

Preventing achilles tendon injuries

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Credit: Rush University Medical Center

Nia Dennis could tell something was wrong as she began her tumbling routine during a gymnastics event. "When I started to launch into the air, I felt a pop, and my whole calf got tingly and cold," says Dennis, a former member of the U.S. women's national gymnastics team.

Dennis had ruptured her Achilles tendon, the band of tissue that connects the calf muscle in the leg to the heel bone of the foot. Her injury caused her to miss qualifying again for the gymnastics team.

More than 230,000 Achilles [tendon injuries](#) occur in the United States each year, and the number is rising. In response, orthopedic surgeons and sports medicine physicians at Rush collaborated with the Illinois Athletic Trainers Association to launch a program to help stop ankle injuries

from occurring. Called [Ankles for Life](#), it's a public awareness program that provides athletes of all ages the tools to incorporate ankle injury prevention tactics into their workout and warm-up routines.

The physicians are on the faculty of the Rush Department of Orthopedic Surgery and also are members of the private practice medical group Midwest Orthopaedics at Rush.

Achilles tendon injuries have increased 300 percent

While most common ankle injuries for athletes are usually sprains or fractures, there have been a rising number of patients with Achilles tendon injuries, according to the National Institutes of Health. The Achilles tendon can become painful after overuse and tear from too much force.

"It's like a big rubber band," says Simon Lee, MD, a foot and ankle orthopedic surgeon at Rush. "If you think about stretching a rubber band and somebody comes across and cuts it, the two ends just come apart."

Foot and ankle surgeons reported a nearly 300 percent increase in Achilles tendon patients over the ten-year period from 2004 through 2013.

Middle-age weekend warriors are at greatest risk of injury

The escalating number of athletes with ankle injuries, especially Achilles tendon injuries or ruptures concerns Johnny Lin, MD, a foot and ankle orthopedic surgeon at Rush. "I believe it is partly because of increased competition today causing athletes to push themselves to higher levels, which can result in added stress to the joints, tendons and ligaments," he says.

Lee notes that the feet and ankles bear the burden of weight for the whole body, and with so many athletes playing all year round, the ankle

gets a lot of wear and tear, which can result in Achilles injuries. Although Achilles tears and ruptures can occur in all age groups, Lee says the fastest growing patient population is active people between age 30 and 50.

"The fastest growing group seems to be the middle age weekend warriors who are staying active longer and doing more aggressive activities on weekends.," concurs George Holmes, MD, the director of the Foot and Ankle Section of the Department of Orthopedic Surgery at Rush.

Stretching and strengthening exercises can help protect against injury. Weekend warriors often don't do enough to prevent ankle injuries. "They don't take the time to stretch or strengthen the tendons surrounding the ankle," says Matt Munjoy, MHA, president of the Illinois Athletic Trainers Association.

"The foot and ankle, which withstand a lot of pressure from the body, are areas most likely to be overlooked by athletes," explains Kamran Hamid, MD, foot and ankle surgeon at Rush. "The good news is that proper injury prevention and strengthening exercises can make a big difference in keeping athletes' feet and ankles healthy."

To combat ankle overuse, the physicians and IATA members recommend that athletes take the following precautions:

- Cross train with non-weight bearing sports, like cycling or swimming.
- Always use proper techniques.
- Get adequate rest after a workout and perform ankle balance, stretching and strengthening exercises.

Examples of these exercises can be found at www.anklesforlife.org in both a [downloadable brochure](#) and [video format](#). The website also

includes background on the most common foot and ankle injuries, treatment options and information on how to order complimentary gym bag tags with [ankle](#) injury prevention tips.

Provided by Rush University Medical Center

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