NUTRITION FOR FEMALE ATHLETES

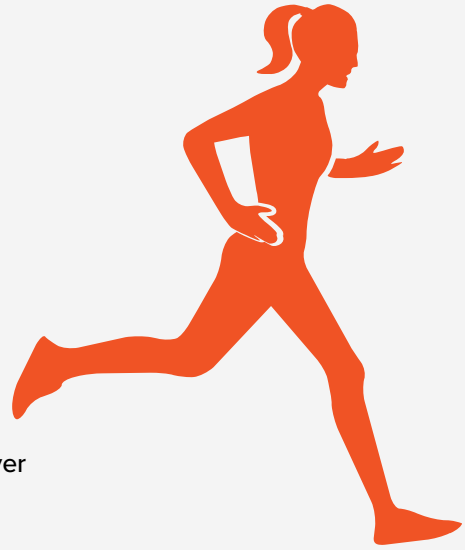
Sara Oikawa, Ph.D., R&D Senior Scientist – Gatorade Sports Science Institute

Certain nutritional considerations should be made for female athletes and these needs should be adapted depending on the age, training load, and periods of reproduction.

NUTRITION CONSIDERATIONS FOR FEMALE ATHLETES

The 3-year span of puberty is critical for bone growth, requiring

- Adequate energy availability[1, 2]
- Adequate Vitamin D and Calcium[1, 2]
- Adequate protein[1, 2]



Pregnant athletes should monitor amongst other pregnancy related health outcomes

- Cardiorespiratory changes (ex. changes in blood pressure and cardiac output)[3]
- Alterations in substrate use[3]

Changes in performance across the menstrual phases are trivial, however personalized approaches should be taken based on each individual's performance across the menstrual cycle[4]

Importantly, adequate energy must be consumed to meet the demands of training as well as somatic growth (in younger athletes).

- When energy intake is < 1800 kcal/d, it is difficult to obtain adequate nutrients (protein, carbohydrates, essential fatty acids, and micronutrients) to maintain health[5]
- Low energy availability is one of 3 conditions described by the Female Athlete Triad[5]
    1. Menstrual dysfunction and bone health complete the triad
    2. It is not currently known whether impairments in bone health resulting from the triad can be reversed

Our current understanding of macronutrient needs do not suggest difference in fueling requirements for male and female athletes:

- Protein: 1.6-2.1 g/kg/day (0.3 g/kg/serve)[6]
- Carbohydrates: 6-12 g/kg/day[7]

Most ergogenic aids have been understudied in females or female athletes[8]

- Some physiological differences in females may impact the effects of ergogenic aids in female athletes
- Athletes should consult with their training and support staff on whether the use of ergogenic aids are appropriate
- New guidelines from the Australian Institute of Sport, released in 2021, provide guidance on supplement safety and research support but do not provide recommendations based on sex[9]
- Much more research is required in female athletes looking at ergogenic supplements

Developed in collaboration with the Gatorade Sports Science Institute.

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