

Calcium: The Bone Builder

By Jane Stueve, Adolescent and School Health Consultant



Calcium is the most abundant mineral in the body. It is found in foods, supplements and some antacids. Calcium is used to maintain healthy teeth and bones.

Calcium is also important for muscle contraction, blood vessel expansion and contraction, secretion of hormones and enzymes, and transmitting impulses throughout the nervous system.

The body strives to maintain constant concentrations of calcium in blood, muscle, and intercellular fluids, though less than 1 percent of total body calcium is needed to support these functions (National Institute of Health [NIH], <http://ods.od.nih.gov/factsheets/calcium.asp>). The remaining calcium in the body is stored in the bones and teeth.

During teenage years, the recommended dietary allowance (RDA) of calcium is 1300mg a day. The best way to get the RDA is to drink milk and eat yogurt, cheese and calcium fortified foods, as these are extremely high in calcium.

Michael Murray ND and Joseph Pizzorno ND, Encyclopedia of Natural Medicine, Revised Second Edition,

write that, “Soft drinks have long been suspected of leading to lower calcium levels and higher phosphate levels in the blood. When phosphate levels are high and calcium levels are low, calcium is pulled out of the bones. The phosphate content of soft drinks is very high, and they contain virtually no calcium.”

It appears that increased soft drink consumption is a major factor that contributes to osteoporosis. They go on to say that “The United States ranks first among countries in soft drink consumption. The per-capita consumption of soft drinks is in excess of 150 quarts per year, or about three quarts per week.” www.awakening-healing.com/Healthy_Products/effects_of_drinking_soda.htm.

Other articles suggest that soda simply replaces milk in the diet, thereby decreasing the intake of milk and calcium. <http://ods.od.nih.gov/factsheets/calcium.asp>.

The National Institutes of Health supports the use of supplements for young people who don't get sufficient calcium through their diet to support strong teeth and bones. Check with your primary care physician for recommendations relating to calcium supplementation.

For more information on a balanced diet and recommendation of calcium for your gender and age, visit www.mypyramid.gov.

Diabetes and Teens Heart Health

By Jane Stueve, Adolescent and School Health Consultant

Since 1963, February has been proclaimed as “American Health Month.” Heart disease is our nation’s number one cause of death followed by cancer and stroke. (www.cdc.gov/nchs/fastats/lcod.htm) The goal of the American Heart Association during February is to provide education about heart disease and stroke.

Heart disease and stroke are the number one cause of death and disability among people with type 2 diabetes. At least 65 percent of people with diabetes die of some form of heart disease or stroke. The U.S. has had an increase in diabetes over the last several years in childhood obesity (American Heart Association).

Young people in their late teens are developing complications of type 2 diabetes. It is the main cause of kidney failure, limb amputations and new onset blindness in adults and a major cause of heart disease and stroke.

The prevalence of type 2 diabetes has tripled in the last 30 years, due in large part to the upsurge in obesity. People who are obese, defined as a body mass index (BMI) of 30 or greater, have a five-fold greater risk of diabetes than those with a normal BMI of 25 or less.

Once seen only in adults, type 2 diabetes has been rising steadily in children, especially minority adolescents — African Americans, Hispanic Americans and

Native Americans, according to reports from clinics around the country.

Researchers are still figuring out exactly how diabetes changes cholesterol levels at the microscopic cellular level. They do know that high levels of insulin in the blood tend to adversely affect the number of cholesterol particles in the blood.

High insulin levels act to raise the amount of LDL cholesterol (the “bad cholesterol”) that tends to form plaques in arteries, and lower the number of HDL cholesterol particles (“good cholesterol”) that help to clear out dangerous plaques before they break off to cause a heart attack or stroke. Diabetes also tends to cause higher levels of triglycerides, another type of fat circulating in the blood. (http://parentingteens.about.com/cs/diabetes/a/obeseteens_2.htm).

With the relationship between heart disease and diabetes, it is important for people with diabetes to get all of the information they can.

Teens that develop lifelong habits that include healthy diet, exercise and monitoring their diabetes can expect to live as long as someone without diabetes.

If you have diabetes, seek to develop healthy habits and get routine medical care, so you can avoid heart disease and the risk of a heart attack and stroke. For more information visit www.americanheart.org.