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FEMALE ATHLETE TRIAD

Excessive exercise can spawn serious health threats for women

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It starts with losing too much weight. Then there's a missed period. Before you know it, a female athlete can get a stress fracture and be sidelined for the season.

All these things are signs of the female athlete triad, which can result in chronic fatigue, a lifelong loss in bone mass and, in extreme cases, death.

According to the American Academy of Pediatrics, the triad consists of disordered eating, amenorrhea and osteoporosis. It states that cross country runners, dancers, gymnasts and swimmers face a higher risk than other athletes, because they participate in endurance sports or sports that emphasize leanness.

Because young, female athletes may be reluctant to discuss their eating behaviors, it is difficult to pinpoint the prevalence of the female athlete triad. Studies have shown, however, that anywhere from 15 percent to 62 percent of female college athletes have reported disordered eating, according to the American Academy of Family Physicians. The organization also reported that amenorrhea - the absence of menstruation - occurs in 3.4 percent to 66 percent of female college athletes, when it only occurs in 2 to 5 percent of women in the general population.

Braden River High School cross country coach Chris Bratton acknowledges the dangers of the female athlete triad, so he makes it a point to tell his runners about getting the enough to eat.

He once had an athlete on his team who would run 12 or 14 miles a day.

"I used to have to tell her to stop running too much," he says. "Her period never came. Her parents were concerned."

The runner was putting on a lot of mileage and did not have a lot of body fat. Once she reduced her mileage, she was able to get her period, he says.

When his runners log 6 to 10 miles a day, he says, they can burn around 3,000 calories.

"You shouldn't think about what you're eating when you do that," he says. "Except you should try to stay away from sugars and carbonated drinks."

Bratton recommends his runners eat healthy meals, including pasta, vegetables and foods with protein. He brings pretzels to practice. He also suggests they take a multivitamin, with parent approval, and a calcium supplement.

He knows what can happen when runners do not get enough calcium. One of his runners started losing weight through the season and had a hairline fracture in her shins. Even his own daughters had hairline fractures in their legs.

Once they started taking 1,000 milligrams of calcium a day, they did not have that problem anymore, he says.

"After all, when you're doing cross country, you want to get a lot out of it," Bratton says. "You want to be healthy, but at the same time, when the end of the day comes, you have to make sure you're not doing anything to damage your body permanently."

His daughter Kristina ran for the University of Florida and was sponsored by Nike when she graduated. She now coaches cross country at Braden Christian School, where she teaches by example.

"I told them what I would do and hopefully they'll do it," she says.

They ask her what she ate the morning of a race and she tells them. She used to eat pasta or oatmeal and a piece of fruit a few hours before a meet.

Some of her runners try to go on a power bar all day, she says.

"I do see it as a problem," she says. "It's a touchy subject. You don't want to say the wrong thing where they take it personally or feel offended."

Bratton says she tries to hint at the problem by asking runners what they plan on eating before they run. She also asks what they ate before a particular race, in which she says they seemed really tired.

"It's hard because they're set in their ways," she says. "They've been doing it a lot longer than I've been coaching here. A lot of them think they're fat and that if they don't eat enough they'll run faster."

Inadvertent starvation

While excessive exercising can be a sign of an eating disorder, athletes with female triad symptoms may not have eating disorders.

"If they're not getting enough calories and they're exercising all the time, they may be inadvertently starving themselves," says Dr. Laura Hershoin of Lakewood Ranch Primary Care. "It's not intentional, but they're not replacing all the calories they burn."

While most women should strive to eat 1,800 or 2,000 calories a day, athletes may need up to three times that amount to maintain a healthy body weight. If a woman loses too much body fat, her body will not produce the estrogen it needs.

"Body fat plays a role in metabolizing hormones into estrogen," Hershoin says. "If there isn't enough estrogen, we won't ovulate. We won't get a period, like someone who's going through menopause."

And, like a menopausal woman, a young woman with amenorrhea could start to experience a loss in bone mass. This condition poses particular risks for young women, because bone mass builds to a peak during the teen years and early 20s. Recent studies suggest that loss in bone mass may not be completely reversible.

"They have a double whammy," Hershoin says. "They're not only achieving a low peak bone mass, but they're losing what they already have developed."

Later in life, if these women go through menopause with a lower bone density, they are at a greater risk of developing osteoporosis.

The American Academy of Pediatrics recommends female athletes get at least 1,300 milligrams of calcium per day in their diet.

Evaluate nutrition

Cooper Family Medical on State Road 64 screens its patients for the female athlete triad, says Dr. Catherine Cooper. There is the potential for long-term effects, she says, but it is rare.

"It really depends on how long it continues," she says. "Women tend to struggle with eating disorders once they develop the habit. Education and awareness are critical, especially in the adolescent time frame."

Parents and coaches should be aware of the warning signs, she says, and address the problem before it becomes a long-term condition. They should evaluate their nutritional intake and make sure they are getting the proper amounts of everything they need.

"It really is something that should be evaluated by a health care professional," Cooper says. "You can't just say you're an athlete, you have low body fat, that's why you don't have your cycle. You have to make sure there aren't other health conditions."

Cooper acknowledged that some coaches want their athletes to continue to play, but an athlete who misses her cycle should consult a physician, she says.

"Many times we focus on carbohydrates because there's a myth that an athlete needs a lot of protein and nothing else," says Florey Miller, a dietitian at Nutrition Care in East Manatee. "Many female athletes are afraid to eat fat. They think they're going to get fat."

Eating enough carbohydrates prevents fatigue and maximizes glycogen storage, Miller says. If an athlete does not eat enough carbohydrates, their muscle mass will be burned for fuel, she says.

There are lots of bad carbs, Miller says, but good carbs are the athletes' friend. Whole grain foods count as good carbs, because they burn longer and have a large amount of B vitamins.

"I don't recommend they count calories," says Pam Mathis, a dietitian whose practice is based in Lakewood Ranch. "They need to be more concerned with proper balance between carbohydrates, protein and fat, and making sure they are spreading those foods out throughout the day."

Since many high school students only get 30 minutes for lunch, spreading meals out can be challenging. Many young people skip breakfast, too, because they are not hungry in the morning before school starts.

Athletes should also make sure that every food they put in their mouth has some nutritional value, Mathis says. She suggests peanut butter on a whole grain bagel, yogurt with whole grain cereal or fruit on whole grain crackers for a snack after exercising.

"It's best to refuel within 15 to 20 minutes of exercise," she says.

Some athletes experience hypoglycemia, where blood sugar is low, even when they're not exercising, she says. They have fluctuations in their blood sugar, which causes problems with energy and concentration.

"The effects of athletic training can be long-lasting, so you want to make sure you're not doing something detrimental to the body," Mathis says. "You should ensure you're getting proper nutrition to avoid injury and long-term problems."

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IN THE NEWS

Shelley Feist, executive director of the Partnership for Food Safety Education, says food-borne illnesses are occurring too frequently and consumers need to protect themselves. "People have no idea that they have a 1 in 4 chance of developing a food-borne illness. So given that we now have 300 million people in the population, you can basically assume it touches everyone's family at least once a year."

WELL SAID

"Bar food is fun food because you get to experience many different flavors in one meal. So don't fool yourself. Figure on about 100 calories a bite."

-Dr. Jo Lichten, author of "Dining Lean"

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