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Female Athlete Triad

Juan Gonzalez, PhD, CSCS and Aaron James

Running Head: Female Athlete Triad, Eating Disorders

The drive to excel in college athletics is so powerful that many young women forego their health in hopes of demonstrating improvements. One prevalent and potentially dangerous example of this is with the desire for weight loss. Many female athletes are told that losing weight will increase their athletic performance. Some of these athletes have taken this to extremes, participating in disordered eating practices such as Anorexia Nervosa and Bulimia Nervosa. These disorders can lead to dangerously low body weights resulting in the syndrome known as the Female Athlete Triad.

The Female Athlete Triad refers to the relationships among energy availability, menstrual function, and bone mineral density that may have clinical manifestations including eating disorders, functional hypothalamic amenorrhea, and osteoporosis (1). This is a serious condition that has affected many female athletes in the United States. This condition was first defined in a special American College of Sports Medicine conference in Washington, D.C. in June of 1992. It is believed that up to fifty percent of elite female athletes exhibit some kind of eating disorder. Quantifying the exact number of female athletes who may have this condition is difficult.

What many researchers have discovered is that there is a lack of knowledge about the Female Athlete Triad among female athletes and how it relates to sports performance. It is believed that this lack of knowledge may hinder the performance in their respective sports through recurring stress fractures and decreased bone densities. This knowledge among female athletes is mixed regarding eating disorders, amenorrhea, osteoporosis, and performance. Athletes and strength and conditioning professionals are faced with these issues daily; therefore, efforts must be made to make certain that athletes have complete and accurate information regarding the Female Athlete Triad. Failure to do so may leave at-risk athletes vulnerable to eating disorders, amenorrhea, and osteoporosis.

Much of the literature has focused on defining eating disorders and its effect on the human body (1,2,3,4). This research seems to concentrate on general health and risk behaviors of collegiate athletes. It is believed that at-risk behaviors make some athletes more susceptible than others to eating disorders. Nattiv et al (1) investigated general risk behaviors in an athletic population. Specifically, this survey illustrated that female athletes in lacrosse demonstrated a significant correlation between amenorrhea and stress fractures. Additionally, a correlation between pathogenic weight control and irregular menses or amenorrhea was found (2). Such research has determined that athletes are more at risk for unhealthy behaviors. This and others investigations report a higher incidence of irregular menses and decreased bone densities in the female athlete (1,3,4,5,6,7). Given the high incidence of such conditions suggests that female athletes still do not completely understand the complexities of the Female Athlete Triad and how it impacts their athletic performances.

Female athletes seem to be informed on some issues regarding eating disorders and its impact on athletic performance but fail to completely understand its overall impact on their health. Athletes may not completely understand that recurring stress fractures may be associated with decreased bone densities (2,4,6,7). Furthermore, female athletes may not understand that decreased bone densities may be associated with decreased estrogen production. Decreased estrogen production has been associated with athletic amenorrhea, energy deficit disorders (not eating enough calories), and low percent body fat (1,3,4).

Female athletes seem to have some knowledge regarding eating disorders, amenorrhea, and osteoporosis. What these athletes fail to understand is how the Female Athlete Triad affects their training or conditioning programs. Perhaps these athletes do understand the relationship but feel a sense of invincibility or sense of control in what they are attempting to accomplish. Coaches, athletic trainers and strength and conditioning specialists are in a position to identify risky behaviors and help educate the athlete in how the Female Athlete Triad may affect athletic performance. ■

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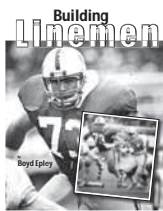
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