

Dental Erosion

A guide to professional and self-help treatments

Dental erosion is the loss of tooth enamel and other tooth structure from frequent exposure to strong acids. The most common causes are:

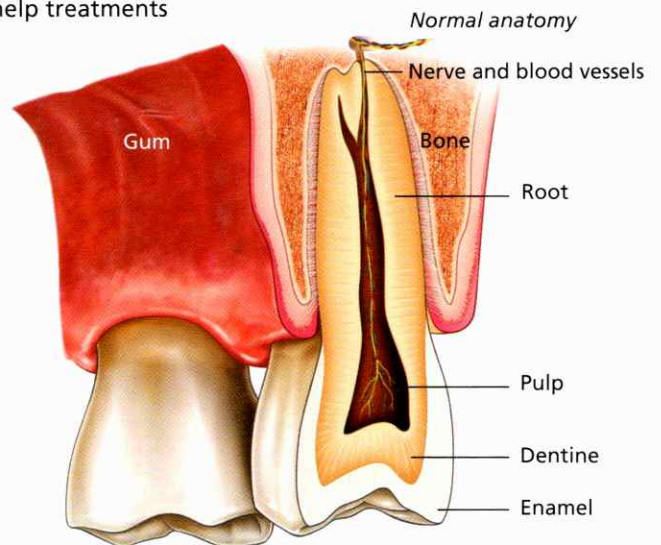
- acidic drinks and foods
- some medicines
- stomach acid that regurgitates into the mouth.

The loss of enamel may be slight to virtually total. In severe cases, the teeth can be dissolved down to the gum line.

When tooth enamel is increasingly eroded, and the dentine and pulp become exposed, then pain and sensitivity are common symptoms. If the erosion is not limited and the tooth is not treated, abscess and loss of the tooth may occur.

Dentists report that dental erosion has become more frequent, particularly amongst children, teenagers and young adults.

Dental erosion is not the same as tooth decay, although the two conditions can happen at the same time. Tooth decay (caries) occurs when bacteria in the mouth turn sugar into acid, which can damage the tooth. Poor oral hygiene and frequent consumption of sugar are the cause of tooth decay.



PATIENT A



Teeth affected by dental erosion



Restored teeth

PATIENT B



Teeth affected by dental erosion



Restored teeth

Common acid sources and risk factors

The first step in treatment is to avoid, limit or manage the exposure to acids. The dentist will help you identify your acid sources and risk factors, which may include:

- frequent intake of acidic foods and drinks such as carbonated soft drinks (both regular and sugar-free), sports drinks, energy drinks, red and white wines, fruit juices and cordials, citrus fruits, fruit jams, vinegar-based foods such as pickled vegetables, and some salad dressings
- acidic medications such as chewable vitamin C tablets, some cough syrups, and some antiseptic mouthwashes
- some medications taken for long-term treatments, such as some asthma drugs
- dry mouth, which can be caused by various factors, including smoking,
- medical treatments (such as some blood pressure and mood-altering drugs and chemotherapy) or medical conditions including Sjögren's syndrome
- medications that increase gastric reflux such as some anti-inflammatory drugs, including aspirin and asthma medications
- conditions that cause chronic regurgitation, vomiting or reflux, such as morning sickness, bulimia, hiatus hernia or peptic ulcer
- frequent exposure to poorly balanced, highly chlorinated water in swimming pools
- chronic dehydration that can occur, for example, in athletes who train heavily and often consume acidic drinks such as sports drinks.

This is not a complete list. There are infrequent causes not listed here.

YOUR DENTIST



Talk to your dentist

The aim of this pamphlet is to provide you with general information. It is not a substitute for advice from your dentist and does not contain all the known facts about dental erosion. Use this pamphlet only in consultation with your dentist.

Some dental and medical terms in this pamphlet may need further explanation by your dentist. Your dentist will be pleased to answer questions. It may be helpful to make a list of questions you wish to ask. If you have any concerns, discuss them with your dentist.

Your dental and medical history

The dentist will inspect your teeth and may take X-ray films. Tell the dentist your full dental and medical history. This may influence decisions on treatment. Your dentist may investigate and test the acidity of your saliva.

You may have other dental problems such as tooth decay or gum disease that also need treatment.

Professional treatments

You must avoid acid sources to stop further dental erosion. Various treatments are then available. The dentist will choose the best treatment for you depending on various factors, including the location and degree of your dental erosion. The dentist may suggest a combination of treatments.

In mild cases, the dentist may recommend the use of a fluoride toothpaste and a topical crème containing CPP-ACP. The dentist may apply a fluoride varnish to your teeth to help protect the remaining enamel against further erosion.

Severely eroded teeth may need to have root canal treatment or extraction. Restorative treatments can improve the function and appearance of your teeth. ADA patient education pamphlets on the following restorative treatments may be helpful:

- Veneers, bonding, bleaching and composites
- Crowns and bridges
- The fitting and care of dentures
- Dental implants.

Consult with your physician or family doctor if your acid source is due to a medicine or a medical condition. In some cases, the doctor can prescribe a different medicine or course of treatment that may reduce your risk of

erosion. However, this is not always possible.

The dentist will not perform any definitive restorative dental work while the acid source and erosion are ongoing. However, the dentist can help you to limit further dental erosion. For example, the dentist may treat some teeth with a composite resin, which forms a physical barrier between the teeth and the acids.

Care for your teeth

Here are easy and effective steps to limit or prevent erosion of teeth.

- Immediately after consuming an acidic food or drink, rinse your mouth with water, milk or a recommended mouthwash (typically a fluoride mouthwash).
- Drink more tap water throughout the day, especially between meals.
- Avoid or at least restrict your intake of acidic foods and drinks. Limit acidic drinks to mealtime.
- Drink plain (not sweetened or flavoured) milk instead of acidic drinks.
- Drink acidic drinks through a straw. Place the straw tip well behind your front teeth at about mid-tongue.
- Delay tooth brushing for at least 30 minutes after acid exposure to allow saliva to help stabilise the tooth enamel.
- Brush your teeth at least twice daily using a soft toothbrush and a non-abrasive fluoridated toothpaste. It is recommended that, after brushing, you spit out the excess paste and do not rinse. If you prefer to rinse, then reapply a small amount of fresh toothpaste to the teeth so that the benefit of the fluoride remains on the teeth.

Your dentist cannot guarantee that treatment will meet all of your expectations or that treatment has no risks. Talk to your dentist about the results you can reasonably expect. You may wish to seek a second opinion from another dentist.

Consent form: If you decide to undergo treatment, the dentist may ask you to sign a consent form. Read it carefully. If you have any questions about the consent form, the procedure, risks or anything else, ask your dentist.

- The dentist may prescribe fluoridated products such as a fluoride gel that you apply to your teeth.
- Chew sugar-free gum to increase saliva production.
- Swallow vitamin C tablets whole with water instead of chewing them.

Bruxism: The dentist may fit you with a splint if you tend to grind your teeth in your sleep (bruxism). This will help to minimise mechanical damage to teeth. Erosion can accelerate tooth wear due to bruxism.

Your dentist may have more suggestions that apply to you. Follow instructions carefully.

Monitoring is important

As dental erosion tends to recur, particularly if the cause is related to medicines or gastric reflux (with stomach acid reaching the mouth), you need to visit the dentist regularly. To check for dental erosion, your dentist may:

- place a spot of resin on a tooth to see if the enamel around it recedes
- use callipers to measure the teeth
- take regular impressions of your teeth with a special putty
- take clinical photos for comparison over time.

COSTS OF TREATMENT

You should ask for an estimate of fees before agreeing to any procedure. The estimate will include dental fees, and possibly medical fees, plus related costs. Ask which costs can be claimed on Medicare or private health insurance. As the actual treatment may differ from the proposed treatment, the final account may vary from the estimate. It is better to discuss costs with your dentist before and during treatment rather than afterwards.

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