Typically, the words "player development" are associated with training programs that develop elite competitive players only. We would like you to think of the term in a broader sense, as we have done with the new USPTA Player Development Program.

USPTA is defining player development as a way to reach tennis-teaching professionals with information that can help all players reach their potential regardless of their level. The goal of reaching players at all levels sounds lofty, and it is. But that is exactly what the USPTA Player Development Program is designed to do. By helping tennis teachers acquire the knowledge and confidence to teach modern tennis techniques to students at every level, we can accomplish it.

Several years ago, players on the pro tours began showing off a new stroke, taking balls in the air near mid-court and blasting them as though they were hitting groundstrokes. When successful with the swing volley, their aggressiveness seemed beyond criticism. When they missed, their shot selection appeared ill-conceived and counter to all conventional teachings.

How long did it take for your students – the ones you’d been patiently training to shorten their backswings – to start mimicking the pros by taking long, wild whacks at volleys before they had even positioned themselves at the net? Probably one day. Like it or not, the swing volley is now part of tennis. And, as always, recreational players take some cues from the shots and styles of the pros, either out of flattery or necessity as they advance in competition.

There is an undeniable thread between professional tennis and recreational tennis, and the most important link between the two is you, the tennis-teaching professional. You bridge the gap between the shots and techniques of the competitive player and recreational players of all levels. That’s why tennis teachers must know how to teach shots like the swing volley and open-stance, loaded groundstrokes and several other shots that characterize modern tennis, and why we’ve spent the past 15 months creating the USPTA Player Development Program.

Don’t misunderstand. The USPTA board, Education Committee and staff aren’t going to be developing players. The Player Development Program is designed to bring the details of teaching the modern game to every USPTA Professional. The purpose is not to cater to those who train high performance players, but rather to be comprehensive so that teachers of all levels will know how to incorporate modern techniques and tactics into their lesson plans for every player, from beginner to competitive tournament players. We believe the same teaching methods and systems can be scaled to assist all players to reach their potential.

This three-part program will continue to evolve with the help of some of the sport’s best teachers. Several USPTA members who have worked with top world-ranked players – as well as recreational players – are program advisers. The advisory council is part one of the program. Part two is a long-range plan for training USPTA members in modern teaching methods. Part three includes the resources that are and will be available to you. These three components will be explained in detail in this special section.

To begin, we are defining modern tennis by identifying the shots, techniques and tactics that have changed tennis in the modern era. Certainly, not all the strokes have changed. However, the few that fit into this category are substantially different from the conventional versions of years ago.

We also are introducing a macro and micro view of periodization, or organizing a player’s development into a specific period of time and specific components of training and competition. This organizational method is the basis for developing recommendations regarding teaching methods and progressions that will be available through the Player Development Program, and a graphic depicting the six general performance components illustrates this concept.

To give you an opportunity to evaluate your knowledge of the modern game, we’ve included a short quiz that we think you’ll find interesting. We hope it will get you in the frame of mind to consider the terminology and technique used in modern shots, think about the nuances of teaching them and then look into the details of the Player Development Program.

Modern stroke technique doesn’t have to be reserved just for high performance players. If they haven’t already, some of our recreational players will demand to learn it – because they want to advance competitively or just for the fun of hitting winning shots like those they see on TV. Almost all of us will find an appropriate place for modern strokes in our lesson plans, helping our students reach their potential.
I. In the previous era of traditional tennis, stroke technique can generally be described as:
   A. Angular  
   B. Diagonal  
   C. Linear  
   D. Rectangular

II. Which of the following terms most accurately describes modern stroke technique?
   A. Angular  
   B. Diagonal  
   C. Linear  
   D. Rectangular

III. What is the most common grip used to hit the modern forehand?
   A. Continental  
   B. Eastern  
   C. Semiwestern  
   D. Western

IV. The most common term used to explain the action of the outside leg when hitting an open-stance groundstroke is:
   A. Bracing  
   B. Loading  
   C. Lightening  
   D. Elevating

V. The most important element of hitting with pace is:
   A. Weight transfer  
   B. Racquet acceleration  
   C. Longer carry at impact point  
   D. Shoulder rotation

VI. While preparing for and hitting a groundstroke, the sequential movement of body parts from the ground all the way to the racquet head is commonly referred to as:
   A. Power progression  
   B. Rotation cycle  
   C. Kinetic chain  
   D. Bionic connection

VII. What is the most recent shot added to the modern game?
   A. Loaded open-stance backhand  
   B. Braced forehand  
   C. Drag volley  
   D. Between-the-legs retrieval shot

VIII. What is the most significant change made to the volley?
   A. Hitting earlier  
   B. Hitting later  
   C. Swing volley  
   D. Snap volley

IX. What is the most significant change made to the serve?
   A. Aim points  
   B. Stance  
   C. Rotation cycle  
   D. No real changes have been made

X. How have tactics been modified in modern tennis?
   A. More serve and volley  
   B. Heavier and longer rallies from baseline  
   C. Tendency toward more crosscourt approach shots  
   D. Increase in slice backhand as a predominant weapon

XI. What changes have been made to the overhead?
   A. Use of crossover step while backing up  
   B. Greater tendency to let ball bounce and hit high forehand  
   C. Addition of scissor step  
   D. No real changes have been made

XII. What changes have been made to the lob?
   A. More underspin and hang time  
   B. More depth  
   C. Greater tendency to use offensive topspin lob  
   D. More use of down-the-line lob

XIII. In the two-handed backhand, the function of the dominant arm (the one used for all other shots) is:
   A. To add power to the shot  
   B. To guide the racquet face  
   C. To avoid hitting the ball late  
   D. It is nonfunctional

XIV. In the two-handed backhand, the function of the nondominant arm (the one NOT used for all other shots) is:
   A. To add power to the shot  
   B. To guide the racquet face  
   C. To avoid hitting the ball late  
   D. It is nonfunctional

XV. How is the modern transition shot different?
   A. There is a distinct split step before hitting the ball  
   B. It is hit from an open stance with continuous movement toward the net  
   C. It is hit in a square stance  
   D. It is predominantly hit crosscourt

XVI. For optimal recovery when hitting the modern forehand, a player’s body weight should be:
   A. On the inside of the outer leg  
   B. On the outside of the outer leg  
   C. Distributed by stepping forward on the inside leg  
   D. Distributed by stepping across on the inside leg

Answers on Page 9
The Modern Game
How tennis has changed from the traditional game

I. Grip:
The primary forehand grip is now the semiwestern, with alternatives ranging as far as the western grip. With these grips, players can hit heavy topspin in addition to flat shots.

II. Groundstroke:
A. Forehand
   1. The shot is hit in a loaded, open stance. Force is generated from loading the weight primarily on the inside of the outside leg and a kinetic motion that ultimately explodes through the contact zone with body and feet leaving the ground.
   2. The inside-out forehand has become the major weapon in the game.
B. Two-handed backhand:
   1. The two-handed backhand has become the predominant style, however, modern tennis requires players to also have an effective one-handed backhand.
   2. The loaded, open-stance, two-handed backhand is becoming more widely accepted, with the force generated from loading the weight and a kinetic motion similar to the forehand.
   3. Some women players show an affinity for inside-out shots both on forehands and two-handed backhands.
C. Swing styles:
   1. The high racquet head backswing on the forehand has become a standard, allowing players to hit balls at every level (high, medium and low) using the same backswing.
   One simple analogy for backswings is “Racquet butt down in backswing; butt aimed at ball at start of forward swing; butt aimed at opponent’s court at end of follow-through.”
   2. Overall swings are more complex, with follow-throughs at times are:
      a) Over the opposite shoulder – with hitting hand’s knuckles close to opposite ear
      b) Around the opposite shoulder
      c) Around ribs
      d) Up and over same hitting shoulder like a windmill.

III. Volley:
The swinging volley is a standard part of players’ arsenals. It is hit more like a forehand (or backhand) groundstroke with greater pace and topspin than the traditional volley.

IV. Overhead:
The jump overhead (a la Sampras and Blake) is becoming more popular, mostly among men players and some of the more powerful women.

V. Lob:
The offensive topspin lob is now emphasized more than the defensive underspin lob.

VI. Tactics and strategies:
A. With the level of power increasing in all shots of the modern game, the power baseline game is the predominant style of play on most surfaces, resulting in more open-stance shots.
B. The serve-and-volley tactic is becoming a lost art because of modern equipment and technique:
   1. Modern equipment has added power on returns and passing shots, precluding players from consistently coming to the net.
   2. Opponents have become stronger and faster, creating problems of covering the court consistently with the serve-and-volley style of play.
C. Doubles has become a specialized game (i.e., rankings dominated by lower-ranked or unranked singles players):
   1. Top teams play more often together; they know each others’ strengths and game styles better.
   2. Teams are using more formations (e.g., Australian, I-formation) and movement (e.g., poaching off the return, not just the serve).

VII. Equipment changes:
Everything from racquets to clothes to shoes has helped improve power and performance.

VIII. Increase in athleticism:
Better training methods have enhanced the power and performance of players due to advancements of the sport sciences.

IX. Sport more global – more athletes:
Tennis is truly the only global sport, with players and opportunities beyond just major countries raising the standard of play.
I. Advisory council

USPTA is nothing without its members and does nothing without its members. When it came to putting together the new Player Development Program, there were a number of coaches teaching modern shots and tactics who we could turn to for help.

The key to the Player Development Program is documenting the expertise and advice of teaching professionals who make their reputation and living teaching the modern game, then making it accessible to all USPTA members. Not only do the nuances of teaching modern stroke production have to be captured, so do the strategies for when and how to teach those strokes to recreational players. That is what will make this program valuable to the vast majority of tennis teachers and, consequently, their students.

To help identify and formulate the resources that will be available to teaching professionals, we have formed the first advisory council to the Player Development Program. The challenge in forming the panel was to keep it small, so that communication would be as efficient as possible and the resulting resources more simple to compile.

All the advisory council members have been integral to the development of top-level players. Their experience working with some of the world’s top men and women players, as well as other serious young competitors, will be invaluable to the process of explaining modern training methods. With the sport sciences being so essential to modern teaching and training, sport scientists are vital to the council. In addition, several council members also have strong backgrounds in teaching recreational players, which will be crucial to helping translate advanced training methods into methods for teaching recreational players the parts of the modern game that will benefit them.

The advisers are:

- Nick Bollettieri, founder of the Nick Bollettieri Tennis Academy
- Rick Macci, founder of the Rick Macci Tennis Academy
- Paul Roetert, Ph.D., and Eliot Teltscher, representing USA Tennis High Performance Coaching
- Jim Loehr, Ed.D., and Jack Groppel, Ph.D., founders of LGE Performance Systems

Obviously, the individual advisers have developed their own systems of player development and found success. We all recognize that no single player development method is the answer for all players or all teaching professionals. That is one reason why USPTA has never endorsed a single teaching method, and a factor in asking USA Tennis High Performance Coaching representatives to serve on the council.

USTA has worked with USPTA in the Competitive Player Development specialist category, providing the week-long curriculum that also incorporates the experiences and knowledge of many coaches.

With this breadth of knowledge, council members will help USPTA:

- Keep tennis teachers ahead of the curve regarding player development training practices
- Report on trends and identify changes in strategy, tactics, strokes and training
- Create templates for teaching modern tennis
- By serving as contributing editors for ADDvantage

There are a number of others – either academies directed by USPTA members or individual members – that have been and will continue to be influential in the way USPTA members are educated in how to teach modern tennis. They include: Hopman’s/Saddlebrook Resort, Smith Stearns Tennis Academy, Robert Lansdorp, John Newcombe, Dennis Ralston, Vic Braden, Peter Burwash, Bill Tym, Nick Saviano, Brett Hobden and Dick Gould. There are many others, including some who continue to work in the grassroots, developing an admirable understanding of the game while they’re developing young players and directing programs for recreational players.

With the help of the advisory council and additional professionals who are instrumental in developing players for the modern game, all USPTA teaching professionals will be able to give their students an edge based on modern technique and tactics.

Releasing the power of the kinetic chain – including the energy stored by loading his weight on his outside leg and coiling his hips and shoulders – helps Juan Carlos Ferrero explode into a modern-style forehand.

Photo by Josh Merwin.
II. Long-range plan

Information from the advisory council, other professionals and additional resources and research will be presented to USPTA members in a variety of formats. These include traditional educational forums and technology-based communication introduced within the last few years. The information will be incorporated into USPTA education at every level, from the certification exam to specialist categories.

We’ll use a variety of communication methods. For instance, understanding the modern forehand may require that a person study it on video, perhaps with the help of analysis software like Dartfish, hear an explanation of it and be allowed to ask questions, and see sequences of still photos and read text explanations for each frame.

USPTA will provide tennis-teacher training in modern tennis through multimedia, courses and distance learning, including:

- Player development modules at the World Conference on Tennis composed largely of general-session seminars
- Independent player development conferences
- DVDs of “On Court with USPTA™”
- Seminars and specialty courses at division conventions
- Articles and photographs in ADDvantage
- Multimedia on DVDs and the Internet
- USPTA Certification Exam preparation materials

For example, at the current rate, USPTA will produce about 60 “On Court with USPTA” shows for The Tennis Channel in the next five years. When DVDs of the 30-minute shows are produced with up to two hours of additional footage, drills and information, they become terrific teaching resources.

The 2004 World Conference includes a player development module built around general-session seminars of 90 minutes or two hours. These seminars will be among those recorded, produced on DVD and available in 2005.

In addition, USPTA will offer more events like the three-day Competitive Player Development conference held last November at the World Headquarters. The more than 70 USPTA members at the course also attended matches at the 2003 Tennis Masters Cup, which fit into the curriculum and discussions. Attendees’ reviews of the conference were unanimously positive.

Though USPTA does not espouse a particular teaching system that members are required to learn and teach as part of the certification process, parts of the Player Development Program will be incorporated into the Certification Training Course and the Certification Exam. Photos and text in study materials, especially the certification preparation information in The Complete Guide to USPTA Membership, will continually be updated. Those updates will be reflected in presentations by USPTA testers and in the exam.

As the modern game and methods of teaching it continue to evolve, so will the Player Development Program. All of the materials associated with it are quantified and available to members in five libraries.
III. Player development education libraries

There are many good resources about tennis and teaching, a good number of which have been created by USPTA members. However, there are far fewer that detail modern tennis and how to teach it. The Association is creating some of these much-needed resources and creating easier access to others. The advisory council will help us identify others.

All of the traditional and technology-based educational resources created for the Player Development Program fall into five categories, or libraries, explained below:

- **Video library**
  - Original USPTA productions of:
    - “On Court with USPTA” – An instructional series of 30-minute shows with guest hosts explaining stroke technique, strategy and tactics for players from beginner to advanced. A new show airs each month on The Tennis Channel, a minimum of 10 times. Each show, plus special features (e.g., an hour of additional lesson footage), is available on DVD.
    - “USPTA Sweet Spots” – One-minute tips covering all facets of the game, also available free on uspta.com.
  - Other council-approved videos

- **Seminar and specialty course library**
  - DVDs of courses by industry leaders at each World Conference:
    - Up to 30 seminars
    - Four-hour specialty courses
  - Other council-approved courses (traditional or multimedia)

- **Audio library**
  - Audio recordings of industry leaders from World Conferences and other events:
    - Recordings of all seminars from most recent conference available on CD with outlines
    - Recordings from previous conferences, including some with speaker outlines, available free online at uspta.com
  - Other council-approved audio resources

- **Online lesson library**
  - Multimedia lessons (with video, audio and text) on specific strokes for wheelchair and able-bodied players available free on uspta.com.
  - PowerPoint presentations
  - Other council-approved online lessons

- **Printed media library**
  - More than 35 books on a variety of topics sold by USPTA and written by various industry notables
  - ADDvantage magazine
  - The Complete Guide to USPTA Membership
  - Other council-approved printed media

**With today’s complex swings, the same player may use a variety of follow-throughs in order to create the desired spin, trajectory and placement.**
Practical design and organization

Few great teachers will disagree that training a player from beginner to high performance level requires an extensive knowledge of the game that includes progressions for all of the general performance components encountered along the way. The general performance components are considered to be physical, technical, tactical, strategic, mental/emotional and environmental, and each is constituted by a multitude of training factors. The foundation necessary to keep people playing is based on a shifting balance between these six components and their subordinate substructure.

Training a player from the beginner to high performance level — or from beginner to a goal level attainable by the majority of players, such as becoming a college recruit or 4.0 recreational player — takes organization. It is essential to construct a clear and extensive periodization plan that places all of the training elements in a logical, comprehensive progression based on a player’s ability and mental and physical maturity.

Periodization means organizing a player’s development with specific goals in training and competition. Periodization is intended to generate peak performance of desired long- and short-term goals for all of the specific performance components.

Long-term periodization requires understanding and establishing the goals with the player’s entire career in sight. Short-term periodization is an effort to attain peak performance for particular upcoming events, such as important tournaments.

The chart below illustrates the six general performance components and their defining concepts, all of which must constantly be balanced within a periodization plan. In future magazines, this broad chart will be broken down into specifics, including progressions, templates, lesson plans and other tools for modern player development.
Why is USPTA designing a Player Development Program?
All tennis teachers will find a place to introduce modern technique and tactics as they teach and coach players at all ability levels, from 10 and Under Tennis to competitive players. But finding resources with modern teaching strategies and progressions is still relatively difficult compared to older (conventional) teaching methods. Through the USPTA Player Development Program, we will develop a master plan that includes modern explanations of teaching components so that no matter who you’re teaching, you can find modern teaching ideas and incorporate appropriate progressions. In short, we’re organizing a toolbox for modern teaching.

Who is this for?
Anyone teaching tennis. We will translate the knowledge and expertise of top-level professionals so that experienced professionals can incorporate cutting-edge ideas into their own teaching styles and philosophies and so that less experienced professionals will have the details they need to apply modern concepts, broaden their experience and improve their teaching.

If my students aren’t competitive players, how will this program affect me?
Effective teachers will not wait for their students to ask about modern shots or strategy. Even if most of them are noncompetitive or are imitating professional players, they may still be open to learning something new to perk up their games. Teachers knowledgeable about modern technique will be able to serve their players better. For instance, an athletic man or woman at about the 4.0 level might benefit from adding modern shots to their selection. Accomplished players might even regain interest in taking lessons on the promise of learning modern technique.

Is USPTA promoting a specific teaching method or system?
No. True to USPTA’s long-standing policy, this is not intended to promote a single teaching method. This will become a master outline of all the components of tennis teaching along with explanations and resource materials from many great professionals. USPTA will identify concepts and resources where they can enhance our understanding of player development. As with 10 and Under Tennis, we will provide progressions, templates and other ideas for professionals to use as they choose, selecting the parts they want to incorporate or adopting the program as a whole.

How is this different from the Competitive Player Development specialist degree and the USA Tennis High Performance Coaching program?
This program is for teaching all players. The CPD specialist degree is for professionals who coach competitive players. The new Player Development Program relies on that kind of expertise, from advisory council members (including USTA coaches and sport scientists) and others, to explain modern technique and provide progressions and templates that are useful to USPTA professionals.

How do I take advantage of the new program?
Resources will be in various media formats, including DVDs, CDs, books, seminars and specialty courses, online multimedia lessons, TV productions and more. Obviously, the list will expand substantially in the coming months. For now, look for seminars at the World Conference, audio CDs of conference seminars, the Player Development Conference in November, “On Court with USPTA” on The Tennis Channel, the online lessons at uspta.com, books in usprotennisshop.com and more information to come in this magazine. Look for updated lists of resources in ADDvantage.

How will the program benefit the tennis industry and the growth of tennis?
USPTA members are the industry’s most important link to grassroots players. Better informed professionals teach better lessons and provide more interesting programming, which keeps players happy and courts busier. That’s what everyone in the industry wants.
As in every sport, the game of tennis continues to evolve. Racquet technology, ball technology, string composition, and even innovations in fitness and movement training have profoundly affected how the game is played today. Power and speed have become the epicenter of what is now commonly referred to as “modern tennis.”

Modern tennis for all professionals and all players – not just high performance hopefuls

continued next page
Tennis aficionados are awestruck as they confront the magnitude of changes to tennis that have occurred in the last decade alone. And these changes that are so obvious in the pro game have profound implications for the entire spectrum of tennis, from junior players to the elderly and from club players to national champions. The modern game clearly represents a new day for both players and coaches. What does the modern game’s emphasis on maximum racquet acceleration mean in the coaching of beginners, juniors, the elderly and even club players? How do injury risks change with the modern game? What racquet, string, shoes, grips, mechanics and fitness level must players have to align their games with the way that tennis is evolving and the way it is played today?

Through the USPTA Player Development Program, these questions and many more will be debated and studied, then presented in coming issues of ADDvantage magazine and many other resources.

In the last issue of the magazine we introduced the USPTA Player Development Program in an eight-page insert, including the Player Development Advisory Council, long-range plan and educational libraries, plus the general performance components for periodization. It received a very positive response from members who have written to us and from those who got a special preview of the insert and attended related player development seminars at the USPTA World Conference in September.

After receiving input from various members and the advisory council, which met at the conference, USPTA realized that there is one misconception about the program that requires immediate clarification. Perhaps the program’s name and the advisory council’s association with world-class players left the impression that the program was developed for only those teachers who coach players hoping to reach the pro tour. Nothing could be more inaccurate.

The USPTA Player Development Program was introduced as a tool to teach all tennis teachers how to develop players at all levels. Modern teaching concepts and playing techniques will help players of all levels develop better strokes, and modern sport science hopes to help all players sustain fewer injuries. What’s most important is that USPTA and its members remain on the forefront of teaching modern tennis, which will ensure that all players develop to their maximum potential, whether it’s to be No. 1 in the world or No. 1 in the family.

Regardless of one’s teaching or playing level, education is the key to the Player Development Program. We will provide tennis teachers and, thereby, their students with the resources of five or more educational libraries that will continue to be developed and introduced in a five-year master plan. The ultimate goal of this effort is to build excitement for the game that will keep people playing and learning for a lifetime.

Please refer to the September issue of ADDvantage magazine to review the program introduction. You can also find a complete reprint of it at www.addvantageuspta.com.

The following graphic depicts the Player Development Program’s reach to all levels of players, and illustrates the curriculum, resources and credentials that all will be continually updated to reflect modern thinking about teaching tennis.
Player Development Advisory Council holds first meeting

The first face-to-face meeting of USPTA’s Player Development Advisory Council took place during the World Conference in September. All council members were present – Chairman David T. Porter, Ed.D., Nick Bollettieri, Rick Macci, Jack Groppel, Ph.D., Jim Loehr, Ed.D., Paul Roetert, Ph.D., Eliot Teltscher and Tim Heckler.

The group enthusiastically tackled the meeting’s agenda, including the five-year master plan for the Player Development Program. It re-examined the program’s structure and set realistic goals and schedules for further development. Since tennis is constantly evolving, it is safe to say the program’s structure will also evolve. However, for now, the following graph describes what will be presented to USPTA and the industry in future issues of ADDvantage.

Stage I: Overview of a three-part plan
What the program is and why it came about
(September 2004)

Stage II: Five player levels
Not just for competitive players, but for all levels (LT to HP)
(November 2004)

Stage III: Six General Performance Components
The essential training components for a Player Development Program
(September 2004)

Stage IV: Elements of the six General Performance Components (GPC)
Skills or talents acquired in each component
(September 2004)

Stage V: GPC elements with definitions
Describes in general terms what is required to complete the skills and abilities
(November 2004)

Stage VI: Recommended resource libraries for each of above
Five categories of resources to train the comprehensive professional
(In future issue)

Stage VII: Production of periodization templates, corresponding drills, charts and organizational tools
(In future issues)

Stage VIII: Lesson plans
General progressions and emphasis based on skill levels
(In future issues)

Council members want to ensure that USPTA’s dissemination of player development material is not viewed strictly as a high performance program. Loehr, a Master Professional, noted that since most professionals today do not teach the modern game, the council wants to demonstrate extra sensitivity about relaying the information to tennis teachers and the industry.

With terms such as “angular,” “linear,” “kinetic motion” and “periodization,” USPTA wants tennis teachers to embrace the modern game and not be apprehensive about learning new techniques for teaching and playing. “We must show teachers how the modern game can be applied to players of every level,” said Bollettieri, also a USPTA Master Professional.

Council members have taught some of today’s top players, including Grand Slam winners. However, their experience is not limited to coaching high performance players. Most of them got their start teaching beginners of every age and background and some still give lessons to recreational players looking to improve their tennis with the game’s top teachers.

Introducing students to modern tennis

The council spent much of its time discussing when and how to introduce the modern game and its techniques to students of various levels.

Many teachers, including a majority of members of the Player Development council, believe all beginners should be taught the conventional style and strokes of tennis and then rapidly converted to the modern game as soon as they are able to make consistent and reasonable contact with the ball.

Another school of thought supports the belief that modern or angular tennis is easier for beginners to learn than conventional or linear tennis. Teachers in this group strongly believe that modern tennis shots should be taught beginning with a student’s first lesson, and that teaching traditional methods wastes time since students will have to switch to modern tennis techniques as they continue to play.

Regardless of when a teacher decides to introduce modern tennis, the council agreed it can and must be “scaled” for all playing levels from 10 and Under Tennis and recreational tennis to high performance tennis. Scalability is the key to teaching using modern tennis techniques.

Reports on this and future council meetings will be shared with other national and regional player developers, who will be asked for input on the program. Of course, all member input is appreciated. Responses to the initial special magazine insert have already prompted questions and additional material for future resources.
Periodization within developmental plan

Teaching requires planning. Whether you’re developing a lesson series for a men’s 3.5 team or making a developmental plan for a determined junior, you’re going to consider the same six general performance components: physical, technical, tactical, strategic, mental/emotional and environmental. Finding the right balance of the performance components for each student or team is how you demonstrate your expertise.

Planning and adjusting the balance of performance components to accomplish specific goals in training and competition is known as periodization. Short-term periodization would have a player or team peak for an upcoming event, such as a playoff or tournament. Long-term periodization requires understanding and establishing goals with a player’s entire career in sight.

Both short- and long-term periodization require making constant adjustments. For instance, because of results or behavior patterns that you notice in a single tournament or series of tournaments, you may rebalance a lesson or training program to emphasize tournament situations and confidence versus developing power on a backhand groundstroke.

So how does one create a plan implementing the performance components within a specified time (periodization) to achieve a specified goal set for the student? The comprehensiveness of the performance components allows the professional to maximize the development of every student, but the key is to balance the components accordingly. For example, you may be teaching a 3.0 player during a break in tournament or league play who is struggling with the forehand. During this break you want to develop a more technically sound stroke that is more consistent. Your lessons (and drills) will be more technique driven as you try to establish good habits. This scenario may have you balancing the components in a mix of:

- 60 percent technical
- 10 percent physical
- 10 percent tactical
- 10 percent strategic
- 10 percent mental/emotional

As the student progresses toward the start of league play, your periodization formula will now change your lessons and the balance of the components mix to:

- 40 percent tactical
- 30 percent strategic
- 5 percent physical
- 15 percent mental/emotional

This is designed to help your student play better points and matches. There are two things to keep in mind regarding the performance components:

1. You as the coach must be attuned to player needs and prepared to make adjustments at any time. If after a match, the student’s breakdown happened mentally and not physically or technically, you may want to adjust your balance to reflect a concentration on the mental/emotional component.

2. Try to incorporate all of the components needed into each of your lessons so that you are developing a well-rounded player. Students should have some concept of the strategy, tactics, conditioning, physical and mental/emotional strength and technique it takes to play the game of tennis.

On the following pages, we are building on the chart shown in the introduction to the Player Development Program to illustrate the six general performance components with definitions for each element in their substructure. These are general definitions, with much finer detail still to be presented in the form of progressions, templates, lesson plans and other tools. However, this second-tier graphic will be helpful as you create lesson series and player development plans. Plus, players and parents may better be able to understand your plans when shown these graphics.

This junior player already is well into his periodization schedule. He has an excellent grasp of modern technique for the loaded forehand.

Modern technique can help players of all ages and levels make the most of their games.
The six general performance components in learning tennis

I. Physical

Motor skills
Training and coordination of both gross and fine motor skills. (e.g., running, hops, skips, jumps, carioca and eye-hand skills such as catch, dribble, throw, etc.)

Conditioning
Aerobic and anaerobic conditioning. (i.e. endurance and sprint training in conjunction with tennis-specific training)

Speed, agility, quickness
Drills related to reaction, change of direction, all types of tennis movement, footwork and plyometrics

Strength
Exercises using own body weight, (e.g., push-ups, sit-ups, etc.) free weights or machines, plyometric drills

Nutrition
Hydration before, during and after matches, eating a healthy diet based on age and training demands

Flexibility
Warm-up, cool down and stretching principles, for injury prevention and training demands

Medical
Knowing basic injury prevention and treatment. (e.g., RICE), seeking appropriate medical attention and treatment when required

II. Technical

Tracking skills
Gauging an incoming ball’s characteristics and flight path. (e.g., spin, pace, depth, direction, etc.)

Racquet skills
Learning to use a racquet as the extension of the arm and adjust the racquet face to control the ball

Shot fundamentals
Learning the foundations of all shots – from anticipation to execution

Ball control
Learning to control spin, pace, depth and direction of various shots

Movement and footwork
Perfecting footwork for prediction, interception, preparation and recovery within specific shots or sequences

Modern shot technique
Understanding the specifics and complexities of the modern angular game

Developing weapons
Developing one or more punishing shots that are hit as winners or that force errors with great regularity

Developing game style
Understanding one’s strengths and creating a playing style to capitalize on them

Note: Genetics play a significant role in all of the physical elements of tennis, from injury susceptibility to muscle fibers that affect quickness and stamina. Training can affect how players make the most of genetic advantages and compensate for disadvantages. But, of course, genetics can’t be affected by coaching, and that is why it is not considered an element of the physical performance component.
The six general performance components in learning tennis

**III. Tactical**

- **Consistency**
  The ability of a player to get the ball back more times than an opponent using optimum pace and control

- **Placement**
  Selecting a target and hitting the ball there

- **Patterns**
  Combinations of shots that help achieve a strategy (e.g., hitting crosscourt to open up the down-the-line shot)

- **Spins**
  Developing offensive and defensive spins for control and power

- **Power**
  Imparting pace on shots for both offensive and defensive purposes

- **Shot selection**
  Deciding placement and type of shot to be hit (offense, defense, neutral)

- **Game situations**
  Ability to execute all of the above in a competitive situation

**IV. Strategic**

- **Repetition**
  The ability to reproduce tactics that have proven successful against an opponent

- **Recognizing strengths**
  Knowing one’s strengths and weaknesses and using that knowledge to develop a game plan or tactics against different opponents

- **Game style**
  Understand and distinguish between game styles and knowing how to use them and defend against them

- **Surfaces**
  Knowing all types of playing surfaces with their individual playing characteristics and the ability to adapt to each of them appropriately

- **Game situations**
  Adapting to typical playing conditions that occur during a game in a match (e.g., playing ad points, etc.)

- **Match situations**
  Adapting to playing situations that occur during a set in a match (e.g., when to change a losing strategy)

- **Tournament situations**
  Adapting to the variety of challenges that occur in the normal course of a tournament
The six general performance components in learning tennis

V. Mental/Emotional

- **Self-esteem**
  Building players who have confidence and satisfaction within themselves

- **Confidence**
  Developing self-assurance and trust of a player’s self-sufficiency

- **Independence**
  Building self-reliance in players to meet the arduous challenges in an individual sport such as tennis

- **Discipline**
  Training that is expected to produce a desirable character or patterns of behavior most suitable to the game of tennis

- **Temperament**
  Developing an ideal manner of thinking, behaving, and reacting that is characteristic of a successful tennis player

- **Concentration**
  Developing players who can control the direction and attention of their thoughts and focus on the primary task at hand

- **Goal setting**
  Training players in goal setting and how to periodize their goals and accomplishments based on level and aspirations

- **Sportsmanship**
  Reinforcing in players the qualities and conduct befitting competitors who react to victory and defeat graciously

VI. Environmental

- **Fun**
  An enjoyable and pleasurable atmosphere must be created in all aspects and levels of learning, training and playing (e.g., even world-class players have fun playing and winning)

- **Home**
  Importance of support mechanisms that include the immediate family and geographical environment. (e.g., competitive players generally have a very supportive family structure and live in a city or state with a strong tennis environment)

- **Social**
  Structuring a social environment that enhances the likelihood of a player reaching the desired level of play (e.g., if a player has friends who play only other sports, socializing takes time away from tennis)

- **Economics**
  Economic resources affect player development in that they may increase opportunities for coaching, travel, etc. Coach or parent should know where economic aid is available for less privileged players

- **Competitive**
  Analyzing and producing the best competitive conditions for players by managing (or training the players to manage) the challenges both on court and off (e.g., periodization of key elements of training, arranging competitive practices, tournament selection and travel, etc.)
Why learn and teach modern tennis?

- Add a new dimension to your teaching
- Increase your student base with players interested in modern technique
- Lure frequent players back to the lesson court with the promise of learning something new
- Gain confidence from knowing that you’ve mastered new teaching concepts
- Stay on the cutting edge of the profession: like computer technology, modern teaching methods can’t be ignored

Recreational players will appreciate your effort because it may:

- Raise their level of play 1 NTRP point
- Make learning easier
- Give them something in common with the pros
- Give them an edge over their friends
- Improve their confidence in you (and they’ll spread the word!)

In this two-handed backhand it is clear to see that the top arm is supplying power while the bottom arm is providing guidance.

Incorporating modern tennis techniques gives even more experienced players a reason to take lessons.

In modern tennis, players rely on more racquet speed and a fast recovery, which is why the open stance is becoming popular even on the backhand side.
It seems so simple to conceive that every shot in tennis is a sequence of components, and that a trained teaching professional should be able to point to one or more of these when diagnosing the primary problem and cure during a lesson. In fact, this is an essential skill for tennis teachers taking the USPTA Certification Exam. A good teaching professional is required to

Anatomy of a modern shot
see each shot component, from ready position to recovery, in
exceptional detail and use this information, along with a keen
understanding of how each component affects the other, to form
and communicate a diagnosis and cure.

Of course, it’s not so simple. Try to write the shot components in
sequence and it doesn’t take long to realize that determining the
components is much easier than explaining in strict order when
and how each occurs. This is because a shot is executed so fluidly
that many of the components don’t occur at only one point in the
sequence, but often overlap.

Footwork, for example, clearly is a major component of every shot.
We can declare it begins in earnest after reaction time, since you
begin moving toward a shot during movement time as shown in
Exhibit I. But, obviously, it continues to play a critical role during
all subsequent shot components as we circle back to responding
to the next shot in the rally. Since the feet never stop moving
during a point, there is no clear beginning and ending point of the
footwork component. And, while we do not show the kinetic chain
as a separate component in Exhibit I, it likewise is a critical factor
in many shot components. It is illustrated as a chain linking the
components it most affects.

Thus, there will always be room for pros to critique the order in
which this information is presented and, perhaps, the information
itself. This is the privilege that USPTA never has and never will
attempt to usurp from its members, all of whom have significant
contributions to make to the teaching of the game. Our intention
is simply to present the materials in an understandable order,
explaining the shot components as information units that members
may accept as they are or rearrange within the reasonable
boundaries of their own expertise.

With this in mind, if we insist on simplifying the sequence of each
shot, we would probably accept Exhibit I as an explanation of the
primary components and their interactions with one another.

**The three phases of a shot:**
As seen in Exhibit I, the 11 primary shot components can be
categorized into three distinct phases:

1. Preparation phase
2. Hitting phase
3. Recovery phase

This insert will deal only with the preparation phase including:
1. Foreperiod, 2. Reaction time and 3. Movement time. We
will undertake one or more of the other phases sequentially
in upcoming magazines. Again, remember that each of
the components with their subcomponents and respective
explanations are excellent stand-alone topics that can be used
in your lesson plans immediately.

Exhibit II is a more detailed look at the shot components that
occur during the preparation phase:
1. Foreperiod:
The foreperiod is most often thought of as the 25 seconds the rules allow between points. However, it also occurs in a faster and more automated way during the short time a player has between sequential shots in a rally, perhaps with some of the skills omitted.

The eight skills comprising the foreperiod may seem to be too much to ask a player to think about. It would be if each of them always happened as individual steps in a deliberate process. The key is that most of what happens in the foreperiod happens unconsciously and automatically, as a product of experience. As players learn about themselves through competition – such as their bodies’ physical reactions to stress and their tendencies when they’re ahead in a match and when they’re behind – they will develop the skills that keep them focused, relaxed and competitive.

On the other hand, as coaches and teachers, we have to be able to identify those skills that need improvement and require conscious thought and training. The importance of these skills can’t be underestimated, since the majority of time in a match elapses not during play but between points, games and sets. The foreperiod is a danger zone where emotions, distractions and other factors can interfere with players’ mental and physical preparation.

**A. Positive physical response**

In *The Mental Game, Winning at Pressure Tennis*, Jim Loehr, Ed.D., provides his “16-second cure” to help players maintain focus between points. In regard to positive physical response, Loehr says that as a point ends, players can facilitate the flow of positive emotion or reduce the chance that negative emotion will interfere with play, with their physical actions and mental responses. For example, make a quick, decisive move with your body the instant the point ends. Pump your fist if you won the point or clap your hand and racquet if your opponent hit a great shot. Or, make a quick, decisive move away from a mistake. Project a confident image. Let both arms hang freely at your sides, hold your shoulders back, head up and eyes forward to project an energetic, competitive image.

Acknowledging an opponent’s good shot is not only good sportsmanship, but will also help you move on to the next point in a positive manner.
A player doesn’t need to say anything, but Loehr offers guidelines if you do: If you lost the point due to a mistake, say to yourself “No problem,” or “Let it go.” If you lost the point due to your opponent’s great shot, say “Nice shot.” This takes the pressure off you. If you won the point, say “Yes” or “Come on.”

However, pumping fists and saying “Yes” should only be done for oneself and not in the face of an opponent or for the purpose of gamesmanship.

The goal is to keep a consistent level of positive energy during a match since big fluctuations can impede performance. The level of positive physical response that is helpful to a player will be determined individually, depending on a player’s personality and ability to focus.

Most people respond well to winning a point, but will need to practice a positive physical response after the loss of a point, game or set. With experience and a coach’s help, players will find what works for them, and it may have to be practiced like any shot or tactic.

Additional examples of positive physical responses after losing a point are:

- Shadow the missed shot and visualize hitting it successfully.
- Do not show any emotion.

Reacting the same way to points won or lost can help stabilize emotions over the course of a match.

Players should continue a positive posture while walking to the area behind the baseline. You can shake out your hands, stretch, spin the racquet in your hand, bounce the ball on the strings, or towel off at the back of the court. It is also important to breathe deeply and slowly. To maintain excellent concentration, your eyes should be on a fixed object such as your strings or on the ground. It is also important to keep your feet moving. In high-stress conditions, blood flow will pool in the feet and legs and slow you down if you stand still. The more stressful the previous point or the more important the next point, the more time you should take in the stage. Think only relaxing, calming thoughts such as “Settle down,” “It’s OK” or “Relax.”

B. Relaxation

A relaxation response allows the body to recover from the physical and emotional stress of the previous point and return to the optimal arousal level, according to The Mental Game.

Players maintain concentration by focusing on strings or other fixed objects.

Players relax after a point by holding the racquet high in the nondominant hand.

There are 25 seconds between the end of one point and the beginning of the next in which to perform all of the functions related to the foreperiod. Players will establish an optimum rhythm (be it slower or faster) for moving to the baseline to begin the next point. As long as the rhythm is working and the player is performing at a high standard, there is no reason to break this rhythm by speeding up or purposely taking all 25 seconds allotted.

On the issue of deep breathing, Angus Mugford, Ph.D., mental conditioning coach at Bollettieri Tennis Academy, suggests the following breathing technique: “Let your stomach expand as you inhale. As you exhale, say the number five, on the next breath exhale with four, then three and so on. This five-count technique will help break down the lactic acid in your body, provide oxygen to your brain and focus on the now!” This technique is helpful in maintaining concentration and overcoming nervousness or choking.
C. Planning

The Mental Game says that as soon as you move toward the baseline to serve or receive, you should make sure you know the score and your plan for the next point. If you’re serving, pause a foot or two from the baseline. Say the score, looking directly at your opponent. “Project the strongest, most confident and aggressive image possible… The same is true on the service return. The receiver should project as powerful an image as possible, looking directly at the opponent as if to say, ‘I am confident I will win this point.’”

Mentally, Loehr suggests that, at this point, you give no thought to technique, grips, or strategy since that was done during the planning stage. Most players benefit from a quick mental rehearsal of the serve or return that includes a clear image of where they want the ball to go. No self-talk is recommended during this stage.

Once you’ve established your rituals, it is important to continue using them.

E. Visualization

It’s been said that if you can see it, you can do it. A chapter in World-Class Tennis Technique described this research regarding visualization: “Players consistently report that visualizing the serve or serve return before the start of the point facilitates execution. Using images to mentally rehearse complex biomechanical movements typically does not lead to the ‘paralysis by analysis’ syndrome. The recreation of experience through images stimulates an entirely different area of the brain from logical, analytical thought. Stimulation of the nondominant hemisphere of the brain, which is what happens in visualization, facilitates instinctive and automatic play.

“Using visualization to correct mistakes during play can have a very positive effect on mechanical precision. Simply ‘feeling’ the correct stroke or mentally and physically rehearsing the specific correction before the next point builds confidence and positive response expectancy.”

While we’re discussing using visualization on court, we should also note that it should also be practiced off the court, as described in Maximum Tennis by Nick Saviano: “The ability to visualize yourself executing in competition is essential to
achieving your goals. When top Olympic coaches and elite athletes from a wide variety of sports were surveyed as to the most important factors in their psychological training programs, they named visualization, or imagery, as number one in importance.

“Try to visualize yourself performing on the court exactly the way you would like. If you have trouble with a particular shot, learn to visualize yourself hitting that shot particularly well. If you have trouble serving out a match, visualize yourself serving out the game with confidence. In preparation for a match, many professionals will actually get away by themselves shortly before competing and visualize certain aspects of the match or specific shots. Others practice their visualization at night.

“It sounds corny, but for most players it really works. If you are to play in the club championships and you simply don’t believe you can win it, take some time each day and visualize yourself playing in the final match. Picture yourself being totally under control, executing great shots and winning the last point. The more vivid your visualization, the better. Try it, and you will be surprised just what an effective tool it is.”

F. Anticipation
“Anticipation often is broken down into two classifications: total and partial anticipation,” according to the USA Tennis High Performance Coaching Program manual. “Total anticipation is predicting what the opponent will do in a given situation; partial anticipation is predicting what the opponent will not do in a given situation. Partial anticipation is what most commonly happens on a tennis court, because a player rarely is able to predetermine exactly what shot his or her opponent is going to hit and where the ball will go.

“Partial anticipation is important. It assists the player in responding more quickly to a ball because it reduces the number of possible responses from his or her opponent. It also helps the player decide which of the possible options he or she may use to execute a particular shot.”

The manual goes on: “Anticipation is needed during match play because of the great demand for player movement and the short times available for adjustment and movement to a ball returned by an opponent. The ball takes roughly 0.4 seconds to get from one end of the court to the other, depending upon the type of shot it is and how hard it was hit. Players need between 0.3 to 0.5 seconds to move from their current positions to positions in which they can hit the ball. Therefore, the returner must have the ability to anticipate the shot in order to allow this sequence to occur and to minimize the chance of errors.

“Additional research regarding anticipation shows that players lose the ball for approximately one to two meters immediately after impact and can then focus closely on the ball when it is traveling over the net. Players also have trouble seeing the ball when the ball comes within one to two meters in front of them, as the human eye is unable to follow the ball during its entire trajectory. This research sheds important light on the importance of being able to anticipate and predict ball trajectory and flight patterns based on cues.”

The four major factors that provide information needed for anticipation are described in Maximum Tennis like this:

1. “Type and quality of your opponent’s shot. By being aware of the type of shot (its direction, speed, spin, height, trajectory, and depth) and the quality of the shot, you can anticipate where and how the ball is going to
bounce. Obviously, this type of anticipation occurs after your opponent has hit the ball.

2. Patterns, tendencies, strengths, and weaknesses. This involves knowing the patterns and tendencies of your opponent, as well as his strengths and weaknesses. Based on that information, your ability to anticipate what your opponent may or may not do improves tremendously. Scouting your opponents, practicing together, or having played them in previous matches helps you develop this type of anticipation.

3. Opponent’s court position. This involves knowing the ramifications of your opponent’s court position on the type of shot she can hit. For example, if your opponent has moved back well behind the baseline, you can logically conclude that she will not be hitting a low line drive from far behind the baseline. She most likely will hit the ball with a high net clearance to put the ball deep.

4. Cues from your opponent’s stroke. This is about your ability to pick up cues from your opponent’s technique. Notice what grip he is using, his balance, the swing path of his racket, his footwork (or lack thereof), his body stance, his ball toss, and the like. All these aspects of your opponent’s stroke production will give you clues as to what type of shot he is preparing to hit.

G. Ready Position:

When we use the term ready position, often the first thing that comes to mind is the return of serve. In this instance the ready position implies that a player is in place, balanced, with knees flexed, feet shoulder width apart, moving foot to foot and ready to make a split step and move to return the oncoming ball.

Obviously the return of serve is not the only ready position that applies in tennis. There is a ready position for the return, the serve and, in a more complex way, every shot in a rally. What’s important to note is the commonalities about ready position, whether a player is returning serve or is rallying from the baseline and looking for a chance to get to net.

- The ready position should be a position of balance that best allows a player to be prepared to move. It will be slightly different for each player, depending on factors such as body type.

- Although many think of it this way, a deep knee bend and low body position aren’t necessarily ready position. Good players may start that way, but will extend their knees a bit and bounce or come slightly off the ground. So, as they prepare to move, they are slightly higher than when waiting to see what would happen.

- As players prepare for another shot during a rally, ready position is more likely to be a brief hesitation than a pause in a complete ready position. A player will hesitate in a spot that allows the best opportunity to explode in the direction of the oncoming ball.

- Finding ready position, or an instant of hesitation, will take place based on anticipation. For instance, it may be judged on court geometry based on the previous ball hit and the expected return. The player may even fade toward the backhand side, instead of the middle of the angle, in order to get a better chance at a forehand.

- Ready position should allow the player to face the ball, not the net, with the only exception being a ball hit deep to the center of the court.
H. Grip:
Generally, a player waits with a certain grip and shifts to the precise grip for the next shot while bouncing into a split step and moving toward strike-zone set up. These actions in an advanced player are so fast and spontaneous that they almost seem to take place simultaneously.

2. Reaction Time
Similar to the outline in Exhibit II (Page 3), the USA Tennis High Performance Coaching Program manual defines reaction time this way:

“Reaction time is the interval of time between the onset of a signal or cue, often called the stimulus (2a), and the initiation of a response. It is the amount of time it takes the brain to recognize what to do (brain impulse, 2b) combined with the time it takes for the muscles to start to move for the shot (muscle impulse, 2c).”

A longer foreperiod for the returner, which is allowed by a server who bounces the ball many times and/or has a higher toss, impacts reaction time differently than a shorter foreperiod allowed by a server who steps up to the line and serves without bouncing the ball or who serves a low toss such as Roscoe Tanner or Kevin Curren.

Reaction time can be trained, however most research suggests that a faster reaction time of 10 percent would be the most one could hope to improve. It is suggested that a minimum of 100 practice trials would be necessary to expect any significant result.

3. Movement Time:
Movement time is the time between the muscle impulse and completion of a movement, or the time it takes to move to address an oncoming ball.

Movement time includes:
   a. Change to the final grip
   b. Time to the strike zone

Here’s an example of how this concept applies to tennis from the High Performance Coaching Program manual: “A player is standing on the baseline after hitting a backhand that travels to the opponent, landing on the opponent’s service line. As the opponent moves forward to retrieve the shot, the player notices visually that the racket face of his opponent is opening up, having the technical qualities required for a drop shot. The player immediately begins running forward to retrieve the drop shot, reaches the ball just before its second bounce, and hits a winner down the line deep into the opponent’s backcourt.

• For this example, the reaction time was the period of time from the visual cue or recognition of a drop shot and the initiation of forward movement toward the ball.
• The movement time was the period of time between the initiation of forward movement and the completion of the return shot for a winner.
• The response time was both the reaction time and the movement time required to complete this exchange.”

Credits and thanks
We owe thanks and credit to several USPTA members who generously contributed their research and knowledge to this issue:

• USPTA's Player Development Advisory Council: Nick Bollettieri, Jack Groppel, Ph.D., Jim Loehr, Ed.D., Rick Macci, Paul Roetert, Ph.D. and Eliot Teltcher, David T. Porter, Ed.D., Tim Heckler, former USPTA CEO
• World-Class Tennis Technique, Paul Roetert, Ph.D., and Jack Groppel, Ph.D., editors
• USA Tennis High Performance Coaching Program manual
• The Mental Game, Winning at Pressure Tennis, Jim Loehr, Ed.D.
• David T. Porter, USPTA Education Committee Chairman and professor at Brigham Young University – Hawaii
• Maximum Tennis, Nick Saviano
• Mike Kernodle, Ph.D., associate professor at Appalachian State University and member of the USPTA National Education Committee
• Angus Mugford, Ph.D., mental conditioning coach at Bollettieri Tennis Academy
• John Yandell and Advanced Tennis Research Program’s high-speed video of world-class players
Modern tennis, like its conventional predecessor, has many fundamentals – or commonalities – that if properly recognized and understood, make the modern game more effective and enjoyable for teachers and players alike.
First, it is important to differentiate between a “commonality” and a “specific difference” in playing styles among individuals.

Commonalities are broadly accepted principles that apply to almost every modern player. The best example may be the correct technique for hitting loaded, open-stance forehands and backhands and how a player loads the outside leg, explodes into shots with kinetic energy and lands on the most appropriate leg for maximum recovery.

Specific differences are numerous among players and may include a player’s style or flair, which should be distinguished from his more general hitting process. For example, while Hewitt and Kuerten have commonalities in their shot-making, they may differ in minute specifics such as how they hold their grips or finish a shot with a particular wrist wrap. Roddick’s abbreviated serve can be considered as a specific difference from most other players.

So, while there are numerous minute differences to players’ styles that might be confusing at first glance, we can find and must study primarily the many commonalities that are key to modern shots and are similar among all players and the way they strike the ball.

We will explain these keys to modern shots as we delve further into the final seven components of the anatomy of a shot – starting with No. 5, shot selection, in the hitting phase, and continuing through the recovery phase.

**Hitting phase**

Exhibit I below is the place to start. It illustrates many different processes that are happening both continuously and simultaneously. The components without color have been covered in the previous inserts. Out of necessity, we discussed footwork as part of the hitting phase of a shot, but the graphic shows the obvious with the yellow component disc – that footwork is an integral part of all three shot phases.

Similarly, the kinetic chain (symbolized by a chain linking the seven components) appears throughout the hitting phase and into the first component of the recovery phase (seen below in Exhibit I). The kinetic chain is the sequential coordination of body segments (feet, legs, hips, trunk, shoulders, arm and wrist) to achieve more force than would be possible if the player omitted any of the segments.

This increased force is the advantage of angular momentum over linear momentum. We repeatedly use the term “load – explode – and land” to explain the basic mechanics of modern groundstrokes as hit by experienced players. Loading the outside leg for a groundstroke provides the axis around which the core and arm rotate, generating angular momentum (see Exhibit II). When demonstrating this concept to less experienced players, the teacher may more appropriately demonstrate a load – rotate and weight transfer skill.

The process of loading, exploding and landing happens throughout the hitting phase. Loading occurs during the backswing; the explosion into the shot happens as the body uncoils into the forward swing; and the landing is part of recovery. These concepts are explained in more detail in the following of shot anatomy.

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**Exhibit I: The anatomy of a shot**

![Diagram of the anatomy of a shot with labels for the hitting phase (5-9), footwork, shot selection, strike-zone setup, backswing, forward swing, contact point, follow-through, recovery, and preparation phases.](image-url)

Footwork occurs throughout all components of the shot.
**Shot selection**
Regardless of a player’s groundstroke capabilities, he or she still has to know when and how to use them. As teachers and coaches it is important for us to provide a foundation for players to make good decisions. Shot selection involves spin, speed, direction and purpose, and is highly related to recovery. It is a process of integrating technique with tactics based on circumstance or strategic approach.

Like many of the other components in Anatomy of a modern shot (June 2005 ADDvantage), shot selection can be an extremely detailed topic. This very general explanation will be laid out in greater detail in a later issue under tactics and strategies. At that time, we will also be referencing many noted strategists and systems such as System 5 and The Strategy Zone by Nick Bollettieri and Lance Luciani.

Choosing the right shot at the right time is key to not only playing tennis well, but also winning. Remember, there is no such thing as a low-percentage shot if it is executed in the proper situation.

I. Determining factors in shot selection:
   There are many factors that determine the shot a player should hit in a given situation. Usually, it is a combination of these factors and not just one factor that influences a player’s shot selection.
   A. Pace of the oncoming ball – A fast, hard-struck ball may limit a player’s decision and movement time.
   B. Depth of the oncoming ball – As with pace of the ball, depth will also limit the shot options of a player.
   C. Spin – The amount or type of spin will affect the shot selected.
   D. Height – Where the ball is in relation to the net affects shot selection.
   E. Balance – The dynamic or static balance or inbalance of the player.
   F. Court positioning – Where the player is going to be positioned when executing the shot helps determine shot selection.
   G. Court positioning of the opponent – Will the opponent be in or out of position when the shot is played?
   H. Strengths/weaknesses – Both the player’s and opponent’s strengths and weaknesses must be considered.
   I. Recovery position – The amount of court the player will need to cover to be in proper position to play the opponent’s next shot.
   J. Playing conditions – Wind, sun, court surface, etc., all play a part in choosing what shot to hit.

II. Types of shots:
   The type of shot selected will generally fall under three categories:
   A. Offensive – shots that are intended to put the shotmaker in an offensive position or in control of the point.
   B. Neutralizing or rallying – shots that are intended to sustain a rally and/or neutralize your opponent’s shots so that no one is controlling or dictating the point.
   C. Defensive – shots that are intended to defend against the opponent’s offensive shots and hopefully allow the player to reestablish neutralizing or offensive shots.

**Strike-zone setup**
Strike-zone setup requires applying efficient footwork to get to the position judged best for performing the correct technique for the selected shot. However, it might be simplified by saying as technique improves, so does the ability to predict and move to the most effective strike zone.

Strike zone encompasses both the ball’s distance from the body and its height. Most players have an optimum height where they will try to contact most groundstrokes. This is often referred to as the “wheelhouse.” When the optimum can’t be reached, there are variations above and below this zone. Upper-level and lower-level strike zones have to be addressed in the modern game. It is no longer just a waist-high level for the optimum contact on groundstrokes. For example, today’s top players have a higher optimum contact point on groundstrokes than players of the past. These shots can be driven into the court, allowing a player to take control of the point. Or, when a player is in control of a point these shots hurt an opponent and force a weak response.

Strike-zone setup involves such preparatory skills as anticipation, prediction and interception. These skills can be learned and improved with training.

**Anticipation:**
In review (from Anatomy of a modern shot – Vol. 2, No. 3) there are two types of anticipation. Total anticipation is predicting what an opponent will do; partial anticipation is predicting what an opponent will not do in a given situation.

Partial anticipation is what most commonly happens on a tennis court, since players are rarely able to determine exactly what shot an opponent will hit and exactly where the ball will go. It involves cues that a player can use to more accurately predict what shot is not coming and therefore focus on what could be coming. These cues can come from an opponent’s:
1. Technique – cues in the grip, balance, swing path, body stance, footwork (or lack thereof), ball toss, etc.
2. Court position
3. Patterns, tendencies, strengths and weaknesses

Prediction
Prediction is the foundation skill in learning to play tennis and is still crucial at its highest level. The ability to recognize the spin, speed, height, trajectory and depth of an incoming ball is the basis of establishing an efficient strike-zone setup. Players must predict not only where the ball will land on their side of the court, but they must also predict (based on the spin, speed, etc.) where the ball will end up. We have often seen the inability of young players to predict when they run toward a ball and then end up reaching high over their shoulders to try and hit it.

Professionals who teach by hitting from a basket to a stationary student find that before the lesson is over their student can hit a reasonably good groundstroke. However, once the “perfect feed” is not present the student’s newfound success may turn to discouragement and lack of interest when they find they are unprepared to predict accurately where the ball will land and, more importantly, where the ball they are hoping to hit will end up.

This process of learning to predict should start at the beginning of an instructional series and is easily practiced in a variety of ways off the court.

Intercepting
Intercepting is the process of moving to a spot where you have predicted the incoming ball will end up and ideally being there early enough to be waiting in a loaded strike-zone setup. Beginners might be encouraged to wait in position before the ball lands on their side of the court.

Here are two drills from David T. Porter, Ed.D., which can help players work on strike-zone setup:

Drill 1: Eight-ball footwork drill – Catching ball on hip

Purpose:
A footwork drill to increase a player’s ability to change directions quickly.

Description:
1. Player “X” starts at the baseline.
2. Pro throws or feeds eight consecutive balls to various parts of the court that are just barely within the reach of the player, providing he reacts fast, runs fast and is quick to intercept the balls on the first bounce. The pro must be the judge of where and at what speed to throw the balls.
3. It is important to feed the balls so that as soon as a player catches them, he or she must immediately change directions to move to get the next ball.
4. The pro should allow the player only a brief time to rest before repeating the eight-ball drill again.
5. The drill can be varied by adding a racquet so that when the player runs down the shot, he can hit them back.

Drill 2: Up and back drill

Purpose:
A footwork drill to increase a player’s ability to quickly move forward and backward on the court while emphasizing proper loading, strike-zone positioning, rotation and follow-through.

Description:
1. Player “X” starts at the baseline.
2. Pro tosses ball short to player.
3. Player moves in quickly, loads on dominant side leg, explodes through the shot, lands on nondominant side foot, and completes shot with hips and shoulders facing single sideline.
4. Pro tosses next ball deep, pushing player back to hit shot so that loaded leg is back. Player must explode and still rotate prior to contact. Player continues rotation in the air and lands on left (or appropriate leg) with hips and shoulders now facing opposite singles sideline.
5. Pro continues to alternate a short toss and a deep toss to keep player moving up and back.

Variations:
1. Can use either forehand or backhand groundstrokes.
2. Use targets for student to hit to.

Backswing
Backswings come in a variety of styles, often varying from player to player and shot to shot.

Take back styles
World Class Tennis Technique explains that there are two styles of take backs on the forehand side: the single-unit turn and the elbow-leading turn.

However, there are commonalities between all modern, topspin groundstroke backswings: looping the backswing on the forehand side and using the body to prepare the racquet for both forehand and backhand. The modern backswing, especially on the forehand side, is almost exclusively done with a loop. The loop facilitates a better transfer of momentum and helps players handle the varying heights of incoming balls. The second commonality is that the body is used to prepare the racquet. The first move is always with the foot, hip and shoulders and this helps keep the backswing from getting too large or too far away from the body.

The player should decide which style of backswing to use. The player will naturally gravitate toward a style that feels more natural and is more efficient for their game. The style of take back might never be mentioned unless a pro feels the student needs to be aware of the process to help their performance. Using the hips and shoulders to take the racquet back is something that could be taught early on in the process to help the player create efficient and effective shots.
The single-unit turn is characterized by:

- Moving the racquet back in synchrony with the shoulder turn
- This movement implies a rotation of the whole racquet arm about the shoulder

The elbow-leading turn is characterized by:

- Moving the elbow back in synchrony with the right shoulder
- Pointing the tip of the racquet to the oncoming ball
- Closing the racquet face as the elbow is raised
- Pivoting the forearm and the racquet about the elbow so the racquet is rotated up to a position above the elbow and shoulder

The single-unit take back is used by players who have a more compact swing, such as Andre Agassi and Martina Hingis, who have a reduced swinging radius and rely more on the development of angular momentum during their rotations toward the ball.

Players with the elbow-leading style include Lindsay Davenport and Roger Federer. These players have better timing skills and can use the elbow-leading take back to their advantage, optimizing racquet head speed without hitting the ball late.

Loops

While use of a loop backswing is almost universal on modern groundstrokes, players differ in the size of the loop – some use a larger loop and some use a smaller loop. Some players use circular loops, while others use a more elliptical loop. The loop provides a more fluid stroke and allows the racquet head to accelerate over a longer distance. Even though a player may exhibit a large loop on most shots, you will see smaller loops on the return of serve and shots with little or no preparation time.

The shape and height of the modern backswing should be measured against the incoming shot. At the 2005 USPTA World Conference, the Player Development Advisory Council discussed the backswing and the height of the take back. Everyone agreed that the highest point of the loop should be above the level of the incoming ball. This enables the player to have the appropriate forward path, whether the ball’s bounce is low, medium or high.

Loading

Discussing only the path of the backswing does not convey the importance of the backswing in generating force for modern shots. During the backswing of a modern shot, there is much more going on than just racquet preparation. This is the energy-storing phase of the shot, when loading or coiling takes place. Loading is explained as the storing of energy in the large muscle groups. The shoulders, torso, hips and legs are all loaded, storing up energy in the backswing, to be released with the forward swing to contact.

Timing

The backswing should be made early enough so that the player can make the best contact on the ensuing forward swing. There are some variations in timing among players, primarily as a matter of style. It’s important to remember that the backswing allows the player to be prepared to make optimum contact.

Forward swing

In the forward-swing component we see the forces that were accumulated are uncoiled into the shot, generating the appropriate technical response for the given tactical situation.

The kinetic chain is very much involved in the forward swing. It is the differentiating factor between angular and linear strokes, or modern and traditional shot making. This is the “explode” part of the modern load-explode-land hitting style. The path of the forward swing also directs the amount or degree of spin imparted on the ball.

The racquet path will depend on the shot selected and the strike zone. Topspin shots can be hit with a low-to-high path from lower- and medium-level strike zones. Upper-level shots inside the court (Zone 3 for example) will not use the low-to-high path, but take a more level or even downward path on the ball with the angle of the racquet face and the speed of the swing imparting the topspin rather than the low-to-high brushing motion of the lower-level shot.

Contact point

The contact point probably is the most critical factor in every stroke as the alignment of the racquet and the ball determine a shot’s direction. With the variety of grips that can be used to strike the modern forehand, the contact point in relation to the body will be different depending on whether an eastern, semiswestern or western grip is used. However, even with these differences there still are some commonalities in the modern shot contact point that should be identified:

- Hips and shoulders are parallel to the net (or perpendicular to the target area) at impact during the loaded open-stance forehand.
- Ball contact is in front of the body.
- On forehands, the free hand plays a key role in balancing body weight for contact.
- Racquet head acceleration culminates in maximum speed at contact.
Recovery phase
The recovery phase of a shot has two components – follow-through and recovery (see Exhibit III below).

Follow-through
The follow-through is an extremely significant element of the modern shot that provides:

- The completion of the rotation required for maximizing angular momentum. This full rotation also plays a key role in body positioning for maximum recovery efficiency. By following through in the direction of the target the dominant-side shoulder and hip continue to rotate and are pulled to their final position, taking full advantage of angular momentum.

- A path for the racquet to follow. This helps a player maintain balance throughout the shot.

- Appropriate acceleration through impact. This is particularly important for imparting all types of spin and controlling a shot. If the follow-through is shortened, the racquet will have to slow down before contact.

- Normal racquet head deceleration. This can help reduce arm-related injuries.

- A way for professionals to judge the quality of the stroke.

After contact the racquet and arm continue forward until the shot played determines the direction of the finish. On the majority of finishes, the arm decelerates and rotates as it comes across the body along with angular rotation of the shoulders and trunk. Generally, the player wants to have the elbow high in the deceleration phase. In the vertical finish, the arm is raised above the head vertically and pointed to the court as the racquet decelerates.

Careful study of the follow-through leads to the conclusion that there are four places where a player’s racquet might finish in relation to his body: vertical (over the hitting shoulder), elevated (over the opposite shoulder), horizontal (chest high/across the opposite arm) and inverted (across the opposite hip/thigh).

This is a tricky subject to discuss, because as teachers we often look at the finish, or location of the follow-through, as an indication of the racquet path. However, for the sake of simplicity in this discussion, the terms only describe the location of the finish without regard to the racquet path. For example, when a player strikes the ball at his ideal contact point, say about waist high, and follows through over his opposite shoulder, his finish is elevated in relation to the racquet path and his body. If that player takes a ball at shoulder level and finishes over the opposite shoulder, the finish is horizontal in relation to the swing path, but we still consider it an elevated finish since the racquet finished over the opposite shoulder.

Examining each possible racquet path and its finish would require consideration of sport science, players’ individual artistry and, frankly, some conjecture. So, as you think about the terms below, please remember that they refer only to the location of a racquet’s finish without regard to racquet path.
The follow-through finishes can be categorized into four types:

1. **Vertical** – finishing on the same side of the body, straight up and over the hitting shoulder
   The vertical finish is typically used on:
   - Shots when the player is unable to rotate the hips and legs
   - Neutral or offensive shots off low balls. The player may impart both sidespin and/or topspin.

2. **Elevated** – finishing over the opposite shoulder
   The elevated finish is the most common finish. It is typically used on:
   - Drives where the ball is in an ideal strike zone
   - Drives when the ball is peaking or on the rise

3. **Horizontal** – chest high, finishing around the opposite arm
   The horizontal finish is typically used on:
   - Drives hit off high balls
   - Drives that require additional topspin

4. **Inverted** – finishing around the opposite hip/thigh
   The inverted finish is typically used on:
   - Excessive spin or sharp-angled shots
In addition to the biomechanical considerations that make the follow-through an important part of the shot, it allows for variety in shot production.

**Recovery**

The recovery portion of this phase may be examined both physically and tactically. Physically, we look at how a player lands and then moves to the ideal recovery area on the court. Tactically, we look at where a player may choose to recover on the court based on tactical fundamentals.

The physical technique of modern shot recovery starts with loading from a balanced strike-zone setup and then transferring weight as part of an explosive (not necessarily power-producing) rotation. If the strike-zone setup is balanced and the weight transfer moves a player either forward or toward the middle of the court, then recovery is both economical and efficient. However, if the strike-zone setup requires a step back or away from the middle of the court, then additional time and steps must be taken to achieve the appropriate recovery position (see *Footwork in modern tennis* – Vol. 2, No. 4).

Tactically, the direction and type of shot hit will determine the area to which a player will recover on the court. The general rule of recovery positioning is that a player should recover to the middle of an opponent’s angles of reply.

As we move forward, it is becoming apparent that the USPTA Player Development Program inserts will continue for as long as continuing education is paramount to the Association’s purpose.

**Credits and thanks**

Once again, we must thank our extraordinary resources whose advice and works have aided USPTA in this chapter:

- *World-Class Tennis Technique*, Paul Roetert, Ph.D., and Jack Groppel, Ph.D., editors
- USA Tennis High Performance Coaching Program manual
- David T. Porter, Ed.D., USPTA Education Committee chairman and professor at Brigham Young University – Hawaii
- Bret Hobden, USPTA presenter on modern tennis techniques
- John Yandell and Advanced Tennis Research’s high-speed video of world-class players
- “The Strategy Zone” by Nick Bollettieri and Lance Luciani.

**Conclusion**

This concludes the skeletal structure of *Anatomy of a modern shot*. This topic was started three inserts (counting this one) and 24 pages ago. We initially thought the job of describing a shot might be only a little more detailed than writing down the names of the 11 components: foreperiod, reaction time, movement time, footwork, shot selection, strike-zone setup, backswing, forward swing, contact point, follow-through and recovery. If you have been one of the followers of our player development documents, you probably understand just how complex it can be to try to explain the “why” and “how” of each shot component.
The strategic component

If there is one characteristic or quality that every player must have when developing the strategic component of tennis, regardless of the player’s skill level, it is the ability to adapt. Putting a particular strategy into effect during a match requires a certain amount of adaptation to various circumstances and conditions that may develop as the match progresses.
Depending on certain elements of the game, such as the court surface, game score, match score, a player’s strengths or an opponent’s game style, to name a few, a player will have to adapt his strategy in some way, shape or form. These adaptations will likely take place in one of seven strategic subcomponents, which are: repetition, recognizing strengths, game style, surfaces, game situations, match situations and tournament situations. Each subcomponent represents a different element that must be considered when formulating a strategy.

By definition, strategy is the implementation of a combination of tactics (consistency, spin, placement, patterns, power and shot selection) that make up an overall game plan to combat an opponent. In other words, a strategy is “the big picture.”

For example, a player’s strategy may be to look for opportunities to come to the net and put the ball away; it could be to penetrate one specific side of the court; it could be to move the opponent around a lot at the baseline to tire him out. A beginner’s strategy might be simply to keep the ball in play, while a more advanced player might implement the strategy of moving an opponent out wide with angled shots before hitting a short dropshot.

While a player might be successful at implementing one strategy, he also has to be able to change his strategy if it becomes ineffective and the opponent begins to counter. A well-prepared player should know how to make appropriate changes to his own strategy based on an opponent’s changing strategy. The idea is to start out with a strategy that you’re most comfortable with and that you do well. If it is a winning strategy, then continue using it, but if it’s not effective, a player needs to know when to change it. Let’s discuss the first strategic subcomponent, repetition.

**Repetition**

During the course of a match, it is important for a player to be able to recognize and identify which tactics (a shot and/or combination of shots) are proving successful. Once he finds something that consistently works to his advantage and puts his opponent in trouble, he should then repeat the tactic over and over until the match ends or the opponent makes an adjustment and finds a way to counter.

An example of strategic repetition might be hitting a high, hard, topspin shot to a player’s backhand during a rally to
force him to hit short. This would allow the player to move in and attack the short ball, either hitting a winner or an approach shot that sets up an easy volley on the next shot. A player might also find that a serve out wide pulls the opponent out of position and opens up the court for him to attack and put away the return. And at club levels, consistency and repetition are what often win matches because just getting the ball back gives an opponent more chances to make an error. No matter what the shot combination or strategy, a player must be able to recognize what is winning him points and then repeat that combination throughout the match or on important points.

“If you’re doing something on the court and you’re eliciting unforced errors from your opponent, getting your opponent to go for a shot that he’s uncomfortable with, or if you’re getting yourself into the net for an easy putaway, it’s very important to understand what it is you’re doing to get that situation,” USPTA Professional Brett Hobden said. “So for example, on a big point, you know you’re going to repeat this certain strategy or this type of ball. It’s important to recognize it, identify it, know what it is and don’t overuse it, but know that you can go to it when you really need a point.”

While repetition is a key to good strategy, it is rare (and probably not wise) for a player to only use one tactic throughout the match. Usually a player will use a few tactics in order to keep the opponent off balance and keep him guessing as to which tactic will be used on any given point. This will keep the opponent from being able to easily counterattack.

In order to repeat a tactic successfully, players must first master the technical aspects of a stroke and be able to repeat the specific shot or shot combinations effectively during a match. Drills for this subcomponent should focus on repeating the tactic from a variety of incoming balls. During drills, coaches should also stress to players the importance of creating alternative tactics under an overall strategy (e.g. attack an opponent’s backhand during a rally, or attack an opponent’s backhand by coming to the net on an approach shot hit to the backhand).

<table>
<thead>
<tr>
<th>Repetition drill: Dip and rip</th>
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<tbody>
<tr>
<td><strong>Type:</strong> Singles</td>
</tr>
<tr>
<td><strong>Category:</strong> Volley, passing shot</td>
</tr>
<tr>
<td><strong>Time/players:</strong> 15 minutes/1-4</td>
</tr>
<tr>
<td><strong>Level:</strong> Advanced/intermediate</td>
</tr>
<tr>
<td><strong>Prepared by:</strong> Paul Marcum</td>
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**Drill organization**

One player starts in the middle at the baseline and one player starts in the middle at the net. The pro stands off the court to one side. The pro feeds the baseline player, who hits the ball low at the net player’s feet. When the net player hits a defensive volley, the baseline player steps in and drives a passing shot into the open court. Rotate one or both players after the passing shot.

**Variations:** Work on the backhand passing shot, then random shots.

**Drill key points**

First ball has to be hit at the net player’s feet. The baseliner must creep in expecting a weak volley.
USPTA Professional Lorenzo Beltrame explains that the process of practicing the repetition of a certain tactic is key because a player needs to develop that repetition to the point where it becomes second nature and the player is able to execute it without hesitating or feeling that the tactic will let him down.

“Understanding what you need to do is the first step toward improvement. The second step is going on the court and at least executing the right thing once. If you execute it once, that means you are capable of doing it. Then you have to repeat that as many times as possible in order to bring the skill to an automatic level. Once you do it automatically, then you know you can do it under the highest pressure you can possibly imagine.”

Recognizing strengths
Being able to recognize which shots, skills or tactics favor a player’s strengths and game style is a key to success in a match. By identifying strengths and building a game (strategy and tactics) around those strengths, a player has a better chance of producing a strategy that is hard for an opponent to counterattack and beat.

Just as important is recognizing an opponent’s strengths and creating your strategy accordingly. Ideally, a player wants to play his strengths into his opponent’s weaknesses. So if an opponent has a problem moving or is not fit, the player wants to try and exploit that and move the player around so eventually he’s going to break down. If an opponent has a weak backhand and the player has to hit an approach shot, he’s going to want to hit to the backhand side at least 80 percent of the time. For an opponent with a weak serve, a player should look to attack on the return.

There will be times (or opponents), however, that call for a player to play his strengths into his opponent’s strengths. This is where mental focus and technical execution is critical. Also, knowing the opponent’s strengths will help a player develop a counter strategy to offset his opponent’s tactics.

At the same time, it’s also important for a player to recognize his weaknesses as well, so that not only can he begin improving them, but he will know when and how to avoid certain situations during a point. If, for example, a player does not have a strong and/or accurate volley, his tactic would be to hit approach shots that enable him to hit easier volleys or win the point outright without having to hit a volley.

Beltrame believes the most important thing for a player to consider when developing a match strategy is knowing the shots or tasks that he can and cannot execute. “You have to be really honest in judging your skills, and then try to use what you can do very well and avoid what you cannot do very well,” he said. “If a player has a weak backhand and all of a sudden he sees an opening to hit a winner down the line with his backhand, but it’s not something that he’s comfortable with, he shouldn’t do it, especially not on a big point in the match. He should play that backhand safely and try to open up a shot for his forehand, which is his strength.

“Some players do not understand what they can or can’t do, they just execute what is supposedly the right thing at the right time. But there’s no such thing as a right or a wrong shot. You do what you are comfortable with in a match. Knowing your strength and knowing your opponent’s weaknesses are the two ingredients to formulate a game plan and have a good chance to succeed in a match.”

A player’s strengths will determine the shots he practices and develops, as well as the tactics he implements in a match. To help facilitate this, coaches should try to use drills that establish a game plan (overall strategy and tactics) emphasizing the player’s strengths. Special attention should also be paid to the player’s weaknesses, so that they improve over time and become less of a weakness.

According to USPTA Master Professional Rick Macci, being able to identify a player’s potential weaknesses and strengths at a young age and working on those aspects early is critical to the development of the player’s game.

“If someone had bad footwork, and they just weren’t quick and weren’t fast, obviously you need to do the best you can to try and make that less of a liability, first of all,” he said. “Second, you want to try and hide it and dictate points. So if I saw that in a youngster, and I saw how big and how tall they were going to be, based on their parents and genetics, and knew that they would be limited with mobility, then you try to make the serve better and as big as you can, and you try to hide the weakness by dictating points and being more of a shot-maker.”
Game style

There are four major game styles: baseline, counterpunch, attack and all-court. A player’s game style will depend on his strengths and weaknesses, and it will determine the strategies and tactics implemented.

Each of the four is vastly different in many ways, as each has its own characteristics, strengths and weaknesses within the style. As Hobden explains, players who possess one certain game style will approach a match, or even a certain point, in a very different way than a player with another style.

“You could give those four styles of play the same type of ball in a rally, and you’re going to see four different types of responses because each player is looking to incorporate what he’s comfortable with,” he said. “For example, if you give an attack player a three-quarter court ball, they're coming in on it. You give that same ball to a counterpunch baseline player, they’re just looking to move you around.”

The following are definitions of each of the four main game styles:

**Baseline:** The baseline player tries to win the point by being more consistent (pusher) or hitting winners from the back of the court with fast, attacking shots that the opponent cannot reach or return properly (aggressive). The pusher relies on the opponent making mistakes, physical determination to retrieve many balls and immense fitness. The aggressive baseliner requires a deadly array of shots and shot types. This player may try to win the point outright with one shot or may hit the ball from side to side until he spots an opening.

**Counterpunch:** This player has the speed and agility to cover the court, returns almost every ball and is able to turn defensive situations into neutral or offensive situations. He is able to defend when playing an attacking player by keeping the ball low and defends against the aggressive baseliner through

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**Recognizing strengths drill:**

**Forehand drive passing shot**

**Type:** Singles  
**Category:** Forehand, passing shot  
**Time/players:** 20 minutes/1-4  
**Level:** Intermediate/advanced  
**Prepared by:** Brett Hobden

**Drill description and goals**

Coach simulates an approach shot and net position so student can practice hitting accurate passing shots.

**Drill organization**

Player starts at the center line along the baseline. Place players in line behind player A. Coach feeds ball and moves into volleying position at net. Player moves to the right and hits down the line, aiming for the target area. Player moves to back of the line as coach feeds ball to player B.

**Variations:** Have players hit passing shots to cross-court target area. Have players hit inside-out and -in forehand passing shots.

**Drill key points**

Players should keep passing shot low to the net, not worrying about depth of shot.

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*A baseline or counterpunch player’s strength lies in his court coverage and consistency.*
consistency and shot selection. He makes few errors of his own while making it difficult for opponents to hit winners. The game of the defensive counterpuncher relies more on consistency and accuracy.

**Attack:** This player has a strong serve, is quick around the net, has a feel and touch for volleys and knows how to position himself at the net. Attackers come to the net at every opportunity when serving. They are always looking to attack and can hit winners with a variety of volleys. When returning, they often employ the “chip-and-charge” return to attack the serve and rush the net. The attack strategy is to pressure the opponent into difficult passing shots.

**All-court:** This player possesses aspects of most game styles since he is adept from the baseline (usually more on the aggressive side), can defend like a counterpuncher when needed and is able to serve-and-volley or transition to the net very comfortably. They mix together the different styles to create a versatile and powerful style. In game situations, they have the ability to select or transition from one style to another very easily, making it very difficult on opponents.

USPTA Master Professional Jim Parker takes a different approach and primarily classifies game styles into either offensive or defensive styles, where the player can win by making his opponent miss or he can win by letting his opponent miss, giving the opponent the opportunities to hit unforced errors. Nonetheless, he said, a player’s preference toward a certain style will likely be determined by his natural instincts on the court and, to some extent, will reflect his personality and demeanor.

“Some styles are more effective than others, so for someone trying to decide on what style to emphasize, I think it really depends a lot on what your inclinations are, what you have the most fun doing and what’s going to be the most successful in a match situation.”

Master Professional David T. Porter, Ed.D., stresses the importance of a player’s ability to be comfortable and effective with more than one game style. He believes it is critical to coach a player to have a variety of skills that include shots and strategies that emphasize both a defensive and an offensive philosophy.

“If a player is one-dimensional and can only approach a match in one way, they may have a difficult time against certain types

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**Game styles drill (Attack): Rush and crush (doubles)**

**Type:** Doubles  
**Category:** Doubles, passing, volley  
**Time/players:** 15 minutes/1-8  
**Level:** Intermediate/advanced  
**Prepared by:** Brett Hobden

**Drill organization**

All players start at the baseline in a doubles formation. Player A feeds the first shot that must land in either service box. If he fails to get the ball in the service box his team is out and the new team comes forward. Players C and D will receive the short ball, attack the net as a team, and play out the point. You can knock out defending team by either hitting a clean winner or winning a total of 3 points. Rotate players from deuce to ad side with new player on the deuce side.

**Drill key points**

Focus on making good approach shots and working together as a team. Defending team should focus on hitting good passing shots and keeping the ball low at attacking team’s feet.
of players,” Porter said. “Coaches need to teach and develop a variety of skills that will lend themselves to making mid-game adjustments, when necessary, while still emphasizing a preferred style.”

With each game style, in singles or doubles, there are certain shots or combinations of shots that best suit and complement a strategy, so it is important for players to practice the basic shots for their particular game style. For example, groundstrokes are the predominant shot for a baseliner, while passing shots and lobs are most appropriate for a counterpuncher. Similarly, serves, volleys and approach shots are often utilized by the attacker, and all shots are needed for the all-court player.

**Surfaces**

While playing on different surfaces may not change a player’s overall strategy, it will change his tactics some as he makes the adjustment. Depending on the kind of surface he is playing on, be it indoor, hard, grass or clay, small changes may be required in the technical component (movement/footwork, modern shot technique), tactical component (power, spins, shot selection) and other components.

Different surfaces tend to favor certain game styles. For example, grass courts are typically faster than the other surfaces and therefore favor the attack or serve-and-volley style because of the faster, low-bouncing ball. Players should expect to play shorter points on grass and alter their strategies and tactics accordingly.

Hard courts are not quite as fast as grass and can be characterized as medium-speed courts that favor the all-court, attack, counterpunch and baseline (aggressive) games almost equally. And given the fact that a hard court is probably the fairest court in speed and footing, pushers can have a measure of success as well. Power hitters tend to do well on hard courts due to the true bounce the ball takes, allowing them to hit the ball on the rise. Attackers have success because a good slice

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**Surfaces drill: Slice backhand**

**Type:** Singles  
**Time/players:** 15 minutes/1-4  
**Prepared by:** Eliot Teltscher

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**Drill description and goals**

Players will play a singles point from the baseline, but one player can only hit slice backhands when hitting a backhand. The goal of this drill is to practice the slice backhand, keep the bounce low and defend against powerful groundstrokes.

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**Drill organization**

Players start on opposite ends of the court and play singles. Pro feeds ball to player C, who can hit a shot anywhere in the court. Player A must hit only slice backhands. Play out the point. Rotate players after someone wins 2 out of 3 points.

**Variations:** Have both players hit only slice backhands. Or the player who can hit anywhere must win the point at the net.

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**Drill key points**

Encourage players to develop a slice backhand and learn how to use it effectively.
shot will stay low, making it difficult to pass a player repeatedly.

Clay courts are the slowest surface, favoring the baseliner (aggressive and pusher) and counterpuncher. On this surface, it is important to be fit and expect longer points, higher bouncing topspin shots, higher net clearance and a greater emphasis on shot selection. The nature of the bounce and longer rallies make it difficult to hit the ball on the rise consistently, so players are forced to let the ball drop more, making it more difficult to hit winners. Players also have the ability to slide on clay, a movement that does not require a player to move outside the path of the ball to retrieve it, thus allowing him to recover quicker and stay within the court more throughout the rallies.

Since the conditions are usually ideal, indoor courts favor the all-court player, attacker and baseliner. Depending on the speed of individual courts (if they are fast), they may be more favorable to attackers.

In doubles, however, players’ game styles may not always be affected by the court surface. For example, good serve-and-volley players will be successful when implementing that game style on grass just as much as they will on a clay or hard court because there is less court to cover. Also, counterpunchers or baseline doubles players would be at a disadvantage on faster surfaces because time is taken away from them.

Keep in mind that in addition to a change in tactics, all shots will be affected by the surface in the form of technique. As Porter explains, technique will change depending on how the player approaches the task of finishing points on that surface.

"Most clay court players generally hit with more spin than those players who prefer faster surfaces. They generate this spin to hit a harder, heavier and deeper ball than they might if they were on a hard court, and in so doing, create an aggressive shot that also allows them time for recovery," he said.

“So the court surface definitely plays a role in affecting technique. Racquet paths will travel more low to high on a surface where arc is more common than a penetrating drive. It really has to do with what the player wants the outcome of the ball to be. Trying to push a player back with heavy topspin or trying to take away precious time with lower trajectory and more pace can impact stroke production technique, and that may change depending on the court surface.”

To help prepare a player for match play on these surfaces, focus your drills on the technical differences of stroke production when playing on different surfaces (shot fundamentals, movement, modern shot technique, etc.), and focus on the different tactics used when playing on different surfaces. On slower surfaces, groundstrokes become more important, while on faster surfaces, transition shots, net play and counterpunching shots become more important. Structure your drills and practices accordingly.

The key, Parker said, just like everything else, is for a player to gain more experience on each surface in order to learn how to adapt.

“You’re always trying to develop in your players the versatility and the capability to adapt to a lot of different circumstances, and the only way to do that is to play on different surfaces. You have to get your players out on different surfaces, show them the differences and give them experience playing on that surface as much as possible. It helps develop a more versatile game as well as develop more types of shots.”

It is important to adapt a strategy depending on the score and if the player is serving or receiving.
Game situations
Game situations are the conditions that exist in a particular game such as the score, whether the player is serving or receiving, whether the player is winning or losing and the environmental conditions (sun, wind, etc.). They will often dictate the kind of strategy employed and tactics for a specific game or point. Successfully handling different game situations means taking into account the score and adjusting the tactics (while keeping to the overall strategy) given the different scenarios above and knowing how to play the important points.

For example, if a player is serving at 15-40 while against the wind and looking into the sun, he should play the point more cautiously, especially at the beginning. Therefore, he should hit his highest percentage serve while avoiding an early ball error and capitalizing on his strengths and exploiting the opponent’s weaknesses in order to increase his chances of winning the point and holding serve. This may mean hitting a shot sequence that has proved to work consistently throughout the match or one that has been used infrequently. If, however, the player is up 40-15, he can afford to be more aggressive and risk a little bit more by hitting lower percentage shots, going for something that he may not otherwise have tried in another situation.

“The score affects the level of risk you should be taking,” Parker explains. “For example, you should play a 30-all point a lot differently than you would a 30-0 point. There are times when you have to realize that the game is about ready to swing and it’s very important that you bring out your high percentage tennis. So on a point that you could not afford to lose, try to use the best assessment of what you have that is the highest percentage play that you can come up with in that situation.”

Another element to take into consideration, Hobden says, is the opponent’s reaction to big points. “As you’re playing a match, you’ve got to get a feel of how your opponent responds in certain situations. Some people, when they get down or they get down a break point, they go for a big shot. Some players just play really conservative. For example, using a serve, down

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**Game situations drill: Start on defense**

**Type:** Singles  
**Category:** Groundstrokes, strategy and tactics  
**Time/players:** 20 minutes/2-4  
**Level:** Intermediate/advanced  
**Prepared by:** Tim Heckler

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**Drill organization**

Players A, B and C are on one side of the court. Player D begins at either corner of the singles sideline and the baseline. Player A feeds a ball from the center of the baseline to the opposite corner of the court from where player D is positioned. Player D must hit the shot on the run (mostly deep and crosscourt), change the situation from defensive to neutral and eventually take control of the point. Rotate after five minutes. Variations: Have players receiving the feed start at other corner.

**Drill key points**

Players receiving feed must hit a well-placed shot on the run in order to neutralize opponent. Feeders must make challenging but not impossible feed. Learn how to build a point from being in and out of control.

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**Try to make practices simulate real game situations.**
30-40, some players will time and time again come up with a huge first serve. They can pull off the big one when it really matters. Other players might hit a big kick serve on that break point because they’re not as confident that they can pull off the big serve. So I think what you’re comfortable with, as well as the score and your opponent, will affect the strategies you’re going to employ.”

The best way for a coach to develop a player’s ability to handle game situations is to use drills that use scoring and focus on high percentage shots when situations dictate, as well as focusing on trying a new tactic when situations dictate.

**Match situations**

A winning game plan involves adapting a strategy (and its tactics) to situations that unfold during a particular set or match such as starting during the day but finishing at night. Other factors to consider are the score, whether it is an eight-game pro set or best-of-three sets, or whether it is a morning match, etc. Just as with game situations, match situations can often force a player to change his strategy and learn how to deal with different circumstances. However, altering a strategy should only occur once the player has exhausted the tactical options for that strategy and the player is losing.

For example, if a player is winning 4-1 or 5-3, the strategy and tactics he is implementing are obviously working, so it is important for him to continue using the same winning strategy in order to close out the match. But if the player finds himself losing the set, the strategy and/or the tactics need to change in order to turn the match around. The player needs to be able to recognize when his strategy is not working, why it is not working, what specific tactics are not proving effective and change it for the better.

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**Game situations drill: Permanent points**

| Type: Doubles | Category: Strategy and tactics |
| Time/players: 10 minutes/1-4 | Level: Intermediate/advanced |
| Prepared by: Bernard Gusman |

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### Drill description and goals

Competing in a game situation while experiencing the benefits of “getting to 30” first. Four out of five games are won by the players achieving the score of 30 first.

### Drill organization

Players A and B alternate as servers playing best 2-out-of-3 points with players C and D as the receivers. If players A and B win 2 out of 3 points they have earned the right to become the receivers. Players C and D would then become servers. Other players become waiting servers. If receivers win 2 out of 3 points from servers, then receivers earn a “permanent point” on their score and stay as the receivers. Losing players are replaced by waiting players and play continues. Have players call out score (i.e. 15-love) and serve from proper side.

Variation: Play with two sets of players as receivers and keep score as a team.

### Drill key points

After 10 minutes and a changeover (water) break, the players with the most permanent points from courts No. 1, 2 and 3 all play on court No. 1. Players with the second most points on each court go to court No. 2 and players with the lowest number of permanent points go to court No. 3. Rotating this way players are constantly competing against different players.

Players must adapt to any conditions that may develop during a match.
"Too many players try to change what they’re doing based on the score in the set," Porter said. "If you’re not winning, you have to change, that’s obvious. And that could be whether you’re down 5-1 or 4-2 or whether it’s 3-3 and you’re getting blown out in half the games and struggling to win in the other half. Unfortunately, too many players, when they’re ahead, will change what they’re doing. They play more carefully or sometimes begin taking more chances and allow the opponent to get back into the set or match. If a player is ahead and has a game strategy that is working, it’s important they continue the strategy and learn how to close it out.

There’s really three parts to a match. There’s the first four games where the two players are trying to feel each other out, then there’s the bulk of the match, and then there’s the ability to close it out and end it. And the ability to close is a skill that has to be learned. I think that when a player gets ahead and he’s ready to close, he’ll sometimes change and play more careless or more careful, rather than play more intensely focused on what got him to that point and finish the set out.

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Tournament situations
Tournament situations involve a player’s ability to adapt to the variety of challenges that occur in the normal course of a tournament such as whether he will be playing one or two matches per day (sometimes more if doubles are involved), if it is a weekend tournament or a weeklong tournament, draw size, etc. Rain delays that push matches back a few hours or even an entire day can affect a player as well. He must recognize the different challenges each tournament offers and adapt accordingly.

A player’s overall strategy may not change due to tournament situations, but tactics may vary quite a bit. It is a good idea for coaches to try and duplicate tournament situations and conditions for players during drills and practices.

Summary
Without a doubt, strategy is all about adapting and finding solutions to different situations and circumstances in both singles and doubles. Conditions, momentum and the ebbs and flows of a match can change at any given time and even during the course of a single point. Players must learn how to adjust accordingly, always have a backup plan and still be able to come out successful, no matter what the opponent gives him.

“Day to day, game to game, opponent to opponent, you’re always out there problem solving,” Hobden said. “To be aware and to be a problem-solver and thinker on the court goes an awful long way.”

The strategic component plays a vital role in a player’s training because the development of each of the seven subcomponents is what enables a player to adapt his tactics to the situation, environment or opponent and implement a successful strategy. Though much of a player’s success in tennis will depend on physical and technical skills, strategy is equally as important to the game because, to succeed in tennis, the construction of a point is key. Much like in the game of chess, players must think ahead and know how to exploit an opponent’s weaknesses to win the point. After all, tennis is as much a battle of the minds as it is a battle of physical endurance.

Match situations drill: 5-ball serve and volley

**Type:** Singles, doubles  **Category:** Serve and volley

**Time/players:** 10 minutes/1-8  **Level:** Intermediate/advanced

**Prepared by:** David T. Porter, Ed.D.

**Drill description and goals**
All players work on their serve and volley. The drill has the players using the serve and volley tactic to practice moving forward to the net after the serve and learning to be comfortable at the net in both singles and doubles.

**Drill organization**
Players serve and volley so they can play out 5 balls from the net area. Pro will vary feeds side to side, with the fourth feed being a lob. Once the player has hit 5 balls, he/she returns to the end of the line and the next player rotates in to serve.

Variation: Players must make the serve to receive the other feeds. With fewer players, increase the number of feeds.

**Drill key points**
Focus on making good serves and first volleys.

All players work on their serve and volley. The drill has the players using the serve and volley tactic to practice moving forward to the net after the serve and learning to be comfortable at the net in both singles and doubles.
The following additional resources for coaching young players on the strategic component of development are available from USPTA's extensive educational DVD library and are produced by the USPTA Education Committee and Multimedia Department.

**Competitive Player Development**

2005 USPTA Competitive Player Development Series (Physical, Technical, Strategic and Tactical)

The 10,000-hour journey to becoming a player (The six components of learning)

**Specialty Courses**

Doubles strategy and patterns – Hank Pfister

Creating a perfect practice – Bill Tym

**“On Court with USPTA”**

Mastering the dirt: Playing on clay – Surfaces

Tactical touch tennis: Divide and conquer – Recognizing strengths

Winning patterns and drills – Repetition, Game style

The Power of Story – Match situations, Tournament situations

Singles strategies and tactics: Transition shots and serve and volley – Game style

Singles strategies and tactics: Playing the percentages to win – Game situations

**Seminars**

Keep it out of the strike zone! – Brenda Schultz-McCarthy

Singles strategies and patterns of play – Hank Pfister

On Court with Nick: his drills, techniques and theories – Nick Bollettieri

The strategy zone: There is more to the game than just hitting the ball – Nick Bollettieri

Twenty best games for teaching strategy and tactics – Ken DeHart

Dynamite Doubles – Helle Viragh

How to understand point development for beginners to competitive players – Luis Mediero

How to anticipate like a pro: Improving performance through anticipation, education and training – Melissa Hunfalvay

Teaching the all-court game – Tom Gullikson

USPTA is the world’s largest producer of quality broadcast tennis instruction on DVD. Browse more than 100 titles at usprotennisshop.com.