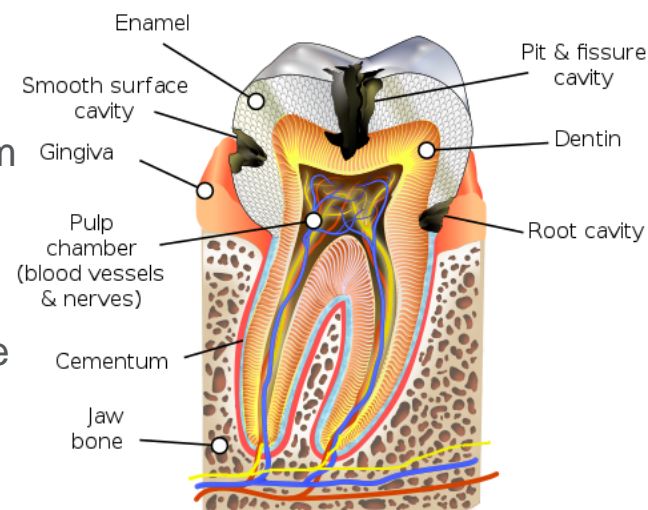


# Nanoparticles stop tooth decay

Read the full article at [rsc.li/34xyCAX](https://rsc.li/34xyCAX)

Tooth decay happens as a result of bacteria in the mouth metabolising food sugars to produce acidic by-products. These acids can corrode tooth enamel. During this process the bacteria create a tough biofilm, known as plaque. This film sticks to the enamel and keeps the bacteria in close contact with teeth.

Scientists have shown that cerium oxide nanoparticles can stop the formation of the biofilm on teeth. The presence of the nanoparticles led to a weak biofilm that washed away. However, the nanoparticles do not kill the bacteria. This means the delicate balance within the complex oral microbiome is not disturbed. The possible toxicity of these nanoparticles if ingested must first be thoroughly investigated before they can be used in products.



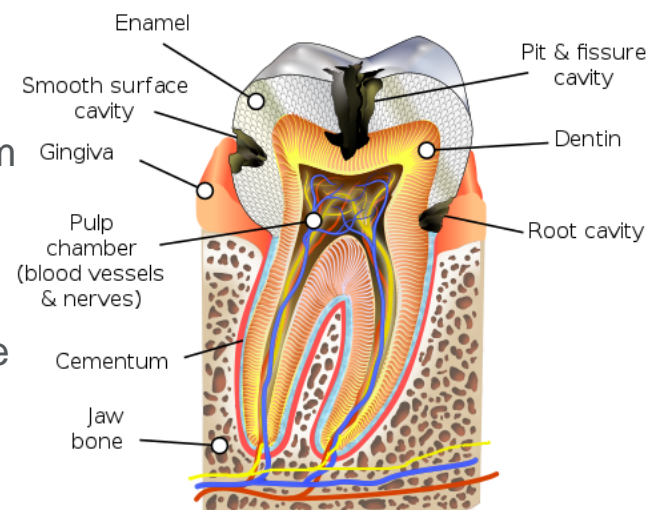
Cross section of a tooth with decay caused by dental plaque

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Cross section of a tooth with decay caused by dental plaque

1. What is the size of a nanoparticle?
2. Give another use of nanoparticles.
3. Describe the risks of using nanoparticles in consumer goods.