is a fairly common mistake parents make that can have tragic consequences. It is easy to get so wrapped up in your child's activities that you forget it is his or her life and not yours. Some parents may try to meet their aspirations through their kids. They may have been frustrated athletes themselves and are now getting *their* needs met through their child's

activities. When there is a loss, they feel it is *their* loss—their self-esteem is threatened. It may even be a case of wanting it more than their child does.

Make decisions that ensure consistent, high-quality recovery for your child to prevent burnout. Proper recovery from the stresses of tennis requires adequate sleep, proper nutrition, sufficient hydration, ample time with friends, and time to decompress. Don't talk tennis non-stop. Know the signals of over-training and intervene when you suspect a problem is mounting. Tune into your child's fatigue, constant injuries, frustrations, negativity, and low motivation.

Consider having your child play other sports while he or she is young. This not only can be fun, but we believe it is beneficial to the development of a good tennis player. Other sports develop aspects of movement, coordination, eye-hand control, concentration, power, and balance. This form of cross-training will help realize the ultimate potential of the tennis player. Many great tennis players played soccer or basketball when they were young. The amount of participation in other sports should be geared to the child's interest level and the time needed to work on tennis. Besides being helpful for overall athletic development, it is fun to participate in a team sport and helps to prevent burnout.



Becoming a successful playing professional is a great goal but one that is not likely to be achieved. If all the sacrifices, time, and money invested can only be justified if your child becomes a successful touring professional, you're on a collision course with disaster. Make the investment for the right reasons. Consider all the time and money spent on your child's tennis as an investment in his or her development as a person—not as a career investment or as the primary strategy for securing a college scholarship.

Use tennis to help children learn to deal with stress constructively. Mistakes in tennis generally do not have catastrophic consequences; nevertheless, the game generates plenty of stress. Parents need to help their youngsters learn to deal with these stresses in a healthy way. Parents should emphasize that winning or losing is not

the most important thing, rather it's preparing fully for the match, competing at 100 percent capacity, and enjoying the battle. A parent can empathize when his or her child loses a match, while communicating that how the child responds to the loss is far more important than the loss itself. And it should go without saying that parents should NEVER be an additional source of stress by putting undue pressure on their children to win or by overreacting to a loss.

Foster independence on and off the court. Encourage your kids to take responsibility for their match and practice times and for carrying their own gear. As your children get older, they should have more and more input into their practice sessions. This will help them to accept responsibility for their tennis development and to be more proactive and self-directed both on and off the court. There will be a deeper commitment and satisfaction if they are more involved.



Encourage your child to become more thoughtful about what went wrong during a match. As a parent or coach, it is easy to give an opinion of a performance as soon as a player walks off the court. It's best to refrain from doing

this. First, the player needs some time to cool off and possibly to be alone for a little while. When your child is ready, let him or her describe the match play before you give your opinion. Through articulating what went on, players learn a lot about their game and you learn quite a bit about what they're thinking, which might be totally different from what you originally thought. This is part of the process of learning, understanding, and improving one's own game.

The old cliché that you learn the most from losing is generally true—if you have the right perspective. It is understandable for players to be upset when they lose a match as long as they cool down in a reasonable amount of time. We have never known a great player who does not find losing painful. You should console your child, but allow him or her to be a little upset too. The main thing to remember is that the learning process is exactly that—a process. A heartbreaking loss can be a positive turning point if it is handled correctly. Every tennis year will be filled with ups and downs. In fact, only one person

wins a tournament each week, and the losses make the wins all the more enjoyable.

Promote and encourage team activities. Doubles is a great way to share time on the court and to learn to work together. Team competitions are available to players from juniors all the way up to the pro level. Playing high school tennis or for a club team adds to the tennis experience. Not only is it more fun to win and lose as a team, but players learn that their teammates all share the same aspirations and fears. All-star teams are particularly good because they are made up of kids who frequently compete against each other. As a parent, foster the view of fellow competitors as friends and teammates working together instead of against each other.

Provide opportunities that might instill a deep love for the game. For example, take your kids to tennis events that are several skill levels above their abilities. This might include a high school or college match or a pro tournament. They may be inspired and become motivated by seeing an exciting match, and they also may discover a role model for their game style or behavior on the court. Encourage your kids to take some of their buddies along with them so they can interact and have fun as they watch. By going to the match or tournament together, you demonstrate that you enjoy the game as well. You will also have something to talk about that you and your child will enjoy discussing.

Child Development: Its Impact on the Young Tennis Player

by Ronald B. Woods, Ph.D.

It is critical that parents and coaches understand the growth and development process in order to provide helpful guidance and assistance for the young tennis player. All children pass through various developmental phases; behavior that may appear abnormal is in fact often age appropriate.

This chapter describes the significant stages that children pass through physically, mentally, emotionally, and socially at different ages and provides some broad guidelines for understanding and interacting with them at each stage. For this purpose, we have established the following age groups: 3-7, 8-11, 12-15, and 16-18.

PRINCIPLES OF CHILD DEVELOPMENT

The goal of parents of young tennis players should not be to produce a young superstar but rather a healthy, full-functioning adult. As a tennis philosophy, parents should strive to assist their children to reach their peak potential as mature athletes and to foster a lifelong interest and appreciation of the sport. In order to do this effectively, parents need to keep the following principles of child development in mind.

- **Children should not be treated as miniature adults.** Their challenges are much different than the challenges of adult life and their confidence and skills are in the delicate process of just being formed.
- **Consider the “whole child”** rather than just a part or even the sum of the parts. Physical characteristics influence social development and both may influence mental or emotional development.
- Although stages of growth and development are age-related, **they are not determined by chronological age.** Children progress through the stages at their own rate of development.
- Parents and coaches should realize their impact on children as role models. **Young people copy the behavior they see.**

AGES 3-7

During the 3-to-7 age range, children refine basic locomotor skills such as running, jumping, crawling, twisting, turning, rolling, hopping, and skipping to name just a few. They also learn to throw and catch a ball, which are prerequisite skills necessary for learning striking skills with a paddle, racquet, bat, or other object.

Children this age like playing simple games with few rules and games that demand a high level of physical activity. Coaches and parents will be more successful if they demonstrate tasks or skills to be learned than if they use extended verbal instructions that children find hard to understand.

Concrete instructions that do not require abstract thought work best with children in this age range. These kids are very egocentric and busy classifying the world they live in by time, space, and quantity. They seek reasons for things they encounter, answers to questions, and solutions to problems. Coaches can help children learn by encouraging, asking questions, and setting up situations that require them to explore. You might ask them to try different ways of throwing



and catching, bouncing a ball, or striking a ball.

Social skills are developed through both thinking and feeling. At this age, children tend to enjoy playmates of the same gender, and they may struggle with playmates over toys, space, and a chance to be in charge. Discipline involves setting limits, establishing rules, and bestowing punishments or rewards for behavior.

Tennis instruction should take into account the general principles outlined above. Whereas basic tennis technique can be acquired, the emphasis should be on having fun, keeping active, and playing modified or lead-up games. Too much emphasis on skill refinement would be wasted at this age, since children are not yet capable of the fine motor control required nor have the intellectual interest in doing so.

AGES 8-11

Middle childhood is a period of relatively slower growth, with children near the end of this age range showing wide variations in physical maturity. Boys and girls are similar in physical ability and, in fact, girls may outshine boys in some physical skills at this age.



The best way to ensure continuing improvement in physical skill development at this age is to expose children to a wide variety of sports, games, and activities. This is not the time to specialize. Even anxious parents and coaches should realize that all-around physical skill and motor development provide an excellent framework for a more narrow focus on a particular sport later on.

Performing concrete mental operations is characteristic of this period, when kids like to collect, classify, combine, and operate with things and ideas. Children this age often appear to have endless energy, enthusiasm, and a vast capacity to learn. Adults are seen as dispensers of the truth, and kids will typically do what is asked of them. They will make a sincere effort to follow the rules and to win the approval of others.

During the 8-to-11 range, the child's self-concept is being formed. Therefore, it is important for children to have positive learning experiences, to feel that they are accomplishing tasks, and to appear competent to adults and peers. Social interactions are influenced by

family values, socioeconomic status, and opportunities for a child to act independently.

The growth layers of the skeletal system are developing during these years, and injuries may be serious. Strength training should primarily be done by using the player's own body weight (sit-ups and push-ups), rather than through weight lifting. Flexibility training at this age will help prevent joint movement problems later on.

Tennis experiences should be geared toward learning the skills of the game within the context of the sport of tennis. That is, the "game approach" is perfect for this age as children struggle to understand how all the shots fit together within the sport. Fundamental skills should be refined and reinforced to provide the sound foundation upon which to build a more complete game. For example, if only one kind of shot is practiced, players can't gain the confidence acquired by experimenting with a variety of shots and patterns and further development may be blocked.

AGES 12-15

The single most important event in the lives of children as they prepare for adult life is the onset of puberty. Simply defined, puberty is the period of time during which a child becomes a person capable of producing offspring. Adolescence begins at the onset of puberty and typically lasts somewhere between eighteen months and six years. Puberty can start as early as 10 years or as late as 18 years of age.

For girls, the specific event of menarche is usually considered to be the point of sexual maturity. Boys have no such specific event, although production of spermatozoa is sometimes used as a marker. In the general population, puberty in both girls and boys is reached earlier today than in previous generations. However, as with many other athletes, female tennis players tend to reach puberty later—at a median age of 13 years—than girls in the general population who reach menarche at a median age between 10 and 11. Female gymnasts, by comparison, reach puberty at a median age of 15. Physical growth is fastest during the first two years of puberty, with girls experiencing this growth approximately two years before boys. On average, girls reach full adult height at 16, while boys reach it at 19.

Up to age 10, boys and girls tend to be the same height on average. In the next few years, girls will quickly jump ahead as they reach puberty, and it will take boys several years to catch up and finally surpass

the girls. There are often huge differences in the height of children of the same chronological age that can lead to self-consciousness and lack of confidence. During periods of rapid growth, the center of gravity changes in relation to the body and this may affect overall coordination and tennis performance. You may notice regression in skill during a growth spurt, especially when some body parts (like hands and feet) seem to enlarge almost daily.

Mental development now exhibits a pattern of moving from concrete operations toward more formal thought and logical operations. The early adolescent can grasp abstract ideas and is able to develop concepts about which he has no real experience. Moral reasoning progresses too from just following the rules to understanding acceptable behavior within one's social group.

Social development during adolescence is strongly affected by one's peer group. Peers have their own culture, and kids must conform to the group or risk exclusion. Groups are fluid and change frequently as teens try on roles and reputations. A danger sign at this time is for tennis players who begin to confuse their self-worth with their results in competition or ranking. It is not until later in adolescence that young people begin to develop a more mature sense of identity and self.

Tennis coaches and parents should realize that tennis might have to take a back seat during this time of change. Success in tennis may vary widely as early maturers dominate play and late maturers despair of ever catching up. Matches within narrow age groups, such as the 14s, may feature a 5'10" "man" versus a 5' boy! Females may struggle with body image issues, eating disorders, and emotional unsteadiness.

At the same time that all this change is occurring, the final foundation for elite tennis players must be put in place. The skills that are learned and reinforced during these years will typically change little in the years ahead. Players must experiment with a variety of playing styles and they need help in selecting one that works best for them and is fun to play.

AGES 16-18

Because girls mature at a younger age, they often reach a plateau early and may become discouraged with their rate of progress in playing the game. It is not unusual to see junior girls begin to lose interest in tennis at this age, while many boys are just entering an

enthusiastic stage of commitment.

An aggressive training program can spur progress in coordination, strength, speed, power, and endurance. Teenagers may show terrific intensity toward a goal and a commitment to be the best they can be. At the same time, they may abuse their bodies with illegal substances, lack of sleep, and a poor diet and yet believe their behavior will have no effect on their game.

Intellectually, young people are capable of advanced reasoning and assimilating large amounts of data. They often question authority, history, and tradition in an effort to find their own sense of life. At this age, thought processes are typically more advanced than social skills and emotional development. Any parent with a teenager who is a new driver will attest to the fact that physical and intellectual readiness to drive does not offset maturity and experience factors.

Whereas the peer group continues to be the most influential social circle, young people begin to move toward more self-reliance and independent thought during this stage. Even if “everyone else is doing it,” the mature young adult may choose not to join in. Parents and coaches must reinforce that emerging independence if they want to assist the transition toward a responsible adult.

Decisions about college begin to impinge on the adolescent, along with the challenges of driving, dating, drinking, drugs, and perhaps a part-time or summer job. Parents need to be involved, interested, and supportive, while not making all decisions for their kids. Just listening as adolescents try out various scenarios is often all that is needed.

Tennis development at this stage depends a great deal on what has occurred at earlier ages. For gifted exceptional athletes, the time has come to make life choices about intense training and competition. A decision to turn professional and postpone college may be imminent. However, for the vast majority of players, this is the time for them to round out and strengthen their game in order to compete in high school and college. Players need to adopt a style of play and master the patterns of play. Competitive skills must also be enhanced as learning to cope with pressure, the environment, difficult opponents, and uncertain situations are all valuable tennis and life skills. In addition, the vigorous physical training required for competitive tennis will positively affect other areas of living as well.

SUMMARY AND CONCLUSIONS

Parents and coaches should learn all they can about the normal path of development of young people. Studying the general trends and characteristics of each stage provides a good foundation, with the understanding that each individual moves through the stages at a different rate. In fact, a young man may be physically more mature than his peers yet lag quite a bit behind others emotionally. Parents and coaches must not expect too much of a young person simply on the basis of physical maturity.

Parents need to talk to their children's teachers and coaches to learn what their behavior is like in school and on the court and how it compares to normal standards of development for the age in question. If parents compare notes with other parents it can help to keep them from overreacting to situations or behavior that may be "normal" at a particular age. There is some comfort in knowing that others are struggling with similar challenges.



Coaches will benefit by working with players of all ages so they become familiar with the natural progression of development. They often exhibit more tolerance for the immature young player when they realize the behavior is just a stage that will quickly pass. It's also important for coaches to understand at what point in physical and emotional development a player can handle gross or finer motor skills, comprehend more intricate patterns of play, and deal with the frustrations and successes of competition.

Finally, if the goal is to raise independent young men and women who can cope successfully with the outside world, they must be allowed to make decisions and mistakes within limits that provide for their safety.

The Role of Tennis Coaches

by Nick Saviano

Young athletes are strongly influenced by their coaches. Coaches affect how much players enjoy the sport and how they learn new skills and strategies, develop psychologically and socially, and approach competition. In addition, they are powerful role models and, as such, face tremendous challenges and responsibilities. Because of the nature of the sport, which involves a great deal of one-on-one interaction between the coach and athlete, the impact of a tennis coach is even more significant.

The USA Tennis Coaching Education Department's philosophy regarding the role of the tennis coach puts the athlete first and winning second. This means the overriding priority of a coach should be to help young players reach their maximum potential as people through a commitment to excellence in tennis. All players should be treated equitably and with respect for their inherent individual worth. The long-term welfare and happiness of players should be valued more than the results or rewards of the moment.

It is the parents' responsibility, when their children are young, to evaluate whether a tennis coach can work well with young athletes and create a positive and productive experience for them.

KEY RESPONSIBILITIES OF A TENNIS COACH

The tennis coach has many responsibilities when working with young players. Here's a list of qualities and skills parents should expect their child's tennis coach to have.

Role Model. The coach needs to be a good role model who teaches and models behavior that reflects desirable basic values.

Communication. Coaches need a communication style that allows both player and parent to feel comfortable raising concerns and expressing needs. They should use non-threatening language and adapt teaching methods to meet the needs of each individual so that he or she can reach maximum tennis and growth potential.



Skill Instruction. Coaches should be able to effectively demonstrate and explain skills to players using clear and understandable terms. Whether teaching an individual or a group of players, a coach should be skilled at conveying the fundamentals of the sport. Skill development is a major reason kids play—

most want to improve their abilities.

Knowledge of Technique. Coaches should be able to understand, distinguish, and explain the impact/benefit of the fundamentals of technique for each stroke and be capable of guiding the player to learn those skills.

Evaluate and Improve Technique. The coach needs to be able to evaluate and analyze stroke production for technical errors and deficiencies, determine the cause, and help the player make corrections using the appropriate principles of learning.

Learning Progressions. The coach should know appropriate learning progressions in tennis and systematically instruct players as they progress developmentally in the skills of tennis.

Drilling and Training. A coach should be proficient in the execution of tennis training and drilling techniques.

Strategy and Tactics. Ideally, the coach should understand how to strategize and develop tactics and have the necessary skills to help the player to execute the strategies and tactics developed in competition.

Coaching Philosophy. As mentioned earlier in this chapter, the overriding priority of a coach should be to help young players reach their maximum potential as people through a commitment to excellence in tennis. All players should be treated equitably and with respect for their inherent individual worth. The long-term welfare and happiness of players should be valued more than the results or rewards of the moment.

Sport Psychology. It is helpful if coaches understand the basic principles of sport psychology and attitudes toward competition and how they affect players. No child or young person comes to tennis with the same psychological makeup or aspirations as another. Coaches need to respect differences and understand what motivates each child he or she coaches.

Player Backgrounds. To be effective, a coach must treat all children fairly and equitably regardless of their social, economic, religious, or racial background and ensure that all players do the same.

Growth and Development. Coaches should understand the basic developmental growth and maturation stages and apply this knowledge when working with young players. For example, a 6-year-old child is not capable of the fine motor control required to refine skills, while a 13-year-old child usually is.

Sports Medicine. A coach should always be aware of the health status of his or her players to prevent over-training, injury, or illness and be able to apply proper first-aid treatment when needed.

Sport Physiology. Coaches should have a basic knowledge of the principles of training and the components of a good exercise program and be able to lead and demonstrate various types of training. Safety and proper technique should always be the hallmarks of a training program.

Rules of Play. A coach should understand and be able to explain basic tennis rules as stated in the *Illustrated Introduction to the Rules of Tennis* and *Friend at Court*. He or she should also be able to help educate players and parents regarding the roles of tournament officials.

Warning Signs of Poor Coaching

From the above list of the qualities and skills parents should expect in a tennis coach for their children, you should be able to easily recognize the warning signs of poor coaching.



The first, and probably most obvious, sign is if the coach doesn't have the requisite coaching experience or solid knowledge of the fundamentals of the game. This should include expertise in training, drilling, and strategizing. Even if he or she has these skills, but is not able to communicate them or demonstrate them well, your child could have difficulty learning.

On the non-skill side, beware of a coach who puts winning ahead of everything else in teaching the game of tennis, even to the point of pushing players beyond their physical capabilities, unfairly criticizing them, or allowing them to cheat. A coach who is unwilling to sit down with a parent to explain where his or her child is either doing well or having problems is not someone you want teaching your child. Being argumentative with other coaches, players, or officials, or using profanity during training or matches are all clear warning signs of poor coaching. Remember, a coach should be a good role model for your child. In fact, if the coach is not someone you would want as a role model for your child, then you should reconsider having him or her as your child's coach.

EVALUATING YOUR CHILD'S COACH

To evaluate a coach for your child, talk to the coach, observe him or her in practices and games, and talk with other parents who have had children play under the coach. The chart on page 27 provides a useful checklist of skills, attitudes, and personality characteristics that a tennis coach for children and youth should possess.

Fundamentals of Good Coaching

ATTRIBUTE	BEHAVIOR
Coaching Philosophy	<ul style="list-style-type: none"> • Keeps winning and losing in perspective • Emphasizes fun and skill development • Supports children as they strive to achieve goals
Knowledge	<ul style="list-style-type: none"> • Knows the rules and skills of the sport • Knows how to teach skills to young people
Leadership	<ul style="list-style-type: none"> • Permits players to participate in decision making • Creates an atmosphere of mutual respect rather than intimidation
Self-Control	<ul style="list-style-type: none"> • Displays the self-control expected of players • Builds kids up when they make mistakes, rather than putting them down
Understanding	<ul style="list-style-type: none"> • Is sensitive to the emotions of the players • Understands the unique make-up of children and treats them as individuals
Communication	<ul style="list-style-type: none"> • Communicates instruction effectively • Communicates positive rather than negative feelings • Knows when to talk and when to listen
Consistency	<ul style="list-style-type: none"> • Treats youngsters' behaviors, whether good or bad, in a consistent manner • Does what he or she says; is not hypocritical
Respect	<ul style="list-style-type: none"> • Elicits respect from players • Is a person the players want to emulate
Enthusiasm	<ul style="list-style-type: none"> • Demonstrates enthusiasm about coaching • Builds enthusiasm among players

Adapted by permission from American Sport Education Program, *SportParent* (Champaign, IL: Human Kinetics, 1994), 65-66.

Competing in Tournaments

by Doug MacCurdy and Lynne Rolley

From time to time, young players may come along and reach the top of the tennis world after spending their early years developing their game without competing regularly in tournaments. Nevertheless, trying to develop one's potential without playing competitive tennis is not recommended for aspiring young players—and for a very good reason: it's rarely done successfully. The overwhelming majority of players who reach the sport's higher realms do it by proving themselves at each different level of competition.

As soon as young players are ready to commit to competing in tournaments, a number of choices need to be made. That's because there isn't a set path to follow that will ensure them of fulfilling their potential. There's no such thing as a cookie-cutter approach to player development. Rather, a major factor in determining the ultimate success of young players is the tournament schedule they choose to follow.

THE ESSENTIALS OF TOURNAMENT SCHEDULING

Beginning at around age 14, most world-class players compete in approximately 70 to 90 singles matches per year. A key to preparing a tournament schedule for young players is to have them play in matches they expect to win, matches that are very even, and matches they are expected to lose. Some players choose to play in a higher age group, where there is little or no pressure on them to win. Yet most

successful players prove themselves at each level before moving on.

A good balance between winning and losing is to win two or three matches for every loss. Still, it's important to remember that winning tournaments is instrumental to a player's development. Competing in the finals of a tournament is a much different experience than playing a second-round match.

COMPETING AT SECTIONAL AND NATIONAL TOURNAMENTS

With few exceptions, America's best players begin their climb to the top by playing in USTA sectional tournaments, the developmental training ground for players competing in the 12, 14, 16, and 18 & Under divisions. Boys and girls should play in their age group until they are dominant. They should generally "play up" when they can be competitive in a higher age group. In addition, playing in a higher age group (i.e., "playing up") can be beneficial at times for the experience of finding out what to expect in the future, particularly at a local level.

Once players have proven themselves at the sectional level, National Junior Schedule tournaments are the next step. They vary from strong regional events to National Opens to Super National Junior Championships.

Qualification for the Super Nationals can be through the local USTA section's quota, which is based on the number of USTA junior memberships, or through success at the National Opens. Players can also qualify directly by virtue of an ATP, WTA, ITF, or high national ranking. Even if players qualify for the Super Nationals, continuing to play meaningful matches at the sectional level will make them stronger competitors and better players.

For those players who need a break from competition to make a change in their game, the segmented National Junior Schedule is very accommodating.

COMPETING AT INTERNATIONAL TOURNAMENTS

As players begin to achieve national success in the 16 & Under and 18 & Under divisions, they are ready to test the international levels of play, such as ITF Junior Circuit tournaments. Held throughout the world, they range from relatively small events (in which the strength of the tournament is far weaker than any national and some sectional events) to the highest level (which attracts many of the world's best

junior players). Acceptance into the stronger events is based primarily on ITF or professional rankings.

At this point in a player's development, USA Tennis Player Development can provide valuable assistance. Part of a USTA program that helps American players achieve competitive success, USA Tennis Player Development staff members travel as a team with top-ranked ITF juniors to major junior tournaments, including the Grand Slams. Eligible players may also travel to Grand Slam tournaments on their own, if they choose. (See also Chapter 10, "About USA Tennis Player Development.")

USA Tennis Player Development also nominates teams that participate in international team events, including the official ITF team events, which are World Junior Tennis (14 & Under), World Youth Cup (16 & Under), and the Sunshine Cup and Connelly Continental Cup (18 & Under). These events are the junior equivalent of Davis Cup and Fed Cup. Invitations to join international touring pro teams are based on U.S., ITF, and professional results and rankings.



Young players have ample opportunities to achieve an ITF ranking in the U.S. and neighboring countries. We recommend succeeding in national tournaments and then trying events in countries close to home. "Chasing" points by selecting weaker tournaments serves little purpose. If a player is able to travel and is ready to be competitive in stronger events, ITF tournaments provide a fine

opportunity for him or her to learn to cope with different playing conditions, diet, language, currency, travel, and accommodations.

USA Tennis Player Development encourages top juniors to play qualifying and pre-qualifying at the professional level when possible. The strength of the qualifying can vary, depending on numerous factors, such as the time of year and location of the tournament. Some low-level professional events are actually weaker than some top junior events.

To be considered for a spot in the USA Tennis Player Development touring pro program, a junior boy should achieve a year-end professional ranking of ATP Top 500 or ITF Top 16. A junior girl should achieve a WTA ranking of top 250 or ITF Top 10. These criteria have been established by following the results of hundreds of young players

who ultimately succeed in the professional game.

The vast majority of top players should plan on playing intercollegiate tennis, where they can continue their education while further improving their tennis. There is a USA Tennis Collegiate Team that allows top college players to compete on the professional circuit each summer.

PREPARING A DEVELOPMENTAL PLAN

A good way to determine how to go about fulfilling a young player's potential is to establish a long-term developmental plan that will serve as a cornerstone for the implementation of a systematic training program. The plan should be formed only when the youngster exhibits a commitment to becoming the best player he or she can be. It should not take more than one or two hours to set up and should be updated, adjusted, and refined periodically.

The first step in establishing the plan is to designate a "developmental team leader" for the player. This person could be a parent, coach, or personal friend. In any case, the developmental team leader will be responsible for taking the lead role in assuring that the player's developmental needs are being met on a daily basis.

The next step is to formulate a long-term vision of the ultimate player the boy or girl wants to become. It's crucial for it to be the player's vision and not a coach's or parent's. The vision should be as vivid and comprehensive as possible and should include style of play, weapons, attitude, physical condition, and sportsmanship. It should be consistent with and intended to maximize the player's physical and mental skills, and should take into account the player's personality. All developmental efforts should emanate from this vision, which should evolve over time.

The final step is to prepare the plan itself. It should focus on the player's long-term development in the following areas: strategy, tactics, technique, emotional/psychological, physical, scheduling/periodization, and goal setting. Each area should be discussed with the coach or developmental team leader before a game plan is established for it.

Preparing for Collegiate Tennis

by Dede Allen

It's never too early for high school tennis players to start planning for college. They should begin to give some thought to their college goals during their first two years of high school. And they shouldn't wait until their senior year before they become concerned with grades and class rank. By then, it's too late. In fact, if they have a particular college picked out, they should be sure to find out its academic requirements well in advance.

In preparation for playing tennis at college, high school freshmen, sophomores, and juniors should work out a playing schedule that allows them to play enough tournaments to qualify for at least a district and, if possible, a sectional ranking. If they are sectionally or nationally ranked, they should make sure their USTA Player Record is updated. They should also keep track of their tennis records and maintain a diary of matches against ranked players, which will prove helpful when corresponding with college tennis coaches.

SELECTING A COLLEGE

Students should start the process of selecting a college or university by October of their junior year. There are more than 2,200 collegiate tennis programs in the U.S. Finding the right one takes time and research. For information on collegiate tennis programs, the application process, and obtaining a scholarship or other financial aid, see *The*

USTA Junior Guide to Collegiate Tennis, which can be found on juniortennis.com., or the *Guide for Prospective College Tennis Players*, USTA, 1998, 117 pp. The guide can be purchased by calling the toll-free number: 888-832-8291, ext. 1.

It is helpful to begin by making a list of colleges and universities you're interested in attending. Add to the list by talking to parents, friends, relatives, your teaching pro, your high school tennis coach, college counselors, favorite teachers, and administrators. Ask for their assessment of you and for their college suggestions. Check with your USTA section to see if it will be hosting a college night. Also, send away for applications and catalogs, and start writing letters of introduction to the coaches of the schools you're interested in attending. When writing these letters, take the time to find out the coach's name. It's important. And be sure to give the coach a thorough understanding of your background by sending a list of your accomplishments along with your letter. Include your academic accomplishments, major area of academic interest, best wins, and complete player record as well as non-tennis activities.

There are three national governing bodies devoted to collegiate athletic matters and the administration of intercollegiate athletics. The largest and best known is the National Collegiate Athletic Association (NCAA). Every NCAA member school belongs to one of three divisions for the purpose of athletic competition: Division I, Division II, or Division III. Other governing bodies are the National Association of Intercollegiate Athletics (NAIA) for small colleges, and the National Junior College Athletic Association (NJCAA) for two-year colleges.

Athletic scholarships are available from most NCAA Division I and Division II schools. (Division III schools award financial aid based on need, and not on athletic ability.) These scholarships are based on a formula related to the annual cost of attending a Division I or Division II member school. In these schools, scholarships for men cannot exceed the equivalent cost of 4.5 full scholarships. For example, the budget for scholarships for men in a school with an annual cost of \$10,000 cannot exceed \$45,000. However, the school can distribute this amount to any number of students it might choose to.

The situation is different in regard to scholarships for women, where there is a limit on the number of scholarships that can be awarded. In Division I member schools, no more than eight and in Division II schools, no more than six scholarships can be awarded.

According to NCAA regulations, Division I and II^o schools may not make in-person, off-campus recruiting contacts or telephone calls with a prospect or the prospect's parent(s) or guardian(s) prior to July 1 following the prospect's completion of the junior year. Division III schools may not make contact until completion of the junior year.

All prospective student athletes (except for Division III schools) must register with the NCAA Initial-Eligibility Clearinghouse to be certified as eligible. This applies not only to recruited athletes but also to those who want to be walk-ons. You can obtain information about registration by contacting the NCAA Initial-Eligibility Clearinghouse, 2510 N. Dodge, P.O. Box 4043, Iowa City, IA 52244-4043; phone: (319) 337-1492; fax: (319) 339-6988. Or ask your school guidance counselor. Registration packets are available from your high school guidance office. There is an \$18 registration fee. You will receive "Making Sure You Are Eligible to Participate in College Sports" after you register.

COLLEGE VISITS

By the start of your senior year, try to have your list of schools narrowed down to ten to fifteen choices. By the time you're ready to send out college applications, your final list should consist of four to seven colleges. Remember, the school must accept you before a tennis coach can offer you a scholarship.

It is important to follow up your letters and applications. Establish a dialogue with the tennis coach and make sure that all interested parties have everything they need.

Take the time to visit the schools you are interested in and the schools that are interested in you. Your visit to these colleges and universities will probably have the greatest impact in determining your final selection. When planning your visit, make an appointment for an interview.

During your visit, try to watch a tennis match or practice session run by the coach. Talk with players currently on the tennis team. Look at the team's travel schedule and consider how it may impact your academic studies. And be sure to check out the tennis facilities.

Highly recruited players are often asked to come for an official visit. If the school pays some or all of the expenses or purchases anything for you, such as a meal, it constitutes a paid, or official, visit. NCAA regulations state that you may make one expense-paid (official) visit to a particular campus during your senior year, and you may not make

more than five official visits in all. Your PSAT, SAT, PACT Plus, or ACT must be presented to the school *before* you can make an official visit. Of course, you can visit a college or university campus as many times as you like if you are covering *all* of your expenses.

SCHOLARSHIPS AND FINANCIAL AID

After your visit, you may choose a college or university based on a variety of reasons. One of the reasons may be financial need. There are advantages as well as disadvantages to receiving scholarships for athletic achievement. Obviously, the biggest advantage is financial. Many parents and players feel a scholarship is a well-deserved reward—and it is. However, along with the reward come responsibilities and obligations, such as adhering to the school’s schedule of tennis matches. In accepting a scholarship, be aware that it is not guaranteed for all four years of college, so don’t count on it as your sole source of support. Conversely, players who receive scholarships can assume they will have the opportunity to opt out of it each year. They are one-year, renewable contracts.



The benefits for players going to school without an athletic scholarship can be just as rewarding as for those who have received one. Playing without a scholarship offers an opportunity to play more for the “fun of it” without the pressure of having to play and practice because of an obligation.

Many players are concerned about the level of play at colleges and universities outside a Division I program. However, there are many national and highly ranked sectional players at all levels of collegiate tennis. In many cases, these “non-Division I” players could easily have played on a Division I-level program but for some reason chose not to.

Before you make a choice to play collegiate tennis at a particular school, ask yourself if you will be happy with your choice. Is it your decision, or are you being pressured by your parents or friends? Will you be able to play in the top six or eight on the tennis team? Will you be happy sitting on the bench of a top collegiate program for four years, or would you rather be an active team member at another school? If you sit on the bench, what are your chances of improving your game and

enjoying your collegiate experience? Weigh your decision carefully.

And remember: an athletic scholarship is not the only form of financial aid. As college costs continue to rise, students and their parents are encouraged to pursue all avenues of financial aid. High school counselors and college financial aid officers can offer important suggestions and advice. Most schools award a financial aid “package,” which means that students receive a combination of scholarship and grant money. In fact, because of the limited number of scholarships available at some collegiate tennis programs, most athletes receive a combination of awards.

There are two primary sources of financial aid: need-based aid and merit-based aid. Need-based aid constitutes the major portion of assistance available. Eligibility is based on the difference between the cost of attendance and the family’s ability to pay. Need-based aid includes grant aid, which does not have to be repaid and does not require a service commitment, and self-help assistance, which consists of loans that require repayment and employment (usually on-campus work). Merit-based aid is generally given to students in recognition of special skills, talent, and/or academic ability.

COMMITTING TO A SCHOOL

Twice a year, NCAA colleges and universities send national letters of intent to scholarship athletes. The national letter of intent is a binding agreement between the prospective student and the school, with the latter agreeing to provide the student (if admitted) with financial aid in exchange for the student’s agreement to attend the school. All colleges and universities that participate in the national letter of intent program will not recruit a student who has signed a national letter of intent with another college or university. The program is administered by the Collegiate Commissioners Association rather than the NCAA.



Don’t panic if you don’t receive a letter right away. It could simply be that you are not a coach’s top choice, and the school is waiting to hear back from other athletes before sending you a letter.

There are two periods in which to sign the national letter of intent. The initial signing period for tennis usually occurs in early

November—with the signing period lasting for a week. The second signing period usually comes in mid-April and ends on August 1. (If you have questions about the signing dates or restrictions, contact the conference office of the school in question.) If you know without a doubt what school you want to attend, sign in November. If you have questions or haven't taken all of your planned trips, wait until the April signing date. **Once you sign, you are committed to that school**, so be sure it's the school you really want to attend. In any event, don't sign the national letter of intent before the signing date.

During the signing phase, there is a “dead period” in which a school is not permitted to make in-person recruiting contacts or evaluations on or off its campus. Nor is the school allowed to conduct official or unofficial campus visits (although a coach is permitted to call or write to you). For Division I schools, the period is 48 hours prior to and 48 hours after 8:00 a.m. on the fall or spring signing date. For Division II schools, the period is 48 hours prior to 8:00 a.m. on the signing date. There is no such period for Division III schools.

JOINING THE TEAM

Playing collegiate tennis offers you an opportunity to play an individual sport in a team atmosphere. It can help you make a number of contacts that may be useful later in life, and it can certainly contribute to your social life. All told, there are more than 19,000 spots nationwide on collegiate tennis teams. If you want to play collegiate tennis, there's an opportunity for you. But you'll have to find it.

The Sport for a Lifetime: Health Benefits of Tennis

by Jack L. Groppe, Ph.D.

For the last decade or so, I have been on a personal journey to discover what science has learned about the physiological and psychological impact of tennis on one's life. I found an incredible amount of evidence supporting tennis as **THE SPORT OF A LIFETIME!** This chapter briefly reviews the research findings and outlines the numerous health and other benefits of playing tennis.

WHY SHOULD A PARENT CARE WHAT RESEARCH SAYS ABOUT TENNIS?

There is an abundant amount of research supporting tennis as a lifetime activity that enhances a person's well being. And what better time to start playing tennis than as a child? In 1993, after studying more than 10,000 people over a span of twenty years, Dr. Ralph Paffenbarger concluded sports such as tennis (and tennis was specifically mentioned) improved one's health. In particular, he noted it strengthened the immune system, reduced the incidence of heart disease, and cut a person's risk of death from any cause in half. In another study, Dr. Joan Finn discovered that tennis players scored higher in vigor, optimism, and self-esteem while scoring lower in depression, anger, confusion, anxiety, and tension than other athletes and non-athletes. Researchers at the University of Illinois reported that, because the game requires alertness and tactical thinking, tennis may generate new connections

between the nerves in the brain and thus promote a lifetime of continuing brain development. And Dr. Jim Gavin, author of *The Exercise Habit*, theorizes that tennis outperforms golf, in-line skating, and most other sports in the development of positive personality characteristics. Further, research has demonstrated that playing tennis burns significantly more calories than most other sports. Well, how does a sport like tennis do all that?

THE PHYSICAL BENEFITS OF TENNIS

Everyone knows that if you exercise you will be healthier. However, some forms of exercise are better than others. Aerobic exercise helps the heart and lungs function more efficiently, while strength training and flexibility training develop the muscles of the body. Then there are exercises that help develop a person's coordination, agility, and balance. Well, the good news is that tennis provides a person with all these capacities and more.

Tennis: The Natural Interval Training Sport

When playing tennis, the heart rate goes up and usually stays in an aerobic range the entire time one is playing. At the same time, the explosive nature of the movements required to cover the court develop power, coordination, flexibility, balance, and agility so the tennis player receives an incredible workout in a short period of time. But, there's a lot more to it. When you watch a tennis player, you see the quick movements and power just mentioned, but have you noticed that between every point, there is a brief period of rest (about 20 seconds or so). This rest period truly sets tennis apart from all other sport activities to which your child is exposed.

Science has discovered that an ideal way to develop a person's physical capacity is to do interval training, where the heart rate goes up and then recovers briefly before being stressed again. And this goes on throughout an entire tennis match. That's why professional tennis players are among the most fit of all athletes. Tennis, because of the very nature of the scoring system and how points are played, is a natural interval training sport. In fact, athletes from many other sports, such as marathoners, distance cyclists, and alpine skiers, play tennis in their off-seasons because of its capacity to develop the human system in its entirety.

Additional information about why tennis is so beneficial has to do with how the body reacts to stress. As scientists examined interval training and its effects on the body, they found that the hormone response to stress is quite unique. First, our body has a group of hormones called **catecholamines** (the fight hormones that are very positive) and **cortisol** (the flight hormone). Both are important for human function, but cortisol in excess has negative effects on the body. And how does interval training affect hormonal response to stress you ask?

- It increases catecholamine production capacity so MORE catecholamines are produced.
- It increases catecholamine response to stress.
- It lowers resting levels of catecholamines.
- It increases catecholamine recovery rate.
- It lowers cortisol output.
- It increases endorphin output (those hormones that give you a euphoric feeling after a great workout).

So, let's summarize what interval training does: It helps create MORE positive catecholamines, increases their response to stress,

lowers their resting levels so they have a greater capacity, increases their recovery so you can go again more quickly, lowers output of cortisol, the negative hormone, and increases a group of hormones that make you feel great. Who wouldn't want that for their child?



Other Physical Benefits of Tennis

In addition to serving as the ultimate interval training sport, tennis provides many other physical benefits for the player. These are summarized in the following chart.

Physical Benefits of Tennis

TENNIS ATTRIBUTE/TASK	PHYSICAL BENEFIT
Overall conditioning sport	Burns fat/improves cardiovascular system, increases energy levels/strengthens immune system
Short intense bursts of action	Develops power, balance, and agility
Sprinting, jumping, stretching, lunging	Ability to move more quickly
Accelerated movements	Improves anticipation skills and reaction time
Side-to-side/up-and-back sprints	Improves speed, power, and agility
Hundreds of stops and starts	Builds strong leg muscles
Moving into position and adjusting upper body	Develops overall body coordination
Movements and striking skills that require control of large muscle groups	Develops gross motor control
Touch shots and softly hit balls	Develops fine motor control
Constant changes of direction	Develops agility
Starts, stops, changes of directions, hitting on the run	Develops dynamic balance
Overall conditioning sport	Strengthens immune system
Judging timing between oncoming ball and contact point	Improves eye-hand coordination
Stretching and maneuvering to return ball	Improves flexibility

THE PSYCHOLOGICAL, SOCIAL, AND INTELLECTUAL BENEFITS OF TENNIS

Few people would argue with the statement that playing tennis improves one's physical abilities. Less obvious, but of equal importance, is the positive impact playing tennis has on psychological, social, and intellectual growth. With that introduction in mind, let's review what many experts say about tennis and how it will benefit your son or daughter.

- Because tennis requires that the player prepare to compete by practicing skills, checking equipment, and making line calls during a match, your child will learn how to accept responsibility.
- By learning to play within one's abilities and realizing that managing and minimizing mistakes in tennis (or life) is critical, your child will learn how to effectively manage mistakes.
- By adjusting to the elements (wind, sun, etc.), while managing to compete at the highest possible level, your child will learn how to manage adversity effectively.
- By accommodating physical, emotional, and mental stress in a tennis match, your child will increase his or her capacity for dealing with all forms of general stress.
- By adapting to the stress of a point and the recovery between points, which is similar to the stress and recovery cycles of life, your child will learn how to recover and recapture energy.
- Since tennis requires learning how to anticipate an opponent's moves and plan countermoves, your child will learn how to plan and implement strategies and tactics.
- Since preparation before serving or returning a serve to begin a point is critical, your child will learn positive pre-performance rituals for competition. These skills can transfer to taking exams or making a presentation in class.
- Since competition is one-on-one, your child will learn good sportsmanship skills and how to compete fairly.
- Through the interaction and communication before, during, and after a tennis match, your child will develop outstanding social skills.

- Since successful doubles play depends on the partners' ability to communicate and play as a cohesive unit, your child will learn teamwork.
- Since tennis requires working on skills during practice and controlling the pace of play in competition, your child will develop discipline.
- Because improvement through lessons and practice reinforces the value of hard work, your child will develop a great work ethic.
- AND through the healthy feelings of enjoyment, competitiveness, and physical challenge that are inherent in the game of tennis, your child will have **FUN!**

Is it any wonder that scientists and physicians around the world view tennis as the most healthful activity in which a person can participate? There may be other sports that provide excellent health benefits and yet others that provide mental and emotional growth, but only tennis has been acclaimed as the sport that provides great physical, mental, emotional, and spiritual benefits.

Tennis is a sport that kids should learn as early as they can. But it's never too late. What parent wouldn't want their child to receive the benefits we have discussed in this chapter? From a developmental standpoint, the human system can benefit from this type of activity at any stage of its development. Here's the key: Your child must begin playing tennis now to start receiving these benefits. **TENNIS TRULY IS THE SPORT OF A LIFETIME!**

Injury Prevention

by E. Paul Roetert, Ph.D, and Todd S. Ellenbecker, M.S., PT.

Good flexibility, muscular strengthening, muscular balance, and endurance, along with proper conditioning, can help athletes in general and tennis players in particular prevent injuries. It is widely recommended that people “get in shape to play tennis” rather than “play tennis to get in shape.”

FLEXIBILITY

Static Stretching. Static stretches involve the isolation of a particular muscle or muscle group while using slow, controlled movements and a static hold at the end of the available joint motion for 15 to 30 seconds.

A recommended sequence of static stretching includes a general body warm-up to elevate the body’s temperature until a light sweat is achieved. The warm-up can be light jogging, riding a stationary cycle, or performing calisthenics and is performed to facilitate the static stretches. Following the warm-up, a series of static stretches with two to three holds of 15 to 30 seconds is recommended.

Recent research has recommended static stretching be performed 20 to 30 minutes before activities that require maximal levels of performance (such as tennis). Static stretching immediately before performance may temporarily cause a decrease in muscular performance.

Static stretching should be done after exercise to prevent or minimize post-workout soreness and stiffness.

Dynamic Stretching. Dynamic stretches are performed prior to playing tennis and can consist of progressive increases in tennis-specific movement patterns to gradually prepare the body's muscles for tennis play.

Examples of dynamic flexibility exercises include jogging in place; kicking one's heels toward the buttocks (mule kicks); forward, side, and diagonal lunge motions; and tennis forehands, backhands, and service motions with the racquet. Dynamic stretches are started gradually before increasing both the range of motion and intensity of the movement pattern.

Dynamic flexibility exercises are recommended after static stretching and can be performed immediately before playing tennis.

Ballistic Stretching. Ballistic stretching consists of rapid, jerking-type motions performed up to the end range of motion. These rapid, ballistic-type movements actually engage the stretch reflex in the body and cause the muscle to contract while being stretched. This type of flexibility exercise is NOT recommended due to the potential for injury.

MUSCULAR CONDITIONING

Muscular Strength. The use of resistance training to improve strength in tennis players has become increasingly important and standard in the elite game of tennis to improve a player's ability to move faster and hit the ball harder for a longer period of time without fatigue.

Recent research regarding resistance training in tennis players has shown superior results with a strength training program using multiple sets of exercise, as compared to players training with only one single set of exercise.

Due to the repetitive nature of tennis, strength training programs for tennis players typically consist of two to three sets of 10 to 15 repetitions to allow the muscle to develop endurance or resistance to fatigue in addition to strength.

Exercises using body weight—such as sit-ups, push-ups, partial squats, and lunges—are safe for young pre-pubescent players, with free weights, elastic bands, and weight machines being used as players mature and require resistance to fatigue the muscles during training.

Exercises called plyometrics, which involve a lengthening muscle contraction immediately followed by a shortening muscle contraction, are effective in training tennis players but should be used only when players have initially developed a strong base of strength using other, more traditional strength training methods. Plyometric muscle training mimics many of the movements tennis players make during practice and competition.

Muscular Balance. Muscular imbalances occur when certain muscles become developed or strengthened relative to their opposing muscle groups. Examples of muscular imbalances in tennis players are:

- *Shoulder*—Research has shown that the muscles in the front of the shoulder, such as the pectorals and deltoid, become overdeveloped from tennis play, leaving the rotator cuff muscles, which stabilize the shoulder joint, underdeveloped. Therefore, exercises that should be included in a tennis player's program include rotator cuff exercises and exercises to work the muscles in the upper back between the shoulder blades, or scapulae. This helps to minimize or prevent the muscular imbalance from causing injury.
- *Trunk*—Research on elite-level players shows that they have very strong abdominal muscles, but the lower back muscles (erector spinae) do not have the same level of development. The finding has led sports medicine professionals and sport scientists to recommend exercises for the lower back muscles to correct this imbalance. Exercises to work the abdominals are still recommended, but only in concert with exercises for the lower back to address this muscular imbalance.

AEROBIC CONDITIONING

Aerobic conditioning is an important part of a tennis player's training program. Even though tennis consists of up to 300 to 500 bursts of energy per match, the ability of the player to recover between points is dictated in part by his or her aerobic conditioning. Aerobic conditioning is a measure of the player's ability to use oxygen to produce energy for the body.

Aerobic conditioning involves rhythmic continuous movement patterns—such as running, swimming, and stair climbing—that use the body's large muscle groups for at least a 20-minute period. Typically, aerobic training is recommended several times per week for tennis

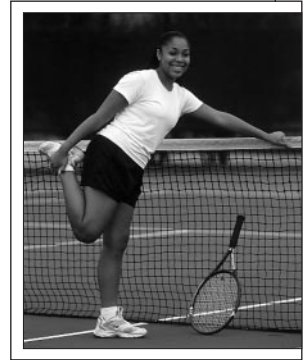
players at certain times in their training cycle. Having a good aerobic base is an important initial feature in a player's conditioning profile and one that will assist the player in recovery between points, games, and matches.

Players with poor overall aerobic-conditioning levels fatigue early in matches, which jeopardizes proper form and playing performance. Sport scientists use a timed 1.5-mile run to determine a junior player's aerobic condition.

ANAEROBIC POWER

The ability of the player's body to produce rapid, explosive movements is critical in tennis. Training to increase this ability will not only prevent an injury from occurring due to fatigue or loss of form but will also enhance performance.

Anaerobic tennis training is best practiced with the specificity principle. Using periods of work and rest during tennis drills, wind sprints, or other on- and off-court movements that mimic the time periods associated with playing tennis is important. In general, working, or exercising, for periods of 5 to 15 seconds, with rest periods of 20 to 30 seconds, is recommended.



PROPER TENNIS MECHANICS

Proper tennis mechanics are of critical importance in preventing injuries. Common flaws recognized in junior tennis players are improperly timed rotation of the hips and shoulders, excessive grips (especially on the forehand), and errors in ball-toss location on the serve. Consulting expert/certified tennis teachers and/or biomechanists is recommended to ensure proper tennis mechanics.

SELECTING THE RIGHT EQUIPMENT

Improper tennis equipment can lead to injuries, even if proper conditioning and sport mechanics are followed. Therefore, it is important that players select the right equipment.

Racquets. Tennis racquets look different than they did thirty years ago. Today's models have bigger heads and a split shaft, are lighter and stiffer, and are made of a variety of materials. These changes have enabled players to hit the ball harder, utilize open stances on their strokes, and produce more body rotation when hitting their shots.

- *Head Size*—All tennis racquets used to have approximately the same racquet head size until the 1970s, when Howard Head designed a racquet with a larger head size. The larger racquet head size meant a larger “sweet spot” on the strings, which made the racquet more forgiving on off-center impacts.

As the racquet head gets larger, the strings get longer. As the strings get longer, the racquet produces more power. The surface of a typical racquet head today ranges from 90 to 120 square inches.

- *Material*—Most racquets before the 1970s were made of wood. Since then, there has been a revolution in different materials, with boron, kevlar, graphite, and many others becoming commonplace. Many of the top players prefer a combination or composite of these materials, which has typically made racquets lighter.

Many of the new materials have changed the stiffness of racquets as well. Because racquets now are not only lighter but also stiffer, they last longer and enable players to hit the ball harder.

- *Length*—Standard racquets used to be 27" in length. Today, they run up to 29" inches in length. Extra length may mean extra reach, which can be a benefit on the serve and wide shots but could be a hindrance on shots hit right at the body. Injury data related to longer racquets is not yet available.
- *Shape*—Almost all of the racquets manufactured today have a split shaft. Wide-body racquets are also very prevalent. A wider body makes the racquet stiffer, which helps the player hit the ball harder.

Balls.

- *Color*—All tennis balls used to be white. Today, yellow balls are the norm because they are easier for the players and spectators to see.
- *Size*—Until 2000, all tennis balls used in tournaments were the same size. The ITF is currently experimenting with a larger tennis ball, which slows down the ball speed and encourages longer rallies.

Strings.

- *Gut vs. Synthetic*—Gut strings are preferred by top players because of their “playability” but are more expensive than synthetic strings, which are generally more durable. Gut will generally keep its elasticity better. Synthetic strings tend to lose some elasticity at high string tensions.
- *Tension*—String tension is very much dependent on the size of the racquet head. However, tighter strings generally give a player less power and more control, whereas looser strings give more power and less control.

Shoes. Shoe selection should be based on comfort, support, the surface to be played on, and durability.

- *Lateral Support*—Tennis shoes differ from running shoes in several respects. Because tennis players run not only straight ahead but also from side to side, lateral support in tennis shoes is critical. Typically, players will use a low-cut or quarter-high shoe. Both need to provide good support.
- *Surface interaction*—Because there are many different court surfaces in tennis, the soles of tennis shoes should match the surface. Checking with a sporting goods shop or tennis pro shop can help in selecting the right shoe for the court surface.

Court Surfaces. No other sport is played on as many different surfaces—even at the very highest levels—as tennis. Court surfaces are dictated mainly by climate and maintenance demands. Players have to learn to adjust to the different bounces and speeds of each surface.

- *Hard*—Hard courts can have different amounts of cushioning as well as coatings. Both the cushioning and coating affect the speed of the court and thus the style of play. Hard courts are typically

considered a faster surface than clay but slower than grass.

- *Clay*—Clay courts are slower than hard and grass courts, and players can slide on them. As a result, most good clay court players are baseliners. Because clay courts require a lot of up-keep, we see fewer and fewer of them in the United States. However, they are still quite prevalent in South America and Europe.
- *Grass*—Grass is an extremely fast surface and promotes a serve and volley game. Grass courts require fairly extensive maintenance and are even rarer than clay courts in the U.S.

About USA Tennis Player Development

USA Tennis Player Development is a USTA program that helps American players achieve competitive success in the world game by providing them with support, guidance, competitive opportunities, instruction, and/or financial assistance. The program is supplemental in nature and is not designed to replace the developmental work of private coaches. It does not operate a national training center to develop players on a full-time basis.

USA Tennis Player Development has three departments—Junior Competition, USA Tennis Coaching Education, and Sport Science—that, with tremendous support from numerous knowledgeable volunteers, work together to provide opportunities for American players to compete at the highest levels of the domestic and international game. In addition, they provide quality information and services to the tennis community at large. There is also a USA Tennis Player Development Advisory Group that provides input on matters relating to the development of players at the world-class level.

USA Tennis Player Development has a coaching staff comprised of twenty-two national coaches. Fourteen of the national coaches are based regionally around the country and work primarily with younger players, their parents, and private coaches; each National Coach is also assigned to work with top national players in an age group. Six national coaches are part of the touring pro program and work with a small group of professional players at various levels of the pro tours.

There is also a Director of Coaching and a Director of Program Development.

USA Tennis Player Development awards individual grants to qualified juniors through professional players to assist with travel and training expenses. There are also grants for outstanding multicultural development programs and individuals. USA Tennis Player Development issued approximately \$1.7 million in grants in 2000.

The United States now hosts fourteen tournaments on the ITF Junior Circuit, more than any other country. At the professional level, a major aspect of the USTA's efforts to develop world-class players has been to increase the number of USTA Professional Circuit events for men and women from 50 in 1996 to 100 in 2001. These entry-level professional tournaments provide American players with the opportunity to gain valuable international experience and computer ranking points in their own country. In addition to the players who obtain entry into these events based on ranking merit, the USTA is able to provide a limited number of wild cards to young players.

At the junior level, American teams are selected to play in the official team events of the ITF and at individual international events. International travel opportunities are provided for young players who excel in the domestic game. Beginning in 2000, there has been an effort to provide junior players with more exposure to entry-level professional events in the U.S. Some 150 junior players will receive the opportunity to participate in small groups at international junior and professional events this year.

Top collegiate players can qualify for the USA Tennis Collegiate Team, which participates in professional tournaments during the summer months. The men's and women's teams are selected based on rankings, results, and sportsmanship displayed in college tennis. This program is run in conjunction with the Intercollegiate Tennis Association.

For younger players, there is a network of 100 USA Tennis Competition Training Centers throughout the United States. The purpose of these centers is to provide competitive developmental opportunities close to home. Community tennis associations are encouraged to include Local Excellence Programs, which can help promising young players with appropriate, quality coaching, and, where necessary, financial support.

JUNIOR COMPETITION DEPARTMENT

The Junior Competition Department manages the USTA's national junior competitive tournament system and national rankings. In addition, the department oversees any ITF events held in the United States and is responsible for the tournament administration of the US Open Junior Championships. This department also manages the prospective college student-athlete education program.

There are 32 Super National Championships, 128 National Open Championships, 118 National Junior Schedule age-group events, 12 Zone Team Championships, 3 Intersectional Team Championships, 14 ITF Junior Circuit events, and 2 international team championship events on the National Schedule in 2001.

Administration of the national tournament system includes: implementation of USTA regulations, which govern tournament administration and play; conducting workshops for national championship tournament directors; and maintaining a code of conduct suspension point system to help insure good sportsmanship.

The junior ranking area includes inputting and downloading National Junior Tournament scheduled events and sectional championship results into the national ranking program. Players are responsible for updating their player records and submitting this information on a regular basis. Selection/seeding lists are posted, on average, monthly, which improves the opportunity for players to update their records. Beyond data inputting, the department produces reports that are used by national tournament committees to assist with selection and seeding.

The department works directly with the USTA's volunteer Youth Competition and Training Committee and all of its subcommittees, including ranking, sanctions and schedules, team competitions, junior rules, and regulations. As a team, both staff and committee members work to develop and maintain a complete junior tennis infrastructure. The Junior Competition Department staff also works closely with the national coaching staff, as well as the other USA Tennis Player Development departments.

USA TENNIS COACHING EDUCATION DEPARTMENT

The objective of the USA Tennis Coaching Education Department is to improve the level of developmental coaching in the United States

in order to promote the development of future world-class players. This is accomplished by gathering, developing, and disseminating the latest in coaching education information and by creating programs that educate coaches and cultivate a synergistic environment among coaches throughout the country.

The department has established Coaching Competencies for High Performance Developmental Coaches for the USA Tennis High Performance Coaching Program (HPCP) and for the general education of developmental coaches. In

addition, it has written study guides of advanced coaching material that total approximately 200 pages and cover the Coaching Competencies.

The USA Tennis HPCP is intended specifically for the serious developmental coach working with players who are striving for excellence in tennis. The USA Tennis Coaching



Education Department has established the curriculum with guidance from an expert Advisory Board, as well as the United States Professional Tennis Association (USPTA) and the Professional Tennis Registry (PTR). The USPTA and PTR certify the coaches upon completion of the program.

The USA Tennis Coaching Education Department produces the *High-Performance Coaching Newsletter*, which is circulated quarterly to 25,000 PTR, USPTA, and USTA member organizations and Intercollegiate Tennis Association (ITA) coaches. It is an excellent tool for delivering timely and useful information to developmental coaches throughout the United States. In addition, the USA Tennis Coaching Education Department's staff gives presentations at numerous tennis-related conferences throughout the United States and abroad.

Also, advanced instructional videos on technique and tactics that feature top American players and coaches are being developed. These videos will be distributed to High Performance Developmental Coaches and sold to the public.

The department is making plans for continuing education for

coaches who have gone through the USA Tennis HPCP. Programs being considered include advanced two-day training sessions, exchange programs with other leading tennis nations, and training sessions at major tournaments.

SPORT SCIENCE DEPARTMENT

The objective/mission of the Sport Science Department is to produce, evaluate, and disseminate sport science information relevant to tennis. The goals of Sport Science are to:

- Utilize sport science as a basis for selected USTA programs, policies, and training.
- Make the latest sport science technology readily available to the tennis community at large, including USTA members, recreational players, sections, coaches, and tournament players.
- Organize and foster tennis-specific research and knowledge in the following disciplines:

Sport biomechanics—the science of mechanics and physics applied to the human system and to performance in sport

Sport physiology—the study of the immediate and long-term effects of training and sports participation on the body's physical systems

Motor learning—the acquisition of skilled movements as a result of practice

Sport nutrition—the study of the effects of dietary status on competitive performance

Sport psychology—the study of the mental and emotional processes and physical behaviors as they relate to the dynamics of sport

Sports medicine—the evaluation, treatment, and prevention of injuries and illnesses that occur during or as a result of athletic activity

The USTA has a Sport Science Committee that is comprised of a group of experts in each of the disciplines listed above. The Sport Science Department awards research grants in these areas each year.

Any discerning researcher may apply for these grant monies.

Sport Science provides educational resources by providing Level 1 (Foundations of Sport Science) and Level 2 Sport Science competency exams, which give coaches the opportunity to enhance their knowledge in all of the disciplines related to tennis. Level 2 has three categories: 2A, Sport Psychology and Motor Learning; 2B, Sport Physiology and Sport Nutrition; and 2C, Sports Medicine and Sport Biomechanics. All of these exams are open book exams. Information on the exams can be accessed through the USTA Web site, www.usta.com under USA Tennis/USA Tennis Player Development.

Sport Science has taken an active role in forming the Tennis Anti-Doping Program, an anti-doping policy that is consistent with that of the ITF, ATP, and WTA Tour. Sport Science acts as a liaison for the Tennis Anti-Doping Program for all American tennis players to ensure compliance with the United States Anti-Doping Agency (USADA) and the United States Olympic Committee (USOC). A USTA Anti-Doping Program booklet is available from the USTA. Information on drug testing can also be accessed through the USTA Web site, www.usta.com under USA Tennis/USA Tennis Player Development.

The Sport Science Department assists with the training and fitness programs of American players. The USTA Strength and Conditioning Coach travels on a regular basis to professional circuit events in the U.S. and abroad to work with players.

The USTA employs a distinctive training protocol to measure physical fitness. These tests are conducted on junior players, professionals, and collegiate teams at USA Tennis Player Development's Key Biscayne facility and at the 100 Competition Training Centers throughout the United States. The results are used to design effective strength and conditioning programs to maintain and/or increase fitness levels and to prevent injuries of athletes.

The Sport Science Department is involved in parent education at the local and national levels, with resources in parent education available through the department. A new brochure on the health benefits of tennis, an updated "Why Play Tennis" poster, a Sport Science Department brochure, and information on flexibility exercises and the USTA fitness protocol are also available.

TENNIS CENTER AT CRANDON PARK

The administrative headquarters for USA Tennis Player Development is located at the Tennis Center at Crandon Park (TCCP) in Key Biscayne, Florida. The facility includes a total of twenty-three hard, clay, and grass courts, a sport science research facility, and a fitness center.

The TCCP is a public park owned by the people of Miami-Dade County. The USTA provides the citizens of Miami-Dade County with a full spectrum of tennis programs, including group and individual instruction for adults and juniors, league competition, USA Tennis 1-2-3 programs, USA Team Tennis, and summer camps.

The TCCP is home to the Ericsson Open, the world's fifth largest professional tennis tournament. In addition, the facility hosts the ITF Sunshine and Continental Cups, which are the world team championships for boys and girls ages 18 and under, as well as the Orange Bowl Junior Championships.