



## editorial

Welcome to issue 22 of the ITF Coaching & Sport Science Review – the third and final issue of 2000.

Recently some of our readers will have attended the successful Regional Coaches Workshops held by the ITF together with the Regional Associations. In Fort Lauderdale, approximately 120 coaches representing 20 countries from the region participated in the ITF Central American and Caribbean Coaches Workshop. The European Tennis Association organised, in conjunction with the Slovene Tennis Association, one of its most successful ETA Coaches Symposiums with 90 high level European coaches representing 33 countries attending this event. Kuala Lumpur saw 110 coaches from 26 nations take part in the ITF Asian Coaches Workshop which was hosted by the Lawn Tennis Association of Malaysia while close to 250 coaches representing all South American countries absorbed the information on offer during the South American Workshop held in Venezuela and Brazil. Ninety coaches from 23 countries also attended the Southern African Coaches Workshop held in Johannesburg and hosted by the South African Tennis Association.

We hope that coaches continue to attend these workshops in the pursuit of coaching excellence. By taking advantage of the ITF's efforts to provide this latest coaching information, coaches can better assist all levels and standards of players to help ensure the continued prosperity of the game. We would like to take this opportunity to thank the scores of coaching experts that have, are and will continue to, assist the ITF in providing coaches with this educational programme.

The highlight of the ITF's educational programme is the biannual ITF Worldwide Coaches' Workshop. The 12th ITF Worldwide Coaches Workshop is due to be held in Bangkok, Thailand in 2001. The tentative dates for this event are Sunday, October 28 to Thursday, November 1. We will be sure to keep you updated in the forthcoming issues.

We would also like to take this opportunity to introduce Machar Reid, the newly appointed ITF Assistant Research Officer, and thank his predecessor, Karl Cooke, for his valuable contributions to the ITF Coaching & Sport Science Review. Machar attended our 11th Worldwide Coaches Workshop in Morocco as a scholarship coach with the Australian Institute of Sport and in 2000 completed his Honours year in sports biomechanics with Professor Bruce Elliott.

We hope that the articles in ITF Coaching & Sport Science Review continue to generate considerable discussion among coaches around the world. And with the recent addition of the link to the ITF Coaching & Sport Science Review in the "Coaches News" section of the ITF website, [www.itftennis.com](http://www.itftennis.com), the information has become all the more accessible. If those of you who are able to access ITF Coaching & Sport Science Review on the internet could let us know, it would be appreciated. We further welcome your comments on any of the articles published in ITF Coaching & Sport Science Review, and if of interest, they too may be published. Similarly, if you have any material that you deem relevant and worthy of inclusion in a future issue, please forward it to us for consideration.

A final thanks to all the coaches who have contributed articles for this issue of ITF Coaching & Sport Science Review.

We hope you enjoy our 22nd issue.

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**Executive Director, Tennis Development**

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Level 1 Course in Isla Margarita, Venezuela

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# systematic approach to training sessions

By Suresh Menon, ITF Development Officer for Asia

## Series 9

It's important that players continue to improve their ball control techniques as mentioned in Series 8. The ball control techniques are:

1. Direction
2. Height
3. Depth
4. Spin
5. Power

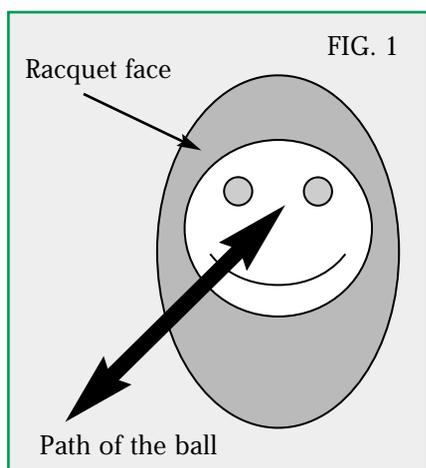
The players will need good ball control skills in order to employ various tactics.

### DIRECTION

For a beginner, the priority is to get the ball in the court, or in other words to direct the ball over the net and into the area of the court within the singles lines. The factors that determine the direction where the ball is being sent are:

- the angle of the racquet at contact (the point where the racquet face impacts the ball). The ball will go in the direction in which the racquet face is angled at the point of impact.
- the direction of the approaching ball in relation to the ball being sent.

The ball can travel either left, right, up, down and straight. As the



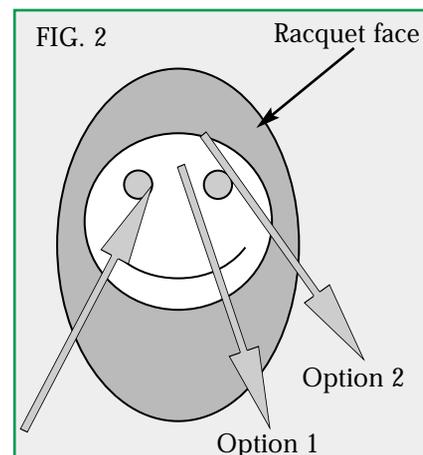
skills improve, the player employs various tactics by playing the ball in different directions to place his opponent in a difficult situation.

Percentage tennis dictates that there is less probability for error if the ball is returned along the same path it has traveled from. This is because when the ball is returned in the same direction, the angle of incidence is equal to the angle of reflection; thus, the angle of deviation is nonexistent. With no deviation in the line of ball flight, the probability of players making errors is reduced ( Fig 1). It is for this reason that many long rallies are witnessed with players hitting the ball back in the same direction.

Errors have a higher probability of occurring when there is a deviation in the angle. This deviation in angle causes a loss in ball momentum. The decision making process involved in changing the direction of the ball will depend on the following factors:-

- the opponent's shot is weak affording the player time to have a number of different options (fig. 2).
- the player has prepared himself in a good position and even by changing the angle, he is confident of making the shot.
- the player is hitting with his strongest shot (his weapon) and is confident of success even when changing the angle.
- the player changes the direction of the shot because he is aware that the opponent is out of position and will have difficulty retrieving it.

As a player continues to play the game in practice and in competition, he is repeatedly put into the same



situation. The actual thinking processes are greatly reduced. More often than not, the player relies on the natural ability of the body to react to different situations rather than on any specific thought processes. On most occasions the reaction of the player to the oncoming shot is based more on instinct rather than any analytical thinking. However the reaction to a shot can differ with the level of the player. For a beginner, the overwhelming reaction is to merely get the ball back into play while for a professional the main reaction is to get a *great* ball back into play.

Practice makes perfect is the most suitable description for this situation.

Changing direction when hitting the ball has to be practiced till it becomes second nature. The following exercises put the players in a more realistic match situation incorporating not only the ball control technique of direction but the other ball control techniques as well.

### Exercise 13

Drill 13(a) Figure 3

Time - 4 minutes

Player Y begins by only playing the ball crosscourt to point A. Player X has to hit the ball down the line to

point B. Player Y then moves to point B and hits the ball to point C. Player X then moves to point C and plays the ball down the line to point D. Player Y then moves to point D and plays the ball crosscourt to A. This pattern is repeated as player Y and X try to consistently hit the ball crosscourt and down the line respectively.

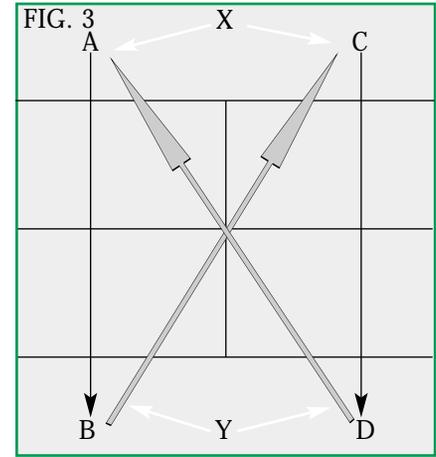
The players can begin the exercise by hitting easily to maintain a consistent rhythm. As they obtain good rhythm and control, they can

vary the different ball control techniques i.e. hit with more depth, height or use greater angles. Both players are forced to deal with different types of balls and execute shots by changing the direction. The more they practice the changing the direction of the ball, the more it will become instinctive.

*Drill 13(b)*

Time - 4 minutes

The same exercise is repeated with both players switching roles.



# ten ways to improve your eating habits

*By Dr. Babette Pluim, M.D., Medical Director of the Royal Netherlands Lawn Tennis Association*

Many tennis players spend a lot of time trying to find an ideal diet that will give them a winning edge. Unfortunately, there really is no miracle food source. It is best to eat a varied and balanced meal in which all essential nutrients are sufficiently present. For a tennis player, the composition of such a meal may differ, depending on factors such as the time remaining before a match, fitness, weather conditions, body weight or even court surface.

**BEFORE THE MATCH**

**1. Eat lots of carbohydrates.**

During short intense workouts, carbohydrates provide the body with the most immediate source of energy. The liver, where carbohydrates are stored as glycogen, has an energy supply for about 1 hours' play. However, maintaining a carbohydrate-rich diet before a match can almost double energy storage capacity. At least 55% should consist of carbohydrates such as breads, pastas, potatoes, rice, beans and fruit.

**2. Keep your diet low in fat.** No more than 30% of total calorie intake should come from fats. Because an average Western diet contains

between 35-40%, athletes should reduce fats in their meals before and after the match. Eat lean ham, poultry and beef instead of fatty meats such as sausages and bacon. Stick to three balanced meals a day and avoid snacking peanuts or potato chips. Use margarine rather than butter even when cooking. Also avoid dressings or gravy.

**3. The function of proteins** lies in the strengthening and restoration of the tennis player after a workout. Only if the carbohydrate supply is insufficient, will amino acid supplements be used as a source of energy. A slightly higher carbohydrate than protein intake is necessary for optimal performance. Including foods like meat, fish, eggs, milk, grains and potatoes will be sufficient to fill your protein needs.

**4. Facts about vitamins.** Vitamins are essential compounds, which will trigger biochemical reactions in the body. Though lack of sufficient vitamins will impair athletic performance, it is not true that extra vitamins and minerals will give you a leading edge. Avoid vitamin deficiencies by eating balanced meals, containing nutrients from the

four food groups. Taking vitamin supplements, which contain no more than 50% of the recommended daily allowance, can do little harm and may be advisable for players with lesser balanced diets such as vegetarians.

**5. Match your mineral needs.**

Tennis players need a variety of different minerals including sodium (kitchen salt), potassium (potatoes, vegetables, and fruits), and calcium (dairy products), though deficiencies of these compounds are rarely a problem. Iron, however, which is essential in facilitating oxygen transport, can often drop to dangerously low levels during extended periods of exercise. Vitamin C increases the uptake of iron by your body, so add a glass of fruit juice to your meal.

**DURING THE MATCH**

**6. What should you drink?** Fluids should vary according to the length and intensity of your workout. For example, during tennis matches of less than two hours, water replenishment is usually more important than the replacement of carbohydrates. It is better to use a hypotonic drink than plain water,

since in the second stage of the match the glycogen stores may run low. Longer matches may require more carbohydrate replenishment, which can be supplied by isotonic drinks (containing 7% sugars).



**7. What should you eat?** Eating food during a workout rarely increases athletic performance immediately. Foods like bananas can take up to four hours to be fully digested and chocolate candy bars contain mostly fats, so neither of these is of much use. If you feel hungry on court, eat easily digestible biscuits or high-energy bars, both of which will supply the body with carbohydrates within a couple of hours. The most effective means of carbohydrate replenishment is isotonic drinks.

**8. Do not take salt tablets.** The loss of salts due to perspiration during a match is not problematic and adding a little extra salt to your food should be more than enough preparation for a rigorous workout. Avoid taking salt tablets, as the result is similar to drinking seawater on a hot day!

## AFTER THE MATCH

**9. Give your body its carbohydrates.** Carbohydrate absorption is most efficient during the first two hours after a workout. Do not wait too long after the match to refill your energy reserves. Eat a light, easily digestible meal soon after playing, even if it means your next meal might have to be smaller.

**10. Replenish lost fluids.** A tennis player may lose up to five litres of fluid in a match, depending on weather and fitness. A loss of 2% of body weight can result in impairment of performance. In extreme cases, muscle cramps and heat strokes may occur as a result of cumulative dehydration over a period of 2-3 days. Sufficient fluid replenishment is essential between workouts and after the match.

# *improving tennis performance using a different type of ball: the swiss ball*

*By Machar Reid, ITF Assistant Research Officer*

## INTRODUCTION

Tennis theorists, coaches and physical trainers have long dwelled on the most appropriate way of designing and then implementing a physical conditioning program suitable for the demands of the game. While most continue to experiment with varying degrees of on-court and off-court, and free-weight and machine-based training, the recent addition of swiss ball exercises has provided another dimension to many training regimes.

Historically the swiss ball: a large inflatable, rubber and vinyl ball, has been employed by physiotherapists for the neuro-development of their patients. It's introduction as a strength and flexibility training aid among many athletic programs, is similarly based on the notion of the dynamical systems approach<sup>5</sup>. In short, the unstable spherical surface

challenges the nervous system to process neuromuscular feedback, and activate the necessary stabiliser muscles to maintain balance. By having to concentrate and adjust their weight to maintain stability on the ball, it's asserted that athletes recruit postural muscles that are not normally activated during traditional weight training exercises<sup>7</sup>. Ultimately, as the athlete's stabilizers strengthen, their overall strength is enhanced.

So how can this type of training improve a tennis player's on-court performance? Well, potentially, it can provide for an improvement in joint stability, a reduction in the muscular imbalances that may lead to injury and strength gains that may be more specific to the demands of the game<sup>3</sup>. From a mechanical perspective, exercises that promote an increase in stabiliser strength and

improvements in body alignment will assist a player produce movement patterns that are more efficient and powerful. Similarly, improved stability through the trunk (deep abdominal and lumbar musculature) will help optimise a player's summation and transfer of linear, but more specifically, angular momentum during the production of his/her tennis strokes. (Also, given that low back pain is becoming an increasingly common diagnosis in tennis players, the importance of trunk/pelvic stabilisation exercises in the prevention of this pain should not be understated<sup>4</sup>).

Having established the merit of swiss ball training, this article will now provide specific examples of swiss ball exercises to improve the trunk strength and stability of your tennis players. (Future articles will contain examples of exercises aimed

more at developing strength and flexibility in the muscles of the lower and upper-body.) Prior to presenting the exercises, it is important to firstly outline a few fundamentals:

1. The simple equation: body height (cm) – 100 cm, can be used to calculate the correct size (diameter) of the ball for each player.
2. As with any other training mode, it is essential that the correct training techniques be used. A qualified physical trainer should be able to help you here as required. As a rule however, a neutral posture (ie. the natural curves of the spine – see exercise 1) should be maintained throughout many of the exercises to allow players' to optimise their spinal structures and better develop a stable pelvic base. A players' inability to do so, may be indicative of muscle tightness and/or weakness, and it is thus important that exercises of an appropriate level of difficulty be prescribed.
3. Mirrors can be a useful teaching aid to provide players' with visual cues regarding correct technique.
4. Swiss ball training can be used to complement or improve an existing strength and conditioning program. Similarly it can provide a relatively inexpensive, convenient and useful training alternative while travelling with players on the road.
5. To optimise training adaptations, overload can be applied by increasing exercise duration (ie. sets or reps), applying external loads or by increasing the level of exercise difficulty.

### THE EXERCISES

Included in the descriptions of the exercises is an indication of their level of difficulty. Some photographs are also provided to help with your understanding.

**1. (Simple)** Abdominal hollowing (often referred to as "wrapping") refers to the drawing in action of the abdominal wall, in an effort to



*Exercise 1*

recruit the deep abdominal muscle, transversus abdominus. To do this think about pulling your navel through to your spine. Be careful not to hold your breath – you should be able to breathe evenly when you perform this action (do 4 repetitions of between 5-10 seconds). The maintenance of a neutral/optimal posture requires that players concentrate on implementing this technique when participating in a trunk stability program.



*Exercise 2*

**2. (Simple)** Lying with your back on the ball and both feet on the ground, slowly extend your right leg so it is straight and fully extended. Then lower your foot back to the starting position and repeat with the other leg. Do two sets of 6-10 extensions with each leg. Although simple, this exercise should help familiarise your player with this training mode and potentially, strengthen the deep muscles of the trunk.

**3. (Simple)** Start with the ball under

your lower chest / abdominal area and have your legs spread apart for stability. Hands can rest on the ball. Begin by lifting your head and chest off the ball. Squeeze your shoulder blades as you lift: only going as high



*Exercise 3*

as you feel comfortable lifting. Then return slowly to start position. Complete two sets of 8-10. With recent research identifying trunk flexion strength to be significantly stronger than extension strength in junior tennis players<sup>2</sup>, this type of exercise may go some way to addressing the imbalance.

**4. (Intermediate)** Start with ball resting under your stomach. Keep your head in a neutral position and one arm supported on the floor. Begin by lifting one arm and the opposite leg into a fully extended (hip) and fully flexed position (shoulder). Hold for five seconds, then switch limbs. Repeat 6-8 times on each pair of limbs. This movement helps to improve the range of motion, strength and coordination of the muscles of the hip and lower back (problem areas for the tennis player).

**5. (Advanced)** Assuming a four point position on the ball (monitoring spinal and scapular posture) extend your right leg so that it is parallel with the floor, hold for five seconds, and return it to the ball. The next progression is to fully extend and straighten your leg, and at the same time, fully flex and straighten the opposite arm. Hold for five seconds, and return it to the ball. Repeat on the other side and perform up to six



*Exercise 5*

each side. Your head should remain in a neutral position throughout. This exercise helps to strengthen the muscles that assist in rotating the trunk (ie. during groundstrokes), while simultaneously stabilizing the lumbar spine.

**6. (Advanced)** Assume a push-up position (monitoring spinal and scapular posture), with both feet balanced on top of the ball. Hold for approximately five seconds, then slowly roll the ball to your left by



*Exercise 6*

rotating from your hips. As it rolls, allow your left foot to come off and attempt to maintain the alignment of your right leg, hips and trunk. Then return the ball to the centre position, bringing your left foot back onto the ball (both feet will now be on the ball again). Repeat this to the right. Do two sets of 4-8 rotations to each side. This exercise (in which the rotation of the lower body is about the upper body) challenges the stabilising muscles of the abdominal regional, requires good upper-body strength and scapular control.

**NOTE:** The versatility of the swiss

ball also facilitates multiple-angle resistance training and allows several exercises to be performed through a greater range of motion: two factors identified to add to training specificity and thus potential strength gains<sup>6</sup>. For example, the swiss ball can provide for the strengthening of the abdominal musculature in stretched positions. The serve and smash are two tennis specific examples where a player may be required to generate force from this type of position (see exercise 7).

**7. (Simple)** Lie face up on the ball with hands on chest. From a stretched position tilt your shoulders and chest up to just beyond neutral



*Exercise 7*

(very slight crunch); hold for a few seconds, then lower back to the starting position. Do two sets of 10 repetitions. For variation, raise your shoulders and chest again, but this time, rotate to the right or left. This helps strengthen the oblique abdominal muscles that are used during rotation.

**8. (Intermediate)** Lie sideways across the top of the ball. Staying sideways, bend your upper body up and to the side. Slowly return to the starting position. Do this 10-12 times, then switch sides. This lateral flexion of trunk has been identified to be of particular importance when generating power in the serve<sup>1</sup>.

### SUMMARY

To summarize, I hope I have succeeded in illuminating a few of you on a relatively new training

mode that can prove to be highly functional and specific for the tennis player. While this article provided specific examples to improve trunk strength and stability - essential for playing longevity and optimal performance - future articles will incorporate exercises that place greater emphasis on working the upper and lower body.

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# *the action method in tennis*

*By Jean Brechbuhl & Dr. Peter Anker, Swiss Association of Tennis Instructors*

For a long time, teaching tennis consisted of making pupils copy the best players' movements (in general when executing winning shots) or accomplish certain exercises.

One only has to observe a tennis match to realise that it is possible to execute flawless movements and still miss the ball or strike it with the racket frame. **Factors other than movements must therefore be taken into account.** Moreover, exercises must be cleverly conceived and organised in order to be efficient.

Noticing that simplifying the teaching of tennis excessively did not yield very good results, a group of teachers, all members of the Association Suisse des Professeurs de Tennis (Swiss Association of Tennis Instructors) have tried to develop more efficient teaching methods.

It should be noted that Switzerland is in a particularly favourable position for this type of research. It is a country in which three of the national languages make it possible to exchange and have access to information from France, Germany and Italy, nations which have all 'produced' great players and where teaching is well structured. Switzerland has also been privileged to welcome many tennis teachers who came to seek shelter following political upheavals. It has especially benefited from the experience of excellent Czech teachers who brought with them teaching methods which rank among the best in the world.

**One of the first observations made was that it was essential to have a good understanding of how actions take place in tennis before making assumptions on ways of teaching it well.**

In 1974, the Swiss Association of Tennis Instructors published its first book which was followed by a second manual in the year 2000. In these books, a certain number of observations, remarks and assumptions are put forward and developed. These can be summarised as follows:

- If one analyses human activities closely, one notes that human beings rarely execute movements as an ultimate goal. More often than not, these movements are a means of 'doing something', **accomplishing actions**, executing a task, solving a problem, changing a given situation into a desired situation. In other words, they are a means of **achieving an intention or responding to a motivation**. Actions are rarely isolated, they are almost always grouped into activities. Activities have a more complex feature: in tennis, shots are grouped into rallies, games, friendly or competition matches.
- In order to act, every human being has the ability to **perceive, move, memorise and combine these various abilities**.
- **Depending on his motivations and plans, the acting individual collects information** on a given situation using his sensory organs (visual, auditory, tactile, proprioceptive, etc.). He then **processes this information** in the peripheral and central nervous system, which leads to the creation of representations of the situation and to the conception of tactical plans. In turn, these trigger **technical movements** performed by the psychomotor system in order to achieve the plans or intentions. The **result**

**obtained** is subject to further **observation and assessment processes**, similar to those that have just been mentioned. These data are **memorised** by the individual. This can be defined as the foundation and the condition of the **learning process**.

- In tennis, this means **perceiving cues** (opponent's movements, sound of the ball at impact, initial flight of the ball, etc.), **interpreting / evaluating these cues** to determine a tactical intention (being cautious, taking risks, etc.) and **accomplishing**



**this intention by executing the appropriate technical movements** in order to achieve the desired results. The results obtained are then observed and assessed; in other words, they are compared to those that were desired. **Each action produces experiences which are memorised.** With the accumulation and joining of all the different experiences, behaviours usually become more

productive: progress is made and the player gets closer to the goals. That is when there is **learning**.

- It is important to stress the fundamental unity that exists between body and mind and therefore between perception and motor skills and physical and psychic abilities. Any **perception** of a given situation triggers **psychic and motor reactions** (for example emotions). A frightening situation can prompt an individual to run away or simply cause his face to become pale, which means that the muscles which regulate the functioning of the blood vessels have entered into action to modify the diameter of the vessels.
- **In tennis, every situation is different from the next and presents a high level of uncertainty** (there is no such thing as two similar shots). This means that in order to obtain good results in tennis situations, one needs to accomplish a lot of actions and **enjoy many diversified experiences**. Previous personal experiences in similar activities, such as ball sports (football, volleyball, table tennis, squash, mini-tennis, etc.) facilitate the learning process. **But the most efficient experiences are of course those made with tennis balls and rackets**.
- The number of actions to execute should be excessively high for individuals with little experience and who act more at random than with a target in mind, if they are wanting to reach and return balls with sufficient control in order to enjoy playing. **However, the learning process is facilitated and the number of experiences greatly reduced if the learner can benefit from the experience of a qualified person who can help** him with his advice or remarks and who cleverly organises the series of actions to be accomplished. (See below).
- Every activity has **an internal logic** which determines orders of importance and priorities. Thus, it

seems reasonable to **consider tactical intentions in priority before choosing the technical executions** (see further down for the definition of those terms). You must decide what you want to do before asking yourself how to do it.

- **The learning of an activity obeys a certain progression**. In the course of the evolution of an individual, **new abilities and possibilities emerge** progressively and it is essential to take these into account in the learning. Children creep and crawl on all fours before they can walk and run. Similarly, very young or unskilled tennis players can only reach the ball at first, then send it (and later on return it) by guiding it in one, and then in different directions, at a moderate pace and with a safety margin, before their tennis skills develop and allow them to repeatedly try and achieve risky shots with different sorts of pace, placement and spin.
- **Acting is intending to reach a goal**. But some goals can only be achieved after certain periods of time and the accomplishment of programmes of actions more or less complex. This is the reason why it is useful to make a distinction between strategic, tactical and technical goals. **Strategic goals** relate to the targets that one wants to reach more or less in the long term, **tactical goals** to what one wishes to accomplish 'here and now' (on the tennis court) in order to realise one's intentions and **technical goals** to the psychomotor means (shots) to be implemented. For instance, a beginner should set himself as a **strategic goal to collect information (e.g. finding appropriate equipment and a qualified teacher) and play with the intention to learn**. To that end, he must adopt a '**co-operative**' game tactic consisting of getting on well with a partner in order to extend rallies and accumulate a great number of

experiences. He must set himself a **technical goal to start executing easy shots** with high trajectories, late impact points and short backswings. On the other hand, advanced players must **train strategically** in order to **win**. They must **practise, even in training sessions, putting their opponents on the defensive**. To that end, they must **learn and perfect technical movements (shots) which are efficient in competition situations**. These movements must therefore be numerous, diverse and often risky and include highly contrasted types of grips, swings and footworks.

- **Strategy, tactics and technique are closely linked together** in every human action and this is also true in tennis. However, the teacher can **attract the attention** of his pupils on one of these notions rather than on others. We are of the opinion that in tennis **the attention of beginners must be primarily focused on tactical/strategic factors** and that **advanced players should above all get information on technique and fitness issues**. Beginners do not know themselves very well and are often not sure what must be done. The psychomotor knowledge acquired in everyday life enables them to execute the easy technical



activities proposed to them almost every time. On the other hand, advanced players know what they should do and why they should do it, but often lack the physical qualities or the knowledge of certain technical details to achieve

their intentions.

- **All players have different psychic** (emotional, motivational, cognitive) or **psychomotor abilities** (strength, speed, flexibility, endurance, etc.), which are always closely interconnected. Given that it is impossible to approach all issues on an individual basis, it is essential to plan **several categories for learners**. Differentiated teaching methods are proposed according to the following categories: beginners with little experience, talented beginners with an experience in sports, intermediate players with little ambitions or limited possibilities, ambitious intermediate players who wish to make fast progress, advanced players, competition players.
- Before any learning process, it is necessary to **get information as exhaustive as possible on the pupils' personal capabilities and abilities for tennis**. One must above all strive to **detect and then maintain or strengthen their motivation level**. Motivations are very personal and unstable. They can diminish (because of failures or tactless critics) or increase (in the case of successes or progress).
- **As previously mentioned, learning is making actions progress towards a goal in a positive way**. The psychic and psychomotor abilities of an individual change when learning occurs: he can deal with his emotions more effectively, has a better understanding of what to do and gradually becomes more qualified to do these tasks using his psychomotor 'instruments'. **Progress has a quantitative and qualitative feature**. In tennis, players gradually acquire the capacity to **cleverly use various tactics, make different shots in greater numbers and execute them more effectively**. That is when pupils draw nearer to the limits of their possibilities.
- In order to get pupils to accomplish the actions proposed, it is essential to **convince** them. It

is therefore **necessary to justify the instructions given**. Giving instructions is not enough. The teacher must be able to **provide an explanation to the pupils in clear terms**. The most promising and talented players are often the most critical ones.

- To have a good knowledge of how the teaching process evolves and also to inform and motivate the pupils, it is essential to observe and evaluate their behaviours before, during and after the action. **The most precise information is often provided by the results obtained**, which have to be assessed and lead either to **positive messages** (congratulations, encouragement) or **corrections**.
- If corrections are needed, it is often essential to **modify the pupils' ideas or strategic or tactical intentions**. **On the technical level**, it is more advisable to **add new actions to the pupils' background** than to try and replace the imperfect ones. Acquired movements cannot be forgotten or they disappear slowly and can be kept (they are still useful in some situations). Moreover, it has been noted that replacing an action by another can be durably disturbing. The player does not dare accomplish the old action that he knows and does not master the new one either.

These theoretic reflections have led to the **proposal of programmes of actions to be accomplished sequentially**. The programmes, which are different for each category of pupils, should give learners the possibility to progressively acquire **knowledge on what they can do, what they should attempt doing and on the most efficient ways of doing it**. These proposals are of course accompanied by advice, remarks or corrections.

The ideas and subjects expressed above have been discussed within the Swiss Association of Tennis Instructors with delegates from the

Association Suisse de Tennis (Swiss Tennis Association), the national movement 'Jeunesse et Sport' (Youth and Sports) as well as with many foreign colleagues. Studies have been conducted over a certain number of years and it was possible to confirm the validity of most of the assumptions and proposals mentioned earlier, **which emanate from attentive observations and often from the good sense that characterise good teaching methods**.

On top of the **teaching principles** aforementioned, teachers are free to choose certain **specific methods**.

The studies conducted show that the following methods are especially efficient in tennis:

- **Simultaneous processes (sometimes referred to as global processes)** in which shots are taught simultaneously or during a short period of time, to the left and right of the body and over the head, **with a constant difficulty level**.
- The frequent alternation of **synthetic teaching phases** (during which actions are studied or practised globally) and **analytic teaching phases** (during which certain tactical or technical details are learnt or practised).
- The succession (or sometimes the alternation) of phases of **structured teaching** (the teacher gives instructions as to what needs to be done), **co-operative teaching** (teacher and pupils communicate and try to resolve problems together) and **open or autonomous teaching** (pupils make their own experiences independently).
- The alternation of phases during which **the tactical/technical background** (learning of new tactical ideas or types of shots) is **quantitatively strengthened** and of periods during which **the acquired notions are qualitatively rehearsed and perfected**.
- **It is above all essential to keep in mind that most people play**

**tennis for their own pleasure. Fun exercises or short games must therefore be organised frequently. Similarly, it is necessary to plan periods 'without instructions' during which pupils can express themselves freely.**

The principles that we have expressed are not meant to be dogma. They are proposals which are meant to be taken as assumptions, but which have also given rise to studies, the results of which have been on the whole positive. The authors wish that

teachers take interest in those ideas, try to put them into practise and that through further critiques and proposals, knowledge can be further improved to enhance the training of the new generations of players.

## *motivation in junior tennis*

*By George Mamassis, Master in Coaching, Coach of the Greek Tennis Federation*

*This article strives towards clarifying the reasons why certain young tennis players fail to perform in accordance with their potential during important tournaments and are labelled as "chokers", whereas others seem to have an inherent competitive spirit and perform consistently at their best. Specific measures to help the former youngsters are then stressed after taking into consideration the current state of research. For the sake of convenience assume that you, the reader, are the coach of Dave, a young talented boy who plays tennis competitively.*

### **EXAMINATION OF THE PROBLEM**

Let's assume that Dave is a junior tennis player in your team and that he consistently under-performs during highly evaluative events, even though his performance during practice is good. Theory states that such individuals perceive an imbalance between a challenge and themselves, and they believe that their capabilities are insufficient to meet the competitive demands. Thus, they *perceive* competitive situations, especially the highly evaluative ones, as threatening their self-esteem and, therefore, they unconsciously react with an excessive increase in arousal. This condition is termed competitive state anxiety. They also usually lack self-confidence and often have a low perceived ability of whether their actual tennis skills are good or not. They show tremendous concern

about winning or losing due to a fear of failure, but more specifically, because outcomes (winning and losing) are the only way they judge their ability.

Many factors may be responsible for this situation. Inappropriate behavior from you the coach or former coaches towards the athlete (i.e. "you are a loser", "you have no guts"), or an incorrect structuring of practice sessions (i.e. performance, and sometimes players, are judged in terms of percentages, numbers, wins/losses etc.). In addition, indirect or direct parental pressure (i.e. "when I was at your age, I could do that and that and ... so why don't you try more"), peer pressure (i.e. "...we lost because of you"), or an inherent trait of the performer to react with increased arousal generally - high trait anxiety, because of feelings of inadequacy. This last factor usually emanates from the parental behavior towards the child during the first 5-6 years of his life and, thus, little can be done. Furthermore, the fact that Dave performs well during practice shows that he has little or no trait anxiety. Initially all of these elements should be independently assessed and then carefully examined as a whole by you - the coach before attempting to develop any conclusions about the "treatment".

### **THE "TREATMENT"**

#### **A. Assessing the problem**

Lets assume, again, that an important

tournament approaches in 3-4 days and that Dave is your seeded player. The first thing you should do is to assess his problem, or in other words to find the reasons that create it. Specifically, you should try to see if there are any unusual overt behaviors from Dave's part during the days preceding the tournament. Usually players who change their behavior in the last 1 or 2 days before a match (become more nervous in practices, get easily angry etc.) have high pre-competitive anxiety, which is more obvious before highly evaluative events such as sectional or national tournaments. Moreover, somatic complaints such as the urge to urinate, ringing in the ears, trembling, excessive yawning, feelings of unreasonable fatigue, comments about the umpires and/or the poor court surface just prior to the meet are symptomatic of a high pre-competitive anxiety.

Secondly, you should try to discuss with Dave's parents their typical behaviour towards him with respect to his game performance. Primarily, you should be informed about how they evaluate their son's performance as well as how they respond to him after a win or a loss. In addition, you should try to discover what their expectations of Dave's future in tennis are.

Finally, but not less importantly, you should try to confer with Dave in an effort to see if he can discern the differences in his performance during practices and meets. If he

can, which is usually the case, you should draw your attention to the reasons that cause it, focusing on any differences in his thoughts and feelings. (If he cannot detect any differences in his performance between practice and competition, the viewing of a videotaped practice session and match would be useful.) The Competitive State Anxiety Inventory -1 (CSAI-1) may also be used prior to the meet and a practice session to highlight any differences in arousal between practice matches and tournament matches.

These pre-competition evaluations can usually indicate the occurrence of the problem as well as how it is created. Most importantly, the kid gets an idea of the real reasons of the problem, and, therefore, if he really cares about his performance, he strives towards a change.

### **B. Actions to be taken**

All your actions should be focused on eliminating the factors that create or exaggerate Dave's increases in arousal both prior and during highly evaluative events. If part of the problem is his parents' behaviour, you should strive towards "educating" them. More specifically, you should try to make them understand that their behavior does not help their son perform his best during matches and, thus, they will have to make some behavioral changes towards their son. Such changes could include: I) Elimination of the philosophy that winning is THE only goal, but instead, a "do your current best", and "have fun" attitude should be developed. II) Elimination of any kind of criticism for Dave's performance (that's the coach's job), III) Elimination of any type of punishment in case of bad performance. IV) Reinforcement of the effort more than the outcome. V) Fostering the development of frequent positive motivation to achieve and to become better. VI) Reassuring their son that nothing and especially his success in tennis will, ever, alter their feelings for him. VII) Reassuring Dave that they will respect and support every decision



he is going to make in the future concerning tennis. These guidelines should be provided to the parents in writing and could be signed by both of them, as a kind of commitment.

The next step should be to involve Dave in a goal setting process. Your role would be restricted to only helping him understand what sort of goals he should set for himself, as well as to provide some reinforcement when he thinks a change should occur. You should point out both the different characteristics of goals: specific in nature, performance related, measurable, have specific date to be achieved, challenging but attainable, and the existence of short versus long term goals. They should also include the physical part—improvement of skills, conditioning etc. as well as the mental part—concentration, relaxation etc. of tennis. This process should be completed in writing and there should be an agreement between Dave and yourself.

Given that from the needs assessment procedure you have derived the necessary information to determine the factors responsible for his increases in anxiety prior to and during competitions, some changes in the structure of the practice sessions may be required. These would include playing more doubles and giving more emphasis to the team rather than the individual performance to help reduce the personal pressure. Providing him with more frequent, constructive, and positive feedback when something is done properly, avoiding giving him complicated and non specific input ("concentrate", or "try harder" etc.), which usually have confusing instead of positive results. Provide cue-reduction feedback ("If,

...then" statements) which consists of a limited number of cues that the athlete can attend to, in order to enhance the probability of success. Other measures would include avoiding excessive criticism – particularly that which is not constructive – degrading peer comparisons and stressing self-improvement. Incorporating novel but gamelike activities or drills, and making practice more fun can also help. Furthermore, it is important to make clear to Dave that self-worth does not depend on winning or losing but on trying every time to perform his best according to his specific goals. All these measures aim to increase Dave's self-esteem and control the different aspects of performance to therefore help optimize his arousal.

Even though there may be some changes in the structure of the practice designed to reduce anxiety and increase control and self-esteem, the structure of today's competitive game stresses the principle: "Win by any means" and, therefore, you should also give Dave "weapons" to cope with that pressure. First of all, you should try to clarify his point of view that arousal is always negative (which I believe to be the case with Dave because every time he has experienced increased arousal during competitions in the past, his performance has suffered. So, for him arousal is always considered to be negative). That is, arousal should be seen as an indication of mobilization of his resources to deal with the competitive situation, and *that is good*. Only excessive arousal combined with worries about the performance outcome is negative. Secondly, you should point out that giving 100% effort and having fun are the most important elements for enjoying competition. Thirdly, you should stress that losses are an integrated part of tennis and that no player could only ever have wins. However, the most successful champions know how to take advantage of their losses and learn useful lessons. Fourthly, you should make him acquainted with some "mental toughness exercises" in



order to help him control both his physiological and cognitive arousal. These would include relaxation exercises such as the “progressive relaxation technique”, and the “deep breathing exercise” for the

physiological arousal. For the regulation of the cognitive arousal there is the “cognitive restructuring”, which is directed at identifying and altering irrational beliefs that cause athletes to appraise the competitive situations as threatening. Then, you should combine the relaxation and cognitive coping responses into an integrated coping response plan. This plan should be used either pre-competitively (whenever an excessive increase in arousal occurs, or by purposely visualizing certain situations which elevate Dave’s level of arousal), or during competitions.

Finally, you should try to further improve his tennis skills because for many youngsters increasing their level of skill may serve to decrease the perceived imbalance between athletic demands and resources and, thus, reduce the competitive state anxiety. It is also a good idea to make him aware of how under-aroused players perform during tournaments, and then contrast his videotaped performance with theirs

in terms of distinguishing overt signs of physiological activation. This role-modeling method is very effective especially with young athletes.

### **CONCLUSION**

It is important to realize that youth sports, and particularly tennis is an excellent way to help kids understand, if used properly, how the real world works. If, on the other hand, it is used improperly, it may contribute to the experience of chronic stress on the kids’ behalf, which usually results in burnout, or more importantly, in a variety of psychological and physical maladies. Most, if not all, the problems that are linked with junior tennis players are multidimensional. This means that they are created by many different factors that act together as an interconnected entirety. Thus, it becomes urgent for a coach to have both the knowledge and the talent in order to be able to help kids benefit from their participation in tennis.

## *club programming for wheelchair tennis*

*By Marko Polic, ITF Wheelchair Tennis Development Officer*

Wheelchair tennis has seen impressive growth over the past ten years expanding into 50 new countries in this decade alone. While the growth has been tremendous on an international scale, it’s growth at the local and national level has been gradual at best due primarily to scarcity of programmes at the club level.

For coaches, learning the skills required to coach wheelchair tennis are often easier than learning the skills required to start and promote a wheelchair tennis programme. Many are unsure of the accessibility of their clubs, or if wheelchair players need special assistance, or will the

wheelchairs damage the courts, or what activities can be organised for them.

But the fact is that programming for wheelchair tennis activities, like most other aspects of the sport, is no different than in able-bodied tennis. And because of the similarities of the games (only the two-bounce rule difference), integrated programmes have proven to be very successful. So rather than re-inventing the wheel (chair), most of our recommendations are merely additions to programmes you likely already have.

We hope that this article helps answer some of those key questions

that club professionals may have when considering starting a wheelchair tennis programme. Remember that the fundamental goal for wheelchair tennis programming is to get players to your club and having a good time and when you open your doors to wheelchair tennis players it can be an enriching and educational experience for everyone involved, not only the wheelchair tennis players.

### **CLUB ACCESSIBILITY**

Accessibility is not as complicated and demanding as it may sound. The most important thing is that the players can get from the parking lot

to the tennis courts with relative ease and without assistance. The other areas such as the clubhouse, toilets etc., can many times be made accessible with a strategically placed board ramp or the removal or reversal of a door. Below are a few additional considerations.

#### *Entrances and doorways*

Ample room (70 cm) for wheelchair passage?

Entrances onto the courts wide and without barriers?

#### *Path from parking to clubhouse and courts*

Any steps or curbs along the way?

Width of path?

#### *Bathrooms*

Barrier free entrance into toilet?

Alternate toilet to use?

*Note: Players may come with two wheelchairs, one sports wheelchair and an everyday chair. The sports wheelchairs' base can be significantly wider than the everyday chair, but players can easily transfer to and from wheelchairs.*

### **COURT SURFACES**

Wheelchair tennis events and tournaments are organised on *all* court surface types aside from natural grass. Wheelchairs do not cause any permanent damage to courts, not even clay court surfaces. Clay is a very popular surface on the Tour and many of our major events such as the *World Team Cup* and the *Paralympics* have been played on clay.

We do recommend clay courts are prepared with special consideration of the perimeter areas, as wheelchair players tend to use more of the court area near the fences where the court is generally softer.

### **PROGRAMMES AND ACTIVITIES**

In consideration of the eventual goal of integration and once again the similarities of the games, many of our programming ideas will be geared around integrated events. Integrated events are a growing and learning experience for everyone involved that teach able-bodied

persons how to interact with the disabled persons while enjoying a sport that is truly for everyone.

Also, integrated activities mean that even if you only have one or two players you can get them involved by simply adding them to existing teams, clinics, etc. Therefore, you do not need a big group of wheelchair players to organise an activity or start a programme. Below we have listed a few programme ideas from some of our national organisations that have been quite successful.

### **Wheelchair Tennis Leagues**

Clubs within your area organise teams of four to five players that combine men, women and juniors. This team can simply be an addition to already existing men, women and junior's teams. Teams compete each weekend or one evening during the week. Regional and national competitions can also be considered.

### **Mixed Leagues**

Mixed leagues are comprised of teams that combine able-bodied and wheelchair players. Here, one or two wheelchair tennis players can join an existing able-bodied team, compete against other wheelchair players on similar teams or against able-bodied players.

### **Integrated Tournaments**

#### *2 Types*

1. Wheelchair players are allowed to play in the normal draw. All rules are the same except that the wheelchair player is allowed two bounces.

*Other variation: Able-bodied player is allowed only one serve.*

2. Separate wheelchair division conducted at the same time as the other events. Great for mingling and socialisation.

### **“One Up, One Down”**

#### **Tournaments**

A one-up, one-down is a doubles event where a wheelchair tennis player and able-bodied player compete against a team of the same combination. The wheelchair player



is allowed two bounces of the ball for retrieval, able-bodied player only one of course. (Not fair is it?!?)

### **Wheelchair Tennis Rating System**

Wheelchair tennis players are internationally classified as either Open, A, B, C, D players, based on their skill level in relation to other wheelchair tennis players. This rating system may not translate directly into your existing national rating system. It is important however that wheelchair players are rated in relation to able-bodied players as well, in order to participate and compete in able-bodied events.

### **Camps and Clinics**

Camps and clinics can be organised exclusively or integrated. Wheelchair players can easily be added to your existing group lessons, based on level of play. Once again, you do not have to wait on a big group to form before getting the players started.

### **Wheelchair Tennis Exhibitions**

Exhibitions can be conducted during club tournaments and are a great way to introduce people to the sport and the players.

### **FINDING PLAYERS**

Another “grey-area” for coaches and club promoters is in the task of finding players. The search should begin by contacting your national wheelchair tennis organiser, which is often the National Tennis Association. A list of members can be obtained by contacting the ITF Wheelchair Tennis Department.

Another excellent source for finding prospective players is your National Disabled Sports Association or National Paralympic Committee.

Like with anything, the best advertising is by “word-of-mouth”.

Have each player bring at least one new player to the programme every month or so and watch your programme grow.

#### **MORE INFORMATION**

If you would like more information

on programming or coaching wheelchair tennis do not hesitate to call the ITF Wheelchair Tennis Department @ ++ 44 20 8392 4788.

If you would like to continue receiving coaching information on wheelchair tennis or know of

someone else who would, please send the name, address, telephone, email and coaching experience details to [wheelchairtennis@itftennis.com](mailto:wheelchairtennis@itftennis.com) or fax 44 20 8878 7799.

## *juniors and sports science on the web*

*By Karl Cooke, Researcher, South Bank University & Machar Reid, ITF Assistant Research Officer*

With such considerable emphasis placed on youth development in sport, web-based coaching resources need to be assessed. They often contain valuable information on nutrition, sports science and training that is relatively easy for juniors of all ages to understand.

<http://www.itfjuniors.com>

In the Wise-Up section of the recently developed ITF junior's website, information on everything from nutrition and injury prevention tips to publications most relevant to the junior game are provided. Click onto [itftennis.com](http://itftennis.com), go to Wise-Up and see for yourself!

<http://www.CollegeAndJuniorTennis.com>

College And Junior Tennis has been covering amateur tennis for the last 30 years and its recent move into a web-based format allows juniors to access monthly and year-end ITF Junior Rankings as well as results from all of the Grand Slam and US National ITF Junior events.

#### **FOR KIDS**

[http://www.yahooligans.com/Sports\\_and\\_Recreation/](http://www.yahooligans.com/Sports_and_Recreation/)

Just for kids - all phases, including educational, science.

<http://sunsite.berkeley.edu/KidsClick!/>

Web search for kids by librarians.

<http://www.ala.org/ICONN/AskKC.html>

Kids Connect. For up to 12th graders: "You will be given suggestions of good Web sites and other resources to look into for help on your project."

More suggestions from:

<http://nuevaschool.org/~debbie/library/research/adviceengine.html>

(Have the students use this one and let them hunt on their own).

#### **FOR YOUNG PEOPLE PERFORMING RESEARCH**

<http://www.eteamz.com/company/instruction>

ETeamZ - tips, drills, articles on motivation and philosophy, links. Usual sports along with water polo, volleyball, etc. Includes sections on relevant skills such as throwing, jumping, ball handling. Fast loading site, easy to navigate.

<http://www.coachingstaff.com>

The Coaching Staff - subsites dedicated to specific sports and links to articles. Easy to navigate.

<http://www.chre.vt.edu/f-s/rstratto/CYS/>

Coaching Youth Sports - emphasises motivational, psychological and physical issues. Regular departments include "Just for Athletes" Past issues link goes back to September 1996. Educational site.

Worth a visit.

<http://www.youthsportsusa.com>

Youth Sports USA - articles and tips from several youth sports magazines, links, tips, bulletin board. Has a link to Youth Sports Europe. Requires searching to find what you're looking for. Obviously more appealing to kids than adults.

<http://www-rohan.sdsu.edu/dept/coachsci/index.htm>

Coaching Science Abstracts - Older youths beginning more sophisticated research and reading of abstracts might be able to handle this site, although it's intended for adults. Brent Rushall, San Diego State University manages this site.

<http://www.coachsedge.com/coaching>

Coach's Edge - articles and advice on nutrition, sports, psychology, training tips. Covers basketball, football, soccer, golf, tennis, hockey baseball, etc. - Less appealing in the amount of information offered - commercial focus. Depends upon what a young person is researching.

# *recommended books and videos*

## *books*

**Momentum: The Hidden force in tennis.** By Alistair Higham. Foreword by David Felgate. Year: 2000. Level: Advanced. Pages: 84. Language: English. This book explains in detail the role of momentum in tennis and how it can be harnessed to the player's advantage. The book contains practical tips. It explains how to play when momentum is totally on your side, the tactics to use when the momentum is moving in your favour, and what to do when momentum is neutral or running against you. It also highlights in detail the proven mental and skill building strategies needed to identify and control

momentum in match situations. Price: 9.99 pounds. For more information contact: 1st 4sport at Coachwise: 44 - 0113 23 11 310. Internet: [www.1st4sport.com](http://www.1st4sport.com).

**Pressure Tennis.** By Paul Wardlaw. Year: 2000. Level: Advanced. Pages: 203. Language: English. This book features a training system that provides for the design and implementation of effective practice sessions using pressure drills that simulate matchlike situations. Contents include: winning principles of tennis training, putting pressure into practice, high percentage tactics, court position and shot selection, teaching tactics, singles, doubles and warm up drills, performance index, planning a pressure practice, proven pressure practice plans. For more

information contact: Human Kinetics, P.O. Box 5076. Champaign, Il. 61825-5076. USA. [www.humankinetics.com](http://www.humankinetics.com).

**Speed training for Tennis.** By Richard Schonborn, Manfred Grosser, Heinz Kraft. Year: 2000. Level: Advanced. Pages: 272. Language: English. This book presents the scientific principles of efficient speed training for tennis. It also includes numerous examples of on court general and specific tennis and speed drills aimed to improve the player's performance. For more information contact: Meyer and Meyer Sport, Tel. 44 18 65 361 122. E-mail: [verlag@meyer-meyer-sports.com](mailto:verlag@meyer-meyer-sports.com). Website: [www.meyer-meyer-sports.com](http://www.meyer-meyer-sports.com).

**Serious Tennis.** By Scott Williams. Year: 2000. Level: Advanced. Pages: 272. Language: English. This book presents the same techniques, conditioning, mental training and strategy tips used to develop the world's best tennis players. Contents include: stroke technique, match strategy, mental training, physical conditioning. For more information contact: Human Kinetics, P.O. Box 5076. Champaign, Il. 61825-5076. USA. [www.humankinetics.com](http://www.humankinetics.com).

## *general guidelines for submitting articles to ITF coaching and sport science review*

### **Format**

Articles should be word-processed preferably using Microsoft Word97, but other Microsoft compatible formats are accepted. The length of the article should be no more than 2,000 words, with a maximum of 4 photographs to be attached. Diagrams should be done using Microsoft Power Point or any other Microsoft compatible software.

### **Author(s)**

When submitting articles please state the name(s), nationality, academic qualification(s) and representation of an institution or organisation that you wish to appear in the article.

### **Submission**

Articles may be submitted at any time of the year for consideration for future publication. A 3.5" (90mm) microdisk (IBM formatted) should be sent with the article saved on it, plus a printed copy of the article and copies of the photographs or diagrams to be included. These items should be sent by post to: The Development Department, International Tennis Federation, Bank Lane, Roehampton, London, SW15 5XZ, England or to Miguel Crespo ITF Development Research Officer, C/ Pérez Bayer, 11,10-A, 46002 Valencia, España. Or by Email to Miguel Crespo <[dualde@xpress.es](mailto:dualde@xpress.es)>.

### **Note**

Please note that all articles commissioned for ITF Coaching and Sport Science Review may also be used in on the ITF's web site, ITF Online. The ITF reserves the right to edit such articles as appropriate for the Internet. All articles online will receive the same credit as in ITF Coaching and Sport Science Review.

## *videos*

**High Percentage Tennis.** Human Kinetics Video. Author: Paul Wardlaw. Year: 2000. Colour. Approx. 30 min. Available in English. This video features a winning tactical system of play called the "directionals". For more information contact: Human Kinetics, P.O. Box 5076. Champaign, Il. 61825-5076. USA. [www.humankinetics.com](http://www.humankinetics.com).

# Regional Coaches Workshops



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# Mini-Tennis



## THE CHILD FIRST, THE STUDENT SECOND

by The French Tennis Federation

At an age when everything is a game, at an age when the child marvels about anything, the rules of mini-tennis are the rules of childhood. The ball is the opportunity not to miss. Hitting it with a racket is like recreating the world. It is like the big bang. Through this unconventional approach, the child seeks the path to his own fulfilment. If he finds it, he will grow up with tennis.

### Familiarisation

The purpose of familiarisation is to allow the child to build his own motor patterns. It is the teacher's responsibility to set up adjusted situations for which only the goal to achieve is announced. This means that the coach does not give any technical instructions as to how the situation is to be executed. From there, the child's evolution will depend on his own reactions. Not on the action he executes, but according to the results that he gets.

At first, the teacher must choose simple situations, ensuring immediate success for all children, irrespective of their motor skill. However, even when an exercise seems elementary, like throwing a ball over an elastic cord, one notices that some children already have a problem with the 'one bounce only' rule.

It is therefore important to plan a lesson with a certain number of simultaneous activities of different difficulty levels. Children can then work in small groups at the same time, discover their own ability level and perform the activities at their own speed. In order to retain children's attention, each of these activities must be organised in the form of a game. The number of points won allows the child to assess himself.

The only way to maintain children's attention, which at the age of 5 or 6 is extremely fugitive, is by keeping the fun aspect in all the activities.

The organisation of parallel circuits is an interesting formula that can be used at different levels. At the elementary level, the aim is to start learning how to handle the ball and the instrument.

This preliminary familiarisation stage during which the child learns to throw with dexterity is essential before proceeding to the learning of the gestures. At a more elaborate level, corresponding to the driving of the ball in the space, it is once more the concept of learning through discovery, experiments and errors which is preferred. The mini-tennis learning can then really start.

Here again, parallel circuits are a good way of making exercises exciting, and the creation of teams is based on the natural sociability of children which it contributes to develop.

Whatever the given rules are, one should not think that these games are gratuitous. Play is a fundamental need of children. It is in itself a source of learning and development.

### Throwing the ball

With dexterity drills based on throws, the child progressively enters a more advanced stage in which the tennis actions become the centre of the game. Here again, the technique is not imposed onto the child, but rather discovered by him through the instructions and goals given.

It is essential to find situations which ensure that the child achieves success rapidly. It is possible to do so by prioritising the tasks, and also by allowing the child to play long enough, try different ways of performing the task and, when success has been achieved, take the time to do it again.

Higher or lower, more to the left or more to the right, more gently or harder, closer or farther, teaching methods based on distinctions work very well with children. Thus, the association of rackets with paddles and of balls of different sizes with balls of varying degrees of softness must be considered as a plus.

Without changing anything, it is possible to take advantage of these throwing drills for an introduction to the reading of the ball trajectory, either by trying to catch the ball with a container: a good way of assessing the



child's success, or more simply by trying to intercept the ball with a racket.

The service is of course linked to the concept of throwing the ball. Here again, no purely technical instructions, but the situation is adapted to ensure the child's success. The target has to be big enough for the child to be able to hit it from a small distance and the child must follow two instructions: he must wait for the ball with the racket in 'take-back' position and place his feet in front of the cones.

Once the goal is achieved, the difficulty can be increased by asking the child to move back from the target. When the child is able to feed the ball to himself, he must then find the position where his success percentage can still motivate him. The cones are there to allow this self-evaluation.

When the children are positioned near the net, the targets no longer need to be vertical, they can also be placed on the ground.

Throwing does not have to be an individual action all the time. It can also be part of a team game which will have the advantage of being a lot more attractive.

The same goes for the games combining throws and reading of the ball trajectory.

In these situations, one can easily see how much the technical content is of no importance compared to the general atmosphere and spirit of enthusiasm which must accompany this first introduction to tennis.

### Returning the ball

With the concept of returning, the child faces the first major difficulty of the game. It is particularly important here to set appropriate progressions of difficulty. The child's eye cannot judge trajectories of balls directed towards him nearly as well as those going away from him. The feeder must at first aim at a lateral target to give the child the most chances of success.

Too often, a standard net conceals the start of the ball. A line of cones or more simply some tape can serve as the net. Knowing that at this age the speed of reaction to a visual signal is two times slower than that of an adult, it is easy to understand why large foam balls, a lot easier to see and a lot slower, are so useful.

For most children, being able to hit the ball very hard is the first indication of success. Targets are useful to channel their energy by compelling them to control their force.

Moreover, by sending the ball straight at the child, it is possible to teach him to step away from its trajectory and naturally turn sideways to be able to hit the ball in the best conditions. It is for the child the first introduction to

footwork.

The backhand poses a specific problem. The swing in itself is not more difficult than that for the forehand, in fact it may be the opposite, but is more difficult to associate with ball trajectories. The forward swing is often started too soon, at the ball bounce. This is a timing problem which has to be taken into account.

### The rally

At first, an embryonic rally can only happen if based on a team spirit. On courts of different sizes, designed to set up very diversified situations, children should first learn to help each other. If they want to achieve the game, they must avoid getting their opponent in a difficult position. Everyone then stands a better chance, after a suitable number of repetitions, of discovering and refining the technique appropriate to the proposed exercise.

Introducing the idea of covering one's ground is a way of preparing the child's discovery of the necessity for movement and recovery. But at an age when the child remains first and foremost the spectator of his own actions, wanting to make sure that his shot is successful before deciding to move and thinking about preparing the next shot, it is almost like attempting the impossible.

For the child to consider his playmate as an opponent and no longer as a partner, he should discover ways of making good use of the opposite side of the court: directing the ball where the opponent is not and learning to vary his shots to the right and to the left, shorter or deeper, lower or higher.

But in actual fact, these tactical notions are still not very important at this level. The main objective is to manage to make the ball go over the net.

It is the acquisition of motor skills that is essential and this requires a lot of repetitions. For the child to reach the next stage and make significant progress, the teacher's personal intervention may be decisive. However, it should remain exceptional.

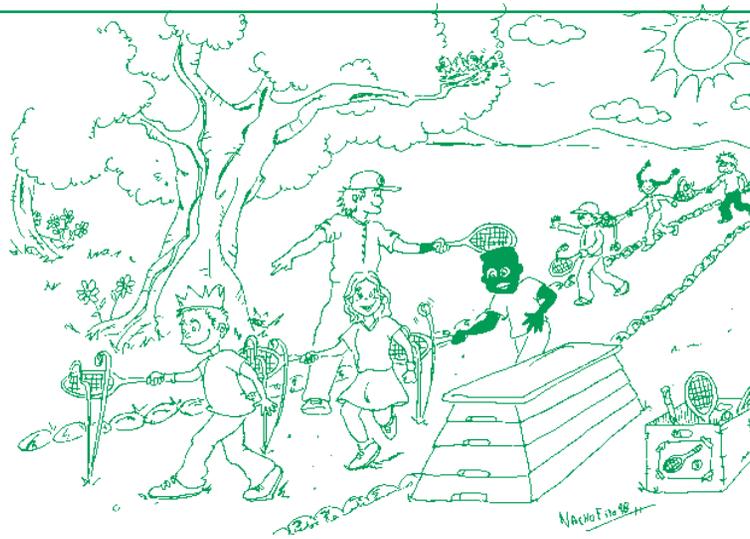
The purpose of mini-tennis is not the private lesson. It is the playing of a game among children of the same age. A game for which the dimensions of the court and the height of the net have been reduced, thus allowing children to start reinventing tennis and identify with their favourite champions.

When they grow older, when they play on normal courts, one can only hope that their experience of mini-tennis will have given them the enthusiasm and liking for the game without which no player, even a champion, could fully express himself.



# 2 ONE HOUR LESSONS FOR CHILDREN 5 - 8 YRS OLD

<b>LESSON 11</b>	Theme: PROPELLING THE BALL WITH THE RACKET AND MOBILITY
<b>Objective</b>	To bounce the ball on the racket and on the ground.
<b>Warm up</b>	<u>Catch it</u> : Students are in pairs facing one another. They stand with the racket tip touching the ground. On the signal they release their racket and go to pick up partner's racket before it falls onto the ground.
<b>Games/ Exercises</b>	<u>Simon says "bounce"</u> : bounce on the line, bounce on the shadow, etc.
<b>Variations</b>	Alternate bouncing the ball on racket and on the floor, as many times as possible, changing hands while walking forward etc.

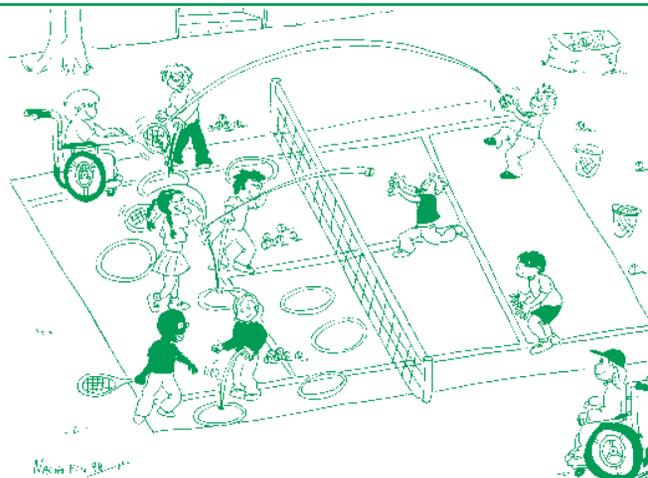


<b>LESSON 12</b>	Theme: PROPELLING, MOBILITY AND CO-OPERATION
<b>Objective</b>	To take turns bouncing the ball by hitting it upwards.
<b>Warm up</b>	<u>The mirror</u> : Students form pairs. A has to move and perform movements with the racket while B has to do the same movements as in front of a mirror.
<b>Games/ Exercises</b>	<u>Bouncing contest</u> : Students work in pairs. Each pair has to take it in turns to bounce a ball into a hoop while moving all the time. First pair to reach 5, 10, 15 bounces wins.
<b>Variations</b>	Taking turns bounce the ball and hit upwards. After several bounces switch so holding the racket with palm faced downwards, changing stances, etc.



# 2 ONE HOUR LESSONS FOR CHILDREN 8 – 10 YRS OLD

<b>LESSON 11</b>	<b>Theme:</b> RECEIVING, PROPELLING FOREHANDS, AND CO-OPERATING
<b>Objective</b>	To improve reception skills of the students receiving balls to their forehand.
<b>Warm up</b>	<b>D'Artagnan:</b> A is D'Artagnan, his racket is the sword, B has no racket. B has to follow A's racket when it moves, staying as close as possible but without touching it.
<b>Games/ Exercises</b>	<b>Speedy Gonzales:</b> Students are in 3's (one feeder, one hitter and one catcher). Hoops are placed around the court. Each team has the same number of balls. The feeder has to try to feed the ball in the hoop and the hitter has to hit it towards the catcher who has to catch the ball before the bounce. First team to complete the hoops circuit wins. Students rotate positions.
<b>Variations</b>	Forehand on groundstrokes and on volleys. One feeder and one hitter, etc.



<b>LESSON 12</b>	<b>Theme:</b> RECEIVING, PROPELLING BACKHANDS AND CO-OPERATING
<b>Objective</b>	To improve reception skills of the students receiving balls to their backhand.
<b>Warm up</b>	<b>Figure 8 quickstep:</b> 2 balls are placed 1 metre apart. Students begin by standing in between the balls. Students move as quick as possible in a figure 8 for 30 seconds around the front then through the middle and round the back of the ball.
<b>Games/ Exercises</b>	<b>Dropping stations:</b> Students are in pairs (one feeder and one hitter). Hoops are placed around the court. Each pair has the same number of balls. The feeder has to let the ball fall in the hoop and the hitter has to hit it towards a specific target. First pair to complete the hoops circuit wins. Students rotate positions.
<b>Variations</b>	Backhand on groundstrokes and on volleys. One feeder and one hitter, etc.

