

Nearly 30 percent of all college athlete injuries a result of 'overuse'

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Athletes in low-contact sports such as rowing are still susceptible to injuries from "overuse." Credit: Courtesy photo

Overuse injuries –found most often in low-contact sports that involve long training sessions or where the same movement is repeated numerous times – make up nearly 30 percent of all injuries sustained by collegiate athletes.

And a majority of overuse injuries (62 percent) occurred in females athletes, according to a new study published in the current edition of the *Journal of Athletic Training*, the National Athletic Trainers' Association scientific publication.

"Overuse injuries may present not only physical challenges but also psychological ones that could significantly affect an athlete's recovery

and performance," said study co-author Tracey Covassin, a certified athletic trainer at Michigan State University and a member of the Department of Kinesiology.

"Understanding the frequency, rate and severity of overuse injuries is an important first step for designing effective injury-prevention programs, intervention strategies and treatment protocols to prevent and rehabilitate athletes with these types of injuries."

According to the study, overuse injuries tend to occur gradually and are caused by repeated small injuries, without a single, identifiable event responsible for the injury, in sports such as long-distance running, rowing and swimming. By comparison, injuries occurring in high-speed and full-body-contact sports are more likely to be acute injuries, which result from a specific and identifiable event.

The study sample consisted of 573 male and female collegiate athletes from an NCAA Division I institution participating in 16 team sports. Participants reported 1,317 injuries during a three-year period. Of those injuries, 386 (29.3 percent) were overuse injuries and 931 (70.7 percent) were acute. A total of 319 male athletes sustained 705 injuries, and 254 female athletes sustained 612 injuries.

The most common overuse injuries were general stress (27 percent), inflammation (21 percent) and tendinitis (16 percent).

The long-term consequences of overuse injuries include loss of playing time, reduced function and psychological exhaustion. Overuse injuries also are associated with a gradual increase in symptoms, which means athletes may go undiagnosed and untreated for longer periods of time leading to long-term residual symptoms and chronic health consequences, including deformities and arthritis.

Wrestling, football, women's soccer and other contact sports were associated with a higher acute injury risk; while overuse injuries were found more frequently in rowing, softball, volleyball, cross country, track and field and other low-contact sports. The study noted that four women's sports – field hockey, soccer, softball, and volleyball – had the highest rates of overuse-injury rates.

"Better strategies for the prevention and early intervention of overuse injuries in all sports and for both sexes are imperative in order to reduce their number and severity," Covassin said.

More information: To view the study, "Epidemiology of Overuse and Acute Injuries among Competitive Collegiate Athletes," visit [nata.publisher.ingentaconnect. ... 47/00000002/art00011](https://nata.publisher.ingentaconnect.com/.../47/00000002/art00011)

Provided by Michigan State University

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