- Dental care

Why tooth decay

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TOOTH decay is one of the most common oral health problems worldwide.
It occurs when the hard surfaces of the teeth are damaged due to acids produced by bacteria in the mouth.
While good oral hygiene and regular dental checkups can prevent decay, understanding its main causes is essential for effective prevention.
The most significant factor contributing to tooth decay is poor oral hygiene.
When teeth are not brushed or flossed regularly, plaque — a sticky film of bacteria — builds up on the tooth surface. The bacteria in plaque feed on sugars from the food and drinks we consume, producing acids as a byproduct. These acids gradually erode the enamel, the tooth's protective outer layer, creating cavities. Without consistent cleaning, plaque hardens into tartar, which further promotes bacterial growth and accelerates decay.
What you eat directly impacts the health of your teeth. Diets high in sugar and refined carbohydrates provide fuel for the bacteria in the mouth.
Foods like candies, soft drinks, pastries, and white bread increase acid production in the mouth, leading to enamel erosion. Frequent snacking exacerbates the problem, as constant exposure to sugar allows bacteria to remain active and acids to persistently attack the teeth.
Reducing sugary snacks and balancing meals with tooth-friendly foods can significantly lower the risk of cavities.
Saliva plays a critical role in neutralizing acids and washing away food particles. A condition called xerostomia, or dry mouth, reduces saliva flow, leaving teeth vulnerable to decay.
Dry mouth can be caused by certain medications, medical conditions such as diabetes, or dehydration. Without adequate saliva, the natural defense against acid attacks diminishes, increasing the likelihood of cavities. Chewing sugar- free gum or using saliva substitutes can help maintain oral moisture and protect teeth.
Tooth decay is fundamentally caused by bacteria in the mouth, primarily Streptococcus mutans. These bacteria colonize the tooth surface and metabolize sugars, producing acids that dissolve enamel. Over time, if the decay reaches the inner dentin or pulp, it can lead to pain, infection, and even tooth loss.
The presence of harmful bacteria is influenced by oral hygiene, diet, and even genetics. Maintaining a healthy balance of oral bacteria is essential for cavity prevention.
Other factors that can increase susceptibility to tooth decay include enamel defects, frequent vomiting (which exposes teeth to stomach acids), and insufficient fluoride exposure.

Fluoride, commonly found in toothpaste and drinking water, strengthens enamel and makes teeth more resistant to acid attacks. Regular dental visits help identify early signs of decay and provide treatments like fluoride applications or sealants to protect vulnerable teeth.

Tooth decay is a multifactorial problem, primarily caused by poor oral hygiene, high sugar intake, bacterial activity, and reduced saliva flow.

Preventing cavities requires a combination of daily oral care, healthy dietary choices, and routine dental checkups.

By understanding and addressing these causes, individuals can protect their teeth, maintain a healthy smile, and avoid the pain and expense associated with untreated decay.

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