

Influence of Race on the Female Athlete Triad

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ABSTRACT

The Female Athlete Triad (Triad) is a syndrome consisting of three interrelated components: disordered eating (DE), menstrual dysfunction (MD), and low bone mineral density (LB). The Triad is seen in a wide range of female athletes and is a serious medical concern. **PURPOSE:** To investigate the influence of race and sports participation on the prevalence of the Triad. **METHODS:** 57 female collegiate athletes (17 black and 40 white, age: 19.7 ± 1.3 years, height: 166.8 ± 7 cm, mass: 65.2 ± 10.2 kg) and 30 sedentary peers (7 black and 23 white, age: 23.5 ± 4.7 years, height: 163.7 ± 6.4 cm, mass: 59.5 ± 7.5 kg) completed questionnaires on demographics, medical history, sports participation and factors relating to the Triad. Bone mineral density was assessed using dual energy X-ray absorptiometry (DXA). Prevalence of the individual Triad components was assessed. **RESULTS:** The prevalence of DE and MD was significantly greater ($p < 0.05$) in white athletes than in black athletes. In contrast, the prevalence of LB was greater in black athletes than in white athletes. The prevalence of DE, MD, and LB was similar in white athletes and white sedentary (DE: 68% vs. 65%; MD 33% vs. 44%; LB: 22% vs. 15%). There was a trend ($p < 0.10$) for greater prevalence of DE and MD in black sedentary than in black athletes (DE: 57% vs. 18%; MD 43% vs. 6%). The prevalence of LB was similar in black athletes vs. sedentary peers (LB: 47% vs. 29%). **CONCLUSION:** White female athletes have a higher risk for DE and ME than black female athletes, whereas black female athletes have a greater risk for LB. However, athletes were not at a greater risk for developing any of the three Triad components compared to sedentary peers.