

# Female Athlete Program Nutrition



Boston Children's Hospital  
Sports Medicine

[bostonchildrens.org/sportsmed](http://bostonchildrens.org/sportsmed)  
617-355-3501

## What should female athletes consume to stay healthy while competing?

### **EAT** Macronutrients: proteins, carbohydrates and fats

The plate to the right represents a healthy diet of macronutrients for female athletes.

### Micronutrients: vitamins and minerals

Female athletes should consume iron, calcium and vitamin D on a daily basis. It's best to get these nutrients from food, rather than from supplements.

**Iron** helps transport oxygen to cells, which helps them grow properly. Not getting enough iron can make you tired, and might decrease your immunity, making you more prone to getting sick. Female athletes, distance runners and vegetarian athletes are at a greater risk for iron depletion, and should pay special attention to their iron intake.

Some examples of iron-rich foods include red meat, spinach, beans and chicken (dark meat more than white meat).

**Calcium and Vitamin D** help reduce the risk of osteoporosis (bone loss and weakening). Though osteoporosis and osteopenia are mostly seen in adults, women are more likely to have lower bone density than men, so girls and young women should eat a bone-healthy diet early on to build strong bones that last a lifetime. Milk, rice milk, soy milk, fortified orange juice, fortified margarine and leafy greens are all part of a bone healthy diet.

## MACRONUTRIENTS



Vegetables, fruits and whole grains (50 to 55 percent)  
Lean protein (10 to 15 percent)  
Healthy fats (25 to 30 percent)

### **DRINK** Dehydration is a common problem in young athletes, so it's important to remind yourself to drink water before, during and after exercise.

If you're dehydrated, you might feel extra hot, tired, weak or nauseated, and your heart rate might rapidly increase. Drinking water every 15 to 30 minutes is a smart way to stay hydrated.

In general, sports drinks are not necessary, though some athletes like to use sports drinks during vigorous exercise lasting more than 90 minutes.



## SPECIAL CONSIDERATIONS



### PLANT-BASED DIETS

Vegetarian and vegan athletes should make a concerted effort to include iron, protein and vitamin B<sub>12</sub> in their diets to get the most out of their workouts, and to stay as healthy as possible.

#### Examples of non-meat macro and micronutrients:

Food	Vegetarian	Vegan
<b>Protein</b>	Tofu, nuts, beans, seeds, Greek yogurt	Tofu, nuts, beans, seeds
<b>Carbohydrates</b>	Whole grains, fruits, vegetables	Whole grains, fruits, vegetables
<b>Fats</b>	Cheese, milk, avocado, olive oil, nuts	Avocado, olive oil, nuts
<b>Iron</b>	Whole-grain cereals, leafy greens, figs, lentils and kidney beans	Whole-grain cereals, leafy greens, figs, lentils and kidney beans
<b>Vitamin C</b>	Citrus fruits, whole-grain cereal, fortified orange juice	Citrus fruits, whole-grain cereal, fortified orange juice
<b>B<sub>12</sub></b>	Fortified soy milk, fortified cereal, daily vitamins, cheese, milk, Greek yogurt	Fortified soy milk, fortified cereal, daily vitamins



## WEIGHT MANAGEMENT

In sports that emphasize slender bodies, like gymnastics, ice skating, running and dance, female athletes can feel more self-conscious about their weight and how it affects their performance. It's important to know that no matter how competitive you are, unhealthy eating habits and excessive exercise can be damaging both mentally and physically, and can result in irregular menstrual cycles and lower bone mass.



**Boston Children's Hospital**

Until every child is well™

Reviewed by Jan Hangen, MS, RD, LDN, Boston Children's Hospital

This sheet is part of the Female Athlete Series, which is a suite of educational materials to help female athletes live the healthiest lives possible while competing. For more materials on enhancing athletic performance, call 617-355-3501 or visit [bostonchildrens.org/sportsmed](http://bostonchildrens.org/sportsmed).

