

4<sup>th</sup> International Conference on

# Sports Medicine and Fitness

November 14-15, 2018 | Edinburgh, Scotland

## Musculoskeletal injuries in Foot volley athletes: Associated risk factors

Beatriz Minghelli, Bruno Costa, Adriana Caetano, Patrícia Morais, Sara Guerreiro and Sara Paulino  
Piaget Institute, Portugal

**Background:** Foot volley is a sport played barefoot in the sand beach by two teams, consisting of 2 individuals play against other 2 on a beach volleyball court. During a foot volley session, it's necessary to realize repeated contacts with impact with the ball in some body areas (foot, thigh, chest, shoulder or head), and displacements by the sand, that consists of an irregular floor. The repetition of these gestures with impacts (touches) associated with movement's performance on an irregular floor can cause injuries.

**Objective:** This study aimed to determine the prevalence of injuries in foot volley athletes and to analyze the associated factors.

**Methods:** The sample included 48 foot volley male athletes, aged between 21 and 48 years (33.06±7.01 years) who competed in National Portuguese Football League Championship in 2017. A questionnaire was administered by interview.

**Results:** Thirty four (70.8%) foot volley athletes reported having suffered an injury since they began their practice, with a total of 66 injuries. Twenty-two (45.8%) athletes had an injury in the 12-months period, with a total of 26 injuries and eleven (22.9%) athletes referred an injury at the moment of data collection. The most common of all injuries was low back pain (34.6%) and muscle injury (strain, contusion) (23.8%), located in the lumbar (34.6%) and cervical (23.1%) spine. Performed a technical gesture (57.7%) was the most prevalent injury mechanism. The older athletes (30 to 50 years) showed a 1.06 greater probability of having an injury (95% CI: 0.34-3.53; p=0.922) than the younger one, and the athletes who trained twice or less a week showed a 1.55 greater probability of injury (95% CI: 0.46-5.29; p=0.483) than those who trained three or more times, the athletes who trained until 1 hour and 30 minutes had 1.02 more probability (0.28-3.65; p=0.978) than those that trained more than this period, and the athletes who didn't performed warm-up showed a 1.24 greater probability to have an injury compared to those performed warm-up before the training. The years of practice were not analyzed, since there were equal proportions between the groups in this variable.

**Conclusions:** The data revealed a high prevalence of injuries in foot volley athletes, with specific affected body areas, mainly caused by performed a technical gesture. This type of study is to help devise injury prevention strategies during specific training.

### Biography

Beatriz Minghelli has completed her PhD in Public Health at National School of Public Health, Lisbon, Portugal; Master of Science in Physiotherapy in School of Human Kinetics at University of Lisbon, Portugal and Physiotherapist training in Education School Helena Antipoff-Rio de Janeiro, Brazil. She is an Adjunct Professor in the School of Health Jean Piaget/Algarve at Piaget Institute, since 2006; Coordinator of the Physiotherapy Course of School of Health Jean Piaget/Algarve at Piaget Institute. She is the Member of Research in Education and Community Intervention (RECI). She has published more than 30 papers in national and international journals and has been serving as a Reviewer of reputed journals. She is the Editorial Board Member of *Journal Austin Spine, EC Orthopaedics Journal, Research and Reviews and Research & Investigations in Sports Medicine (RISM)*.

beatriz.minghelli@silves.ipiaget.pt

### Notes: