



Defense Health Agency (DHA) Clinical Communities Speaker Series

FEB 2023 CCSS: Exploring Evidence-Based Practices in Women's and Infants' Health

S04: Optimizing Health and Athletic Performance for Women

Resource List

In the article [Nutrition for Special Populations: Young, Female and Masters Athletes](#) (2019) the authors review the importance of appropriate nutrition to certain populations who are engaged in athletic activities. The article reviews aspects of physiology, psychology, training science and sociology to describe the nutritional priorities that must be accounted for with these groups of athletes. The authors review the energy expenditures that are associated with athletics and how it can impact the overall health of the athlete. These factors reflect the importance of the role that nutrition and dietetics have when it comes to athletic performance for the identified special populations, including female athletes, and how it can impact the health care team's effectiveness when addressing their needs.

The [Editorial Commentary: Female Athlete Triad Recognition and Knowledge of Collegiate Cross-Country Coaches](#) (2022) is an interesting review of the Female Athlete Triad (Triad), which includes the three conditions associated with low energy availability, impaired menstrual function and low bone density. The author reviews how the Triad is a spectrum related to each of these factors, and how involving the coach in recognizing the importance of the Triad can prevent issues related to these factors from developing or worsening over time. The author, notes that coaches would benefit from education related to the importance of dietetic and menstrual issues, and sports dieticians and sports psychologists would play an integral role in the success of the health care team in the realm of sports medicine.

The February Clinical Communities Speaker Series session titled "Optimizing Health and Athletic Performance for Women" reviews the importance of strength and conditioning training to promote success in female athletes. The article [Wearable technology may assist in retraining foot strike patterns in previously injured military service members: a prospective case series](#) (2021) echoes that message in a study of male and female military service members. This article reviews the findings of the study which evaluated the ability of an instrumented sock to provide biofeedback related to foot strike and cadence information while running. A rearfoot strike pattern with increased vertical loading rates has been associated with injury. The use of this biofeedback tool during walk-to-run progression and lower extremity exercise program promoted the transition of most runners in the trial (18/19 in total) to a non-rearfoot strike pattern, as assessed in video analysis at initiation of the study, after intervention and follow up data collections. Additionally, most participants (16/18) maintained the non-rearfoot strike pattern at approximately five weeks after a post-intervention visit.

Authors of the article [Common Medical Concerns of the Female Athlete](#) (2020) review how the evolution of female athletes in the sports environment has caused a similar evolution in the understanding of sports medicine approaches to address women's health needs. Scientific evidence is growing in the realm physiologic, biomechanical and anatomic factors to address women athlete's unique needs. The article discusses common conditions that impact female athletes including pregnancy, the female athlete triad, patellofemoral pain, injuries to the anterior cruciate ligament and anemia. The discussion ranges from counseling patients on exercises recommendations during pregnancy to exercise prescription related to pain management.



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References

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