

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## CAVITIES!

Ninety-seven percent of all the people in the world have cavities. If you don't brush your teeth you get cavities, and if you ignore the cavities, they can cause you a lot of pain. Cavities, also called *dental caries*, are holes in your teeth caused by the enamel breaking down, and the inside of the tooth beginning to rot. It's not a nice thing to have happen!



What exactly causes cavities? Some people say that eating too much sugar leads to cavities, but that is only half true. On its own, sugar won't hurt your teeth. But when you add sugar to the *microorganisms* living on your teeth, then you might have a problem. Microorganisms are tiny bacteria that are so small that you can only see them with a microscope. This sticky, slimy colony of microorganisms is called *plaque*. They normally live on your teeth, but you need to control the amount of microorganisms by brushing. Plaque that hasn't been removed by brushing can harden into *tartar*. Plaque begins to form 4–12 hours after you brush your teeth, so it is important that you brush your teeth at least twice a day!

It's the bacteria living on your teeth that can cause cavities. But how do the bacteria cause them? Some people say that the bacteria start to eat your teeth, but this isn't true. What does happen is that the bacteria produce acid right next to your teeth, and this acid breaks down the enamel that is the outer covering of your tooth. Enamel is usually quite hard, but it can't stand up to acid. What does this have to do with sugar? Well, the little microorganisms living on your teeth eat sugar! So if you have sugary foods, and then don't brush your teeth, the microorganisms are feeding as well and growing in numbers! The hole in the enamel keeps growing until you go to a dentist and have it fixed. If the hole gets all the way through, even the inside of your tooth will start to decay, and that's when you get toothaches.

Cavities aren't the only things that can happen if you don't brush your teeth. If tartar builds up it can cause big problems as well. Tartar comes from plaque that hasn't been removed by brushing. Plaque can harden to tartar in only a few days! The usual places for tartar to build up are between teeth and around the gum line. Build up of tartar at the gum line can cause the gum to become red and sore and this can lead to *gingivitis* (gum disease).

Now that you know how cavities are caused, you can also prevent them. You should brush your teeth with fluoride toothpaste at least twice a day. It is better if you can brush your teeth after every time you eat. Remember that plaque starts to build up 4–12 hours after you brush, so you want to make sure to brush it off again regularly! You should use a soft toothbrush, and you don't need to brush hard. If the bristles on your toothbrush are bent sideways, you are pressing too hard. Floss your teeth at least once a day, usually in the evening. Flossing your teeth helps to get any food that is stuck between your teeth, and it also removes any plaque between your teeth and under your gums that your toothbrush missed. Try not to eat too many sugary foods and drinks like candy and soft drinks. You don't have to stop eating them, but make sure that you don't eat them right before bed, and that you can brush your teeth after you have eaten something sugary. And finally, remember to go to your dentist two times a year for a check-up! If you follow the steps to good tooth health, your teeth will last a very long time!



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**Answer the following questions about *Cavities*.**

1. What is the difference between plaque and tartar?  
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\_\_\_\_\_  
\_\_\_\_\_
2. How quickly can plaque form on your teeth?  
\_\_\_\_\_
3. If the bacteria in plaque don't eat your tooth enamel, how do they cause cavities?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
4. How does sugar help to cause cavities?  
\_\_\_\_\_  
\_\_\_\_\_
5. What causes toothaches?  
\_\_\_\_\_  
\_\_\_\_\_
6. What can a build up of tartar lead to?  
\_\_\_\_\_
7. What does flossing do?  
\_\_\_\_\_  
\_\_\_\_\_
8. Outline the steps you can take to have healthy teeth. You may write your answer in point form.
9. Will you change anything from your current routine to make sure that you have healthy teeth?  
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\_\_\_\_\_

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**Answers to Cavities:**

1. Plaque is a sticky slimy substance on your teeth in which bacteria live. Tartar is hardened plaque.
2. Plaque begins to form 4 – 12 hours after brushing.
3. Bacteria produce acid next to the tooth, which eats away at the tooth enamel.
4. Bacteria eat sugar. When sugar is left next to the teeth, bacteria have a feast and can multiply.
5. Toothaches are caused by cavities going all the way into the middle of the tooth.
6. A build up of tartar at the gum line can lead to gingivitis.
7. Flossing removed bits of food and plaque stuck between teeth and under the gum line.
8. - brush at least twice a day with fluoride toothpaste and a soft toothbrush  
- floss at least once a day  
- cut down on eating sugary foods  
- go to see your dentist for a check-up every six months
9. Student's own answer. Answers may vary.