

# The Female Athlete Triad

## Athlete Scenario

*I'm on my high school diving team. To compete at the next level, I was encouraged to lose weight. Fearful of regaining weight, I decreased calories and added extra cardio sessions. I've gone 4 months without a period and yesterday I was diagnosed with a stress fracture. I'm worried about my health and performance. What can I do?*

## The Female Athlete Triad Defined

The Female Athlete Triad consists of three components (energy availability, menstrual function, and bone health) that exist along a continuum from optimal function to clinical syndromes. Energy availability is defined as dietary energy intake minus exercise energy expenditure. Low energy availability can lead to disruptions in menstrual function and poor bone health. Amenorrhea, an absence of the menstrual cycle for three consecutive months, is the strongest indicator of the Triad and most often associated with low energy availability.

## Consequences of Low Energy Availability

- Compromised nutrition (dehydration, glycogen depletion, insufficient nutrient intake)
- Early fatigue
- Immune suppression
- Stress fractures and other injuries
- Infertility

## Treatment Goals

- Engage a multidisciplinary team (sports medicine physician, exercise physiologist, sports dietitian, sports psychologist, athletic trainer, coaches, family) to manage treatment.
- Regain normal menstrual function.
- Adjust energy intake and eating patterns to meet training and competition loads.
- Treat nutritional problems and monitor nutrient status (iron, calcium, vitamin D).

Written by SCAN registered dietitians (RDs). The key to optimal meal planning for athletes is individualization. For personalized nutrition plans contact a SCAN sports dietitian or Board Certified Specialist in Sports Dietetics (CSSD) by accessing "Find a SCAN Dietitian" at [www.scandpg.org](http://www.scandpg.org) | 800.249.2875.



## Tips to Take With You

1. You are at an increased risk for the Female Athlete Triad if you participate in sports that emphasize leanness and aesthetics (gymnastics, diving, figure skating, distance running, cheerleading).
2. If you become amenorrheic, seek help from a team of professionals including a sports medicine physician, sports dietitian, and sports psychologist.
3. Eat more when it matters most (high intensity/volume training, competition, environmental extremes).

## Contact SCAN

Web site: [www.scandpg.org](http://www.scandpg.org)

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