
The Athletic Female (Arthur J. Pearl, MD., editor) is a collection of papers presented at a 1991 workshop of the American Orthopaedic Society for Sports Medicine (AOSSM). Its motivation is based on a perception that the medical community could benefit from inquiries into issues related to girls' and women's participation in sport and exercise. The first two chapters, by Judy Mahle Lutter and Mary Lloyd Ireland, present very broad overviews of the changes in opportunities for females to participate in sport, recreation, and exercise. They also point out the dearth of information about active girls and women. Both authors suggest, in a general manner, some important areas for inquiry. For any reader familiar with sociocultural literature regarding women in sport and exercise, these articles present nothing new. They could, however, introduce some new perspectives to individuals who have not considered the need to investigate sport and exercise and its impact on girls or women or who have not considered how sociocultural factors may influence or treat women's sport and exercise experiences differently than men's.

In the third chapter, Diane Gill traces psychological and sociocultural issues by presenting a history of sport and exercise psychology research. She documents the shift from a focus on sex differences (which are biologically based differences) to an emphasis on gender differences (which are the social and psychological behaviors associated with being female or male in a given culture). Gill concludes this historical look at sport and exercise psychology by affirming the need to use a social psychological perspective, since much of sport and exercise behavior can only be understood within a particular social context. In addition to presenting a valuable synopsis of key psychology literature about women in sport, competitive, and achievement settings, a valuable aspect of Gill's article is the way she presents research and theory as evolving. It's a "big-picture, motion-picture" look at something that is often seen as static and necessarily limited in scope.

Chapters four through seven address issues that pertain specifically to women. The topics in this section include amenorrheic osteoporosis, injury risks associated with menstrual status and nutrition, exercise and pregnancy, and the effects of oral contraceptives on performance. These chapters together provide an excellent overview of the issues unique to women and performance. The chapter on exercise and pregnancy by Judy Mahle Lutter and Valerie Lee was especially comprehens-
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sive and informative; the authors gave specific guidelines for women to follow relative to exercise during and after pregnancy.

The chapter on eating disorders by nutritionist Nancy Clark was succinct and very practical. It provided usable information for medical personnel who deal with the dietary treatment of athletes with eating disorders. The information would also be helpful for others (coaches, teammates, family) who help in the overall recognition, treatment, and support of anorexic and bulimic women.

The second nutrition chapter by Clark was disappointingly brief. Detailed information on dietary concerns specific to the athletic female could have been an integral chapter in this book but was a disappointing omission. This three-page chapter simply described overall energy intake and dietary analyses of female athletes. Concerns about iron, calcium, zinc, carbohydrate, protein, and calorie deficiencies were referred to in the summary, but were not addressed in the body of the chapter. Iron and calcium needs of adolescent female athletes were, however, presented briefly in the chapter on preadolescent and adolescent female athletes. In this chapter, the author, Deborah L. Squire, discussed the socialization of girls into sport and the differences between children and adults relative to body composition, thermoregulation, cardiovascular conditioning, nutrition, and injuries. The brief discussion of each of these topics included information pertinent to both females and males.

Chapter nine focused on substance abuse and the impact on performance of a variety of substances. The author, Herbert A. Haupt, stated that "Females are more likely to abuse substances related to weight loss (such as laxatives, diuretics, and amphetamines or their derivatives), less likely to indulge in recreational drugs (such as alcohol, marijuana, and cocaine), and less likely to abuse anabolic steroids than their male counterparts" (p. 125). This chapter covered the topics well, presented a good overview of each substance, and related the information to both men and women. An interesting question raised in this chapter is whether former female athletes have an increased risk of osteoporotic bone fractures than former non-athletes. The link could apparently be related to former athletes generally having lower levels of endogenous estrogen, coupled with their documented increased consumption of carbonated beverages.

The chapter dealing with gender differences in circulorespiratory and metabolic variables related to endurance performance, by Ben R. Londeree, started with a five-page overview of factors that limit endurance performance. This is followed by a comparison of endurance event times from elite female and male athletes. The last section of the chapter attempts to explain these performance differences by highlighting the physiological differences between women and men from the research.