

## **Comparison of the incidence, nature and cause of injuries sustained on grass and new generation artificial turf by male and female football players. Part 1: match injuries.**

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**OBJECTIVE:** To compare the incidence, nature, severity and cause of match injuries sustained on grass and new generation artificial turf by male and female footballers. **METHODS:** The National Collegiate Athletic Association Injury Surveillance System was used for a two-season (August to December) prospective study of American college and university football teams (2005 season: men 52 teams, women 64 teams; 2006 season: men 54 teams, women 72 teams). Injury definitions and recording procedures were compliant with the international consensus statement for epidemiological studies of injuries in football. Athletic trainers recorded details of the playing surface and the location, diagnosis, severity and cause of all match injuries. The number of days lost from training and match play was used to define the severity of an injury. Match exposures (player hours) were recorded on a team basis. **RESULTS:** The overall incidence of match injuries for men was 25.43 injuries/1000 player hours on artificial turf and 23.92 on grass (incidence ratio 1.06;  $p = 0.46$ ) and for women was 19.15 injuries/1000 player hours on artificial turf and 21.79 on grass (incidence ratio = 0.88;  $p = 0.16$ ). For men, the mean severity of non-season ending injuries was 7.1 days (median 5) on artificial turf and 8.4 days (median 5) on grass and, for women, 11.2 days (median 5) on artificial turf and 8.9 days (median 5) on grass. Joint (non-bone)/ligament/cartilage and contusion injuries to the lower limbs were the most common general categories of match injury on artificial turf and grass for both male and female players. Most injuries were acute (men: artificial turf 24.60, grass 22.91;  $p = 0.40$ ; women: artificial turf 18.29, grass 20.64;  $p = 0.21$ ) and resulted from player-to-player contact (men: artificial turf 14.73, grass 13.34;  $p = 0.37$ ; women: artificial turf 10.72; grass 11.68;  $p = 0.50$ ). **CONCLUSIONS:** There were no major differences in the incidence, severity, nature or cause of match injuries sustained on new generation artificial turf and grass by either male or female players.

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