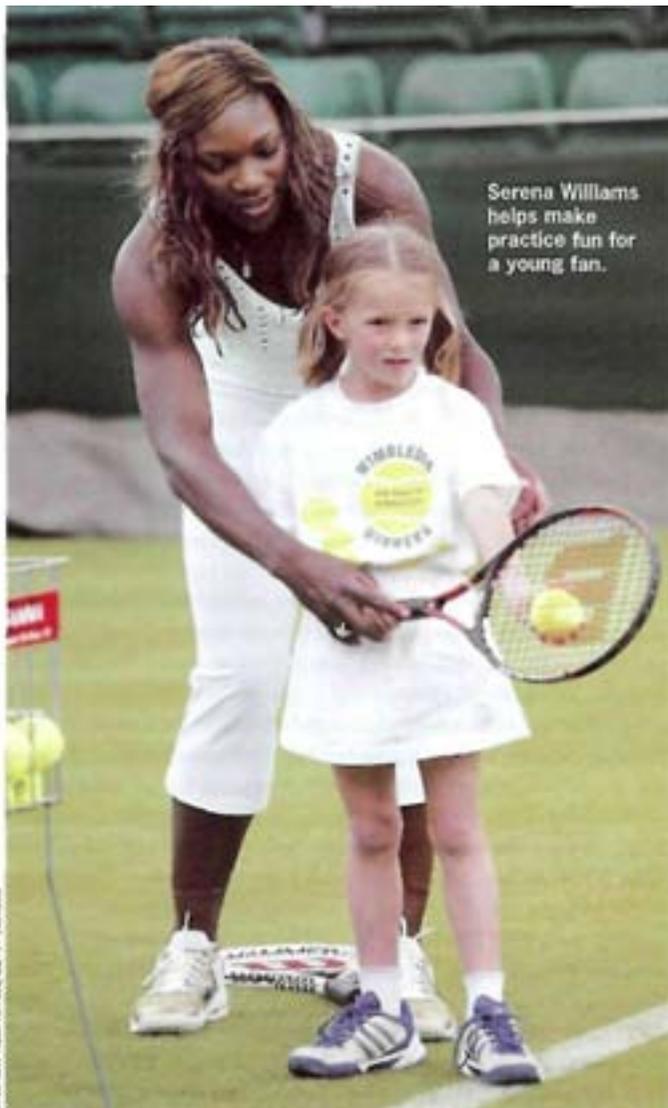


Challenges for Children

Growing up can mean challenging times for any child. So when it comes to developing our players, the period of growth and maturity requires special attention. **By Sarah Morante**



Growth and Maturation

Growth and maturation during childhood involves various physical and emotional changes. It is essential that coaches, parents and those concerned with talent identification be aware of changes in physique, body systems and emotional maturity.

Individualised training and competition strategies can then be formulated to manage this phase and prevent undue stress on the child.

Growth is defined as a measurable change in size of the body and body systems, while maturation is the amount of development that has occurred towards the adult or mature state. It's important to remember that growth and maturation occur at different times and rates between body parts and systems, and between children.

Growth begins with an increase in length of the arm and leg bones, causing the child to lose some co-ordination of body parts. Coaches, parents and more importantly, the child, can become very frustrated during this time as they witness a decline in certain skills, such as agility and co-ordination.

There is also wide variation between children in the onset and rate of the growth spurt, with girls tending to develop earlier than boys. Early developers often initially excel in skill development and performance, *due to* their higher level of strength and co-ordination. However, if coaches fail to emphasise the technical requirements of tennis and a strong work ethic, these children can be overtaken by their later developing peers.

In contrast, coaches need to maintain a positive attitude, provide constant support and focus on skills rather than results to manage the discouragement faced by late developers as their friends initially improve.

Acquisition of Fundamental Motoring Skills

When coaching young children, emphasis should be placed on the acquisition of basic motor skills such as running, jumping,

throwing, catching and kicking. It's also important for children not to specialize in one sport too early, as this may deprive them of basic motor skills or the transfer of skills from one sport to another.

Children have the ability to learn complex skills in a controlled (closed) situation through imitation, and trial and error. The coach should teach efficient movement patterns in order to speed the learning process and increase the skill level of the child.

Most coaches will have students less than nine years of age coming to learn tennis and need to consider that children cannot properly track a ball before this age.

Learning basic skills including technique and movement patterns should be of the greatest importance at this time. Drills and activities should be fun and avoid competition to encourage a child's interest in tennis. Modified games are very useful as they provide a closed learning situation to prevent distraction and high complexity but still resemble the challenges of competition.

Once the child has mastered the basic motor skills and has good co-ordination, agility, endurance, balance, flexibility, speed, power and strength, complex skills can be introduced and the child can start specializing in one particular sport.

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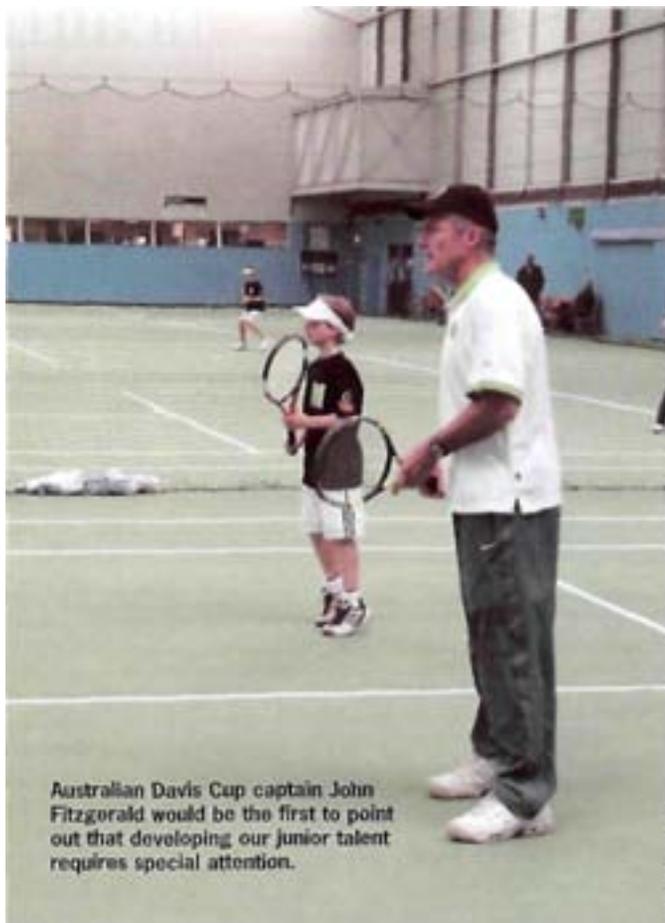
Coaches should be aware that the components of fitness develop in accordance with an increasing level of maturity. The endurance of a young child is limited by the small size of their heart, only increasing after puberty where the endurance of boys becomes greater than girls. Before 12 years, endurance training is not a necessary part of the program. Speed and power also improve around 12 years of age in response to increased limb length, co-ordination and muscle mass. Up to 12 years there is little gender difference. However after puberty, boys improve at a greater rate, particularly in the upper body.

Well-supervised light weight training or circuits are permitted, though the greatest gains occur with growth and the learning of movement patterns. Flexibility decreases in both boys and girls (boys less flexible than girls) during the adolescent growth spurt due to the lengthening of limb bones, thereby increasing the tightness of muscles. Stretching becomes an essential component of training during this period to optimize performance and reduce the risk of injury. After 12 years, games can be progressed to increase the physical and cognitive skills, with the number of participants reduced to allow greater opportunities for involvement and skill development.

Overtraining in Children

The immature state of a child's body predisposes them to various injuries, which are generally the result of overuse. Overtraining may occur in children who are heavily involved in a specific sport or children who are simultaneously training and competing in a number of different sports.

Coaches therefore need to plan the training and competition



schedule to ensure the type, frequency, intensity and duration of activity does not place too much stress on the child's growing body. It is suggested that coaches follow current recommendations for a child's physical training program. This advises that the optimal load for children under 14 years of age is three 90 minute sessions per week and five 90 minute sessions per week for children over 14 years.

Coaches need to understand that the components of fitness develop in line with an increasing level of maturity.

Coaches need to be aware of and look for signs and symptoms of overtraining, which may include tiredness not eased by rest, constant muscle soreness, frequent illness, a drop in motivation or overuse injury. The emotional changes and stresses of adolescence must also be taken into consideration by coaches and parents. External pressure should not be placed on the child as this will reduce enjoyment and motivation, leading to burnout.

The future of Australian tennis rests with the children currently learning tennis and playing competitively. Therefore, during the late-childhood and adolescent years, it is the role of coaches to modify the training and competition program to ensure players continue to improve. In doing so, we can help prevent unnecessary burnout, injury and dropouts.

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