

Tooth decay

Description:

This fact sheet discusses tooth decay, or dental caries, which causes holes or structural damage in teeth. It provides information on its causes, and tips on how to reduce the risk of tooth decay for both adults and infants.

Symptoms:

The first sign of dental caries may be 'white spots' on the teeth, usually near the gums. At this stage, it is still possible to repair the damage through good oral hygiene practices. If left untreated, these white spots may progress into holes called cavities. Cavities may become stained brown or black, and substantial damage to the tooth structure may occur.

Transmission:

Tooth decay is caused when the bacteria in dental plaque converts sugar and refined carbohydrates into acid. The acid attacks the tooth surface causing minerals from the surface to be lost (demineralisation). The body tries to naturally recover from this 'demineralisation' process by absorbing the lost minerals into the mouth's saliva (remineralisation). This 'attack and recovery' process occurs every time you eat or drink. Tooth decay will develop over a period of time, if the 'attack' outweighs the 'recovery'.

Factors that contribute to tooth decay

- Frequent consumption of sugary foods and drinks can cause tooth decay.
- Inadequate levels of fluoride in our mouths can contribute to tooth decay. Drinking fluoridated water provides a continual source of fluoride to saliva. This fluoride binds with other minerals such as calcium and phosphorus that have been lost from the tooth surface and aids remineralisation. As most people only brush twice a day, fluoride toothpaste does not supply a continual source of fluoride to the mouth.
- As saliva helps protect our teeth by acting as a reservoir for fluoride and by diluting acids, a dry mouth increases the chance of tooth decay.

Infants and tooth decay

Infants can experience tooth decay soon after the baby teeth erupt, which is usually between nine months and two years. Tooth decay in infants is sometimes referred to as 'early childhood caries' or 'baby bottle decay'.

As children often have sugary food and drinks, bacteria in their mouth can use these sugars to produce acid that attacks immature tooth enamel. Regular coating of the teeth with sugary foods or drinks by sucking from bottles containing fruit juice or sweet drinks (eg. cordial and soft drink) or sucking on dummies dipped in sugar syrups (eg. honey) can cause early childhood caries.

Treatment:

Seek treatment from a dental professional.

Health Outcome:

Tooth decay is a preventable disease, for both children and adults.

Prevention:

- Eat well balanced, healthy meals. Limit snacking between meals and consumption of sugary and acidic foods and drinks.
- Clean teeth thoroughly twice a day using fluoride toothpaste to remove plaque and minimise bacteria in the

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- mouth. Spit out excess toothpaste after brushing but do not rinse.
- Drink lots of water, taking frequent sips throughout the day. Drink fluoridated water where possible.
- Chew sugar-free gum to increase saliva flow.
- Have regular check-ups by your dental professional.

To avoid early childhood caries, follow these tips:

- Breast milk and water are the best drinks for babies - avoid undiluted juice, cordial and soft drinks.
- Introduce the cup at around six months.
- Stop using the bottle at around 12 months.
- Take the bottle away once the baby is finished drinking.
- Never use sweet syrups on a dummy.

Help and Assistance

For more information:

- contact your dental professional
- call 13 HEALTH (13 42 25 84) for confidential health advice 24 hours a day, seven days a week

Other Resources

[Queensland Health oral health website](#)

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