

RUBBER BONES

Objective

Illustrate calcium's role in bone strength.

What to Do

Assemble

- Two small jars, one with a lid
- White vinegar
- Paper towels
- 2 small clean chicken bones



1. Let each student handle a chicken bone and describe how it feels.
2. Put one bone in a jar of vinegar and place the lid on the jar.
3. Place the other bone in a clean empty jar. Do not put a lid on the top.
4. After one week, remove the bone from the vinegar. Ask the students to describe the changes.
5. Compare the air-dried bone to the bone soaked in vinegar.

Discuss

When your diet does not 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 where they break easily. Calcium, along with other nutrients, provides the raw materials the body needs to make bones strong. Fragile bones have less calcium, which weakens the structure.

Vinegar is an acid. In this demonstration, the acid leached calcium out of the chicken bone, making it soft and rubbery. Calcium is the building material bones need to help them stay strong and hard. What would it be like to live with soft and rubbery bones in your body? Along with physical activity and overall good nutrition, eating calcium-rich foods can help keep your bones strong.