



THE TOOTH ABOUT SODA

TIME:
10 MINUTES,
PLUS 24 HOURS FOR MARINATING

CATEGORY:
EXPERIMENT

MATERIALS:
1 CAN COLA
2 EGGS
JOURNAL AND PENCIL
2 MASON JARS OR GLASSES
SPOON
PAPER TOWEL
TOOTHBRUSH AND TOOTHPASTE

TIP

➔ Be careful not to crack the egg when placing it in the jar or glass.



Too much sugar in your diet can lead to tooth decay. Sodas contain a lot of sugar—as much as 10 teaspoons in a single serving! Let's experiment with soda pop to discover what this means for our teeth. You'll use an eggshell in this experiment because it contains calcium, like our teeth and bones. How can one serving of a soft drink affect your teeth? Let's find out!

PREP WORK:

1. Hard-boil 2 eggs using the instructions from page 62.

INSTRUCTIONS:

- Carefully place each hard-boiled egg into an empty mason jar or glass.
- Open the can of cola and pour it into a jar to cover one of the eggs. Cover the other egg with water.



3. If you are using mason jars, close the lids. Wait 24 hours to record your findings.
4. With a spoon, carefully take the eggs out of the jars and place them on a paper towel.
5. Use a toothbrush and toothpaste to brush the soda egg like you would brush your teeth.
6. Once done brushing, rinse your egg under running water.
7. Crack both eggs and peel them to examine the inside of the shells.
8. Compare both eggs.

CONCLUSION:

You have bacteria in your mouth. When you drink soda, bacteria in your mouth eat the sugars in the soda and turn them into acids (like they do when they ferment foods). Those acids wear away your teeth. They can eat at the strong part of your teeth, called **enamel**, and cause cavities over time. In this experiment, as you examine the inside of the soda-drenched eggshell, you can see the acids damaging the shell, which has calcium just like your teeth.

THE JOURNAL ENTRY

1. *What does the egg represent in the human body?*
2. *What happened to the egg after being covered in soda for 24 hours? How did it look? How did it feel? What do you think this means about the effects of soda on your teeth?*
3. *After you brushed your egg, how was it different from the egg not covered in soda?*