

## Nutrition Notes

### Food Groups and the Food Pyramid

The USDA has long promoted a food pyramid that is currently being challenged from many sides. One compelling alternative model (shown in comparison with the USDA pyramid) can be seen at Harvard University's IntelliHealth Web site at [www.intelihealth.com](http://www.intelihealth.com)\*. The site compares the pyramids on the Nutrition page in the "Learn the Basics" section (click Healthy Eating and then click Pyramids-A-Plenty).

As newer nutrition models have yet to be validated, this teaching plan sticks with the USDA pyramid (which was revised in 1996). The food groups in the USDA pyramid include milk/dairy, meat, vegetable, fruit, grain, and others (fats, oils, and sugars).

### USDA Recommended Servings for Children and Nutritional Benefits

- **Milk/Dairy Group—4 servings**  
The milk/dairy group provides calcium for strong bones and teeth, and helps blood clot.
- **Meat Group—2 servings**  
The meat group provides protein for building and repairing muscles, and aids growth.
- **Vegetable Group—3 servings**  
The vegetable group provides carbohydrates for energy and vitamin A, which aids vision and promotes healthy skin.
- **Fruit Group—2 servings**  
The fruit group provides carbohydrates, for energy, and vitamin C, which helps fight infection and promotes the healing of cuts and bruises.
- **Grain Group—6 servings**  
The grain group provides carbohydrates, for energy, and fiber, which helps in digesting food.
- **Fats and Refined Sugars—Scant amounts**  
Fat helps the body absorb vitamins, which regulate calcium absorption for strong bones. Fats help regulate hormone production, aid blood cell formation and clotting, provide energy, and support growth.

### Food as Fuel: Calories

A calorie is defined scientifically as the amount of energy required to raise the temperature of one gram of water by exactly one degree Celsius. For nutritional purposes, a calorie is a standard measure of how much energy is delivered in the different foods you eat. When you eat, your body converts food to fuel, and burns it through bodily functions and activity. Vigorous exercise requires a lot of caloric fuel. When at rest, your body needs fewer calories, but some energy is needed to keep your bodily systems going—digestion, respiration, and so on. To stay even (and not

get too fat or too thin), you should consume the same number of calories you burn. If you consume many calories but aren't active, the energy has nowhere to go, and it is stored as fat. In primitive times, a store of fat was helpful, because food could become scarce at times, and a body could draw on stores of fat to get through lean times. In these plentiful times, storing body fat isn't necessary, and, in your diet, fat should account for less than 30 percent of all the calories consumed.

### **USDA Recommended Daily Calories Based on Moderate Activity Levels**

<b>Person</b>	<b>Age</b>	<b>Daily Calories</b>
Children	1-3	1,300
Children	4-6	1,800
Children	7-10	2,000
Boys	11-14	2,500
Boys	15-24	2,900-3,000
Men	25-50	2,000-2,500
Men	51+	1,800-2,000
Girls & Women	11-50	1,700-2,000
Women	51+	1,600