

Dental Caries: Concepts, Causes, and Effects

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DESCRIPTION

Cavities are small holes or openings in the hard surface of your teeth that are permanently damaged. Cavities, also known as tooth decay or caries, are brought on by a number of things, including oral bacteria, frequent eating, consuming sugary beverages, and inadequate tooth cleaning.

All of a tooth's layers are susceptible to dental decay. The hard outer layer of tooth enamel takes three years to develop a cavity. Decay moves more quickly from pulp through the dentin (middle layer) (innermost layer). The nerve terminals and blood supply of a tooth are found in the pulp.

Types of tooth decay include:

Smooth surface: Enamel is dissolved by this slowly expanding hole. With proper brushing, flossing, and dental cleanings, you can stop it from happening and can sometimes turn it around. This type of dental decay between the teeth commonly affects people in their 20s.

Pit and fissure decay: On the upper portion of the tooth's chewing surface, cavities develop. The front surface of rear teeth are equally susceptible to decay. Pit and fissure deterioration typically begins in adolescence and advances swiftly.

Root decay: Root decay is more likely to affect older persons with receding gums. Gum recession makes the tooth root vulnerable to acid and plaque. Root decay is challenging to diagnose and cure.

Depending on the size and location of the cavity, there are different signs and symptoms. You might not have any symptoms when a cavity is only getting started:

- A toothache, pain that comes on suddenly, or pain with no obvious cause
- Tooth sensitivity
- Mild to severe pain while consuming sweet, spicy, or cold foods or beverages
- Pain when you bite down
- Visible holes or pits in your teeth

- Brown, black, or white stains on any surface of a tooth

Causes

Plaque forms: Your teeth are covered in a transparent, corrosive layer called dental plaque. It results from eating a lot of carbohydrates and starches and neglecting to properly brush your teeth. Plaque forms on your teeth very quickly when sugars and starches aren't removed by brushing or flossing. Tartar is created when plaque that remains on your teeth hardens beneath or above your gum line (calculus). Tartar acts as a barrier for germs and makes plaque removal more challenging.

Plaque attacks: The minerals in the hard, outer enamel of your tooth are removed by the acids in plaque. Cavities begin as a result of this erosion, which creates microscopic gaps or holes in the enamel. The germs and acid can reach the dentin, the next layer of your teeth, if portions of the enamel have been worn away. Compared to enamel, this layer is softer and less acid resistant. Sensitivity is brought on by small tubes in the dentin that connect directly to the tooth's nerve.

Destruction continues: The bacteria and acid that cause tooth decay keep migrating along the inner tooth material (pulp), which is home to nerves and blood vessels, as tooth decay progresses. The germs cause the pulp to swell and itch. The nerve becomes compressed and causes pain since there is nowhere for the swelling to develop inside of a tooth. Even the bone may experience discomfort in addition to the tooth root.

Complications

You might not take cavities and dental decay seriously because they are so common. You could also believe that it is unimportant for kids to have cavities in their infant teeth. However, even in children who don't yet have their permanent teeth, cavities and dental decay can have catastrophic and long-lasting consequences.

- Tooth abscess pain.
- Around a tooth, swelling or pus.
- Teeth with damage or breaks.
- Chewing on issues.

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Received: 02-Jun-2022, Manuscript No. DCR-22-17446; **Editor assigned:** 06-Jun-2022, Pre QC No. DCR-22-17446 (PQ); **Reviewed:** 20-Jun-2022, QC No. DCR-22-17446; **Revised:** 30-Jun-2022, Manuscript No. DCR-22-17446 (R); **Published:** 07-Jul-2022, DOI: 10.35248/2161-1122.22.12.585.

Citation: Toutouzas H (2022) Dental Caries: Concepts, Causes, and Effects. J Dentistry.12:585.

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