



coaching & sport science review

The official coaching and sports science publication of the International Tennis Federation

editorial

Welcome to issue 21 of ITF Coaching and Sport Science Review – the second issue of 2000.

The most important ITF coach education project of 2000 has been the first ITF Tennis Participation Coaches Workshop that took place in Bath, UK from 19 – 25 June 2000 (the week prior to Wimbledon). The workshop was organised in conjunction with the Lawn Tennis Association of Great Britain and in particular Anne Pankhurst who is Director of Coach Education at the LTA. More than 270 delegates representing 80 countries attended.

The Participation Workshop, with its theme “More tennis... more often... more fun”, certainly seems to have been a great success and feedback has been positive from both the speakers and participants. It was wonderful to see so many countries represented - a great start to what we hope will be a regular fixture on the ITF calendar. We are sure it has achieved its main objective of encouraging discussion and exchange of ideas and best practice on how to attract people of all ages into tennis and how to keep them there.

The Tennis Participation Coaches Workshop was attended for one day by both Francesco Ricci Bitti, President of the ITF and Malcolm Gracie, President of the LTA and is one of a series of ITF activities in a year-long programme focused on increasing tennis participation. The year will culminate with the ‘Drive for Growth’ Summit in London, UK in an effort to agree a strategy for future growth.

The first ITF Coaches Commission Meeting of the year was held in June prior to Wimbledon. The Chairman Ismail El Shafei welcomed the new members of the Commission: Amine Ghissasi, Doug MacCurdy, Bernard Pestre, Ann Quinn and Toru Yonezawa. We would also like to thank the Commission for all their help with the ITF Coach Education Programme.

We hope you enjoy the articles in this issue of ITF Coaching and Sports Science Review and we trust they continue to provide you with useful information and points of discussion. We are always happy to receive your comments on any of the articles and may decide to publish your letter in a future issue so please feel free to contact us.

Once again we would like to thank all those coaches who contributed their articles to this issue of ITF Coaching and Sports Science Review. If you have any material that you deem relevant and worthy of inclusion in a future issue, please forward it for consideration.

We hope you enjoy our 21st issue.

Dave Miley
Executive Director, Development

Miguel Crespo
Research Officer, Development



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Lactic and alactic anaerobic circuit training for tennis

by Eduardo Aspillaga (Chile), Richard González (Uruguay) and Ceferino Ochoa (Colombia)

Introduction

Anaerobic Endurance, both lactic and alactic, is one of the most important fitness elements for successful competitive tennis. The following article presents an example of a circuit directed towards the development of this component.

Equipment needed

- 1 Rope
- 1 Medicine ball (3kg).
- 1 Medicine ball (2kg).
- 12 Cones
- 4 Mats
- Chalk or long rope
- 1 Skipping rope
- 7 Hoops
- 12 Tennis balls
- 1 Stop-watch

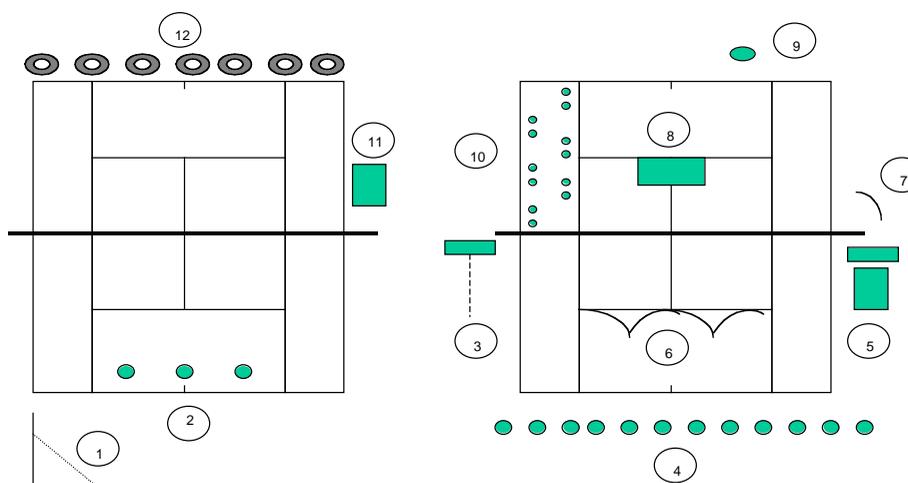
Circuit stations

- The rope is placed at a height of 60-70 cm. The player has to perform 4 jumps from side to side of the rope with the most reactivity possible. If there is time available, the player has to skip continuously.
- The player split steps and performs movements simulating the forehand and backhand

strokes with a 3-kg medicine ball while moving laterally along the baseline. The player starts from the cone at the centre and moves to the cone of the other side.

- Plyometric work for the overhead shot. The player stands on a bench. He jumps backwards and shadows the movement of the smash. Then the player steps up on the bench again and repeats the exercise.
- The player jumps between 12 cones placed along the baseline and then returns with lateral footwork facing the court or the back fence. When he reaches the centre he changes to the other side.
- The player performs abdominal curls with feet placed on the bench.
- The player should move as fast as possible in a series of concave and convex directions along both sides of the service line.
- The player jumps the rope trying to reach the maximum height with extended knees and legs together.

- The player gets down on the mat, rolls over sideways and then jumps up extending his arms.
- With a medicine ball the player should shadow the movement of the serve with both hands on the ball.
- Volley footwork: The player performs a "split-step" close to the baseline, then moves forward towards the net with lateral steps close to the tennis balls while shadowing forehand and backhand volleys. The player has to go back from the net to the baseline moving backwards.
- The player should perform back extension exercises to strengthen the lumbar region (or lower back). The player lies facing down on the mat with both arms extended forward and upwards without raising the head but placing it below the level of the arms.
- The player jumps laterally landing with both feet in the centre of the 7 hoops. Return doing the same to the start position.



Characteristics of the circuits

The circuit has 12 stations. In each type, lactic and alactic, 24 players can work at the same time.

- For the anaerobic alactic endurance circuit, the player has to work for 8 seconds and rest 20 seconds. After the 6 first stations, the player has to rest for 1 minute and 30 seconds (as if during a change over).
- For the anaerobic lactic circuit, the player has to work for 30 seconds and rest for 30 seconds.

After the first 6 stations, the player has to rest for 3 minutes.

Comments

The anaerobic alactic circuit can be done every day because the player has enough rest.

However it is not recommended that the anaerobic lactic circuit be performed more than twice a week with recovery intervals of 72 hours since the players perform a more intense metabolic effort.

After these circuits, doctors can

take a sample of blood from the player in order to obtain the level of lactate, which can be a measure of determining the physical condition of the player. It is advisable to take the sample 3 to 4 minutes after the circuit is completed.

The presence of lactate in the blood is not so dangerous as it is believed. On the contrary, lactate can be the source of more energy if the player is well trained and can use it in the proper way.

The problem arises when the player

produces more lactate than he can use. For this reason it is recommended that the player follow a good training programme and that following a match he should perform a light aerobic workout (i.e. 10-12 minute jogging). In this situation, if the capillaries close and the lactate is not eliminated it will remain in the muscles and the player will suffer muscular pain (muscle soreness) and the recovery will be slower.

training to improve the player's footwork

by Hans Peter Born (National Coach, German Tennis Federation)

Introduction

We have been working on improving the footwork of our players for quite some time. Based on a survey to the top coaches in Germany, we found that for most coaches footwork and speed are the most important factors determining the ultimate success of the players.

Observation and experimentation at the University of Sport in Cologne yielded the following results:

- Average distance covered to complete a stroke is 5m.
- Most play situations (75%) under time pressure happen around the baseline.
- A very common movement pattern is a fast run to the forehand corner followed by an explosive change of direction.
- Lateral running at the net happens only 10% of the time.
- Runs from the baseline forward only happen 15% of the time (Average of 7 m, a maximum of 10 m)

We were surprised with the following observations made during the French Open: 80% of the strokes occurred from a static position and only every 5th stroke was made under time pressure. Strokes under

extreme time pressure were mostly an exception.

Therefore the time pressure is of medium intensity.

From this observation we conclude that although a good movement speed is desirable on clay, it is not essential. Other similar studies will be conducted on faster surfaces, and it is assumed that the time pressure there will be greater.

Based on these findings, training programs to improve the speed were developed and implemented to train several top juniors. To establish the effectiveness of these programs a two-year study was conducted. The result of the study confirmed what the coaches saw in the training.

The improvements in performance were the result of improvements in the quality of direction changes and of improvements in leg strength (+ 80%).

What were the characteristics of the programme that lead to improvements in speed?

The summer training period (April/May) was used to improve general speed. The longer training periods in winter were used to improve tennis specific speed and footwork. A systematic strength

training programme (using own body weight and free weights) supplemented the speed development programme.

Speed training took place 2 or 3 times per week for about 20 to 40 minutes as part of a training period lasting between 60 and 150 minutes. Here are examples of sections of the training programme:

1. Examples of exercises used to improve co-ordination and speed.

- Basic principles of running
- Different types of skips /4x4 sec; 3sec + 5 m sprints.
- Ladder sprints 8 sec in and out.

2. Examples of exercises used to improve the strength in the longer training periods in winter (Sep.-Dec)

- Hypertrophy (Intensity 40-60%, repetitions 8-12, 3 to 5 sets).
- Maximal strength: intramuscular co-ordination training (Intensity 80%, repetitions 5-6).

3. Examples to improve power and jumping ability (Stopping strength).

- Foot joint jumps. Jumps using only the ankle joint with a very

low angle at the knee. Keep the contact to the ground very short.

- Vertical jump – from a low position as high as possible.
- Plyometric jumps from a box (height of the jump about 30 cm). Try to make the contact with the ground very short (6-8 repetitions, 3 times per week).
- With aid. Someone pulls the athlete up after he/she lands.
- One leg jumps (Sideways). In the alley 8 jumps sideways and forwards with short ground contact.
- One leg jumps sideways over a barrier. (8 jumps left right with little ground contact)
- Overhead with jump.

4. Examples of exercises to improve footwork:

The technique of the footwork was explained to the players and practised during the training sessions. The meaning of the split step in this context is the following:

- The use of the pre-stretch reflex in the sprint following the split step.
- The reaction to the incoming ball and the timing of the landing of the split step are closely related.
- The landing of the split step lowers the centre of gravity.
- Landing on one leg seems to be a characteristic of professional players. The direction of the next movement is determined early and the body moves accordingly.
- The timing of the split step can be improved through training.

Split-step. Examples of drills:

- 2 players hit balls to each other and focus on the split step.
- Eventually incorporate drills where balls are fed from the basket.

Better players are able to prepare the move to the ball during the split step.

Stopping. Practical example:

Using little steps to move to the ball with a larger last step.

It is important that the coach points this out during training and shows it to the players

Change of direction. Practical example:

- Rotation and change of direction.

Examples:

- Medicine ball throws (Forehand and Backhand) (Middle section strength and stopping action)
- Breaking after a lateral sprint plus medicine ball throws. (Middle section strength and stopping action)

It is important to mention the role of the head and the step to find balance in the movement.

5. Practical Examples to Improve Tennis Specific Speed

Example:

Sprints (Forward, backward, side ways) with or without change of direction; with or without racquet. Accelerations off the split step (drill).

Some drills on this are the following:

- Left-right on the baseline with change of direction in response to feeds from the coach.
- Run to the backhand side and sprint to the forehand side, then sprint to the backhand side in response to feeds from the coach.
- Run around backhand – sprint to forehand – sprint to backhand.
- Random left-right on the baseline – incorporate short balls.

6. Combining All Aspects

Combination sprint drills: The player stands on one or two legs on the therapy circle, Medicine ball or climbing blocks. He goes through following drills:

- Balance with a low centre of gravity with an erect upper body: Jumping down.
- Reactive jump over barriers 2 (10 to 30 cm), sprint forwards to 3, Side step to 4, sprint backwards to 1.

Specifications: Balancing 4 to 8 sec; length of the sprints 3 to 5 m; 3 to 5 times with a 2 to 4 min. pauses.

All the exercises need to be done as fast as possible with the coach checking for good foot action and an erect upper body.



CONCLUSION

The improvement due to this type of training can be described as follows:

- After two years of training, the players were able to reach a ball after a change of direction that was two racquet lengths farther away.
 - There was an improvement in the economy of the movement in sprinting and hitting with a change of direction. This was also seen during competition.
 - The first three steps before the change of direction were faster.
 - The ground contact time of the outer foot got better.
 - It was a continuous improvement of balance at the time of contact.
 - There was an improvement in the stability of the head and upper body.
 - The centre of gravity was considerably lower during changes of direction and lead to an improvement of the stability of the upper body.
 - The leg muscles were able to absorb the shock during the changes of direction as well as providing a strong explosive movement at the beginning of the sprint.
- These results demonstrate the importance of a long-term training plan to improve the on court speed.

the signature game

by Dickie Herbst (USA)

Let's imagine that Pete Sampras is 11 years old and you are his coach. He has an eastern forehand grip, but is surrounded at the national tournament level with semi-western and western forehand grips. Using them Jim Courier, Andre Agassi and Michael Chang are along with Sampras dominating the junior game. Do you change Pete's grip?

In the past my "vision" of how a player was going to play drove my coaching. I thought I knew best. I was wrong. The player's vision is, and must be, paramount. After 25 years of coaching, 10 of them on the professional tour, I reached this conclusion by noticing certain common factors shared by the best players in the game. They have *their* personal visions of how to play, and consequently they redefine the game for themselves. A top player's game has a *signature*.

Consider for example, Pete's running forehand, Andre's return of serve, Lindsay's flat pounding groundstrokes, and Venus's open-stance backhand. These champions have redefined the standard "acceptable" way to play tennis. When you play against them, they don't change their games, they impose their games - their weapons - on you. You find yourself constantly reacting to them.

Let's speculate. Where would Pete Sampras be ranked today if I could wave my hand and turn his service into an average professional serve - say, topping out at 110 M.P.H. with only a general ability to hit targets? Furthermore, suppose I could take that lethal quality out of his forehand, and make Pete an average volleyer. How far out of the top 10 would he then drop? Or where would Lindsay Davenport be ranked if I extracted the powerful flat quality

from her ground strokes and replaced it with looping top spin?

Weapons drive the professional game and they are individualistic. Where do they come from? Winning points, games, matches, and tournaments builds weapons. They are the infrastructure of a signature game. Champions play the game simply. They repeat the same shot patterns and hit the same kinds of winners, regardless of whom they are playing. This is how they redefine the game, by building personal winning patterns around their natural weapons. So as a coach, how do you help a player build a signature game?

I first ask a player how do you think you win points? Then, I test out the player's response by watching practice sessions and a match or

two. I look for instances of how they think they use their weapons. Then, I remind the player of his or her competitive identity - how he or she actually wins points on the court. I redirect our conversations away from what is wrong with their games, and focus them on how they win. The object is to get better at it.

When I was national coach for 14 and under boys, I endlessly heard about how "player A" was consistently losing matches. Parents and personal coaches would insist that if I could fix this or that weakness, their "star" would then win. If it were that easy, we would all be sponsored by Nike. In fact usually the player was not losing matches due to a weakness. *The problem was a lack of weaponry.* The young player's game did not have a signature.

Developing a signature game starts with a player's vision of how they want to play tennis and win points. To compete on the professional tour today, a player needs more than one weapon. He or she needs to invest lots of time in repeatedly practising their own ways of winning points and matches. I love to ask a player with a huge forehand or backhand, how much time do you spend working on this strength? I usually hear, "I only work on it when I am playing matches. In practice I spend all my time working on my weaknesses". Touring pros do work on forming up weaker aspects of their games - but surprisingly, they also spend huge amount of practice time on sharpening their weapons. When winning is your business, working on how you win becomes your focus.



developing youngsters mental skills ... without them realising it!

by Chris Harwood (Great Britain)

Most educated coaches should know the important mental skills that young players need to develop if they are to meet the psychological demands of a match and the game of tennis as a whole. The most important three skills are probably:

- i) a positive attitude to winning, losing and skill development
- ii) an ability to think only about positive things which will help their performance
- iii) an ability to feel, act and react in an emotionally positive manner

The first skill is much more longer term and personality-based. Coaches and parents, however, have a key role in shaping the quality of this aspect of a player's wider personality profile. The latter two skills represent the on court matchplay qualities which are critical if players are going to handle the 'dead time' effectively and respond to every competitive match situation in a positive way.

Observing coaches over a number of years, it is true that we do consistently miss golden opportunities within on court sessions to develop these skills. In fact, most of us tend to be over-preoccupied with technical development when technical and mental skill development can go hand in hand if the coach is a little more imaginative. Here is a simple list of 'mental reminders' that you should constantly apply within sessions. The more you apply them, the more the player will begin to develop and gradually condition the basics.

- i) Refer to their favourite role models whenever you can. Begin to make them more constantly aware that playing tennis is about having certain physical, technical, tactical skills (you may choose to keep out

mental skills if you can bring them across using examples). The more they become aware of skills, the more they will focus on developing them.....and quicker. Videoing the player and running through the match alongside matches of elite players is an efficient way of allowing the young player to understand what the game demands.

- ii) Begin to encourage players to rate their performance on certain drills. Encourage players to rate each other, but then set each player a personal and individual rating target for their next performance. This process not only introduces the players to some very basic goal setting, but also allows them to recognise that they can improve personally whilst accepting that another player with a poorer or better level of skill has their own goals to achieve. Allowing them to practice this is imperative - most U-9's are either self-perfectionists or can't stand losing or they are both!
- iii) Apply the 'every ball' or 'don't waste a ball' philosophy vigorously. If the player has a lapse in physical effort, then warn him/her. If they lapse again or the quality goes down then use 'fill the tank' stations which are rest periods until they feel they can give 100% effort. Letting them accept that they are not working at 100% and giving them the choice to rest can work out to be an effective quality control strategy.
- iv) Mental effort should be consistently high at U-9 level. This is firstly because they concentrate poorly at this age - you must be proactive against this and make the best of a bad

developmental period. Secondly, they learn and develop mental and technical skills quicker in this period, so you need to make the most of this trend! Remember however that they can either be quick at picking up good habits.....or bad habits - I never said that every skill would be a positive one!

- Emphasise 'watching the ball' and play games which bring their attention to it. The eyes will do a lot of subconscious work without you and them realising it!
- Establish 'body language' rules for your sessions. Walking tall, shoulders back, racket head up (particularly between points and after mistakes) are important actions for players to condition at this age
- Create 'positive self-talk' rules for your sessions. Getting them to say 'next point, I'm ready' for example as a phrase before the next point/feed begins is a really simple method of teaching them to say positive statements in the down time that occurs in sessions. The principle is simple, you just need to be imaginative!
- Work on developing a between point routine with them in practice. You may start simply by telling them that they have 20 seconds before the next point begins, and that you want to see what they do to get ready for the point.....Once you have established the routine, let them practice it repeatedly. For example, between feeds or in the middle of the drill shout out 'routine' and get them to engage in it before re-starting.

v) Work with parents in order to educate them. They are a valuable resource in the mental training of the U-9. Parents need to be educated about reactions to winning and losing. They need 'language guidelines' for tournaments so that they can have a function at the matches that you are unable to watch. Parents are underrated in terms of tasks and actions that they can perform which will support your on court practice. There will

clearly be some exceptions to this, but the exceptions are not the reasons why you shouldn't make the effort to bring parents into your performance environment.

The philosophy behind these reminders is that practice is rehearsal. Kids of this age can learn quickly, but as noted earlier, they can also learn negative skills quickly as opposed to positive ones. As coaches, you need to visualise the on court behaviour that you would

expect from these players in competitive matches. You then need to consider if your knowledge about thinking positively, mistake management, positive body language, quality effort levels is actually present in your coaching practice. Telling U-9's isn't enough....they'll forget. They need to physically practice these skills in training because they will only shift up the learning curve if their sessions allow them some conditioning opportunities.

Ten ways to prevent wrist problems

by Babette Plum (Medical Advisor to the Royal Dutch Lawn Tennis Association)

WRIST injuries in tennis are usually caused by the sudden slowing down of the ball as it hits the racket. The result can be tendinitis. All tendons in the wrist and hand can be affected. The symptoms often include a generalised pain radiating along the tendon to the point at which it joins the bone, and sometimes even affecting the wrist joint itself. Younger girls are most prone to this type of injury for two reasons: first, lack of strength in their arms and wrists, and second, more flexibility in their joints.

STRENGTHENING

The purpose of wrist exercises is to develop muscles which stabilise the wrist at the time of ball-racket impact. A stable wrist is necessary to prevent the stretching of tendons and ligaments. Players who hit two-handed forehands and / or backhands should pay attention to the strengthening of BOTH wrists.

1. **CURLS.** Use a LIGHT weight (for example, at the beginning, a dumbbell weighing no more than two pounds). With the elbow slightly bent, and the palm up, move the wrist up and down.

2. **EXTENSIONS.** The reverse of the wrist curl. Again, use a light weight. With the elbow slightly bent, but this time with the palm facing down, move the wrist up and down.

3. **LIFTS.** A variation on curls and extensions. Most wrist exercise programmes concentrate on the muscles on the top and underside of the wrist, but do not give nearly enough attention to the muscles on the sides. Again, with the elbow slightly bent, and this time with the thumb up, move the wrist up and down. Try not to bend the elbow.

4. **REVERSE LIFTS.** The same as 3, but with the little finger up. This exercise is awkward, but is very important for players who hit (or who want to hit) with a lot of topspin.

5. **TENNIS BALL SQUEEZES.** A general exercise which strengthens all muscles in the wrist. For optimum results, use a ball which is a bit dead or which has lost some of its pressure.

MISCELLANEOUS

6. **PUSH-UPS.** A good way to strengthen both your wrists and arms, but potentially dangerous if you do them wrong. People who do push-ups with their palms flat on the floor risk injuring their wrists rather than strengthening them. The best support is either one's own knuckles (with wrists therefore straight) or by holding onto parallel bars.

7. **A WRIST BRACE.** If you have a history of wrist problems, you may wish to try a brace. The purpose is to stabilise the wrist so that tendons and ligaments will not get stretched. There are many different kinds of brace on the market. The simplest ones just wrap around the wrist, while the more complicated ones extend into the palm of the hand. See which one suits you best.

8. **RACKET STIFFNESS.** Technical studies have shown that the higher the "resonance frequency" in a racket, the less the vibration. Somewhat

surprisingly and in contradiction to most conventional wisdom, stiffer rackets have a higher resonance frequency and therefore lower vibration than flexible rackets. The less

vibration, the less danger of injuring your wrist.

9. **RACKET HEAD SIZE.** The bigger the sweet spot, the less the vibration.

10. **TECHNIQUE.** The most difficult to change. The general rule is: keep your wrist as stable (but as relaxed) as possible. Do NOT swing your tennis racket like your squash racket!

good errors

by Craig Miller (National Men's Development Coach - Tennis Australia)

Most of the successful individuals I have met whether in sport or business, have attributed part of their success at some point to taking a degree of risk. This degree of risk is usually calculated and weighed up against the chances and consequences of failure. Though once the challenge was accepted the focus was not on the failure element, rather purely on victory.

This lesson is one that can be applied to tennis. First we have to look at the facts. Statistically tennis matches, even at the highest level, have the following inherent characteristics:

- Both players make errors.
 - Usually *both players* make more errors (forced and unforced) than winning shots (winners and shots your opponent has no play on). It is important to look at the difference between the two variables, not the quantity of each.
- The major difference at the highest level is type of errors that the athletes are committing, namely:
- Fewer unforced errors
 - Errors that are only just missing e.g. Close to the lines, just hitting the tape etc.

Bearing this in mind, I feel, too often we ask our students to play too conservatively. The pros don't. Why coach a sprinter with marathon runner techniques?

The first thing I say to a player is: "You now have permission to make mistakes as long as your errors are *Good Errors!!!*"

and of course, not too many. These are balls that only just miss. Usually they feel an immediate sense of relief.

Imagine your opponent has approached the net and you attempt a down the line passing shot. You middle the ball perfectly on the strings and it projects powerfully towards the target, loosing like a certain winner when it just hits the tape and falls back on your side.

Many players would feel dejected in this situation, though it is important to consider the effect on the opponent. For instance, the fact that you *only just missed* could warn him/her that next time the approach may need to be more decisive causing them to go for too much. The psychological benefits of a good error cannot be underestimated.

When the fear of failure is lifted, the quality of the balls hit is increased. The drill that I have included will illustrate this concept. Getting the error to winner ratio in perspective is crucial and of course, we have to hit many more balls in than out.

What about the player who takes too many risks and is erratic? This is usually a case of poor shot selection. In other words, attempting an aggressive shot when in a defensive situation. This player must understand the relationship between the different modes of play e.g. neutral, attack and defense.

Controlled aggression is the formula for success at the highest

level and the "Good Error" theory is one I have used with success with many elite players. I hope you too find it a useful tool.

GOOD ERROR DRILL

1. Stand approximately at the service line and feed 10 balls to the student's forehand instructing them to play each ball aggressively down the line.
2. Instruct them to hit the ball at such a degree of power and precision so that they will make 7 out of the 10 balls only. The three balls missed should be "Good Errors" and must come as a result of the high quality and degree of risk of the exercise.
3. After each set of 10 balls, have a 20 second break to rest the player. Provide feedback and motivate them for the next 10. In this time modify their attitude, performance and technique to facilitate the 7/10 ratio, ensuring that not too many balls are either missed or made.
4. Complete the basket.

The usual result of this exercise is the players will continually raise the level of their performance and confidence as the fear of failure is eliminated.

playing in the wind

by Karl Davies-ITF Development Officer Southern Africa

On a recent tour with some of Africa's best juniors U/14 juniors we played three tournaments in South Africa. We had 18 children of whom 10 were boys and 8 were girls and including myself three coaches. The other coaches were Dermot Sweeney (Head Coach ITF Training centre-Pretoria) and Michel Rissani (Gabon). The tournaments were in Cape Town, Strand, and Port Elizabeth. All three venues were located at the coast. Therefore the conditions were very windy. I thought it was a great experience for the children. These are some of my observations and what we encouraged the children to do. For most of them it was the first time they had played in extreme conditions such as the ones experienced. I would like to divide the article into the following areas: technique, tactical, physical, and mental.

Technique

The technical aspects of playing in the wind are a little bit different than normal conditions. I will break up the technique aspects into: playing into the wind, playing with the wind, and crosswind.

Playing into the wind

The groundstrokes have to be played flatter, because if played with looping topspin the wind will affect the ball and result in the ball landing short. This will enable the opponent to take advantage. However, with flat shots the ball will not be so affected by the wind and the player will be able to try and pin their opponent to the baseline. It is anticipated that the player can achieve more consistency because the wind does not affect the ball as much. However, playing flat shots means a low clearance over the net

and less margin of error. In order to hit flat shots correctly you need a shorter backswing and more horizontal stroke path. However, it must be stressed the player must hit with a normal follow through to generate racquet acceleration. The contact point will be a bit later than for a normal topspin shot. This technique will be the same for forehand and backhand. The technique for the volleys will be the same as well as the smash and serve. One aspect must be considered with the serve and that is the toss should be a bit lower so the wind will not affect it as much.

Playing with the wind

Playing with the wind is a little bit different. One must try and hit with heavy topspin in order to get the ball into the court. It is also very important that the player follows through to make sure there is racquet acceleration through the point of contact.

Crosswind

When playing in a crosswind on both sides of the court one should try and hit the ball flatter. The more the ball is effected by the wind the lower the chance of the ball being in. It should be emphasized not to go for the lines, as there is a good chance the wind will force the ball out when going for a less margin of error. In terms of footwork technique the feet should be moving at all times especially with a crosswind. The player should keep their feet moving till the last minute then attain balance and then hit the ball.

Tactical

The following tactical aspects should be considered. First serve percentage should be high. A margin of error

should be considered when hitting all shots in relation to placement. The players should not aim too close to the lines. This is because of the fact that the wind might effect the ball in such a way that will make the ball go out if hit too close to the lines. Most of all, the player should not go for his shots as much and should learn to set up the point. It is very difficult to be aggressive in the wind.

Playing into the wind

Playing into the wind from the baseline, flat and deep shots should be encouraged to try and pin the opponent on the baseline. One can really hit an aggressive drop shot into the wind. Slice is not encouraged because a slightly ineffective slice will get caught up in the wind and leave the player under pressure.

Playing with the wind

The ideal tactic should be (if the player can volley) to approach the net. This tactic is advisable since your opponents passing shot will be slower due to the resistance created by the wind to your back. However, the net player must watch for the lob because it is easy to hit an effective lob into the wind because the lob can be hit aggressively. While playing with the wind the ball coming to the player will not be as strong therefore the player should stand into the court. This will also help the player to approach the net when given the opportunity.

Crosswind

When playing in a crosswind the players should try and play their groundstrokes into the wind to raise their margin of error.

Physical

Like for any match, tournament, and

circuit the player must be in good physical shape. It is ideal that the player is in a little bit better shape because he has to move more to counter the sudden movement of the ball in the wind. Pre-tournament work should be done on all aspects of endurance, flexibility, speed and strength. During the tournament daily jogs of 25-30 minutes should be encouraged to maintain current fitness. Once a week an extended fitness session of 45 minutes should be done. During the matches the wind can evaporate the sweat. As we know sweat is a good gauge of the body temperature because the body uses sweat to cool down the body. This might cause a bit of deception that the activity is not too strenuous and the player might drink less during changeovers. Therefore one

should try and emphasize that regular intake of water during the changeovers. After matches is also very important. Usually the wind can cause a sharp drop in body temperature. The player should have a spare T-shirt to change into straight after the match. After the match the coach should encourage a cool down jog with extensive stretches.

Mental

Playing in the wind is tougher mentally than under normal conditions due to the fact that players are not used to it. It is more difficult to play in the wind and it is therefore harder for the players to adapt meaning that they will probably end up not playing as well. The player should be encouraged to play with high percentage shots and

show a lot more patience. It will be very easy for the player to become negative and blame the mistakes and outcome of the match on the wind. This is where a coach can really help and give the player guidelines on how to play. If the player is prepared and told not to become negative should things go wrong I think this is sufficient preparation. As long as the player tries to be positive and plays with good tactics for the wind I am sure the player will perform just as well as in normal conditions.

In conclusion, playing in windy conditions can be tough. However, coaches can guide their players and encourage success in these difficult situations.

the tennis programme for adults in France

by William Bothorel (National Co-ordinator of Education at the French Tennis Federation)

For some years now, the FFT (French Tennis Federation) has been making changes to its teaching methodology so that tennis instruction becomes more effective and more adapted to the public.

This challenge started with mini-tennis and a teaching method specifically designed for 5 to 6-year-olds and known as 'THE CHILD FIRST, THE STUDENT SECOND'.

The *Junior club*, the latest initiative, integrates mini-tennis and ensures its continuation through subsequent teaching levels: BEGINNER, ADVANCED and TRAINING. In other words, the *Junior club* is 'tennis through game playing' for 5 to 18-year-olds.

These concepts designed for youngsters have yielded good results; therefore it has become necessary to look into the issue of teaching methods for adults.

As far as adults are concerned, stagnating or declining motor skills (co-ordination, flexibility, reaction

speed, recovery...) represent important barriers to any new learning, especially for those with no past experience in sports.

The method developed in this programme focuses on the notion of play and achieving immediate success.

To this end, it is necessary to adapt the playing areas (6x12m, 8x18m courts) and use different types of balls (foam balls, softballs and transition balls).

The player learns in a dynamic and motivating way thanks to game situations that evolve according to his or her progress. This is a gradual method which goes from *adapted tennis* to *big format tennis*. This is what we call PROGRESSIVE TENNIS!

The latest ADULT PROGRAMME developed by the FFT is based on this method.

Apart from these teaching methods, this new programme has taken into account the evolution of

society and the expectations of the public regarding sporting and leisure activities. In the long-term, it is expected that this programme will attract new participants to our sport and maintain their interest for the game.

FINDINGS:

The following are the current trends of public opinion as regards sporting activities:

PURSUIT OF SUCCESS AND IMMEDIATE PLEASURE

Example: the development of sports with no technical constraints such as mountain biking and roller-blading.

PURSUIT OF THEME ACTIVITIES

Example: the various levels of satisfaction in gyms, stretching, cardio-training, working out, step, aerobics, etc.

THE PLAN:

Tennis can follow these trends as long as the approach and teaching methods are adapted. In order to do

so, the FFT has developed an educational programme that answers a number of expectations.

DISCOVERY TENNIS 'the pleasure of the game without delay'

The goal of this course is to enable beginners to play rallies right from the start. To do so, the teacher uses equipment which is adapted to the physical and technical abilities of the players: foam ball, soft ball (mini-tennis), transition ball, 6x12m tennis courts, 8x18m tennis courts and lower nets.

Progress is made in dynamic and fun educational situations. The player learns better by playing for real!

FITNESS TENNIS 'Feeling better thanks to tennis'

This course is intended for those who are in search of an activity that enables them to be in better shape. The sessions include tennis situations associated with physical circuits on the court.

The goal is to expend one's energy, sweat and even lose a few pounds. This is what we call being fit while having fun!

PERFORMANCE TENNIS 'Being a better competitor'

This course is for competitive players. Here again, it is expected that the use of teaching aids, as well

as active and adapted situations will help players to improve the technical, tactical, physical and mental aspects of their game. After this course, players become more efficient in match situations!

SPORTING ACTIVITIES

To complete this educational programme, the FFT has developed days of sporting activities with various themes. These can be organised at any time during the season to create a dynamic environment within the club:

RECREATIONAL TENNIS DAY 'Feeling good thanks to tennis'

The games organised for that day are meant to release pressure and relax by playing original tennis games. Example: tennis-volley in doubles with a foam ball.

MULTI-GAMES TENNIS DAY 'Discovering new types of games'

To maintain the interest of a greater number of people for our sport, competition and match playing must be accessible to all whatever the level of play.

In this activity, the organisers set up courts of different sizes (6x12m, 8x18m, 23.77x8.23m) and ask players to use different types of balls (foam, soft, transition and regular balls). The combination of all these elements enables all players, from

beginners to the more advanced players, to express themselves together. This is ideal to have the whole family play together!

FUN TENNIS DAY 'Going for the craziest shots'

This activity is primarily intended for teenagers. Big thrills, physical exercise and play are what they particularly enjoy. Tennis courts are divided into several workshops, which allows them to experiment all the pleasures that they are seeking: playing tennis to music, tennis-squash or matches with no limits, measuring the service speed, shots executed between the legs or with one's back to the net... In other words, they can experience all the big thrills of the game!

ORGANISATION

The implementation of this programme is the concern of the leaders and teachers of tennis clubs. Before applying the educational concept on the court, it is necessary to carry out market research in order to target the public and to know what the expectations are like at a local level.

The success of the project is then dependent on the choice of the programme (DISCOVERY, FITNESS or PERFORMANCE), the definition of attractive prices and a dynamic communication policy.

why the forehand is a key stroke

by Josef Brabenec (Canada)

Modern tennis requires a weapon, preferably one, which can be used in most matches. Big power servers like Ivanisevic, Philippoussis, Rudseski, Brenda Schultz-McCarthy, etc., rely mostly on their powerful serves, which cover only one of the 5 possible playing situations - serving. What about returning, rallying, approaching, passing, and generally

forcing the issue of the point when an opponent returns their serve?

The success of players relying predominantly on their serves has been relatively rare on the pro circuit, compared to players who have "only" very good forcing serve backed up by a solid forcing forehand (Lendl, Becker, Sampras, Courier, Graf, Muster, Rios) to name

just a few.

Why do I recommend the forehand and not the backhand as a key stroke? Here are my reasons:

1) The forehand offers easier court coverage. The natural longer reach on the forehand side allows an average player coverage of 65% of the court with the forehand. Advanced

tournament players with higher foot-speed are able to cover up to 85% of the court with the forehand.

- 2) Running around the backhand to hit a forehand is much easier and logical than doing the contrary. It reduces automatically the player's backhand area for the opponent's response and increases the hitter's chance to play another forehand. This move is very intimidating against weaker second serves.
- 3) There is an easier disguise of the direction of the forehand shot, namely from the player's backhand corner, which is a

constant threat for the opponent because the choice of an inside out or down the line shot is very difficult to read.

- 4) The footwork on a forehand running approach shot is much more natural than on the backhand side. (The modern two-handed backhand has almost extinguished the backhand approach shot with the exceptions of Novotna, Krajicek, Stich, Becker, Korda, etc.)
- 5) The forehand has produced much more winner shots and relatively fewer errors than the backhand.
- 6) In general, shorter high bouncing

balls are easier to handle or to put away with the forehand shot.

- 7) A partially delayed wrist flick can change unexpectedly the direction of the forehand shot (mainly crosscourt) or add more speed.

The general relative weakness of players who have huge forehands is the shot they play from the forehand side. This happens because their opponents rarely tend to play there.

In general, it is more important to develop a threatening inside out forehand, but the players should not forget to work on a solid forehand from the forehand corner.

systematic approach to training sessions

by Suresh Menon (ITF Development Officer for Asia)

Series 8

The 1 to 7 series of exercises in the Systematic Training Series presented in previous issues of our Review have provided the players an opportunity to work on the five techniques of ball control.

They are: -

1. direction
2. height
3. depth
4. spin
5. power

It's a general progression from the simple task of getting the ball in i.e. direction, to the most difficult ball control technique involving power. The players have been able to work on one or more of the ball control techniques all throughout the series of exercises. The drills allow the players to develop the awareness that in order to be able to accomplish a more complex ball control technique, they need to be able to master a simple one. For example, in order to hit consistently with power, the players need to be able to hit effective topspin.

The following exercises puts the players in a more realistic match situation incorporating one or more, if not all, the ball control techniques.

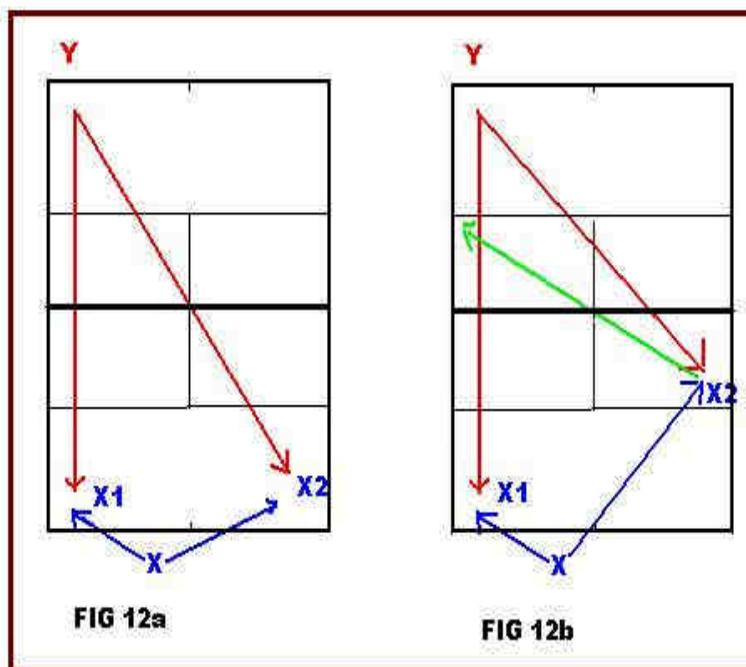
Exercise 12

Drill 12(a)

Time - 4 minutes

Player Y stands in one half of the

court. He alternates hitting the ball to spot X1 and X2 making sure that player X has an opportunity to have a play at the ball (Fig 12a). Y forces X to move in either direction and to return the ball back to him/her. Player X is forced to deal with different types of balls. He can use the five different ball control



techniques depending on the type of ball he receives from Y.

Fig. 12b illustrates where Y hits an angled crosscourt and X chooses to hit a sharp crosscourt. This drill simulates a more realistic situation and forces X to make decisions on the type of shot he must play back to Y.

Drill 12(b)

Time 4 minutes

The same exercise is repeated in the opposite half with the player who was previously hitting forehands switching to hit backhands. His opponent will do the opposite.

Note: To maintain quality and ensure players have adequate time for regeneration this drill can be performed with 3 players alternating for player X. First player plays for 10-12 seconds – then rests for 20-25 seconds while another player performs the exercise. The drill would then last 12 minutes. Each player drilling for 4 minutes.

Exercise 13

The players then alternate roles

Game 1:

Name: *Dare me down the line.*

Player X hits three balls consecutively back to Y. After X hits the third ball, he has the choice to go

back crosscourt or hit down the line. If X hits a clean winner, he receives two points. If Y is able to retrieve the ball, he receives one point. This exercise forces X to do two things:

1. X will need to make a good set up down the line shot in order to force Y to play a ball that will give X the opportunity to try a down the line winner.
2. X will have to decide when it is suitable to try for a down the line winner. A wrong choice will cost him a point.

The first to reach 11 points is the winner. The game is then repeated on the other half of the court.

what tennis research tells us about ... visualisation and imagery

by Karl Cooke and Miguel Crespo (ITF)

Video Modelling

Three groups of tennis players aged nine to twelve years old performed three different training routines for the serve over a period of 24 weeks. The first group performed physical practice of the serve, the second group performed physical practice and watched video modelling of the serve, and the third and final group performed physical practice, video modelling and mental imagery practice. The results of tennis performance showed that following the 24 weeks of training the physical practice only group did not improve and in contrast the physical practice and video modelling group and physical practice, video modelling and mental visualisation training did improve significantly. The latter two training methods did not differ significantly from each other in tennis performance. The improvement in the performance of the serve produced by the combination of physical training and video modelling is a good means by which to improve the performance

of the serve.

Atienza FL, Balaguer I, Garcia-Merita ML. (1998) Video modelling and imaging training on performance tennis service of 9- to 12-year old children. Percept Mot Skills Oct: 87(2): 519-29.

Visuo-motor behaviour rehearsal

Fourteen male tennis players were used to determine if a visuo-motor behaviour rehearsal practice would improve their tennis service performance. The post training results showed that those players who completed the training and were categorised as high ability players improved their first serve percentage during tournament competition. In contrast the lower ability players who completed the training showed a decrement in first serve performance. Overall tennis performance as measured by the ratio of winners to errors during a match showed the same pattern with the higher ability players benefiting from the visuo-motor behaviour training. The authors suggest that the

mental rehearsals used were not suitable for lower ability players.

Noel R (1980). The effects of visuo-motor behaviour rehearsal on tennis performance. Journal of Sport Psychology: 2: 221-26.

Video recall analysis of performance

Seven female players on a Division I college team volunteered to use a video recall analysis of performance. The procedure requires the player to review and analyse the videos of their performance. They stopped the video tape with the remote control when they felt something significant in their performance (skill execution, thoughts or feelings) occurred within the match and record it speaking to an audio tape recorder. Transcripts of the audio-tapes were then analysed for underlying themes. The two most frequently noted being concentration and communication with the coach. The players also identified effective coping techniques associated with successful and unsuccessful points



as well as factors that enhanced and detracted from performance. All of the players felt that the process helped to improve their understanding of what they had done and would try to do in subsequent matches.

Rhea D, Mathes SA, & Hardin K (1997). Video recall for analysis of performance by collegiate female tennis players. Perceptual and Motor Skills: Vol. 85: (3:2) 1354.

Audio, visual, and audio-visual instruction

Six groups of players performed six different training routines to improve the forehand tennis drive. Of the first three groups, one heard, one viewed, and one both heard and viewed a sound filmstrip that described the tennis forehand drive. The other three groups did likewise but in conjunction with 10min mental practice sessions following the presentations. All six groups met three times a week for a period of eight weeks. The results showed that the three groups that performed the mental practice sessions improved significantly. In comparison to the pre-training performances the most effective training routine was the combination of audio instruction and mental practice.

Surburg PR (1968). Audio, visual, and audio-visual instruction with mental practice in developing the forehand tennis drive. Research

Quarterly for Exercise and Sport, 39: 728-34.

Visual analysis

The use of a visual discrimination training programme in the form of a video tape was shown to improve the performance of the tennis serve following the training programme. The visual discrimination training programme was designed to train participants to visually discriminate between correctly performed over arm throwing performances and incorrectly performed over arm throwing performances. No attempt was made to teach the participants how to analyse the serve. The study also showed that there was no transfer of this knowledge or understanding to an unrelated skill (the standing long jump) which highlights the importance of using movement pattern specific intervention techniques.

Wilkinson, S. (1996). Visual Analysis of the over arm throw and related sport skills: training and transfer effects. Journal of Teaching in Physical Education: 16: 66-78.

Video feedback training

Three groups of twenty-two tennis players performed video feedback training, traditional training or no training (control) twice a week for five consecutive weeks. Each training session lasted forty minutes of which thirty minutes was spent on actual practice of the serve. The remaining ten minutes was spent on watching analysing and discussing video recordings of either their own service performed during the training session (video feedback training) or ground strokes and volleys of top level players (traditional training). Both groups improved significantly in both test performance and technique ratings. However the video feedback training did not appear to induce any further improvement in either technique or test performance.

Van Wieringen H, Emmen R, Bootsma R, Hoogesteger M, & Whiting H (1989). The effect of video feedback on the learning of the tennis service by intermediate players. Journal of Sport Science: 7: 153-162.



recommended books and videos

books

Smart Tennis: How to play and win the mental game. Year: 1999. Level: intermediate. Pages: 237. Language: English. This book goes through the important aspects in improving your mental game: understanding your personal needs; attention control; imagery; confidence; energy control; goal setting; competition management. For more information contact: Jossey-Bass books Tel. +(888) 378 2537. Fax. +(800) 605 2665. Internet: www.josseybass.com.

Initiation Adultes: Programme Pédagogique (Teaching Beginner Adults: a Pedagogic Programme). Year: 1998. Level: Beginners. Pages:

33. Language: French. The book takes a pedagogic look at the way in which tennis should be introduced to adult beginners. The book takes you through 12 sessions with examples, diagrams and instructions for a large number of exercises that may be used within in each session. For more information contact: Fédération Française de Tennis, 2, Avenue Gordon Bennett, 75016 Paris, France.

Fundamentos Prácticos de la Preparación Física en el Tenis (The Fundamentals of Practical Physical Conditioning for Tennis). Year: 1999. Level: Advanced. Pages: 187. Language: Spanish. This book includes chapters on psychology, physical fitness: strength, endurance, speed and flexibility, the periodisation of the season, and

planning for the season. For more information contact: Editorial Paidotribo, Consejo de Ciento, 245 bis, 1º 1º, 08011 Barcelona, Spain. Tel. 93 323 33 11. Fax. 93 453 50 33. Email: paidotribo@paidotribo.com Internet: <http://www.paidotribo.com>

videos

Le jeu des Champions: Volée. Fédération Française de Tennis. Analysis of the mechanics of the modern volley. Jean Claude Massias. Colour. Approx. 30 min. Available in French and English. For more information contact: Fédération Française de Tennis, 2, Avenue Gordon Bennett, 75016 Paris, France.

Tennis - Et spil for alle (Tennis - for anyone). Dansk Tennis Forbund. Stroke production, ready position, grips, forehand drive, backhand drive, the service, equipment, volley, smash, lob, half volleying, drop shot, spin and trajectory of the ball, topspin forehand, topspin backhand, slice, stop volley, approach shot, service return. Jon Diderichsen. Colour. Approx. 70 min. Language: Danish. For more information contact: Dansk Tennis Forbund, Idraettens Hus, DK 2605 Brøndby, Denmark.

So Fast Tennis. SAQ International. Speed, Agility and Quickness Training. Drills are designed to be performed with easy-to-use equipment. Drills using quickfoot ladders, mini hurdles, balance boards and medicine balls. They concentrate on foot work, timing, hand-eye-co-ordination, power technique and acceleration in a variety of directions and environments. Colour. Approx. 30 min. Language: English. For more information contact: SAQ International Ltd, 22 Bowley Avenue, Melton Mowbray, Leicestershire LE13 1 RU, England.

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 Báyer, 11,10-A, 46002 Valencia, España. Or by Email to Miguel Crespo <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 .

1st ITF Tennis Participation Coaches Workshop



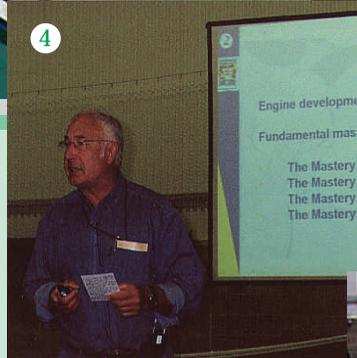
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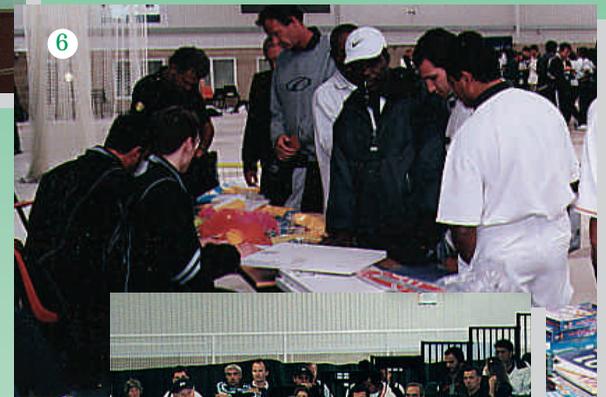


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1. Denis Van der Meer
2. Richard Plews' presentation on Promoting Tennis in Clubs
3. ITF Schools Tennis Initiative presentation
4. Jean Claude Marchon
5. Children taking part in the presentation "Games, Games and More Games for Kids"
6. Participants looking at mini-tennis equipment
7. Speakers from the ITF Workshop
8. Gundars Tilmanis



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8



International Tennis Federation
 ITF Ltd, Bank Lane, Roehampton, London SW15 5XZ
 Tel: 44 20 8878 6464 Fax: 44 20 8878 7799
 E-mail: itf@itftennis.com Website: www.itftennis.com



Mini-Tennis



FLEXIBILITY IN MINI-TENNIS: LET'S MAKE IT A GAME AND NOT A PAIN

by Richard González (Uruguay)

How many minutes a week should we dedicate to flexibility in the mini-tennis class?

The majority of authors that speak about flexibility agree that:

- The sensitive phase for the development of flexibility is between 5 and 12 years of age.
- The correct development of flexibility helps the co-ordination between the agonist and the antagonist muscles.
- Flexibility exercises improve relaxation.
- Improved flexibility enhances joint function.
- Flexibility facilitates the prevention of muscular, joint and bone injuries.
- There is a significant reduction in flexibility with age.
- The flexibility of the spine reaches its maximum



at 8-9 years of age. Later a constant decrement occurs.

- The optimal age for improving flexibility of the spine, the shoulder girdle and the hips is between 10 and 13 years old.

All these characteristics reinforce the importance of flexibility for the correct development of our players. The proper flexibility work will mean a healthier player in the future.

It is important to remember that it is easier to influence the development of flexibility during the sensitive phase than when this phase is over. Thus, the mini-tennis class is an ideal time to introduce different elements of flexibility through games. The coach should set challenging tasks or games in which the children will improve their flexibility. At the beginning of the lesson different





games or exercises combining coordination, balance, flexibility, competition (relays), challenges, cooperation and familiarisation, can be done in order to achieve this goal. (See photos.)

We should take into account that at this age

we should not demand complete technical mastery. This is not the goal, but instead for the children to experience that the different muscles not only contract but also stretch.

CONCLUSION:

- Our children will only be able to learn new challenges in their skills if they are involved in the adequate physical and emotional context that is also comfortable and safe.
- At this age, flexibility has to be introduced in an amusing and co-operative way.
- Under no circumstance should the flexibility



exercises become an obligation.

- We have to assist the development of flexibility, but not at any cost or by all means. We should not forget that children experience multiple hormonal transformations prior to puberty with big differences depending on the gender. Besides, skeletal growth is faster than muscular growth, which produces the need for a continuous adaptation of the muscles to the new bone structure.
- The improvement of flexibility helps everyone to feel better in both body and mind.
- Practice and experience has shown us that it is possible to integrate flexibility into mini-tennis. But we need to be patient, the same patience that our children will need in the future to play the game of tennis.



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Physical Education in Primary Schools J. GOMEZ,
Teaching tennis to children and young people. ITF,
Tennis II Spanish Olympic Com. R. F. E. T.,
Children's Training. G. MOLNAR.

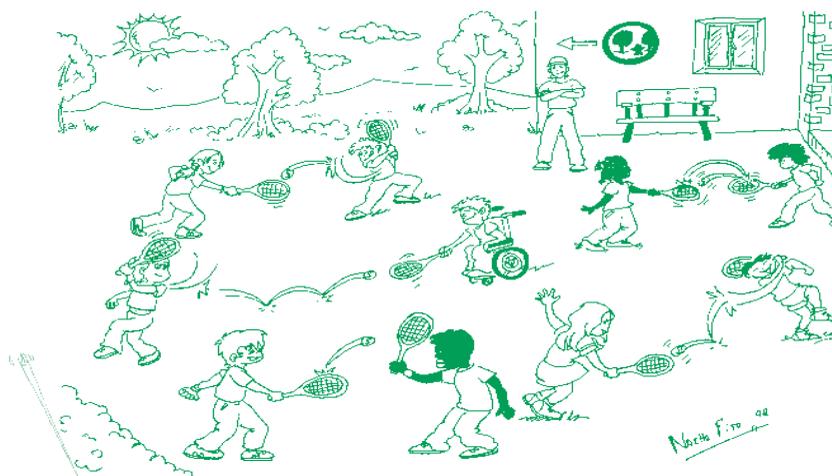


2 ONE HOUR LESSONS FOR CHILDREN 5 - 8 YRS OLD

LESSON 9	Theme: PROPELLING THE BALL WITH THE RACKET AND MOBILITY
Objective	To let the ball fall from the racket and catch it or hit it after the bounce.
Warm up	<u>Tennis Handball</u> : Students are divided into two teams. The tennis ball should be passed between team members by throwing and catching while moving towards the opposing team's goal (hoop). Teams try to score goals by bouncing the ball in the opposing team's goal. If the ball is dropped, ball goes to opposing team.
Games/ Exercises	<u>Ball balance</u> : Students form pairs. One student lets the ball bounce once and the other has to either catch it on his racket before hitting it back to his partner. The pair with the most number of catches wins.
Variations	Static, changing palm (grip) positions, while moving, dropping the ball onto a target, hitting upward varying conditions and directions, while moving, etc.

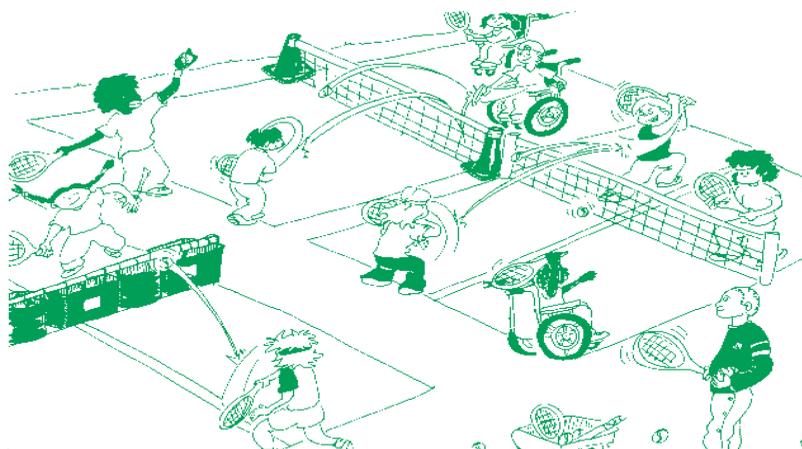


LESSON 10	Theme: PROPELLING THE BALL WITH THE RACKET AND MOBILITY
Objective	To pass the ball back and forth with a racket letting it bounce once.
Warm up	<u>Racket relay</u> : Teams of same number of students. Each team starts from the same line. On the signal a student from each team runs to a line with his racket, leaves it on the ground and runs back. Another team-mate runs and does the same. The team with the most rackets on the finish line wins.
Games/ Exercises	<u>Rally</u> : Students in pairs. Pass the ball back and forth with the racket allowing one bounce, several bounces or no bounces. Pair with most passes without missing wins.
Variations	Static, changing palm (grip) positions, while moving, dropping onto a target, hitting upward varying conditions and directions, while moving, etc.



2 ONE HOUR LESSONS FOR CHILDREN 8 – 10 YRS OLD

LESSON 9	Theme: PROPELLING, RECEIVING AND CO-OPERATING
Objective	To introduce students to some concepts involved in mini-tennis singles play.
Warm up	<u>The frog</u> : Place 2 balls on the tramlines. One student stands between these 2 balls facing the net. On the given signal, the student picks up the ball on the outside line and side step to the centre line and places the ball on this line. The student then side steps back to pick up the other ball and place it on the next line ahead. The race continues to the other side of the court until both balls are placed on the opposite tramlines.
Games/ Exercises	<u>The Masters</u> : Students in pairs. Student A serves, B returns the serve. If they complete a serve and a return they have a point. The pair with the most points are the Masters. Students rotate positions.
Variations	Serve and return: Students combine serve and return of serve, etc.



LESSON 10	Theme: PROPELLING, RECEIVING AND CO-OPERATING
Objective	To introduce students to some concepts involved in mini-tennis singles play.
Warm up	<u>Line call</u> : All students begin on a common line at both ends of the court. Teacher calls out a different line (eg. sideline, etc.) and all students run to that line. Last player to reach the line loses one life. Player with least number of lives lost at the end is the winner.
Games/ Exercises	<u>The Great Masters</u> : Students in pairs. Student A serves, Student B tells student A where he has to hit the serve (forehand or backhand return), B returns the serve. If they complete a serve and a return they win a point. The pair with the most points are the Masters. Students rotate positions.
Variations	Serve and return to specific areas (forehand and backhand return) , etc.

