

Sports medicine experts say Female Athlete Triad syndrome a growing concern

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Regan is a track and cross country runner who was diagnosed with Female Athlete Triad Syndrome. She had no idea that two stress fractures in her legs were caused, in part, because of her eating habits.

(Medical Xpress)—When an adolescent female patient comes to Nationwide Children's Hospital's Sports Medicine clinic, not only are these young women treated for their sports-related injury, but their sports medicine physician will also ask if they've missed any periods, because of a growing concern among female athletes.

Anastasia Fischer, MD, a physician in Sports Medicine at Nationwide Children's, says that is because female athlete triad syndrome is more prevalent than previously realized. The female athlete triad has three interrelated components: disordered eating low energy availability (often caused by not eating appropriately), dysmenorrhea (change in a girl's period), and low [bone mineral density](#).

Regan, a high-school track and cross-country athlete from Columbus, Ohio, said she didn't realize how serious the symptoms she was experiencing were until she suffered a stress fracture. The [sports medicine](#) team at Nationwide Children's helped her realize that this injury, and her loss of bone density, was due to the fact that she needed several hundred more calories a day than she realized because of how many she burns as a busy high school athlete.

"Many girls are so active they need 3,500 calories a day because they are competing at a high-level," said Dr. Fischer. "Some girls who have this syndrome do have serious eating disorders, but most do not. Rather, most adolescents just do not realize how important eating the appropriate amount of calories and proper nutrition is for their athletic performance and general wellbeing. Girls underestimate that food is fuel."

Dr. Fischer, also a faculty member with The Ohio State University College of Medicine, says the triad is a continuum and when it is broken down, you can see how the three elements are interrelated and that many girls fall along this scale. She suggests this might not just be an athlete problem, but an adolescent American problem. New research is even

showing that early hormonal detection could help these adolescent females even before they start missing periods, when they could first be at risk for problems the female athlete triad.

"It may be uncomfortable for a young female athlete to let her coach, or even her parent, know that she is missing periods," said Dr. Fischer, so she is currently researching how school physicals, required to play school sports in the state of Ohio, could help address this problem early on.

Jessica Buschmann, RD, a dietitian in Sports Medicine at Nationwide Children's, consults with female athlete triad patients like Regan when they are first diagnosed. She sees not only female athletes who suffer from the female athlete triad who benefit in their sport from being lean, like rowing and track, but also patients in aesthetic sports where athletes are –partly judged by their appearance, wear more revealing attire, or may be judged, like gymnastics and dance.

Buschmann's advice to the female adolescents she works with is that they should be tracking their [menstrual cycle](#), which can now be done easily and privately using an app for their smartphone. Girls should talk to their parent or doctor if they are going more than 35 days in between periods, skipping occasional periods, if their periods have stopped, or if they are 15 years old and have not yet experienced a menstrual cycle. By eating meals with their children, parents can assess their attitudes about eating. All athletes should have a nutrition plan that consists of getting enough calories throughout the day.

"We have girls who are competing at a very high level who aren't even meeting the minimum requirements for health. They might be only eating 600-800 calories in a day. Because they are energy deficient, they will suffer not only in their sport, but their health in general will suffer," said Buschmann.

The short-term consequences of the syndrome are a dysfunction menstrual cycle, and for young adults, that could lead to potential fertility issues. As the disorder progresses, the consequences can be serious. The athletes become more prone to various injuries, the time to recovery may be prolonged, bone mineral density can start to decline and they may begin to experience early stages of vascular disease. The more periods an adolescent misses, the more likely that their problems could become serious down the road. However, the short term solution is simple: eat healthfully!

Provided by Nationwide Children's Hospital

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