

FLUORIDE TOOTHPASTES

The availability of fluoride-free toothpaste has increased in recent years. When making a choice about whether to use toothpaste with or without fluoride, it is important to weigh up all the facts.



Benefits of fluoride

Fluoride is found in nature.

Fluoride is a naturally occurring mineral, which may be found in fresh and sea water, foods, and beverages such as black tea. Fluoride may also be added to drinking water, over-the-counter and professional dental products.

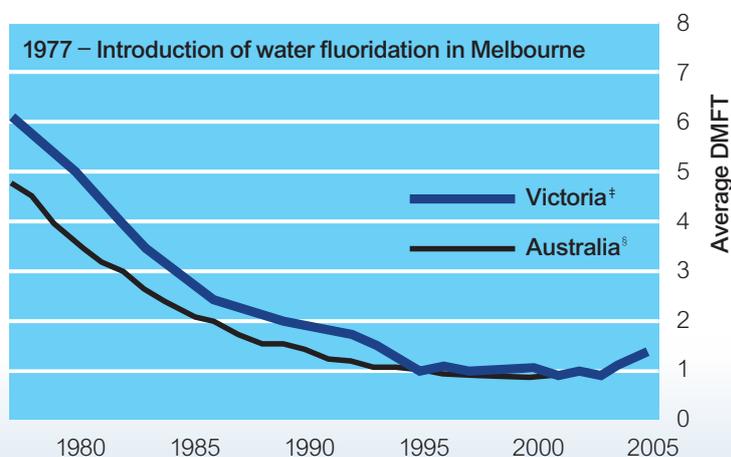
Fluoride makes teeth stronger, helps to prevent cavities, and it can heal early-stage tooth decay.

Tooth decay occurs when the outer tooth surface is broken down by acid. The acid comes from bacteria in the mouth which is produced when a person eats or drinks products containing sugar. This is called an acid “attack” on the tooth. Fluoride helps to strengthen teeth. It is soaked up in small amounts and helps the enamel repair after an acid “attack” before the decay becomes permanent.

Research comparing brushing with a fluoride and non-fluoride toothpaste has shown that when people brush twice a day with fluoride toothpaste, their tooth enamel is more resistant to sugary drinks before forming decay.

Australians have benefitted from fluoride in toothpaste and drinking water since the 1960s.

The average number of Decayed, Missing or Filled Teeth (DMFT) has significantly reduced since then.



[‡] Dental Health Services Victoria, 2006.

[§] Armfield J and Spencer A, 2008.

IMAGE 1: Decline in decay in 12 year olds, from 1977–2005 in Victoria and Australia, after the introduction of fluoride toothpaste and water fluoridation

(Source: adapted from the Victorian Department of Health and Human Services, 2008).

Dental fluorosis – not a type of decay

Dental fluorosis can occur occasionally if children are exposed to too much fluoride while adult teeth are still developing. This can result in a small change to the enamel, ranging from very faint white spots or lines, to pitting or staining. In Australia, if dental fluorosis does occur, over 98% of cases are very mild or mild and barely noticeable.

There is a higher risk of developing fluorosis when a child is very young, especially if they are unable to spit toothpaste out. There is no risk of fluorosis once the enamel of the adult teeth has finished developing. The front teeth complete enamel development by age four.

IMAGE 2: Mild Fluorosis

(Source: Australian and New Zealand Society of Paediatric Dentistry, 2014).



FACTS

- Fluoride in toothpaste strengthens teeth, making them more resistant to attacks from sugar and acid, thereby preventing decay.
- Fluoride can help re-mineralise (heal or reverse) early decay.
- Prevention of decay helps reduce the pain, inconvenience and financial cost of filling or taking out teeth.

Other factors – fluoride and tooth decay risk

Patients at “high decay risk” may be recommended by their dentists to use a higher strength fluoride toothpaste or mouthwash. A person may be at higher risk of developing decay if:

- undergoing orthodontic treatment (braces)
- their diet is high in sugar or acid
- they have difficulty brushing their teeth e.g. arthritis of the wrist, or other disability
- they have dry mouth, or low amounts of saliva
- living in an area without fluoridated water.



Can people be allergic to fluoride?

No. The American Academy of Allergy, Asthma and Immunology has reported that the fluoride ion is too small in size to serve as an allergen. Some people can be allergic to flavouring agents in toothpaste such as mint.

Any suspicion of an allergic reaction should be discussed with a medical doctor or allergy specialist. If you're allergic to any ingredients in toothpaste, speak to your dentist about what extra measures you can take to protect your teeth.

Fluoride toothpaste is safe

When used as recommended by your dentist, fluoride toothpaste is safe. Like all things in life the amount is important. Home dental products have a low level of fluoride. There has been no evidence to link regular use of fluoride toothpaste to any conditions other than fluorosis.

Children, however, may be prone to swallowing excessive amounts of toothpaste due to its mint or bubblegum flavour. While swallowing a small amount of toothpaste is generally considered safe, ingesting large amounts can cause symptoms such as stomach pain, possible intestinal blockage or other problems.

The Australian Dental Association recommends:

- No toothpaste for children aged under 18 months. Use a small soft toothbrush and simply use tap water to wet the brush.
- Use a pea sized amount of low fluoride toothpaste (sometimes labelled junior or children's) for children aged 18 months to six years.
- Use toothpaste under adult supervision until aged eight years.

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