

CUPS OF CALCIUM

Objective

To demonstrate the amount of calcium in the human body at various life stages.

What to Do

Assemble

- 10 pounds white flour
- Measuring cups
- Clear plastic resealable bags (gallon, quart and pint sizes)



1. Measure flour into bags according to chart below. Double-bag for safety's sake!
2. Label bags by stage of life.

<u>Amount of Flour*</u>	<u>Stage of Life</u>
$\frac{1}{4}$ cup	newborn
4 cups	ten-year-old
9 cups	fifteen-year-old
11 cups	adult
$6\frac{1}{2}$ cups	adult with osteoporosis of 30-40% bone loss

** Figures taken from The Handbook of Dairy Foods and Nutrition, second edition, National Dairy Council, 2000. Flour is a rough approximation of the amount of calcium in bones. Actual amount of calcium in bones varies among people.*

Discuss

Good bone health is important at all ages. When your diet doesn't provide enough calcium for everyday life functions (such as blood-clotting and regulating your heart beat), your body takes what it needs from your bones. Over time, this can weaken bones to the point that they break easily.

Calcium from food becomes part of your bones' framework. The more calcium your bones contain, the stronger and denser they are. Refer to bags to illustrate that the flour represents the amount of calcium by weight in the body at different life stages.

Vitamin D is a bone-builder, too. It helps your body to absorb calcium from food and helps deposit mineral into your bones. You can't keep bones healthy without the vitamin D-calcium partnership. Phosphorus and magnesium are also major mineral components of bones.

Childhood and teenage years are critical times to begin building peak bone mass. Nearly half of adult bone mass is formed during adolescence.

Western Dairy Council, 12000 North Washington Street, Suite 200, Thornton, CO 80241
800.274.6455, www.wdairyCouncil.com

May be duplicated for educational purposes. 2005.