

Which Antacid Works Better?

Certain drugs are called antacids. The word antacid means "against acid." These drugs are used by people with too much acid in their stomachs. The antacid "removes" this acid by undergoing a chemical reaction with the acid.

All antacids are not alike. Some may remove more acid than others. Television commercials say that a "better" antacid is one that removes more acid. When an antacid removes acid, we say that it has neutralized (NOO truh lized) the acid. How can you test an antacid to find out how much acid it will neutralize?

GOAL

In this exercise, you will:

determine which of two antacids neutralizes more acid.

MATERIALS

beakers—2

antacid solutions—2

dropper

red indicator—

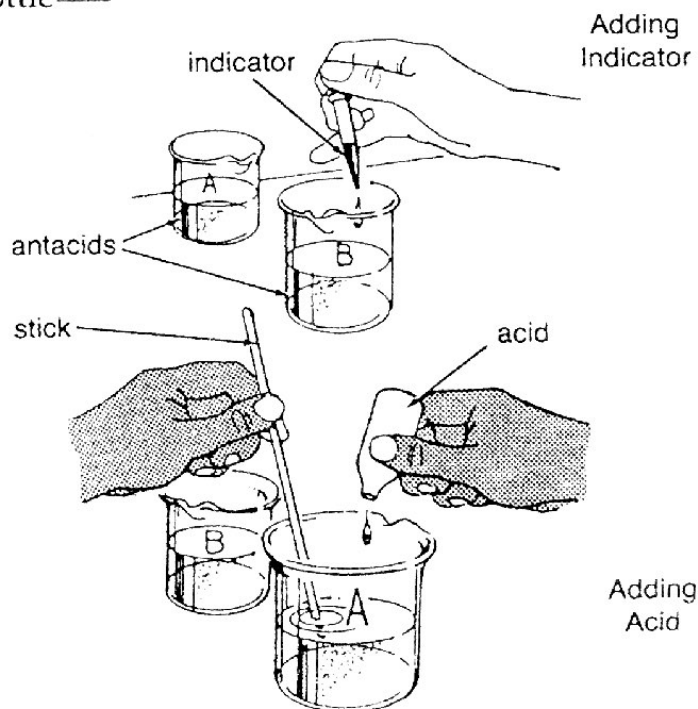
acid in dropper bottle—

wax pencil

wooden sticks—2

PROCEDURE

1. Mark two beakers, A and B.*
2. Fill beaker A half full of antacid A. Fill beaker B half full of antacid B.
3. Add 10 drops of red indicator to each beaker. If you get any of the indicator on your hands or clothing, wash it off with water.
4. Start with beaker A. Count the drops of the acid while you add them one at a time. **CAUTION:** If you get acid on your skin or clothing, wash it off at once with soap and water. Stir the antacid with a stick after you add each drop.
5. Continue adding the acid until the color of the antacid changes from red to light blue. When the color changes, you have added all the acid that the antacid will neutralize.
6. Record the number of drops of acid in the table on page 2.
7. Repeat Steps 3 through 6 with antacid B. Record your results.



Antacid Test		
Antacid	Number of drops of acid added to cause color change	Number of drops of acid neutralized
A		
B		

QUESTIONS

- Which antacid took more drops of acid before changing color? _____
- Which antacid neutralized more acid? _____
- When the color changes, the antacid cannot neutralize any more acid. Explain this statement. _____

APPLICATIONS

- Is the most expensive antacid available in a drugstore the one that will neutralize the most acid? _____
 - What could you do to find out? _____

- Baking soda mixed in water is said to be an antacid. How could you test to find out if it is? _____

VOCABULARY

Write a sentence definition of each of the following words.

- neutralize _____
- acid _____
- antacid _____
- indicator _____
- solution _____