

How do the Daily Values found on food labels compare to the nutritional recommendations for children?

Comparing the relative nutritional content of foods using the Nutrition Facts panel can help parents and children buy and eat healthier foods. Parents and teens who understand how to use the Daily Values to fit individual foods into a healthy diet also gain more control over their nutritional health and body weight.

For example, dietary surveys, as well as CNRC research, suggest that adolescent girls tend to fall far short of the calcium and iron recommendations for their age group. This suggests that teenage girls would be wise to check the foods they eat for these nutrients. Teens who are trying to watch their weight, on the other hand, can use the information on calories per servings, serving size and the grams of fat and sugar to help keep calories in check. Many of fast-food restaurants also voluntarily provide nutrition information about the foods they serve upon request.

When inspecting food labels, keep in mind that vitamins A and C, iron and calcium have clearly defined recommendations for children. For example, 1- to 3-year-old children need 500 milligrams of calcium each day, while their teenage siblings need 1300 milligrams a day.

On the other hand, the nutritional recommendations for other nutrients, such as sodium, saturated fat and total fat, are linked to a child's caloric intake. For example, the "national" recommendation that no more than 30 percent of total daily calories be consumed as fat, and only 10 percent of calories as saturated fat, applies to all Americans over the age of 2. Because calorie needs change with age, the Nutrient Recommendations by Age for fat and sodium in the table below are given as a range that reflect the recommended intakes for the youngest and oldest children within each age group.

**How Food Label Reference Values (DV)
Compare to the
Nutritional Recommendations for Children**

Nutrient	DV	Nutrient Requirements by Age				
		1 - 3 years	4 - 8 years	9 - 13 years	girls 14 - 18 years	boys 14 - 18 years
Protein (grams)	50	16	28	46	55	66
Iron (mg)	18	7	10	8	15	11
Calcium (mg)	1,000	500	800	1,300	1,300	1,300
Vitamin A (IU)	5,000	1,000	1,300	2,000	2,300	3,000
Vitamin C (mg)	60	15	25	45	65	75
Fiber	23	6 - 8	9 - 13	14 - 18	19 - 24	19 - 24
Sodium (mg)	2,400	600 to 1,300	1,200 to 2,000	1,900 to 3,000	3,000	2,400 to 2,700
Cholesterol (mg)	300	<300	<300	<300	<300	<300
Saturated Fat (g)	20	14	20 to 22	24 to 27	24	33
Total Fat (g)	65	43	60 to 67	73 to 83	73	about 100
Calories	2,000	1,300	1,800 to 2,000	2,200 to 2,500	2,200	3,000

Iron, calcium, vitamin C and vitamin A: These values reflect the 2000 - 2001 Dietary Reference Intakes (DRIs) updates from the Food and Nutrition Board of the National Academy of Sciences (The DRIs have replaced the "RDAs" in U.S. nutrition standards).

Protein: The Recommended Dietary Allowances (RDA) for protein are based on body weight and include age-related adjustments for the extra protein needed for growth. For example, healthy 1-to-3-year-old children need 0.55 grams of protein per pound of body weight per day, which means the average 29-pound toddler needs 16 grams of protein each day. A 180 pound 18-year-old, on the other hand, needs about 65 grams of protein per day. As a point of reference, 3 ounces of lean beef, which is a serving about the size of a deck of cards, provides 30 grams of protein. A cup of milk contains 8 grams of protein.

Age	Recommended Protein Intake*
1-to-3 years:	0.55
4-to-6 years	0.5
7-to-14-years	0.45
boys 15-to-18	0.4
girls over 15	0.36
girls over 18	0.36
adults	0.36

*in grams per pound of body weight per day

Vitamin A: Recommendations for vitamin A are also often expressed using Retinol Equivalents (RE) or micrograms (μg) of retinol (the chemical name for vitamin A). The conversion factors for these different vitamin A measurements are:

$$3.3 \text{ IU} = 1 \text{ RE} = 1 \mu\text{g}$$

Fiber: Ideal dietary fiber intake has not been defined. However, several organizations and researchers have proposed a daily intake of 25 to 35 g

dietary fiber for adults. More recently, the recommendation for children older than 2 years is to increase dietary fiber intake to an amount equal to or greater than their age plus 5 g per day, to achieve intakes of 25 to 35 g per day after the age of 20 years.

Sodium: Specific recommendations regarding sodium intake do not exist for infants, children, and adolescents. The National Research Council of the National Academy of Sciences recommends an approximate daily range of 1,100 to 3,300 milligrams of sodium for adults. The American Heart Association recommends that for every 1,000 Calories of food consumed, the sodium intake should be 1,000 milligrams and should not exceed the 3,000 milligram limit. The average intake in the United States is between 4,000 and 5,000 milligrams of sodium per day.

Fat: Recommendations for saturated fat and total fat are linked to caloric intake. The recommended total fat intake for all Americans over the age of 2 is no more than 30 percent of total daily calories and no more than 10 percent of total daily calories for fat. As a result, the values for fat and total fat in the table are based on the average caloric intakes of the youngest and oldest children within each age group.

Cholesterol: Cholesterol recommendations for children over the age of 2 are the same as for adults: no more than 300 milligrams per day.

Calories: The energy recommendations for children are based on the caloric requirements for body maintenance, growth and physical activity. Children who are very active may need more calories than the RDA suggests, while those who are relatively inactive will need fewer calories per day.

© Copyright 1999 Baylor College of Medicine. All Rights Reserved.

USDA/ARS Children's Nutrition Research Center
1100 Bates Street, Houston, Texas 77030
E-Mail - cnrc@bcm.tmc.edu