Nutrition & Cardiovascular Diseases

Foods and Nutrients – Adults (data based on NHANES 2005–08)

- **Whole Grains** - On average, white and black men and women consume between 0.5 and 0.8 servings per day, with only between 3% and 5% consuming ≥3 servings per day. Average consumption by Mexican Americans was about 2 servings per day, with 21% to 27% consuming ≥3 servings per day.

- **Fruit** - Average consumption ranged from 1.1 to 1.8 servings per day in these sex and ethnic subgroups; 9% to 11% of whites, 6% to 7% of blacks, and 8% to 10% of Mexican Americans consumed ≥2 cups per day. Including 100% fruit juices, servings consumed and proportions of adults consuming ≥2 cups per day approximately doubled.

- **Vegetables** - Average consumption ranged from 1.3 to 2.2 servings per day; 6% to 7% of whites, 3% of blacks, and 3% of Mexican Americans consumed ≥2.5 cups per day. Including vegetable juices and sauces generally produced little change in these consumption patterns.

- **Fish & Shellfish** - Average consumption was lowest among white women (1.2 servings per week) and highest among black men and women (1.7 servings per week); between 75% and 80% of all adults in each sex and ethnic subgroup consumed <2 servings per week. About 10% to 13% of whites, 14% to 15% of blacks, and 12% of Mexican Americans consumed ≥250 mg/day of EPA+DHA.

- **Nuts, Legumes & Seeds** - On average, whites and blacks consume about 2 to 3 servings per week while Mexican Americans consume 6 servings per week. Approximately 20% of whites, 15% of blacks, and 40% of Mexican Americans met guidelines of ≥4 servings per week.

- **Processed Meats** - Average consumption was lowest among Mexican American women (1.8 servings per week) and highest among black men (3.6 servings per week). Between 36% (Mexican American women) and 66% (black men) of adults consumed ≥1 serving per week.

- **Sugar-Sweetened Beverages** - Average consumption ranged from about 7 servings per week among white women to 16 servings per week among Mexican American men. About 50% and 33% of white men and women, 73% and 65% of black men and women, and 76% and 62% of Mexican American men and women, respectively, consumed >36 oz (4.5 8-oz servings) per week.

- **Sweets & Bakery Desserts** - Average consumption ranged from about 4 servings per day (Mexican American men) to 7 servings per day (white men). Approximately two thirds of white and black men and women and half of all Mexican American men and women consumed >2.5 servings per week.
**Nutrition & CVD - 2013 Statistical Fact Sheet**

**Foods and Nutrients – Children and Teenagers (data based on NHANES 2005–08)**

- **Whole Grains** - Average consumption was low, ranging from 0.4 to 0.6 servings per day, with <4% of all children in different age and sex subgroups meeting guidelines of ≥3 servings per day.

- **Fruits** - Average consumption was low and decreased with age: about 1.5 servings per day in younger boys and girls (5–9 years of age), 1.3 servings per day in adolescent boys and girls (10–14 years of age), and 0.9 servings per day in teenage boys and girls (15–19 years of age). The proportion meeting guidelines of ≥2 cups per day was also low and decreased with age: about 8% in those 5 to 9 years of age, 7% to 8% in those 10 to 14 years of age, and 4% in those 15 to 19 years of age. When 100% fruit juices were included, the number of servings consumed approximately doubled or tripled, and proportions consuming ≥2 cups per day were 29% to 36% of those 5 to 9 years of age, 22% to 26% of those 10 to 14 years of age, and 21% to 22% of those 15 to 19 years of age.

- **Vegetables** - Average consumption was low, ranging from 0.9 to 1.1 servings per day, with <2% of children in different age and sex subgroups meeting guidelines of ≥2.5 cups per day.

- **Fish & Shellfish** - Average consumption was low, ranging between 0.5 and 0.7 servings per week in all age and sex groups. Among all ages, only 10% to 13% of children and teenagers consumed ≥2 servings per week.

- **Nuts, Legumes & Seeds** - Average consumption ranged from 1.3 to 1.4 servings per week among 5- to 9-year-olds, 1.4 to 2.1 servings per week among 10- to 14-year-olds, and 0.8 to 1.1 servings per week among 15- to 19-year-olds. Only between 7% and 14% of children in different age and sex subgroups consumed ≥4 servings per week.

- **Processed Meats** - Average consumption ranged from 2.1 to 3.2 servings per week; was uniformly higher than the average consumption of nuts, legumes, and seeds; and was up to 6 times higher than the average consumption of fish and shellfish. Between 40% and 54% of children consumed ≥2 servings per week.

- **Sugar-Sweetened Beverages** - Average consumption was higher in boys than in girls and was about 8 servings per week in 5- to 9-year-olds, 11 to 13 servings per week in 10- to 14-year-olds, and 14 to 18 servings per week in 15- to 19-year-olds. This was generally considerably higher than the average consumption of whole grains, fruits, vegetables, fish and shellfish, or nuts, legumes, and seeds. Only between 17% (boys 15–19 years of age) and 42% (boys and girls 5–9 years of age) of children consumed <4.5 servings per week.

- **Sweets & Bakery Desserts** - Average consumption of sweets and bakery desserts was about 8 to 10 servings per week in 5- to 9-year-olds and 10- to 14-year-olds and 6 to 8 servings per week in 15- to 19-year-olds. From 82% (girls 5–9 years of age) to 58% (boys 15–19 years of age) of youths consumed ≥2.5 servings per week.

**Energy Balance**

- Average daily caloric intake in the US is about 2,500 calories in adult men and 1,800 calories in adult women. In children and teenagers, average caloric intake is higher in boys than in girls and increases with age in boys.

- The average US adult gains approximately 1 lb per year.

- Data from NHANES indicate that between 1971 and 2004, average total energy consumption among US adults increased 22% in women (from 1,542–1,886 kcal/d) and 10% in men (from 2,450–2,693 kcal/d).

**Effects on Cardiovascular Risk Factors & Outcomes**

- Dietary habits affect multiple CV risk factors, including both established risk factors (systolic and diastolic blood pressure, LDL cholesterol levels, HDL cholesterol levels, glucose levels, and obesity/weight gain) and novel risk factors (e.g., inflammation, cardiac arrhythmias, endothelial cell function, triglyceride levels, lipoprotein[a] levels, and heart rate).

- A DASH dietary pattern with low sodium reduced systolic blood pressure by 7.1 mm Hg in adults without hypertension, and by 11.5 mm Hg in adults with hypertension.

- For each 2% of calories from trans fat was associated with a 23% higher risk of coronary heart disease.

- Each daily serving of fruits or vegetables was associated with a 4% lower risk of CHD and a 5% lower risk of stroke.

- Greater whole grain intake (2.5 compared with 0.2 servings per day) was associated with a 21% lower risk of...
CVD events, with similar estimates for specific CVD outcomes such as heart disease, stroke and fatal CVD.

- Fish consumption was associated with significantly lower risk of CHD mortality. In contrast, each 50-g serving per day of processed meats (eg, sausage, bacon, hot dogs, deli meats) was associated with higher incidence of both coronary heart disease and diabetes mellitus.

### Cost

- Prices for foods eaten at home increased 4.8% in 2011 while prices for foods eaten away from home increased by 1.9%.

- The proportion of total US food expenditures for meals outside the home, as a share of total food dollars, increased from 27% in 1961 to 40% in 1981 to 49% in 2011.

- The proportion of sales of meals and snacks from fast food restaurants compared with total meals and snacks away from home increased from 5% in 1958 to 29% in 1982 to 36% in 2011.

- Each year, >$33 billion in medical costs and $9 billion in lost productivity resulting from heart disease, cancer, stroke, and diabetes mellitus are attributed to poor nutrition.

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**For additional information, charts and tables, see Chapter 5 of Heart Disease & Stroke Statistics - 2013 Update.**

Additional charts may be downloaded directly from the online publication at: [http://circ.ahajournals.org/lookup/doi/10.1161/CIR.0b013e31828124ad](http://circ.ahajournals.org/lookup/doi/10.1161/CIR.0b013e31828124ad) Or at: [www.heart.org/statistics](http://www.heart.org/statistics)

The American Heart Association requests that this document be cited as follows:


If you have questions about statistics or any points made in the 2013 Statistical Update, please contact the American Heart Association National Center, Office of Science & Medicine at statistics@heart.org.

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