

Editorial

Welcome to issue 43 of the ITF Coaching and Sport Science Review, which is the final edition for 2007.

October saw the staging of the 15th ITF Worldwide Coaches Conference, entitled 'An integrated approach to coaching advanced players', in Asunción, Paraguay. In attendance were, a record turn-out, three hundred and eighty coaches from 76 nations. The conference featured over 60 presentations, including keynote lectures, workshop sessions, free communications and poster presentations from a series of renowned international speakers.

Former French Open finalist Victor Pecci of Paraguay participated in a round-table panel discussion with South American experts that included Ivan Molina (ITF Travelling coach), Larissa Schaerer (former top player and Fed Cup Captain for Paraguay), Eduardo Zuleta (National Technical Director of the Chilean Tennis Federation), and Mariana Díaz Oliva (former Fed Cup player for Argentina) among others.

Fifty per cent of the presentations took place on court, which provided participants with valuable practical information. Bruce Elliott and Machar Reid (AUS) gave two excellent sessions on analysing players. Benni Linder, Head Conditioning coach for the Swiss Tennis Association; Gustavo Luza former Davis Cup Captain of Argentina; Horacio Anselmi, conditioning coach of top Argentine tennis players; Rodney Harmon, Director of Men's Tennis for the USTA High Performance; and Louis Cayer, Performance Manager for the British Lawn Tennis Association, also presented on court.

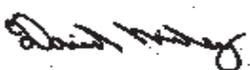
Lecture room presenters included Randy Snow, World and Olympic Wheelchair tennis champion; Bernard Pestre, National Technical Director for the French Tennis Federation; Steven Martens, Head of Technical Support for the British Lawn Tennis Association; and Doug MacCurdy, former ITF General Manager and Director of Development, among others. For those readers who were unable to attend some of the presentations can now be seen at www.tenniscoach.com the new coaching website launched by the ITF that features many hours of exclusive video footage and articles from leading tennis coaches and experts.

The workshop was sponsored by Head and each day presentations took place during the lunch breaks related to the ITF Play and Stay campaign which featured the Head red, orange and green modified equipment. At the official closing dinner of the Conference, the ITF presented its special Award for Services to the Game to Ivo van Aken, former Fed Cup Captain from Belgium.

Several ITF meetings took place during the Conference including the ITF Coaches Commission, chaired by ITF Board Member Ismail El-Shafei and the ITF Sports Science and Medicine Commission, chaired by Dr. Brian Hainline. The ITF would again like to thank the Paraguay Tennis Federation and the Hotel Resort Casino Yacht & Golf Club staff for their hard work in assisting the ITF, as well as all the participants, speakers and ITF staff involved.

January 24-26 will see Australia host their 2008 Australian Grand Slam Coaches Conference and coaches from overseas are welcome to enrol through Tennis Australia. More courses are planned for 2008 as are the 5 ITF regional conferences at which we look forward to seeing many of our readers in attendance.

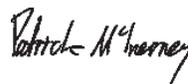
We hope you continue to take advantage of the resources provided on the weblet (<http://www.itftennis.com/coaching/>) and that you enjoy the 43rd issue of the ITF Coaching Sport Science Review.



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Using Variety from the Baseline in Women's Tennis

By Rob Antoun

(Manager of tennis development at Sutton Tennis Academy, Great Britain)

There is certainly less variety used in women's tennis today than previously because players hit the ball harder, flatter and from a more aggressive court position without using a great amount of spin. Whether playing with variety is a thing of the past or future is an interesting debate. Nevertheless, a player who can effectively offer something different can gain an advantage. A building shot that is hit with a different type of spin, or into an unfamiliar area of the court, can be extremely effective. A player who has used such variety to create numerous attacking opportunities in recent years has been Justine Henin. Being able to hit with such great slice and topspin from the backhand side has allowed her to pressure her opponents through accuracy, consistency, and variety. Justine's technique allows her to play a number of different shots from the baseline such as the aggressive backhand drive, the slice or topspin short angle, the slice or topspin recovery shot, and the drop shot. All of these building shots allow her to make the transition from neutral to attack.



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The ability to hit with slice and topspin allows a player to play with more creativity from the baseline because she has more shot options available to her. However, not many players can hit both particularly well—especially those who hit with a double-handed backhand (who represent the majority of players on the WTA Tour). Girls who grow up hitting with two hands often do not have the strength to develop the single-handed slice (and backhand volley) until later in their careers, and usually lack confidence hitting these shots as a result.

It is important to remember also that girls don't always have the same amount of time to develop their shots as boys do, which further hinders their creativity. The fact that girls mature faster than boys allows them to compete with older players much earlier because their physical differences are not as great. Therefore, they have a smaller window of opportunity to develop their game before senior competition becomes a reality. Perhaps this is one of the reasons we don't see a variety of building shots being hit from the baseline. Despite the great need for variety, most top women play a few shots really well rather than a lot of shots fairly well!

Coaches should not underestimate the challenges that must be met to add variety to a young girl's game. However, there is no question that the ability to create different shots throughout a match can be a powerful weapon, because they can often disrupt an opponent's rhythm and concentration. They also allow the player to build a rally in a variety of ways, allowing the use of different tactics depending on the game style of her opponent. Shots such as the short angle, aggressive loop, absorbing slice, and drop shot will do exactly this, and should be introduced and developed at an early age if they are to be used with confidence later on.

USING THE SHORT ANGLE

The ability to drag an opponent off the court through the use of the short angle is one of the main advantages held by a player who plays with variety. This shot is hit to a shorter and wider target on the court than the regular groundstroke is, luring the opponent away from the centre of the court into a less familiar position. When played effectively, this shot allows a player to finish the point in a number of ways, including using the sneak volley, drive volley, and shoulder-high groundstroke attack. The short angle can be played with either slice or topspin.

The short angle slice can be used to great effect if the ball stays short and low enough. This shot can cause an opponent two particular problems. First, it forces her to move diagonally up the court—a line of movement that is rarely practiced and often proves problematic. Second, the slice keeps the ball low and forces the opponent to hit 'up' over the net, thus preventing any real threat of aggression. Players will often approach or sneak in to the net after building pressure through the use of this shot.

The short angle topspin can be hit from the forehand and backhand side. It requires a player to hit the ball with fast racket head speed and a sharper brushing action up the back of the ball to create the necessary spin and angle. This shot presents a different problem to an opponent in that the topspin 'kicks' the ball out and away from the court, pulling the opponent out of the court and thus leaving the rest of the court exposed (see Figure 1). When hit effectively, the short angle topspin groundstroke also creates many attacking opportunities for a player. It is important to note that it is harder for a player to create a short angle from the middle of the court because fewer angles are available. Therefore, most angled groundstrokes are hit from wider positions.

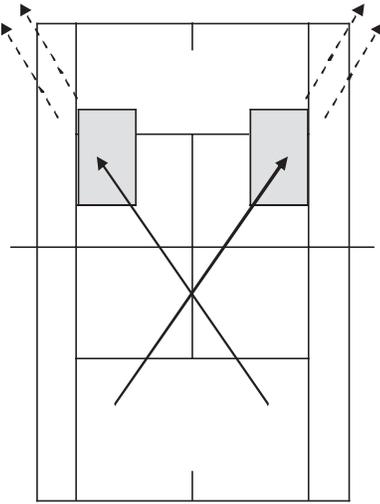


Figure 1 Target areas for the short angle groundstroke.

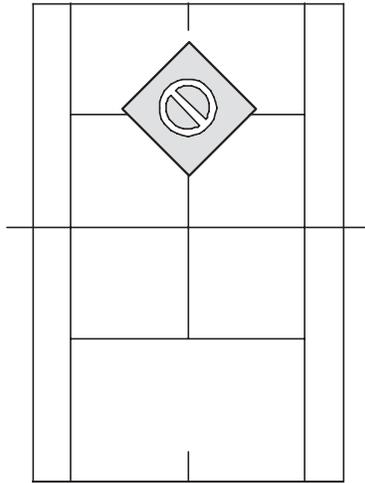


Figure 2 Use the diamond to encourage accuracy and variety of shot.

The following drill encourages players to use the short angle groundstroke, among a variety of other shots, because of the limited target areas on the court. The short angle, in particular, must be hit more often because hitting into the middle of the court is forbidden.

Drill 1: The Diamond Drill

Aim: To encourage a player to use her creativity by hitting a variety of shots outside the diamond.

Level: All

Description: Non-slip markers are used to create a diamond shape in the centre of the court (see Figure 2). Players are not allowed to hit balls into the diamond, whether playing points or practice drills.

Coaching Points: The diamond is an excellent shape because it allows for a variety of shots to be hit into the court but outside of the diamond. The diamond itself represents the area of the court that a player's shot would probably least trouble an opponent. Therefore, avoiding this area will help a player outmanoeuvre her opponent more

effectively, and will help her understand which shots allow her to do this best. The diamond shape allows for short, wide, and deep shots, but punishes the short middle ball. The short angle groundstroke, in particular, can be used to great effect when trying to avoid this area. The size of the diamond should be adjusted to the level of the player. In other words, the better the player is, the bigger the diamond should be.

Figures taken from *Women's Tennis Tactics*, Rob Antoun, 2007. Reproduced with permission from Human Kinetics, Champaign IL, USA.

This is an edited extract from Rob Antoun's new book called 'Women's Tennis Tactics' published by Human Kinetics (order online at www.humankinetics.com). A PCA qualified coach and LTA coach education tutor, Rob is manager of tennis development at Sutton Tennis Academy - an international tennis academy located in London. He is also joint-founder of Pro Tennis Solutions - a coach education company that develops resources and provides courses for coaches (www.protennissolutions.com).

Pre-Tennis Stretching

By Mark Kovacs, PhD, and T. J. Chandler, Ed D
(Jacksonville State University, USA)

INTRODUCTION

Tennis is a sport requiring repeated moderate and high intensity movements involving high forces and torques (Kovacs, Chandler, & Chandler, 2007). To prepare the athlete for these stressors, a sufficient warm-up is utilised in an attempt to reduce the likelihood of injury during the subsequent training or competition session. Traditionally the major component of the pre-tennis warm-up has involved a static stretching routine focused on muscles that are most used during play. Pre-exercise static stretching has been used by coaches and athletes for decades in the hope of improving performance and preventing injuries. Coaches have diligently followed the recommendations of the scientific and medical community who have recommended

static stretching immediately prior to participation. In the 1980s and mid 1990s it had been suggested in the scientific literature that static stretching was a good addition to athletes' warm-up before physical activity (Shellock & Prentice, 1985; Smith, 1994). However, recent research has shown that this advice needs to be modified, and performance may in fact be reduced by implementing a static stretching program before tennis play.

PERFORMANCE

Despite evidence back in the 1960s that static stretching did not improve performance in the 100 yard dash (DeVries, 1963), static stretching has been a common practice by most coaches and athletes in warm-up routines for tennis. Contrary to the

typical belief that static stretching improves physical performance, there have been numerous studies that demonstrate that traditional "static" stretching actually decreases performance in strength, speed and power activities (Avela, Kyröläinen, & Komi, 1999; Cornwell, Nelson, Heise, & Sidaway, 2001; Cornwell, Nelson, & Sidaway, 2002; DeVries, 1963; Fletcher & Jones, 2004; Fowles, Sale, & MacDougall, 2000; Kokkonen, Nelson, & Cornwell, 1998; Nelson, Driscoll, Young, & Schexnayder, 2005; Nelson, Guillory, Cornwell, & Kokkonen, 2001a; Nelson & Kokkonen, 2001b; Young & Elliott, 2001; Young & Behm, 2003). As tennis is a sport that is highly reliant on a combination of strength, speed and power (Kovacs, 2006a), these findings relate strongly to tennis performance. Depth jump

performance, a good practical indication of lower body power output, has been shown to decrease significantly following static stretching (Cornwell et al., 2002; Young et al., 2001), as has vertical jump height (Cornwell et al., 2001; Young et al., 2003). Research on strength and power performances have shown decreases in immediate performance by as much as 30% (Avela et al., 1999; Fletcher et al., 2004; Fowles et al., 2000; Kokkonen et al., 1998; Nelson et al., 2001a). This is a major finding for coaches. The role of a tennis coach is to improve an athletes' performance. If static stretching is routinely performed before training or competition, it is likely that the athlete is training or competing at a reduced capacity - which could be as high as 30% below their current maximal level.

The deficit in performance following static stretching may be dependent on the type of stretching and mode of activity that follows the stretching routine. The deficit in performance following static stretching has been shown to last up to 60 minutes after the stretching routine (Fowles et al., 2000). This needs to be understood by the coach when designing daily, weekly, monthly and yearly programs. Static stretching may be important for an athlete, especially if flexibility levels in certain areas of the body are below a minimum required standard; however, the timing of the static stretching needs to be performed at times not preceding training or competition.

The positive or negative effect on performance after static stretching may be dependent on the speed of movement of the exercise involved. Reduced performance has not been shown when high velocity movements were undertaken after a static stretching routine (Knudson, Noffal, Bahamonde, Bauer, & Blackwell, 2004). The static stretching routine had no effect on either speed or accuracy (performance) of an explosive tennis serve (Knudson et al., 2004). A suggested reason for why static stretching prior to the tennis serve did not reduce performance (as had been seen in other studies) was that the pre-activity stretching may not decrease performance in high-speed and/or accuracy-related movements (Knudson et al., 2004). The authors refer to a study that showed results of significant reductions in isokinetic strength, but only at low speeds (<2.62 radian/s) of joint rotation (Nelson et al., 2001a). However, this theory has not always been supported, as was seen in a recent study looking at sprint speed times (which involves high speed explosive movements) in highly trained athletes over 20 meters. Static stretching significantly reduced performance by increasing sprint speed times compared

to no stretching (Nelson et al., 2005). It may be difficult to quantify decrements in performance in an activity such as the tennis serve that uses multiple muscle groups including muscles in the lower body, trunk and upper extremity.

However it appears clear from the numerous studies mentioned that pre-activity "static" stretching consistently reduces physical performance in strength, speed and power activities (Avela et al., 1999; Cornwell et al., 2001; Cornwell et al., 2002; DeVries, 1963; Evetovich, Nauman, Conley, & Todd, 2003; Fletcher et al., 2004; Fowles et al., 2000; Kokkonen et al., 1998; Nelson et al., 2005; Wilson, Murphy, & Pryor, 1994; Young et al., 2001; Young et al., 2003). Many of these studies are recent, and the results of these studies may not be well understood by the tennis coaching community. Pre-activity static stretching is a part of many coaches and athletes belief systems, and changing those beliefs will take time. Also, both scientists and coaches must be open to new research that may provide additional insight in this area.

INJURY PREVENTION

Apart from erroneous belief that pre-exercise stretching improves performance, a second major reason that many coaches and athletes still perform static stretching before activity is the belief that it may reduce the likelihood of injury. This belief may be based on the notion that a "tight" muscle-tendon unit is less compliant, which means that it cannot be stretched to as great a degree (Garrett, 1993; Hunter & Spriggs, 2000). This assumption has resulted in the long held belief that stretching may prevent muscle and tendon related injuries (Garrett, 1993). However, the current research does not provide support for this assumption and actually provides substantive rebuttal to the long held notion that pre-activity static stretching can reduce the risk of injury (Comeau, 2002; Garrett, 1993; Herbert & Gabriel, 2002; Hunter et al., 2000; Kovacs, 2006b; Levine, Lombardo, McNeeley, & Anderson, 1987; Pope, Herbert, & Kirwan, 1998; Pope, Herbert, Kirwan, & Graham, 2000; Shrier, 1999, 2001, 2004; Shrier & Gossal, 2000; Yeung & Yeung, 2001).

A study looking at the prevention of lower-limb injuries in 1,538 male army recruits found that pre-exercise static stretching had no effect on injury rates after a 12-week stretching protocol (Pope et al., 2000). A 2001 extensive review that looked at the prevention of lower-limb running injuries resulted in five studies with 1,944 participants in the stretching intervention groups and 3,159 participants in the control groups (Yeung et al., 2001). Their major

finding was that no clear evidence supported the notion that pre-activity stretching exercises were effective in preventing lower limb injuries (Yeung et al., 2001).

Although only a few studies have shown a link between reduced injury rates and pre-activity stretching (Bixler & Jones, 1992; Cross & Worrell, 1999; Ekstrand & Gillquist, 1983) the large majority of studies and review articles have found no link between pre-activity stretching and a reduction in injury rates (Andersen, 2005; Garrett, 1993; Herbert et al., 2002; Hunter et al., 2000; Levine et al., 1987; Shrier, 1999, 2001, 2004; Shrier et al., 2000; Yeung et al., 2001).

It must be mentioned that the cause of injuries in tennis is multidimensional, and flexibility is only one area that may improve/reduce the likelihood of injury (Kovacs, 2006b). Fatigue (van Mechelen, Hlobil, Kemper, Voorn, & de Jongh, 1993) and volume of exercise (Macera et al., 1989) have both been suggested as a predisposing factor to physically induced muscle injury.

While further research is necessary, there still appears to be a role for static stretching. Athletes participating in post-surgical rehabilitation programs will benefit from static stretching to regain normal range of motion. Some tennis players may demonstrate a very limited range of motion in specific anatomical areas, for example in glenohumeral internal rotation (Kibler, Chandler, Livingston, & Roetert, 1996). A tennis athlete with a range of motion deficit in a particular movement may still benefit from static stretching. However, based on evidence from current research, it appears that static stretching should not be utilised prior to practice or competition.

PRACTICAL APPLICATION

For the coach, it is important to understand it is possibly a disservice to athletes to recommend or perform static stretching before training sessions. The following points are important when designing your training programs:

- Static stretching within an hour of practice or competition does not improve performance and does not reduce the risk of injury in healthy athletes. However, limited or poor muscle and joint range of motion can reduce performance and increase the risk of injury. Therefore, minimum levels of flexibility are required for tennis players.
- A good time for tennis players to perform static stretching exercises is post exercise and/or in the evenings.
- Figure 1 describes a traditional static stretch and a more dynamic exercise that can be used as a pre-tennis exercise focused on the same muscle groups.

Static



Dynamic

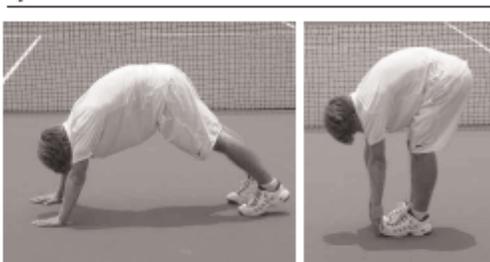


Figure 1: Comparison of a static stretching exercise for the Hamstring/Lower back versus a dynamic flexibility exercise focused on the same muscle groups. Left photo is a static stretch and hold. Middle and right photos show hamstring stretch by dynamic walking out on hands (used with permission from *Tennis Training: Enhancing On-Court Performance* (Kovacs et al., 2007)).

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Differential Coordination and Speed Training for Footwork in Tennis - Part 2

By Dr. Ulrike Benko and Dr. Stefan Lindinger (University of Salzburg, Austria)

How to implement a new method of footwork training (or: putting a new method of footwork training into practice)

Good footwork (special action- and frequency-speed of the feet) in tennis consists essentially in the ability to move swiftly from one position to another without sacrificing balance. It is characterised by:

- Fast, short steps in all directions
- Fast changes of directions out of different positions on different surfaces
- Appropriate use and the ability to complete a variety of footwork techniques
- The ability to combine step length and frequency variably

Since there is no stroke in tennis which is not influenced by footwork, footwork training needs to be an essential aspect in the training of every tennis players (including professional players).

Two categories of complex training methods have been elaborated. Frequency-speed-training with tapping exercises and exercises for improving action speed in combination with step exercises, sprints and jumps. All exercises are based on the same method. Players' balance should be constantly challenged by using new, even more complex stimuli. This doesn't mean exercising until boredom but giving new stimuli with new demands immediately after the player has acquired a "stable position". This procedure provokes errors, deviation and fluctuation - differences that are essential for the learning process! The complexity of exercises increases during training. Pressure conditions increase changing the difficulty which leads to an increased coordinative/cognitive demand. The level of exercises should be adapted to the abilities of the athlete. A strengthened rhythm is essential to execute an exercise as quickly as possible.

Appropriate literature gives guidelines for duration and organisation of breaks, number of sets and repetitions for the following exercises.

1.1 Frequency speed training with tapping exercises in combination with game specific tasks

Tapping exercises (Fig. 1) are done standing, seated (1) or lying (2 and 3), in combination with hand tapping exercises (2 and 3). Instructions such as "right foot to the front, left foot to the side etc." can be used for picture (4) as can abstract commands such as "hipp" (= 1/4 rotation to the left), "hepp" (= 1/4 rotation to the right). In picture (5) the instruction is for the athlete to stop the

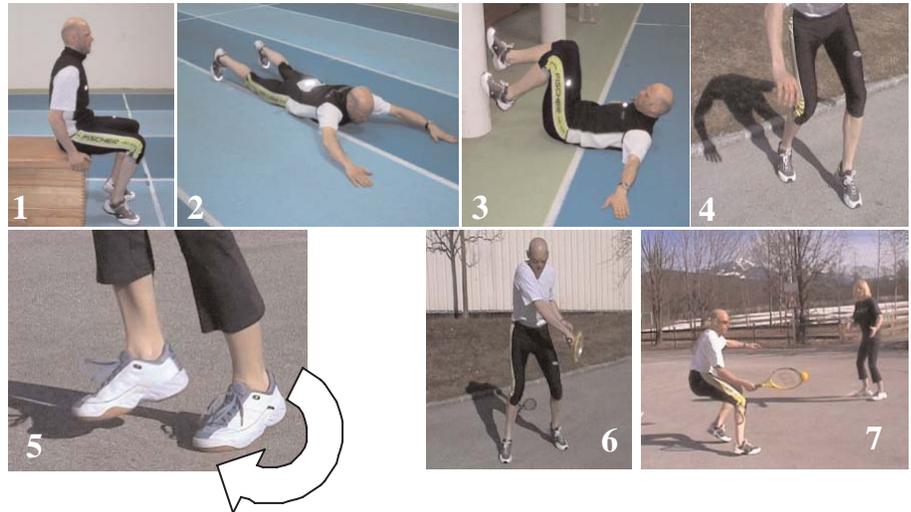


Fig. 1. Selected foot and arm tapping exercises for tennis (1-7)

current tapping exercise and immediately restart in a new position. Stroke imitation (6) and simultaneous tapping in a standing position (simultaneous pressure) or tapping exercises combined with tennis specific exercises (sprints, side-steps, cross steps) (successive pressure) (7) increase the athlete's frequency speed.

1.2 Action speed training (step patterns, sprints, jumps)

1.2.1 Step-rhythms on the spot

There is a possibility of doing different step rhythms according to various geometric shapes. In the examples given 3 step versions are completed in a hexagon, triangle and quadrangle. The triangle is fixed on a mat to have different general conditions available (variability pressure). Athletes have to master the rhythm according to the geometric shape and their individual performance level, slowly in the beginning and then as quickly as possible. Alternative: changing step stations on command (stress).

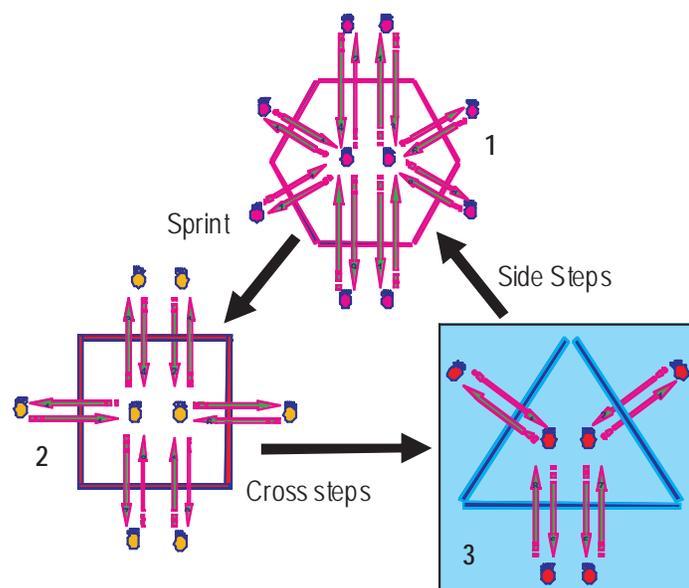


Fig 2. Stationary step-rhythms (3 versions) in combination with motion patterns

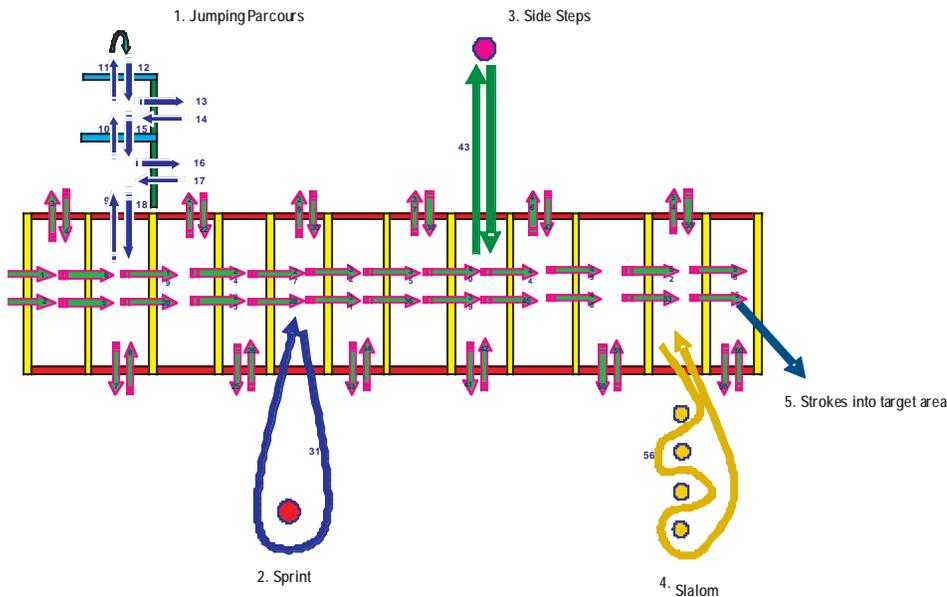


Fig. 3: Step-rhythms through the agility ladder combined with jump, sprint etc. and strokes at targets

1.2.2 Step-rhythms through the agility ladder combined with tennis specific movements

Pressure conditions such as time pressure (as quickly as possible), psychological (competition) and physical stress (duration and fatigue), complexity pressure (especially successive pressure: one exercise is followed by another - transition!) and precision pressure can be performed (Fig. 3).

1.2.3 Spec. jump and sprint coordination with increasing levels of difficulty

This method focuses on the development of jump coordination of tennis players. Such as in 6.2.2., pressure conditions can be used to increase the difficulty in the one or the other level (Fig. 2) (Fig. 4).

1.2.4 Exercises for reaction- and explosive speed combined with complex step exercises through the agility ladder and tennis specific exercises (precision pressure)

This training method (Fig. 5) is very useful for competition training (psychological stress) in combination with successive complexity pressure of high demands for the athlete. Again, the transitions between different foot techniques are particularly relevant. This method should be done in relays (level of challenge).

CONCLUSION

One could raise the question whether this new method is more successful than other training programmes that focus on speed and coordination in tennis. Individual success when training international top athletes as well as junior athletes and children (simplified versions) entitles us to argue that this training method is very useful for the development/improvement of footwork in tennis. Scientific evidence still needs to be gathered to support the anecdotal evidence.

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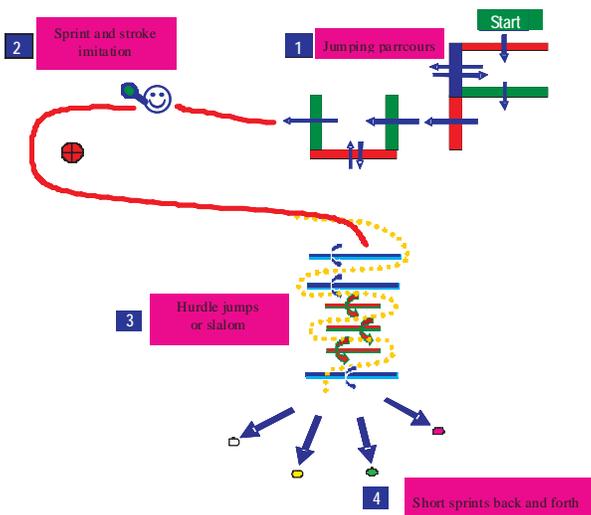


Fig. 4: Specific jumping coordination exercises with increasing difficulty

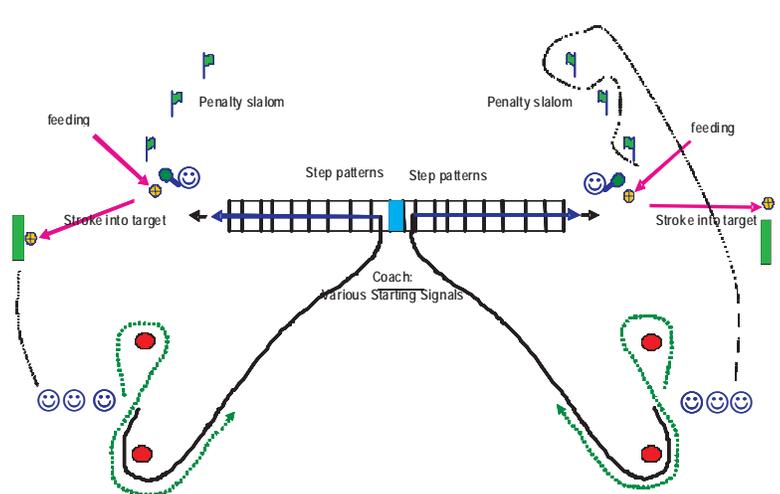


Fig. 5: Competition course (reaction-sprint-step-coordination-target precision)

ITF LESSON PLANS FOR BEGINNER PLAYERS: LESSON 3

Level of player: Beginner (ITN 10.3 to ITN 8).

Game situation: Rally from the baseline

Tactical theme: Moving the opponent from the baseline

1. Hitting the ball
2. Hitting the ball over the net
3. Hitting it inside the singles court
4. Directing to the left side
5. Directing to the right side

Technical themes:

1. Preparation
2. Forward swing
3. Contact point
4. Follow through

Number of players: 8

Equipment: Red, orange, green (transition) and regular balls, and 23 in. and 25 in. racquets according to the level of the players (ITN 10.3 to ITN 8)

Courts: Availability to red, orange, and regular courts



DRILL 1-OPEN SITUATION

Goal: Players to play points with ground strokes from the baseline with the intention of winning points by moving their opponent and directing their strokes.

Methodology: Point play.

Player organisation/positioning: Pending the level of the players there are different options:

- ITN 10-10.3: Create 4 mini-courts (red 'play tennis' courts and balls) using the court width. 2 mini-courts in each side of the net, Have 2 players playing in each mini-court.
- ITN 8-9: Use the full court with orange or green 'play tennis' balls. Have 4 players on each side of the court. They play in pairs down the line. 2 pairs play close to the doubles tramlines and the other 2 closer to the centre of the court. Depending on their level, they start serving from closer to or further away from the net.
- Other options: 12 metre or 18 metre courts can also be set up (orange 'play tennis' court).

Player rotation: After 5 baseline points or according to a given time (for e.g. 2 minutes), winners move up one court and losers move down one court. When using a full court winners can play winners and losers play losers. Try to make sure that everyone gets a chance to play against each other.

Coach analysis and diagnosis points: Check players' overall attitude (mental), consistency and ball placement (tactics of moving the opponent), movement around the court and around the ball (condition), and racquet skills (technique).

DRILL 2-CLOSED SITUATION WITH BASKET FEEDING

Progression 1 a (Technical themes):

Goal: Players to practice the fundamental technique of the groundstrokes to hit the ball in a particular direction.

Methodology: Use self-feed, partner hand or racquet feed, or coach feed.

Create stations: Station 1, Place racquet with correct contact point and make contact with fed ball, Station 2, Start racquet same as station 1 but make contact with fed ball and follow through, Station 3, Start the racquet already in the preparation phase and then make forward swing, contact, and follow through, Station 4, Start from ready position and impact with fed ball into the court. Station 5, Impact the ball and direct it to the left and the right side.

Player organisation/positioning:

- ITN 10-10.3: Use 4 mini courts (red 'play tennis' courts), having each mini court have one station, the rotation is completed per court ensuring each player gets to practice at each station.
- ITN 8-9: Use full court but with two mini courts (half court down the line), starting with the two first progressions, and then progressing to the next two progressions once everyone has completed the same number of repetitions (orange or green 'play tennis' balls can be used). The players start in the court relative to their level of play. They can start on the service line and then move back.

Coach analysis and diagnosis points: Ensure the players practice both the forehand and the backhand strokes at the same time and in the same quantity and that they direct the strokes both to the right and left sides of the court using targets or cones.



ITF LESSON PLANS FOR BEGINNER PLAYERS: LESSON 3

Progression 1b (Tactical theme):

Goal: Players to practice the fundamental tactics of the baseline game emphasising ball direction to move the opponent.

Methodology: Use self-feed, partner hand or racquet feed, or coach feed. Create stations: Station 1, Hitting the ball (consistency), Station 2, Placing it over the net (height), and Station 3, Inside the court (direction), Station 4, Hitting the ball with direction.

Player organisation/positioning: Same as above.

Player rotation: Same as above.

Coach analysis and diagnosis points: Make sure the players begin to understand how to use the tactical concept of ball direction (with the intention of moving the opponent) from the baseline and how they relate to the groundstrokes (i.e. direction and racquet face position, height and racquet path trajectory, etc.).

DRILL 3-RALLY WITH COACH

Goal: Players to practice the fundamental tactics of the baseline game using their groundstrokes in a rally situation with their coach to apply the tactics of moving the opponent by using direction.

Methodology: Players rally with the coach.

Player organisation/positioning:

- For ITN 10-10.3 using 4 mini-courts (red 'play tennis' courts), players serve or start the rally with an underarm serve with the coach playing on one of the courts, and with the extra player possibly picking up balls, or doing a physical activity, keeping the score, creating a station that they will be able to practice their ground stroke consistency (i.e. against the fence/wall or hit into a target). After 5 points, they get together to discuss theme of the lesson. The side of the coach should start the rally/point.
- ITN 8-9 using 2 mini-courts, coach and players rally down the line (using orange or green 'play tennis' balls). Putting the players into two groups of 4, (with the coach making the 4th member in one of the groups). The 8th player or spare player could be doing a physical exercise or picking up balls, or an activity that relates to the theme of the lesson.

Player rotation: Same as above.

Coach analysis and diagnosis points: Make sure the players begin to apply the basic tactics of moving the opponent from the baseline using their groundstrokes.

DRILL 4-OPEN SITUATION WITH POINTS

Goal: Players to practice the fundamental tactics of moving the opponent using direction from the baseline using their groundstrokes in a rally situation with their peers.

Methodology: Players rally among themselves.

Player organisation/positioning: Players play points relative to their playing level and court size i.e.

- ITF 10-10: 3-4 mini-tennis courts
- ITF 8-9: Using half court. They could progress to using full court but having good rotation and using either orange or green 'play tennis' ball.

Player rotation: Same as above.

Point/scoring system: The following formats can be used:

- Individual scoring: Number of ground strokes in.
- Team/pair scoring: Number of ground strokes patterns in
- Other options: Number of times players adopt a correct preparation, contact point, and impact the ball with the strings.
- Individual points
- Extra points given for tactical (moving the opponent using direction) or technical proficiency
- King of the court

Coach analysis and diagnosis points: Make sure the players begin to apply basic tactics (moving the opponent using direction) from the baseline using their groundstrokes.



Tennis for the Blind and Partially Sighted

By Mark Bullock (ITF Wheelchair Development Officer)

If you use the right ball anyone can play tennis...including those that have no vision. An integral message of the ITF's play and Stay Campaign is the use of an appropriate ball for starter players. In this case the ball is important to players of all levels as the players do not have the vision to see a regular tennis ball or even a slower moving low compression ball.

THE HISTORY AND THE DEVELOPMENT OF THE BALL

Tennis for the Blind and Partially Sighted began in Japan through the ingenuity of Miyoshi Takei approximately 20 years ago.

Miyoshi had a dream to play tennis. Visually impaired versions of various other sports such as volleyball, table tennis and baseball existed at the time however, in these sports a ball was rolled on the floor rather than being bounced. This was not what Miyoshi desired. He wanted to play tennis in three dimensions with a ball that bounced. He went to his physical education teacher and asked for advice. The teacher was interested in the idea and they began to experiment. The first and most important task was to develop a ball that would allow blind and visually impaired players to track the flight and bounce of the ball by the sound it emitted as it travelled through the air, bounced or was hit. At first a toy plastic ball, in which they put some lead ball bearings, was used. It rattled and the sound it produced was good but the height of the bounce was not appropriate.

After graduating from school, Miyoshi entered a special education course in Tokyo to learn physiotherapy. At this time he had

the idea of using a sponge ball. He cut it in half and put a bell in the middle. He took this ball to the Tokyo Sports Centre for the Disabled. He asked an instructor to play tennis with him. At first, the instructor was uncertain about Miyoshi's idea, but he was deeply moved by his enthusiasm. It was very challenging for Miyoshi to make contact with the ball at first but it was also a huge step forward for three-dimensional sports for the blind and visually impaired. With its sponge exterior and, after further development, a rattling table tennis ball at its core a project to manufacture the tennis ball for the blind commenced.

Furthermore, with the help of The Japanese Disabled Sport Association, a yet-unknown sport was about to be born. It was on 21 October 1990 Miyoshi's dream was realised when the first national tournament was held in Japan. Today it is estimated that approximately 300 players are now playing the sport in Japan.

THE COURT

The sport is played on a badminton court. String is placed on the lines and stuck down with tape to allow the players to 'feel the lines' with their hands or feet.

THE RULES

There are two major differences: the number of the bounces and the server must say "Ready" before delivering the serve and the receiver replies by saying "Yes". Mini tennis rackets are used with the sponge ball that rattles. Singles and doubles matches can be played with doubles pairings usually consisting of a visually impaired and a

sighted player.

Visually impaired athletes are normally classified according to the amount of vision that they have. The totally blind athletes are in the B1 category. They play blindfolded and are permitted three bounces. Athletes in the B2, B3, B4 are partially sighted and are permitted two bounces. Athletes in the B4 category are visually impaired and are permitted one bounce.

Integration

One of the strengths of tennis is that both visually challenged and sighted people can play together, either as opponents or in a mixed-doubles format with visually impaired player partnering someone with normal eyesight. The visually impaired player has the appropriate number of bounces for the level of their vision and the sighted person is allowed one bounce.

MESSAGE FROM EIJI YAMAMOTO

(Chairman of Japan Tennis Association for the Visually Handicapped and B1 player)

'Even though I've been blind since birth, I love playing tennis.'

Everybody can do it with a little practice. It is great fun.'

Source: www.hanno.jp/~matsui/

Thanks to Ayako Matsui and Robert Kershaw in producing this article together.



Thanks to the dream of Miyoshi Takei there are now more than 300 visually impaired tennis players in Japan.

Watch The Ball?

By Damien Lafont (PhD and Certified Tennis Coach, France)

Brabenec and Stojan (2006) underlined that coaches and players have been paying attention in training or during the learning process exclusively to the visible elements of the stroke; backswing, forward swing and follow through and that examination of the moment of impact has however received comparatively less research attention.

In this context, the purpose of this study was to examine head and gaze behaviour during the hitting phase, i.e. to explore the old adage "keep your eye on the ball!" probably the most used instruction ever given in tennis.

METHOD

In order to explore the head and gaze behaviour of elite players, photos at - and just after - the moment of impact was analysed and compared to less-skilled top players on the professional tour.

Past research of Stein and Slatt (1981) who looked at photos of all the major professionals demonstrated that top players' eyes invariably do not follow the ball and highlighted that tracking the ball as close as possible to the impact zone is not feasible or desirable for most people. It is often assumed that, at the very best, everyone can keep their eyes on the ball until the moment that the ball actually strikes the racquet.

However, recent observations of Roger Federer and Rafael Nadal call into question their conclusion. More specifically, the idea motivating this study is that great players, i.e. those at the top of the professional rankings (as defined by Brabenec and Stojan, 1997), seem to achieve a control of their gaze and head movement during the hitting phase.

RESULTS

A considerable amount of sequenced photos of the hitting phase (several hundred for each player) reveal that elite players not only seem to follow the ball longer than other players but also possess a characteristic posture of the upper body: At impact, their head and eyes are turned in the direction of the hitting zone.

Additionally, what contrasts with previous studies is that Federer and Nadal not only keep their eye on the ball up to the moment of impact, but after impact their head remains still and in the direction of the contact zone. This 'fixation' on the contact zone is the trademark of elite players.

The most noteworthy finding was that elite players were able to maintain a fairly consistent control; a consistency also illustrated on the women's tour by Steffi Graf who kept her eyes on the ball for every shot and had a significant fixation on the impact zone after impact.

COMPARISON OF TOP PLAYERS

The comparison of hitting sequences shows that top players differ greatly in their gaze behaviour. Indeed, there is a profound disparity in their head and gaze behaviour as compared to previous elite players (see Arnaud Clément for example). The vast majority of photos show players hitting with their eyes focused ahead of the ball in the fog zone - term introduced by Stein and Slatt (1981).

Moreover, players were often seen to lift their eyes and pull their head up before the ball even reaches the racket. They turn their head as if they want to immediately follow the beginning of the ball trajectory or the movement of their opponent (Brechtbuhl et al., 2005). It is evident for the forehand side where top-ranked players differ greatly from those of lower ranking.

Furthermore, this comparison reveals that a majority of professional players appear to not keep their eye on the ball or only intermittently, players have been noted to have better head control on their best stroke (often their backhand), i.e. associated to better centring and accuracy (see Lleyton Hewitt).

A common idea is that there is very little difference in the stroke capabilities of the top players (Taylor, 2000) and therefore the only difference lies in their mental strength. However, the above observations show that at the professional level, all the players are not equally talented in terms of technical skill especially with regard to gaze control.

Past studies in racket sports have already reported that experts watch the ball differently. They differ from novices in eye fixation patterns and perceptual strategies (Murray, 1999), analyse relatively little information but focus only on the most pertinent information (La Rue and Ripoll, 2004), and show faster information processing and decision making (Day, 1980). But, what is particularly interesting and distinct from previous studies is that great players watch the ball and position their head differently, especially after impact.

Thus, great players don't just hit the ball better, they do it differently.

CONCLUSION

In tennis, top players are expected to maintain visual contact with the ball as they complete the hitting action but that was not consistent with the observations. In particular, what emerges in this study is that the top players are not as individual in the way they deal with the gaze control in tennis as they are in the way they stroke the ball. More precisely, among top players, only few high-level performers follow a typical fixation of the contact zone. It is significantly illustrated in the modern game by the amazing consistency of Roger Federer and Rafael Nadal.

So, is gaze control a decisive characteristic of great players? At this time, observations of elite players only suggest that gaze control, especially fixation contribute to achieving greater accuracy especially through better centring. More broadly, Federer and Nadal demonstrate that it is possible and even beneficial to play tennis with the eyes not always focused on the ball. Therefore, watching the ball throughout its entire flight is not the visual strategy used by elite players. In a sense, it confirms the hypothesis of Ford et al. (2002) about the possibility and benefits of focusing on the contact zone during the stroke execution.

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Cognitive Techniques to Manage Performance Anxiety in Tennis

By Dr Andrew Peden PhD
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Have you ever noticed that once you become aware of something, the very act of noticing can make things seem worse? On a tennis court, this is true of technique. For example, one or two missed serves can take on extreme proportions. Mistakes cause us to feel anxious; they trigger negative thoughts of self-doubt regarding our ability; this leads to tension and tightness in our muscles and therefore poor hand-eye coordination and increased clumsiness.

This process then sets up a self-fulfilling prophesy: negative thoughts and physical tension increase the probability of missing the very next serve. A vicious cycle has been created from which it can sometimes seem impossible to escape as we seem locked into repeating mistakes or else choose the faulty coping 'solution' of avoiding playing the shot with which we are having difficulty.

The problem is that simply trying not to think about something once the thought has entered your mind can be very difficult indeed - right now, try not to think about a tennis ball. What did you think about? A tennis ball, of course! The same is true of trying not to think about missing a shot. Thankfully, sport psychology has borrowed from cognitive psychology to offer tennis players of all levels and abilities a range of distraction techniques to cope in such situations by changing our focus and how we think.

Distraction techniques intervene in the vicious cycle of anxiety. They offer immediate management of symptoms and are a very helpful way of providing evidence that one has some mastery over negative thoughts and feelings. They provide an immediate sense of control and are particularly useful in situations where it is difficult to challenge negative automatic thoughts. There are several different types of distraction techniques, including focusing on an object, sensory awareness, positive memories and thought stopping.

FOCUSING ON AN OBJECT

Most distraction techniques require one to focus on external factors. Try to focus right now on the sensation of your right foot inside your shoe. Spend several seconds really focussing upon what you can feel. Now shift your attention to the feeling of your tongue inside your mouth. Concentrate on your

tongue for several more seconds. Can you still feel your foot inside your shoe at the same time? Almost certainly not, because the focus of your concentration has shifted.

Because it is difficult to truly focus one's attention on more than one thing at a time, in situations where negative thoughts, self-doubt and a heightened awareness of physiological arousal are interfering with your ability to play, focusing on a single object in as much detail as possible can help refocus your attention away from the stressful situation.

Focusing on an object on the tennis court at times of intense or heightened anxiety or stress offers an immediate distraction and a consequent reduction in feelings of arousal and tension. Between points or at change rounds you can focus on anything you choose - your shoe, sweatband, drink or racquet. For example, during the break between games, you could look at your tennis shoe and focus on its size, shape, colour, the stitching or logo.

During the point, you will need to be focused on the movement of the ball at all times. Put your entire attention into this task. Try focussing upon the writing on the tennis ball, trying to read the maker's name as the ball approaches. This might sound impossible, but with practice, like any skill, the ability to do so develops and will pay dividends in your all round game as your focus and coordination improve.

SENSORY AWARENESS

A related technique is to focus on one of your senses - sight, sound, vision, taste or touch. Often the easiest to access is the sense of touch, perhaps feeling the pressure of the sweatband on your wrist; or the grip of your hand on the tennis racquet; or the connection between your trainer sole and the ground as you prepare to serve - therein allowing immediate distraction from the feelings of anxiety which inhibit performance.

With practice, sensory awareness can involve focusing on one's entire surroundings. Look around the court and ask yourself what you can see, hear, feel. Can you feel the racquet in your hand? Can you hear the thud of the ball? Can you feel the sun and wind on your face? Can you smell the sweat in the air?

POSITIVE MEMORIES

Another technique is that of trying to recall a concrete and vivid pleasant memory in order to provide a helpful distraction and instil a feeling of relaxation and calmness on court. Try vividly recalling the memory of a good serve as you are about to serve or of a well hit volley as you step into the ball at the net. This is a variation of the psychological technique of visualisation which can distract you from feelings of anxiety, decreasing muscular tension in the shoulder and arm, resulting in a better technique, a faster, more accurate serve and the reduced likelihood of serving a fault.

THOUGHT STOPPING

Under pressure, it is perfectly normal to have negative thoughts, laden by self-doubt. For example, how often have you known in your heart that you are going to double-fault on your second serve? I'm sure this has happened to all of us. How often have you known that even though you were 5-2 up and serving for the game, you would not be able to hold your serve and your opponent would get back into the match and even beat you?

These are examples of so called 'self-fulfilling prophecies' - variation of negative self-talk that produces muscular tension and inhibits coordination and produces mistakes. Self-fulfilling prophecies can cause the player to focus so much on what not to do that they somehow almost forget what they have to do - for example, they become so focused on avoiding double-faulting that they lose all sense of where they should serve; or they become so focussed on getting the volley back into play that they hit it straight back to their opponent and are easily passed on either side. This kind of difficulty is not unique to tennis; it is common to all individual sports in which negative automatic thoughts can paralyse the athlete leading to the inability to play under pressure - in tennis, referred to as 'choking'.

Negative automatic thoughts are 'negative' because they are linked with unpleasant feelings; and 'automatic' because they enter your head quickly, without being invited, pondered on or reasoned through. As you become increasingly anxious, the negative automatic thoughts become more frequent and more negative and can then dominate thinking, destroy confidence and damage performance.

Sometimes, such negative thoughts can become repetitive and play on our minds so that they are difficult to shake-off; they set up predictable patterns of behaviour including



Thought stopping is a simple behavioural technique to help eliminate various repetitive negative thoughts.

'choking' in crunch situations. The more this happens, the more anxious we become and the more likely we are to make mistakes - this is the vicious cycle of negative thoughts, anxious feelings and behavioural mistakes.

One way of preventing negative automatic thoughts dominating our way of thinking is to use a technique known as 'thought stopping.' Thought stopping is a simple behavioural technique to help eliminate various repetitive negative thoughts. Thought stopping is the process of consciously and deliberately changing ways of thinking in order to break destructive patterns of behaviour. It is a psychological technique to reduce the negative impact of stress.

Quite simply, thought stopping involves replacing one thought for another - that is, replacing a negative thought with a positive thought. This helps clear the mind of dysfunctional thoughts which increase stress, whilst introducing positive thoughts that aid relaxation and coping.

Try the following method -
STOP!, SWAP, BREATHE, REPEAT.

STOP!: When you experience an anxiety provoking thought, say to yourself firmly, 'Stop!' Say this loudly inside your head if to actually say it out loud would cause you too much embarrassment.

SWAP: Immediately replace the negative thought with a positive statement such as, 'I can...' or 'I will...'

BREATHE: Take a deep breath from the stomach. This is important because it will allow you to associate relaxation with positive thinking.

REPEAT: Do steps 1 through to 3 every time you have a negative automatic thought. With practice, this will become automatic and negative thoughts will reduce and hopefully eliminate themselves.

Remember, anxiety is normal - a universal response to a stressful situation. If you are anxious it is likely that your opponent will be anxious also. However, you can learn to manage your anxiety and reduce its impact on your game. The key lies in repetitive practice. Because it is easier to practice in a situation of reduced stress, begin by practicing your psychological techniques in a practice hit or lesson rather than a competitive match. Once you have begun to master them, transfer your new found skills into a match play situation. Review your progress and consider what works best for you. Remember, tennis is a sport played on a court but a game played in the mind.

Observation of Training Sessions and Pre Match Preparation at the World Team Cup 2007

By Philipp Born, Martin Heck, Malte Krüger, Veit Langholz, Philipp Zimmer
(German Sports University Cologne, Germany)

INTRODUCTION

Training sessions and pre-match preparation are critical aspects of successful performance for players of all levels. The observation of the similarities and differences between both routines can provide useful practical information to tennis coaches and sport scientists on the key aspects that influence match play.

Hecker (1987) and Pfannkuch (1988) conducted an observation of training sessions and pre-match preparation at the World Team Cup in Düsseldorf, Germany.

These studies were the first systematic analyses of training sessions of top players. In the present study we observed the training routines of professional players at the World Team Cup (WTC) to compare current routines with those obtained by the two previous studies conducted 20 years ago.

Our specific goals were to get a quantitative and qualitative overview of the practice of world class players in a tournament week, to obtain a picture of the structure of a training session and to compare the results with the results of the dissertations from the 1980s.

Specially, we made comparisons between players or teams that had a match on the same day with those that had their match the following day.

The WTC is played the week before Roland Garros and, because of this, is an important tournament in the preparation for the second Grand Slam of the year.

METHODOLOGY

Five investigators observed two practice courts at one time. One observer was assigned to each player who recorded the main features of the practice session from start to end.

The equipment used included: an observation table, the appropriate writing material, the practice and match time schedules of each team, a video camera and a stopwatch.

The data included in the observation table were: Name and Nationality of the player, duration of the training session as well as of the different components of it. Furthermore we documented the intensity which was divided in a scale from 1-3 (from low, regular to high). The different components of the practice sessions were labelled as: general warm-up, stroke warm up, practice of all strokes (baseline, net, serve & return) as well as match training. The same table and criteria of observation were used for those players who were just preparing for their match and for players who were taking part of a normal practice on that day.

The main criteria for practice analysis were: volume, duration, frequency and intensity which were scaled from 1- 3 (low, medium, high) as well as the content and order of the training. As stated earlier we divided the observed teams into two groups, one which had matches on the same day and therefore were only preparing and one which had no matches on the same day and were practicing normally.

In the training group we took data from the teams of Germany and Belgium and in the preparation group data were recorded for the teams of Sweden, Chile and USA.

RESULTS

The data volume is too small to obtain statistical significance. However, remarkable differences can be noted between match preparation (MP) and training (T) as well as between the data collected in 1980s and those of today, as shown in table 1.

DISCUSSION

Results show that there has not been a substantial change between the duration of the training sessions observed 20 years ago

	Training	Pre - Match Preparation
Average session duration 2007	81 min.	32 min. *
Average session duration 1980s	83 min.	45 min. *
Intensity	2-3	1-2

Table 1. Average duration and intensity.

* The moment of the preparation was in both cases 2 hours before the match.

and the ones evaluated in the present study. Conversely, the duration of pre-match preparation has decreased by approximately ten minutes. Observations of the intensity and the individual aspects of the pre-match-preparation indicate that these sessions are rather light and not too demanding on the players. One reason for this could be that the players are using the pre-match preparation exclusively for gently grooving their strokes and acquiring some touch and consistency and not as technical or tactical practice.

RECOMMENDATIONS FOR PRACTICE

The research conducted has helped us to identify several recommendations that can assist coaches and players to be more effective in pre-match and training routines:

1. The observed methods and durations of training- and preparation- sessions of professional players are absolutely applicable for amateur tennis as well.
2. Amateur players should adapt these routines to their individual fitness level, and avoid excessively intense routines.
3. The most important goal of the pre-match preparation is to acquire some rhythm and consistency in the strokes as well as focus on the match and not to practice strokes or tactics.
4. While pro players practice with high intensities on match-free days, amateur players should be careful with this practice to fatiguing for the next match.

Note: This Research was supervised by Prof. Dr. med. Karl Weber (German Sports University Cologne, Germany)

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	Specific aspects of the match preparation	Specific aspects of the training
General warm up	Running, stretching, medicine ball and Theraband exercises (Chilean Team only) Very low intensity and short duration (about 5 minutes)	Running, stretching, football tennis (German team) Higher intensity (II) faster periods, about 15 minutes
Stroke warm up	Baseline (low tempo and low strength application, increasing continuously)	Baseline (low tempo and low strength application, increasing continuously)
Stroke practice	Nothing specific	Division into groundstrokes, net-play, serve and Returns Forehand/ backhand crosscourt, Forehand/ backhand down the line, serves (basket), only a few returns High number of repetitions Higher intensity than in the preparation
Match training	Points with serve	Baseline- sets until 11 points Sets (Belgian Team)

Table 2: Specific aspects of the sessions.

Training and Competition Log for Tennis Players

By Miguel Miranda (ITF Development Officer - COSAT, South America)

INTRODUCTION

The concept of a training and abilities log is quite common in certain sports where it is used to carry out detailed monitoring of training and competition processes.

The training log therefore becomes a fundamental tool in the design of a more individualised, specific and well adapted program that deals with the player's actual abilities.

This document contains very valuable information for both players and coaches as it includes a great amount of training and

competition data enabling us to understand how these factors affect the tennis player, and therefore, issues such as overtraining, changes in performance and the achievement or non achievement of pre-established objectives, can be more easily explained.

We have set out below an example of a player's activity or training log. This should be adapted according to the needs and interests of each individual player.

The log has two different parts: One is for after a player has competed, and the other is for after they have completed a training session.

Nevertheless, beyond individual details, the most important thing is that both coaches and players use it as regularly as possible to ensure that the training process and the competitions in which the player takes part are controlled.

Player's Name				Date of the Report		

OFFICIAL MATCH

Singles: [] Doubles: [] Tournament:

Opponent's Name	Country	Ranking	Result	Round	Duration

Analysis

TECNICAL - TACTICAL	MY STRONG POINTS	NEED TO IMPROVE
During serves (1st & 2nd) Rituals Spin & power Percentage of 1 st & 2 nd serves Variety, positioning. Direction - Centre, right and left		
Receiving (Forehand & backhand) Preparation Chip and charge How did I handle the power? With the 2 nd ? When did I approach the net? How? How did I handle weak serves?		
Both players at the baseline (f/hand & b/hand) Consistency Movement Ability to attack and defend when necessary Depth, changes in rhythm Anticipating the shot Hitting the balls in Use of spin Power Were weaknesses exploited adequately? Recovery after pressure		
When the opportunity to approach the net arose. Did I take advantage of the opportunities adequately? Did I react quickly? Position at the net Ball control Volley & smash (variations), approaching shots?		
When the opponent approached net. Variety of my shots? Were shots anticipated? Lobs (offensive/defensive) On the run?		
PHYSICAL	MY STRONG POINTS	NEED TO IMPROVE
Speed Strength & Power Flexibility Endurance (Aerobic/Anaerobic) Agility "Going for all the shots" Reaction Balance Explosive movements Coordination Recovery Footwork		
PSYCHOLOGICAL	MY STRONG POINTS	NEED TO IMPROVE
Concentration Routines Positive self-talk Competitive spirit Motivation How did I react under pressure (emotional control)? Did I enjoy the match? How did I react to the environment? How did I project myself on court: Confidence		
COMPETITIVE	MY STRONG POINTS	NEED TO IMPROVE
What game patterns did I use? Did I vary my game? Did I prepare adequately for my match? (Tactically, Physically, Mentally)? Did I adapt my game plan at all? Anticipation, momentum, shot selection.		

TRAINING

Tennis Training – Technical - Tactical

Partner's Name(s)	Country	Duration of session	Session's main objective	Session's secondary objective

If you played a match or some practice sets:

Opponent's name	Country	Ranking	Result	Observations

Mark with a ✓ what you have done today:

Consistency GS		Depth GS		Speed – power GS	
Direction GS		Variety – Spin GS		Serves – spin - consistency	
Serve – direction		Serves – Power		2nd Serves	
Volleys & variations		Half volley		Smash & variations	
Defensive work		Drop shots		Footwork exercises	
Offensive work				Returns	
Total Time (in minutes) of today's session				Intensity (high-medium-low)	

Did you practice anything else not included above? How long? Does this include sets / practice matches?	1.	
	2.	
	3.	

What did you do really well in today's practice session?	
What do you need to improve in tomorrow's session?	
What will you concentrate on in tomorrow's session?	1.
	2.
	3.

Physical Preparation

Have you completed your PP programme?	Yes	No; reasons
If you did not complete your PP programme but did other activities or part of the programme instead. What were they? And how long for?	1.	
	2.	
	3.	
	4.	

Psychological work – state of mind: Depending on how you feel mark with a ✓, ?, or X:

Desire to train		Emotional state of mind		Concentration / focus	
Self-confidence		Relationship with others		Positive state of mind	
Working atmosphere		Anticipation		Clear objectives	

Other important aspects: Depending on how you feel mark with a ✓, ?, or X:

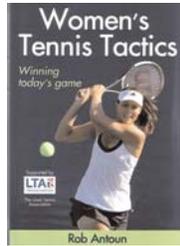
Recovered		Tired		Sore muscles	
Appetite		Thirsty		Cramps	
Discomfort/pain		Injured		Sick	

Recommended Books and DVDs

BOOKS

Women's Tennis Tactics - Winning today's game

Author: Rob Antoun
Year: 2007 **Language:** English
Pages: 211 **Level:** All levels
ISBN: 978-0-7360-6572-6

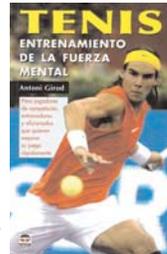


This book helps players, coaches, and parents who are involved in women's tennis at all levels. It's the first book to separate the tactics used in the women's game from those used in the men's game. It provides various tactical strategies and tactical solutions and includes numerous coaching tips and drills. Each of the five game situations is studied in a separate chapter. The book begins with the study of the tactical options for a player when serving in chapter 1 and the tactics of the return in chapter 2. The following chapters deal with "playing the baseline", "playing the net", "opposing the net player", helping players to deal with the opponent's net attack and "developing a game style" by progressing through the four key stages of tactical development. It also includes a "drill finder" which lists all drills shown in the book. This book would be a good read for anyone who is involved in the women's game and who wants to get an insight into the tactics of today's women's tennis.

For more information visit:
www.humankinetics.com

Tenis - Entrenamiento de la fuerza mental. (Mental toughness training)

Author: Antoni Girod **Year:** 2007
Language: Spanish **Pages:** 175 **Level:** Intermediate/ Advanced
ISBN: 84-7902-277-9



This book presents a method for mental preparation based on the most modern mental training methods available as well as on observations of the top players of today's game with the main goal of "training the mind". The first part of the book covers the basic mental preparation while in the second part discusses the specific mental preparation. Three periods of mental management are covered: Pre-match, match- and post-match. In addition to the theoretical principles, the author presents many motivation and concentration practical tips in all three match situations. The appendix includes numerous mental training exercises that can easily be applied on- and off-court. This book is a great resource for both players and coaches and will help to improve mental toughness in all situations and at all levels.

For more information contact:
info@edicionestutor.com or visit:
www.edicionestutor.com

Tennis Training: Enhancing On-court Performance

Authors: Mark Kovacs, W. Britt Chandler & T. Jeff Chandler **Year:** 2007 **Language:** English
Pages: 352 **Level:** Advanced
ISBN: 978-0972275972



Filled with action photographs to illustrate the exercises and techniques, this book distils contemporary scientific research into easily accessible principles for designing and implementing tennis training programmes. Sample programmes provide a highly targeted, efficient, practical, and individualised framework for every competitive level, including junior, collegiate, professional, adult, and senior. Science is brought to the court with clarity and precision, informing and transforming on-court performance. The major purpose of this book is to bring over 300 tennis-specific scientific studies to the coaching community to help the coach, strength and conditioning specialist, trainer, physical therapist, medical doctor, and parent develop the tennis athlete's fullest potential. This book has a systematic structure with the introductory chapters providing the basic terminology of training and the principles needed to understand tennis physiology. The following chapters combine a review of tennis literature on nutrition, strength, speed & agility and flexibility with practical exercises, drills and programmes.

For more information visit:
www.racquettech.com

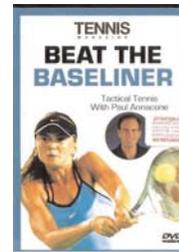
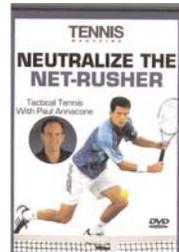
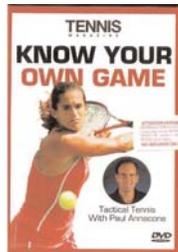
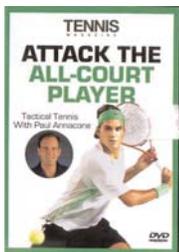
DVDS

Know your own game (40'), Attack the all- court player (40'), Beat the baseliner (55'), Neutralize the net- rusher (50')

Author: Paul Annacone **Year:** 2006 **Language:** English **Level:** Advanced

Know Your Own Game sets up several match situations to assess your skills and determine the style you should play, and then it solidifies your game with key drills and games you can use in practice. Attack the All-Court Player shows how to recognise their patterns and capitalise on the opportunities created, as well as key strategies for the all-court game, the stroke production and tactics, and the best drills and games to reinforce these skills in practice. Beat the Baseliner demonstrates how to recognise and overcome these strengths for both the consistent and the aggressive baseliner, the key strategic situations in the baseline game, and the best drills and games. Neutralise the Net-Rusher shows the key strategic situations and techniques used by strong net players, and the best drills and games to reinforce these skills in practice. The series is hosted by Paul Annacone, coach of Tim Henman and former coach of Pete Sampras.

For more information visit: www.humankinetics.com



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FORMAT

Articles should be word-processed preferably using Microsoft Word, but other Microsoft compatible formats are accepted. The length of the article should be no more than 1,500 words, with a maximum of 4 photographs to be attached. Manuscripts should be typed, double spaced with wide margins for A4-size paper. All pages should be numbered. Papers should usually follow the conventional form:

introduction, main part (methods and procedures, results, discussion / review of the literature, proposals-drills-exercises), conclusions and references. Diagrams should be done using Microsoft Power Point or any other Microsoft compatible software. Tables, figures and photos should be relevant to the paper and should have self explanatory captions. They should be inserted in the text. Papers should include between 5 and 15 references that should be included (author/s, year) where they occur in the text. At the end of the paper the whole reference should be listed alphabetically under the heading 'References' using the APA citation norms. Headings should be typed in bold and upper case. Acknowledgement should be made of any research grant source. Up to four keywords should also be given.

STYLE AND LANGUAGES OF SUBMISSION

Clarity of expression should be an objective of all authors. The whole emphasis of the paper should be on communication with a wide international coaching readership. Papers can be submitted in English, French and Spanish.

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2007 ITF Worldwide Coaches Conference, Asunción, Paraguay



Mark Bullock, ITF Wheelchair Development Officer, presenting on-court about training for wheelchair tennis.



Doug MacCurdy, ITF expert, presented on integrated on-court training.



Machar Reid, Tennis Australia, gave a number of excellent presentations on biomechanics.



There was a great representation of coaches from the world over, with the Chileans having a great time.



Miguel Crespo presents out-going Tori Billington with flowers to recognise her contribution to the ITF over 13 years.