

ACID ATTACK!

How will vinegar affect the hardness of a chicken bone?

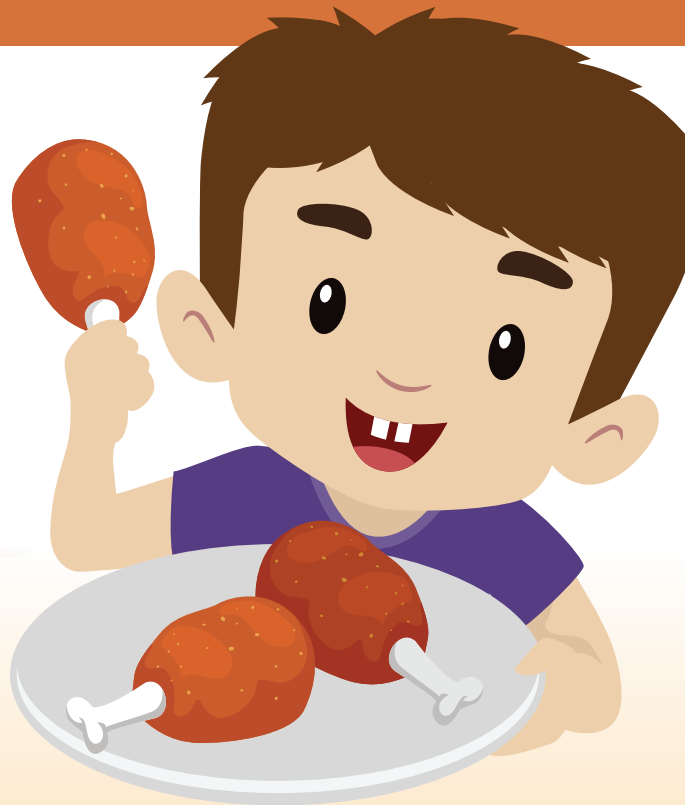
This activity simulates an acid attack on bones (which are rich in calcium, just like teeth) and can help kids visualize what happens to their teeth when they consume sugary foods and beverages.

Adults, make sure to help kids with this activity!

Supplies:

- Two clean chicken bones
- One empty container
- One bottle of white vinegar

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Steps:

1. Place the bones in the container and cover with white vinegar. Leave overnight.
2. Make a hypothesis. What do you think will happen?
3. Remove the bones from the container.
4. Are they softer or harder than they were before they soaked in the vinegar?
5. The acid dissolves the calcium and other minerals out of the bones to make them soft. This is similar to the way that acid attacks on teeth can remove minerals from the enamel and allow decay to occur.
6. Discuss foods and beverages that contain acids and sugar—soda pop, fruit juice, fruit—and the things that can be done to prevent the effects of acid erosion on teeth, such as reducing consumption of sugary foods and beverages, rinsing with water and brushing after eating and drinking.



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Key takeaway from this activity:

Your teeth are covered with a sticky film of bacteria called plaque. Every time you eat or drink sugary foods and beverages, the sugars and plaque mix together to make an acid. This acid attacks your teeth. Repeated attacks can cause the tooth enamel to break down (soften), which can lead to cavities. Avoid eating too much candy or food containing sugar or drinking sugary beverages including soda pop and sweetened juice drinks.