



Cavities - Why do we get holes in our teeth?

Updated v2

Fact

- Holes in our teeth are made from acid that eats away at tooth enamel.
- All over our teeth is a thin layer called plaque that contains bacteria. When we eat the food in our mouth combines with the plaque to form acid.
- The acid eats away at the hard outer layer of our teeth called the enamel. It makes the enamel soft and eventually a hole appears.
- If the hole isn't fixed it can keep going through to the dentine (under the enamel) and eventually the pulp (the middle of the tooth). There are nerves in the dentine and the pulp and if they're exposed by the hole they can send pain signals to the brain (tooth ache).

Do you know

- Enamel is the hardest thing in your whole body, even harder than your bones.
- But the acid produced by bacteria is strong enough to break down enamel if the acid is not cleaned away by brushing.
- When the Dentist gives you a filling, they drill away the soft decaying part of the tooth, and fill the hole that is left with something tough and resilient so the sensitive inside part of your tooth is once again protected.
- Brushing your teeth helps prevent tooth decay and that helps prevent holes forming in your teeth.

Experiments you can do

The apple experiment.

What you need:

The help of an adult

An apple

A sharp knife

What you do:

Have a look at the apple. It's not a tooth, but how is it like a tooth?

How does the apple skin protect the apple? Is it similar to the way enamel protects the soft insides of your tooth?

Maybe the apple is a little like the shape of a molar tooth?

Have the adult make a hole in reasonable size hole the apple – big enough for you to be able to poke the tip of your finger into. What colour is the flesh of the apple?

Put the apple on the windowsill and leave it for a day.

What do you notice about the flesh of the apple in the hole you made? Is it the same colour as it was when the hole was first made?

Think about what might happen if you got a hole in you tooth.

Other Investigations

Run your tongue over your teeth after you brush them in the morning. Do your teeth feel smooth and clean?

Run your tongue over your teeth after lunch. Are they still as smooth and clean?

Try it again, just before you do your teeth, in the evening. How do they feel now? Are they getting the “furry” feeling?

That’s the build-up of plaque on your teeth which is full of bacteria eating the leftover food in your mouth and making acid!

When you do your teeth use dental floss and see how much gunk you can get out from between your teeth. That’s plaque, bacteria and food scraps.

Jokes

Did you hear about the tooth with a hole in it? You should have, it went Yeeeeooooowwww!