

Does sugar cause tooth decay?



Tooth decay has many causes. Diet, including sugar and starch intake, is only one aspect. How often you eat food and drinks, and how vigilant and proactive you are about looking after your teeth also play a role. This information sheet also offers advice on what you can do to minimise the risk of tooth decay.

DID YOU KNOW?

The longer a food stays in your mouth or sticks to your teeth the higher the chance it can cause tooth decay.

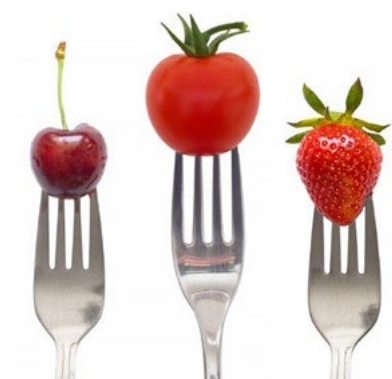
It is not just obvious sugary foods like confectionary that can cause tooth decay. For example, dried fruits and muesli bars are concentrated sources of sugar and starch and can stick to your teeth for a long time, meaning the risk of tooth decay is higher the more often these foods are eaten.



How tooth decay happens

Tooth decay occurs when the hard outer enamel layer of the tooth is damaged. Most damage to tooth enamel is caused by a build-up of a sticky film on the teeth called plaque. Bacteria found in plaque break-down sugary and starchy foods stuck on or between teeth into acids. (Starch is found in carbohydrate foods like bread, rice and pasta.) These acids can attack teeth, sapping important substances like calcium, phosphate and fluoride out of the tooth's protective coating – the enamel. Over time, this causes holes to form in the teeth.

It is not just sugars and starch that can weaken the tooth enamel and cause tooth decay – acidic foods can too. These include foods such as wine, fruit juice, pickled foods and soft drinks.



Tooth decay has many causes

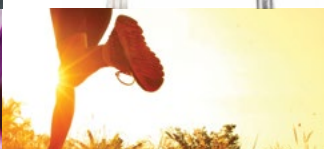
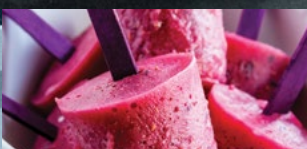
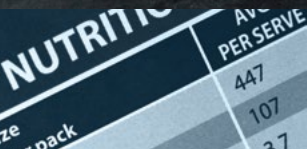
The **type** of food consumed (including the form, acidity and nutrient composition) and how **frequently** acidic, starchy and sugary food and drink are consumed are two key indicators of how likely tooth decay is.

How well saliva works, oral hygiene practices, fluoride use and the healthiness of the overall diet play a role in the development of tooth decay.

Saliva is an important weapon against plaque

Saliva washes food away, reduces the amount of decay-causing bacteria, and cancels out the damaging acids these bacteria produce. It also helps rebuild enamel.

If you don't produce enough saliva, which can occur with some illnesses, old age, or due to certain medications, this can contribute to tooth decay.



DID YOU KNOW?

Over 30% of Australians admit that they only brush their teeth once a day with most skipping the bedtime brush.

Brushing teeth twice a day with a fluoride-containing toothpaste can reduce tooth decay by 25%.

How frequently you eat foods that damage your teeth is important

Saliva needs at least 2 hours to be effective in protecting teeth.

Dental experts agree that the frequent consumption of foods and drinks that are damaging to teeth has more impact on dental health than the amount consumed.

When eating these foods, it is important that you allow sufficient time between snacks and meals for your saliva to work its magic. The key is to 'give teeth a rest'.

What you do or don't do also impacts on dental health

What preventative measures you take to protect your teeth also impacts on your dental health. Unfortunately, many people have become complacent, skimping on these simple but effective solutions recommended by the Australian and New Zealand Dental Associations.

- **Brush your teeth** twice a day, floss once a day and visit your dentist regularly.
- Use **fluoridated toothpaste** and drink tap water (if it is fluoridated) rather than bottled water. Fluoride helps protect teeth by slowing down the enamel break-down caused by the acids as well as helping saliva rebuild the enamel.
- Eat a balanced and **healthy diet** to keep your teeth strong.

What else can you do to prevent tooth decay?

The Australian and New Zealand Dental Associations also recommend the following simple eating strategies that you can adopt to help keep your teeth healthy.

- Be careful how often you eat and drink sugary foods and drinks throughout the day.
- If you do want to drink a sugary or acidic beverage, drink it quickly rather than sipping it slowly over time. Sipping it slowly increases the exposure time of the drink on your teeth and interrupts the action of saliva.
- Try not to snack between meals on sugary, starchy or acidic foods and drink. Instead snack on food and drinks that are kinder to your teeth like dairy products.
- Chew on sugar-free gum after a meal to promote saliva production.



THE SHORT AND SWEET OF IT

Tooth decay has many causes. As well as diet, these five key factors can affect how healthy your teeth and mouth are:

1. How well you take care of your teeth by brushing and flossing daily
2. How often you visit the dentist
3. How much fluoride your teeth comes in contact with
4. How frequently you eat and drink 'tooth unfriendly' foods and beverages, and
5. How much saliva you produce.

Remember, sugar can be enjoyed in moderation as part of a healthy, balanced diet – you just need to follow these three simple rules:

1. Make sure there is at least 2 hours between meals and snacks so your saliva can work properly
2. Don't slowly sip sugary and acidic drinks like fruit juice – drink them quickly or through a straw instead
3. Limit your intake of sticky foods like muesli bars, lollies and fruit strips, even if the label states 'no added sugar'

Information based on an overview of the scientific evidence.
For individual health advice see a qualified health professional.

Further Reading

1. Australian Dental Association. Oral Health Resources [Internet]. [cited Nov 2016]. Available from: <https://www.adansw.com.au/Community/Patient-Information.aspx>
2. New Zealand Dental Association. Healthy smiles Resource Centre [Internet]. [cited Nov 2016]. Available from: <http://www.healthysmiles.org.nz/>
3. Ministry of Health. Food and Nutrition Guidelines for Healthy Adults: a background paper. Wellington, NZ.
4. Moynihan P, Petersen PE. Diet, nutrition and the prevention of dental diseases. Public Health Nutr. 2004; 7(1A), 201–226

More info available at
www.allaboutsugars.com

This resource has been developed by the Australian Sugar Industry Alliance and aims to provide science based information on sugars and health.

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