

## ABSTRACT

The study analyses available data (a total of 564 reports) on injuries to the musculoskeletal apparatus in a series of 240 professional soccer players, with the average age of 24.3 years as of the beginning of all football seasons (median 24.0 years, range 16 – 39 years), covering the period of 16 years (1997 – 2013). The analysed variables included age, height, body weight, BMI, different football positional roles (defence, offence, goalkeeper), number of injuries (injury to the ankle, the knee, lower limb muscles; lower limb fracture, injury to the upper limb, injury to the head, neck and back, injury to tendons and groins) and the surface on which the injury was sustained (dry – hard, wet – soft, artificial). Processing of statistical data and examination of a potential correlation between the respective injury and variables was based on the mixed model method. During the season the risk of a knee injury sustained in a match was statistically significantly higher as compared to training; at the same time the risk was decreasing with the growing BMI value. In addition to a statistically significant training/match variable (with matches posing a higher risk), the risk of injury to the knee depends on the type of surface, where dry surface is associated with a higher risk of such injury. Matches, as compared to training, are highly risky also in terms of incidence of ankle injuries the risk of which significantly increases also on dry surface, similarly as in injuries to the knee. With the growing number of matches the risk of sustaining an ankle injury during the season decreases, and vice versa. No correlation was found between knee injuries and the number of matches, or between muscle injuries and a match or training, or the number of matches. Whereas the effect of surface on both the knee and ankle injuries is obvious (in the descending order: dry surface, wet surface, artificial surface – only during training), no difference in terms of individual surfaces has been revealed in case of muscle injuries. The findings of the study and correlations are presented in the discussion. Special attention is paid to recommendations for minimizing the risks of injuries, including instructions provided by coaches, physicians, physiotherapists, appropriate footwear, special rehabilitation programmes (joint stabilizer exercises, orthotic devices, bandages, taping), appropriate diet and joint nutrition and warmup exercises before training.

Key words: professional athlete – injury – musculoskeletal apparatus – prevention