

Experiment 1: Wimpy Bones

What Makes Bones Strong?

Even though bones are very light, they are also very strong.

However, how strong they are depends on how much of the mineral *calcium carbonate* they contain.

Do this experiment to find out how calcium carbonate affects bone strength. Make sure you get an adult to help you!

What You Need:

- Dried, clean chicken bone (a leg or wing bone)
- A glass
- White vinegar

What You Do:

1. Without breaking the bone, hold the bone and try to bend it – don't force it to bend; or it will break! Notice how stiff the bone is.
2. Place the chicken bone in the glass and fill it with vinegar.
3. Let the bone soak for 2-3 days, then pour out the vinegar.
4. Add fresh vinegar and let it soak for about 2 more days.
5. After the 4th or 5th day of soaking, take the bone out and dry it off. Now try bending the bone without breaking it. What do you notice? How does it feel different from before you soaked it in vinegar?

Wait to look up “what happened” until after you preformed this experiment by visiting

<https://learning-center.homesciencetools.com/article/skeletons-and-bones-science-projects/>