

A Female Athlete's Guide to Proper Fueling

1. Daily calorie goal

Weight in pounds \times 15-20 or weight in kilograms \times 33-44 = number of calories per day for weight maintenance

As a guideline:

15 calories per pound (33 calories/kg) for weight-class or appearance sports such as crew and gymnastics or for athletes who need to lose weight

16 to 17 calories per pound (35-37 calories/kg) for sports such as volleyball, tennis, and throwing sports

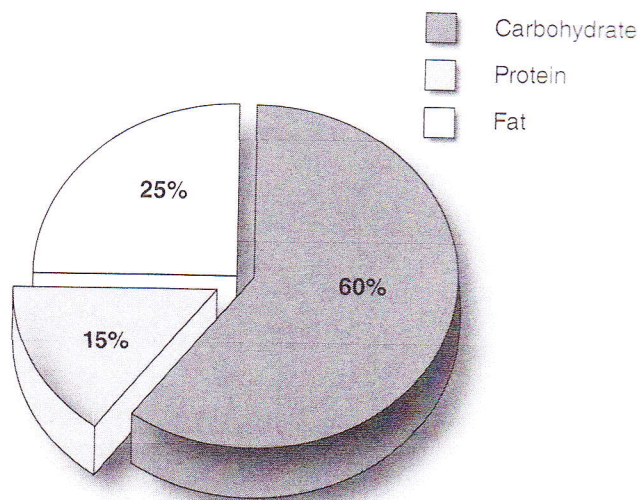
18 to 19 calories per pound (39-42 calories/kg) for track and field, basketball, and swimming

20 calories per pound (44 calories/kg) for cross country, soccer, and field hockey

[Weight (pounds) \times 20 or weight (kg) \times 44] - 300 = calories for weight loss

[Weight (pounds) \times 20 or weight (kg) \times 44] + 500 = calories for weight gain

2. Composition of the diet for optimal performance



Carbohydrate: 50 to 60 percent Protein: 15 to 20 percent Fat: 20 to 30 percent

Because a gram of carbohydrate or protein has 4 calories and a gram of fat has 9, you can calculate the daily requirements for carbohydrate, protein, or fat like this:

Carbohydrate requirements in grams = $.60 \times$ daily calories divided by 4

Protein requirements in grams = $.15 \times$ daily calories divided by 4

Fat requirements in grams = $.25 \times$ daily calories divided by 9

Example for Female Athletes

A 130-pound (60 kg) athlete would need 1,950 to 2,600 calories per day (weight in pounds \times 15-20 or weight in kg \times 33-44), which would be made up of the following:

- Carbohydrate needs: $.50$ to $.60 \times$ 1,950 to 2,600 divided by 4 = 243 to 390 grams of carbohydrate
- Protein needs: $.15$ to $.20 \times$ 1,950 to 2,600 divided by 4 = 73 to 130 grams of protein
- Fat needs: $.20$ to $.30 \times$ 1,950 to 2,600 divided by 9 = 43 to 87 grams of fat

General Recommendations for Females

Weight, lb (kg)	Calories	Carbohydrate selections	Protein selections	Fat selections
100 (45)	1,500-2,000	7.5-12	4-7	3-6
110 (50)	1,650-2,200	8-13	4-7	4-7
120 (55)	1,800-2,400	9-14	4.5-8	4-8
130 (60)	1,950-2,600	9.5-15	5-8.5	4.5-8.5
140 (64)	2,100-2,800	10-15	5-9	5-9
150 (68)	2,250-3,000	11-18	5.5-10	5-9.5
160 (73)	2,400-3,200	12-19	6-10.5	5.5-10
170 (77)	2,550-3,400	13-20	6.5-11	5.5-11
180 (82)	2,700-3,600	13.5-21	7-11.5	6-12
190 (86)	2,850-3,800	14-23	7.5-12	6-12.5
200 (91)	3,000-4,000	15-24	8-12.5	6.5-13

Refer to the lists of carbohydrate, protein, and fat food choices. The selections shown contain the following quantities of nutrients: carbohydrate food choices contain 25 grams of carbohydrate; protein food choices contain 15 grams of protein; fat-containing food choices have 10 grams of fat.

To construct a diet for optimal performance, circle the choices you like from each list and try to include a food from each category every time you eat.

Carbohydrate

1/2 large bagel
1 cup pasta (fist-sized portion)
3/4 rice (fist-sized portion)
1 cup (30 g) plain Cheerios
A low-fat fruit muffin (tennis ball size)
1/2 cup (127 g) applesauce
A 4-inch (10 cm) baked potato
2/3 cup corn
Three fig bars
1 1/2 cups grapes
One English muffin
Two 4-inch (10 cm) diameter pancakes
1/2 cup (110 g) pudding
Two handfuls of pretzels
1 cup (240 ml) juice
3/4 cup (175 g) frozen yogurt
16 ounces (480 ml) sports drink
One packet flavored oatmeal
15 animal crackers
One large banana
One large apple, pear, or orange
One granola bar
10 large marshmallows
1 ounce (30 g) licorice
1/3 cup (41 g) granola
One Nutri-Grain cereal bar
10 jelly beans
16 ounces (480 ml) lemonade or fruit punch
3/4 cup (23 g) sweetened cereal
1/2 bag of microwave low-fat popcorn
Eight vanilla wafers
1/4 cup (40 g) raisins

Protein

Chicken (palm-sized portion)
Beef (palm-sized portion)
Fish (palm-sized portion)
2 ounces (60 g) canned tuna
1/2 cup (112 g) cottage cheese
One soy burger
1 cup pinto beans
Two slices of cheese
Three slices of lunch meat
Two eggs
Hamburger or turkey burger (size of a mayonnaise jar lid)
1/2 cup (180 ml) egg substitute
8 ounces (250 g) tofu

Fat

1 tablespoon peanut butter
1/4 cup (35 g) nuts
Two pats butter
2 teaspoons oil
2 teaspoons mayonnaise
Two strips bacon
2 tablespoons cream cheese
4 tablespoons sour cream
1 tablespoon regular salad dressing
2 tablespoons light salad dressing

High-Fat and High-Carbohydrate Foods

Try to limit! Not as performance boosting!

Doughnuts
Ice cream
Most cookies
Chocolate chips
French fries

Double-Duty Foods

Carbohydrate + protein
Yogurt 8 ounces (230 g) = 50 grams of carbohydrate + 12 grams of protein
Sports bars: Clif Bar, PowerBar, GatorBar
Certain beverage supplements: Gatorade Nutrition Shake, Boost, Carnation Instant Breakfast
Milk: 16 ounces (480 ml) chocolate milk = 50 grams of carbohydrate, 16 grams of protein
Cheese pizza (two slices = 80 grams of carbohydrate, 16 grams of protein)

A Male Athlete's Guide to Proper Fueling

1. Daily calorie goal

Weight in pounds \times 20-27 or weight in kilograms \times 44-59 = number of calories per day for weight maintenance

As a guideline:

20 to 23 calories per pound (44-50 calories/kg) for weight-class or appearance sports such as wrestling and gymnastics, for precision sports such as baseball and golf, or for athletes who need to lose weight

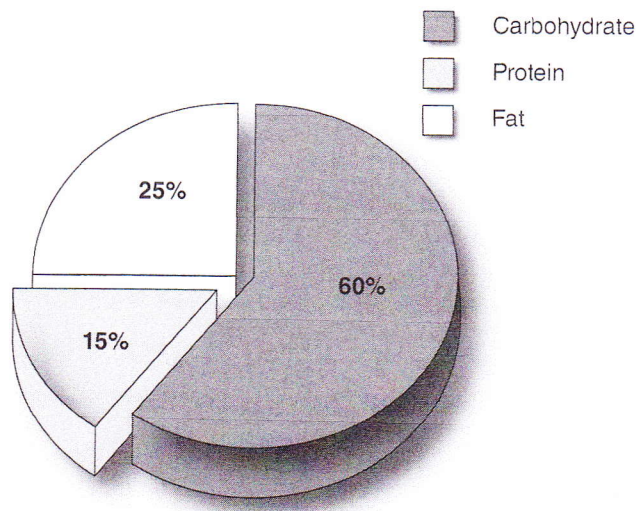
20 to 25 calories per pound (44-55 calories/kg) for football

20 to 27 calories per pound (44-59 calories/kg) for cross country, tennis, swimming, basketball, soccer, lacrosse

[Weight (pounds) \times 23 or weight (kg) \times 50] - 300 calories for weight loss

[Weight (pounds) \times 23 or weight (kg) \times 50] + 500 calories for weight gain

2. Composition of the diet for optimal performance



Carbohydrate: 55 to 60 percent Protein: 15 to 20 percent Fat: 20 to 30 percent

Because a gram of carbohydrate or protein has 4 calories and a gram of fat has 9, you can calculate the daily requirements for carbohydrate, protein, or fat like this:

Carbohydrate requirements in grams = $.60 \times$ daily calories divided by 4

Protein requirements in grams = $.15 \times$ daily calories divided by 4

Fat requirements in grams = $.25 \times$ daily calories divided by 9

Example for Male Athletes

A 180-pound (82 kg) athlete would need 4,140 calories per day: weight in pounds \times 23 or weight in kilograms \times 50, which would be made up of the following:

- Carbohydrate needs: $.60 \times 4,140$ divided by 4 = 620 grams of carbohydrate
- Protein needs: $.15 \times 4,140$ divided by 4 = 155 grams of protein
- Fat needs: $.25 \times 4,140$ divided by 9 = 115 grams of fat

General Recommendations for Males

Weight, lb (kg)	Calories	Carbohydrate selections	Protein selections	Fat selections
130 (60)	2,990	9	5.5	8.5
140 (64)	3,220	9.5	6	9
150 (68)	3,450	10	6	9
170 (77)	3,910	11.5	8	11
180 (82)	4,080	12	8	11
190 (86)	4,270	13	8	11.5
200 (91)	4,600	14	8.5	12

Refer to the lists of carbohydrate, protein, and fat food choices. The selections shown contain the following quantities of nutrients: carbohydrate food choices contain 50 grams of carbohydrate; protein food choices contain 20 grams of protein; fat-containing food choices contain 10 grams of fat.

To construct a diet for optimal performance, circle the choices you like from each list and try to eat a food from each category every time you eat.

Carbohydrate

One large bagel
 1 1/3 cups pasta (1 1/2 fist-sized portion)
 1 1/2 cups rice
 2 cups (60 g) Cheerios
 A large low-fat fruit muffin
 2 cups (450 g) oatmeal
 1 cup (255 g) applesauce
 A large baked potato
 1 1/3 cups corn
 Five fig bars
 3 cups of grapes
 2 English muffins
 Four 4-inch (10 cm) diameter pancakes
 1 cup (110 g) pudding
 Three handfuls of pretzels
 2 cups (480 ml) juice
 1 1/2 cups (260 g) frozen yogurt
 32 ounces (1 L) sports drink
 Two packets of flavored oatmeal
 25 animal crackers
 Two bananas
 Two apples
 2 cups of grapes
 10 large marshmallows
 2 ounces (60 g) licorice
 3/4 cup (82 g) granola
 Two cereal bars
 20 jelly beans
 16 ounces (480 ml) lemonade or fruit punch
 1 1/2 cups (45 g) sweetened cereal
 One bag microwave low-fat popcorn
 One Pop-Tart
 15 vanilla wafers
 1/2 cup (80 g) raisins

Protein

Chicken (computer mouse-sized portion)
 Beef (computer mouse-sized portion)
 Fish (computer mouse-sized portion)
 3 ounces (90 g) canned tuna
 3/4 cup (170 g) cottage cheese
 One large soy burger
 1 1/4 cups pinto beans
 Three slices of cheese
 Four thin slices of lunch meat
 Three eggs
 One large hamburger or turkey burger
 3/4 cup (180 ml) egg substitute
 10 ounces (300 g) tofu

Fat

1 tablespoon peanut butter
 1/4 cup (35 g) nuts
 Two pats butter
 2 teaspoons mayonnaise
 2 teaspoons oil
 Two strips bacon
 2 tablespoons cream cheese
 1 tablespoon regular salad dressing
 4 tablespoons sour cream
 2 tablespoons light salad dressing

High-Fat and High-Carbohydrate Foods

Try to limit! Not as performance boosting!

Doughnuts
 Ice cream
 Most cookies
 Chocolate
 Chips
 French fries

Double-Duty Foods

Carbohydrate + protein
 Yogurt 8 oz (230 g) container = 50 grams carbohydrate + 12 grams of protein
 Sports bars: Clif Bar, PowerBar, GatorBar
 Certain beverage supplements: Gatorade Nutrition Shake, Boost, Carnation Instant Breakfast
 Milk: 16 ounces (480 ml) chocolate milk = 50 grams carbohydrate, 16 grams protein
 Cheese pizza (two slices = 80 grams of carbohydrate, 16 grams of protein)