



## **Preparation, Nutrition and Hydration Important Keys to Tennis Injury Prevention**

Junior tennis players could prevent career-threatening injury if they performed the correct exercises and knew more about adequate nutrition and hydration, according to a paper in the next edition of the *Journal of Science and Medicine in Sport*.

The *Journal* is to be published shortly by Sports Medicine Australia (SMA), with the support of Tennis Australia.

The paper is a report of a 1-year study on the Brazilian juniors circuit by researchers at the Brazilian Tennis Confederation and the Federal University of Sao Paulo.

They say that, though tennis is a sport with a relatively low occurrence of acute injuries during tournaments and championships, many injuries result from chronic overload. This overwork occurs almost daily and is capable of causing athletes to lose matches or making them feel physically unfit to continue playing, even after medical assistance.

Despite technological advances and an increasing number of practitioners, many junior tennis players fail to become professional players because of injuries that make them unable to practice adequately. Due to an athlete's strength and potency, several joints can be greatly overstressed, possibly leading to severe orthopaedic injuries.

In 2001, all the official junior tournaments of the Brazilian Tennis Confederation were catalogued to take part in this study. In total, 13 tournaments, 2,307 games, 4,602 sets and 40,576 games were played, in male and female categories, with ages ranging from 10 to 18 years.

A total of 280 medical evaluations were performed on 151 of the players. Medical assistance was provided on court 83 times (29.6%), at the medical department 185 times (66.1%), and in both locations (due to the same clinical complaint) on 12 occasions (4.3%).

The most frequent reasons for medical assistance were muscle contracture (76 reports, 27.1%), generalised muscle pain/fatigue (36, 12.9%), muscle strain (35, 12.5%), tendinopathies (20, 7.1%), cramps (16, 5.7%), ankle sprain (12, 4.3%), and backache (10, 3.6%).

In the 18-year-old female category, the incidence of medical assistance was 30 per 1,000 games played. This was higher than the mean average (6.9 medical appointments) and the 18-year-old male category (18.6 medical appointments). The explanation for this difference in relation to lower age categories requires further research.

“Most of our tennis players do not perform adequate muscle stretching programmes, either during training sessions or before and after matches,” the report says. “They also do not know important aspects of nutrition and hydration.

“Along with this study, we tried to focus the attention of tennis players and their teams on the importance of adequate nutrition and hydration, since Brazil is a tropical country where many tournaments are played at temperatures above 30° C. and humidity above 60%.”

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**Medical assistance at the Brazilian juniors tennis circuit – a one-year prospective study**

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**Abstract**

A prospective study was conducted during one year to evaluate injuries in Brazilian junior tennis players during the national circuit, in 2001. Male and female athletes in the age categories under 12, under 14, under 16 and under 18 years took part of this study, all members of The Brazilian Tennis Confederation (CBT). Two physiotherapists and/or one physician evaluated the athletes. A total of 280 medical examinations were performed in 151 tennis players who sought medical treatment during the tournaments. The 151 athletes had 1 to 6 medical appointments during the tournaments and the mean was 1.8 appointments per athlete. Medical assistance to the athletes was performed on court in 83 (29.6%) events, 185 (66.1%) at the medical department and in both in 12 (4.3%) occasions. Retirement of the match was reported in 9 (3.2%) lesions. The most frequent injuries were: muscle spasms (76 –27.14%), muscle pain (36-12.85%), muscle strain (35-12.52%), tendinopathies (20 – 7.14%), cramps (16 –5.71%), ankle sprain (12 –4.28%) and low back pain (10-3.57%).