

## **Abstract**

**Title:** Difference wrist mobility with players racing and recreational tennis

### **Objective:**

The aim of this work is to measure and compare the range of motion of the wrist in racing and recreational tennis players and both upper limbs (playing, not playing). To compare the values measured 2D electrogoniometry, by sex and game levels.

### **Method:**

Research probands were divided into two groups, a total of 20 people. In one group, there were ten boys and ten girls aged 14-17 years who play tennis at competitive level and train four to five times a week for at least 4 years. The second group also consisted of 10 boys and 10 girls in the same age range, but tennis is played on a recreational level once maximum twice a week for at least 4 years. It was important that the criteria for selecting probands had several common denominators. These are gender, age, level of game, whether measured by an individual not had any injury, regeneration is not and should not do other activities besides tennis. Wrist probands were tested using an electric goniometer. Were measured in the frontal plane (radial and ulnar reduction) and sagittal plane (dorsal and palmar flexion). These data were measured by sitting electrogoniometry and subsequently were compared and statistically analyzed.

### **Results:**

Measurements confirmed significant differences in range of motion (radial duction, ulnar duction, palmar flexion, dorsal flexion) measured by the tennis player racing and amateur levels. Differences in range of motion between boys and girls and also did not reach significant values. The results suggest a tendency towards greater flexibility assessed range of motion at the wrist of girls playing tennis competitively than girls, dedicated to tennis only at amateur level. Also been considered a trend towards greater flexibility, upper limb wrist playing girls than boys.

**Keywords:** wrist, tennis racing, recreational tennis, electrogoniometry, stressed structures.