

FITNESS EXPERT WILL
KWATIA EXPLAINS
WHAT EVERY TENNIS
PLAYER NEEDS TO
KNOW TO TRAIN
MORE EFFECTIVELY

TRAINING to gain

All sports training, not only for tennis, consists of four basic components: balance, agility, speed and efficiency. It's very important to understand the basics first – remember, don't run before you can walk. So let's take a brief look at these components.

BALANCE TRAINING

Balance is fundamental to how we move. In linear movement it's part of effective foot placement, body control and reduction of 'core' movement. It requires developed proprioceptive, visual and vestibular systems. Proprioceptors are sensors that detect muscular tension, tension in the tendons, relative tension and pressure on the skin. Balance and co-ordination are dependent on the effectiveness of these and other sensors in the body.

The brain also relies on information from the eyes and ears to balance the body, and by training these systems you can improve your balance skills. >>

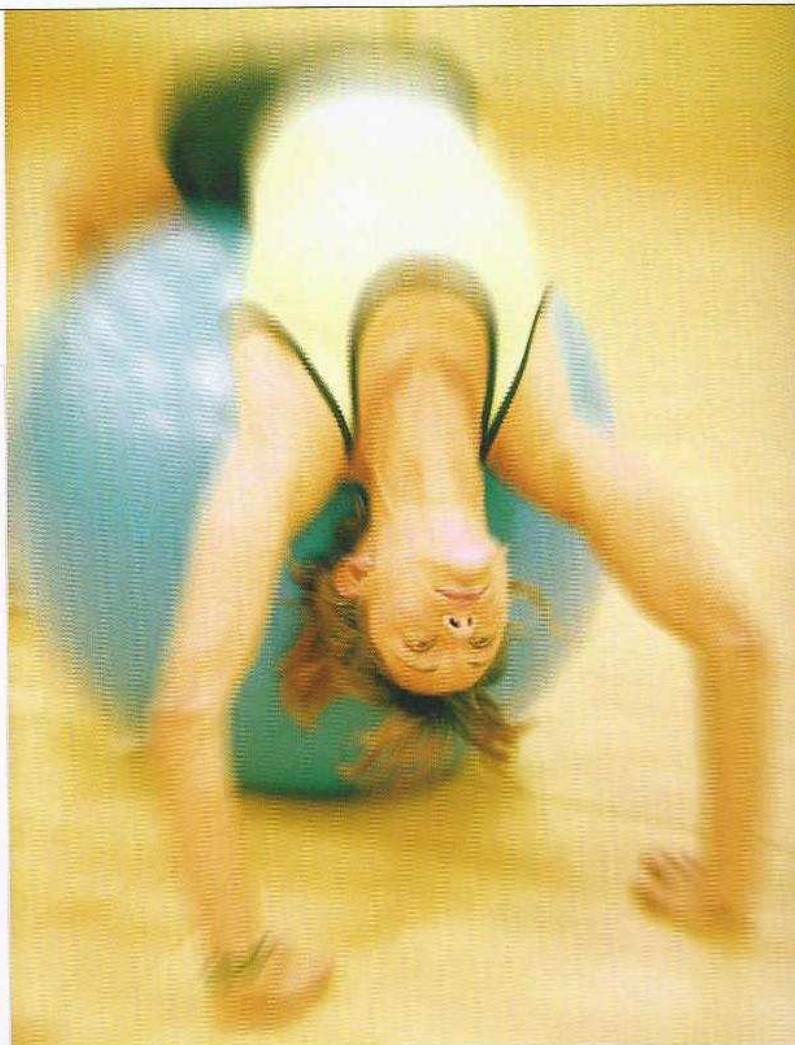
The brain becomes more able to interpret these intricate messages and formulate the appropriate movement response.

The communication system within the body, which is made up of nerves, is developed during movement skills training. When complex movement patterns are introduced, balance requirements are increased. Landing, accelerating, changing direction and decelerating all require advanced balance skills.

Equipment used for balance training: balance discs, stability balls, vision poles and vision hoops.

AGILITY TRAINING

In a sporting or activity context, the word agility refers to the ability of a person to stop, start and change direction of movement while maintaining the control of that movement. Agility is made up of several key components, including balance, strength, co-ordination and power.



ON THE BALL
Stability balls help improve your balance skills

TENNIS IN THE SUN

Barwell Leisure has provided an extensive range of travel and leisure services for visitors to La Manga Club in Spain for the past 35 years. The club's staff know the area and accommodation intimately and can help visitors make arrangements that suit their needs. Call 020 8786 3050 or visit www.lamangatennis.com



Types of equipment used for speed training: ladders and ankle bands.

EFFICIENCY TRAINING

Efficiency of movement is often referred to as 'mechanics'. Teaching the mechanics of movement is usually based on observation rather than instruction. Although performers need to be guided through the initial elements of how to move well, much of their learning happens gradually, as information is drip fed.

The little and often approach to mechanics teaching can be used effectively by reinforcement of simple instructions during the entire period of the activity session. In fact, the teaching and development of good movement mechanics is not a complex or complicated process: the principles are simple and remain the same for the vast majority of movements.

Balance, agility, speed and efficiency are the main points an athlete needs to be aware of when training for tennis, but there needs to be a foundation laid prior to this and that's where core conditioning comes into play. The core muscles are made up of two units: the inner and outer unit.

The inner unit consists of the deep layer of muscles in the abdominal area and the lower back. The outer unit is the superficial layer of the abdominal area, including the thighs and buttocks. If these muscles groups are not functioning correctly, the rest of the body will not work efficiently.

Take the sport of tennis – it involves >>>

Equipment for agility training: ladders and hurdles.

SPEED TRAINING

Speed may be thought of in two ways: speed of initial reaction to a stimulus, and speed of the body moving in any direction along the ground. Principal components such as balance, strength and efficiency of movement are catered for not only in a linear or forward direction, but also in a multidirectional way that enables children to access optimal preparation for a multitude of sports and activities.

TAKE THE SPORT OF TENNIS - IT INVOLVES MOVEMENTS IN ALL DIRECTIONS: TWISTING, BENDING, JUMPING, AND HITTING A BALL

movements in all directions, including twisting, bending, jumping with the addition of holding a racket and hitting a ball with speed and power. Core function is paramount.

So what next? How about a test to see how fit you are? Below are some tests used by tennis coaches.

FLEXIBILITY

Overhead squat test: hold on to a broomstick with your hands just wider than shoulder width, elbows locked out and arms outstretched overhead, then perform a squat. Have someone (preferably a coach) look for compensations at the foot (flattened arch, feet turned outward), the knee (alignment of knee to toe), the lower back (is there increased curvature?) and the head (does it jut forward?).

EXPLOSIVE POWER

Vertical jump (single/double leg), which is just as it sounds. Perform this test three times (three on both

legs and three on each individual leg). Use a marker of some sort to record the height of each jump.

SPEED

10m straight, 10m diagonal right, 10m diagonal left, again just as it sounds. Use a stopwatch to record the time for each complete drill.

AGILITY

Shark skill test: mark out a square with nine boxes, as in the diagram (left), with each box being 30cm square. Starting in the centre box, stand on one leg, then hop to each corresponding box, always returning to the centre box. Try not to let the non-hopping leg touch the ground, or hop into the wrong square. Perform this twice with each leg.

SPEED ENDURANCE

Run along a 50m line twice (shuttle) in any direction, maintaining a relatively high speed. Use a stopwatch to time each complete run.

THE TRAINING PROGRAMME

The programme and the amount of work performed are based on the following:

- **Training phase:** is it off-season training or during a competition phase?
- **Goals:** are there any imperfections or weaknesses that need to be addressed?
- **Age:** the type of training for a senior tennis player is different from that of a junior.
- **Work capacity:** exactly how intense should the training programme be in order for it to



FIGHTING FIT
Are you up to the tennis training tests?

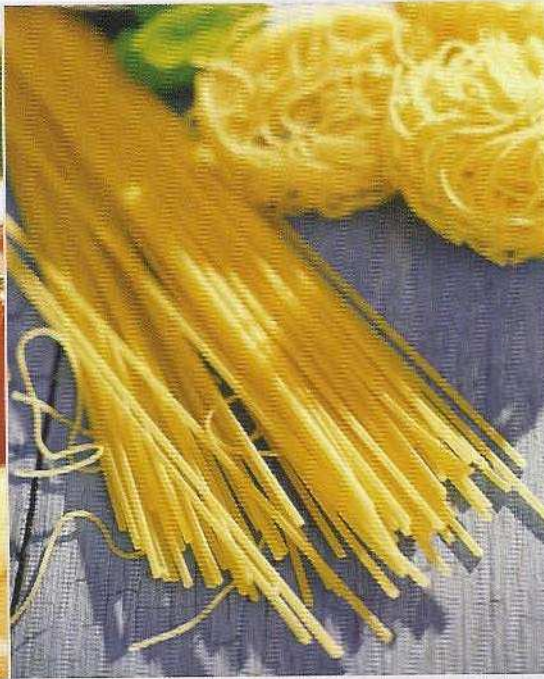
be fully functional? And can it then be applied in a competition scenario?

- **Injury history:** shoulder, knee or ankle problems are often associated with tennis.
- **Recoverability:** allowing enough time for rest and recovery but also being able to measure this as a guide to fitness improvement.

Once these various factors have been addressed and dealt with, then a sensible, structured training programme can be devised to suit your specific needs, in season or out of it.



1	2	3
4	X	6
7	8	9



YOU SHOULD EAT A DIET CONTAINING 60 PER CENT OF ITS CALORIFIC INTAKE FROM CARBS (COMPLEX CARBS INCLUDE WHOLE GRAINS, FRUIT AND VEG)

NUTRITION

A game of tennis can be fast paced and last up to five hours, hence the need to be well fuelled and hydrated. For endurance sports the recommendations are:

- A carbohydrate-rich diet to aid performance and recovery.
- A diet containing around 60 per cent of its calorific intake from carbohydrates (complex carbohydrates include whole grains, fresh fruit and vegetables).

There are many sports drinks on the market at the moment and when choosing one suitable for your sport, you should ensure it replaces the fluid you lose in sweat and gives you an energy source (carbohydrate). Most sports drinks contain flavoured water, plus carbohydrates and minerals. Some have vitamins added too.

Glucose polymers and maltodextrins are also added to many sports drinks. These additives allow more glucose to be packed into the same solution without it tasting too sweet. Sports drinks fall into three categories:

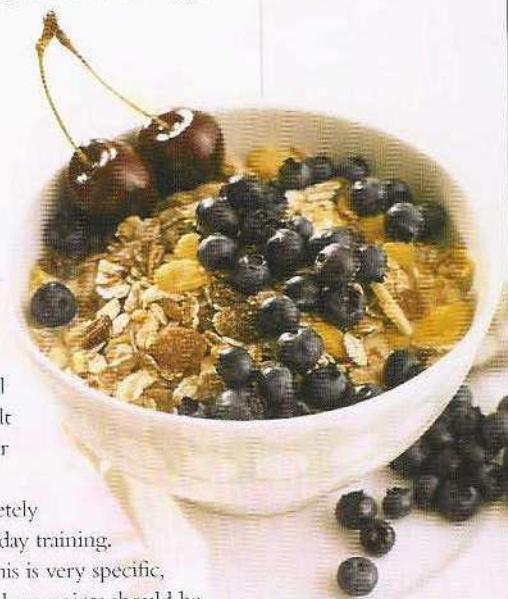
- **Hypertonic:** these drinks contain a higher concentration of dissolved particles than the body's natural fluids and are designed to replace energy. They take longer to absorb, so if fluid replacement is your priority these are not a good choice.

- **Hypotonic:** these contain small amounts of carbohydrates (2-3g per 100ml). They are less concentrated than body tissue and are designed to be absorbed quickly.
- **Isotonic:** these drinks are said to contain the same concentration of dissolved particles as the body's natural fluids and can be drunk before, during and after exercise. Many also contain carbohydrates in concentrations of five to seven per cent.

Sports drinks can be expensive, so why not try these homemade recipes?

250ml unsweetened fruit juice, 250ml water and a few grains of salt ($\frac{1}{3}$ g), or 100ml orange squash, 500ml water and a few grains of salt ($\frac{1}{2}$ g). Mix them all together and cool as preferred.

Sports training is completely different from normal, everyday training. The type of training for tennis is very specific, the diet is very specific and these points should be remembered, by both players and coaches. ●



THE RIGHT STUFF
Eating and drinking properly
is essential to training