



## Dental Erosion and "Wearing Away Teeth"

### Introduction

Although the cause may vary, the result is the same: loss of enamel and dentine and the serious risk of exposed nerve and subsequent need for Root Canal Treatment. We find that they often go hand in hand with the erosion weakening the teeth and the teeth then wearing down, exposing the dentine.

**Dental erosion** is the loss of enamel and dentine from the tooth as a result of direct acid attack. It can be caused by excessive exposure to acid substances such as fruit juices and fizzy drinks. It is an irreversible condition.

Tooth erosion differs from tooth decay.

Tooth decay is the progressive loss of tooth enamel by plaque acid attack. Bacteria in the mouth break down sugars into acids which then attack the teeth.



The most common teeth affected by dental erosion are the upper front teeth, although all teeth can be affected.

Teeth that have been eroded look glassy, can appear short, and have uneven tips that are easily chipped away.



Teeth that have been eroded may become sensitive. Research has shown that erosion is very common (50% of 4-18-year-olds have some tooth erosion).



The source of acid that causes the erosion is either from an intrinsic source from within the body (e.g. Acid from the stomach) or from an extrinsic source from outside the body (e.g. acidic foods, drinks or medicines).

Intrinsic causes are vomiting and acid reflux (where acid from the stomach escapes up into the mouth) which can be caused by a hiatus hernia, obesity or



certain drugs.

Fruit juices and soft drinks, together with foods such as rhubarb and citrus fruits, are examples of extrinsic sources of acid.

Regular checkups at the dentist mean erosion can be detected early. It also means that it can be treated more easily

**Dental Erosion affects people of all ages.**

We are seeing an increasing number of teenagers and young adults with major erosion and thinning of their front teeth caused by diet drinks. It is not just the sugar in drinks that causes problems; the acidity is also very important too.

We are seeing an increasing number of patients of retired patients who have erosion related to their longevity and the fact that as we get older our saliva changes and is less able to protect the enamel.

For those affected by erosion it is important to:

1. Limit acidic foods and drinks to meal times.
2. Reduce the number of times during the day that acidic foods and drinks are consumed.

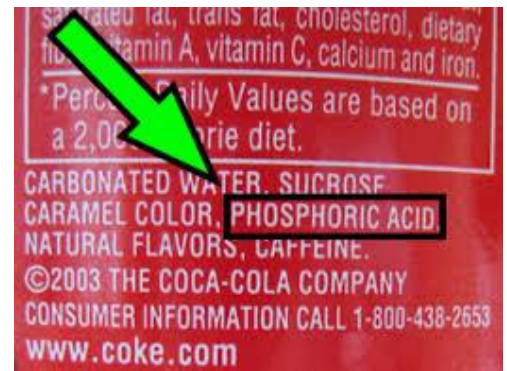
3. Choose soft drinks which have no added sugar and have been shown to pose a negligible risk of tooth erosion. Diet (Sugar-Free) drinks can cause erosion and make existing erosion worse.
4. Finish meals with a small piece of cheese or a drink of milk.
5. Delay brushing teeth immediately after having acidic foods or drinks.
6. Ideally drink only milk, or water between meals - use a straw for all other drinks to help direct the drink right into the mouth and away from the teeth.
7. Take drinks over a short time, rather than constantly sipping at them over a long time, as this reduces the time that the drink is in contact with the teeth.
8. Cheese is very rich in calcium salts and is a - tooth friendly - food that helps to protect the tooth surfaces.
9. Always try and get sugar free liquid medicine formulas from the pharmacist.
10. To use the correct toothpaste, tooth brush and follow the correct Oral Hygiene regime
11. Have regular Dental Examinations!!!!

It may be possible to improve the appearance of teeth that have been eroded with the use of adhesive filling materials, veneers or crowns. However, it is important that the cause of tooth erosion is identified first before this kind of dental treatment is undertaken.

### Children's Drinks

The best drinks for children's teeth are water or milk. Many people believe that natural fruit juices or squashes are the safest alternatives to water or milk. However, most contain fruit acids (often quite a lot).

Even drinks marked - no added sugar - still contain acids that can cause tooth erosion. Fizzy drinks (whether diet or regular), fruit squashes, cocoa and milk shakes may all cause harm to teeth.



The sugar in them can cause tooth decay whilst the acid in both normal and diet drinks dissolves the enamel on the teeth leading to erosion.

Always dilute squashes correctly - follow the manufacturer's directions for use. Natural fruit juices should be diluted with water to reduce the risk of tooth damage, although even when very diluted, the acids are still there and can do harm to the teeth.

Remember that if a child is genuinely thirsty they will always drink water! If children require an alternative drink to milk or water look for a - no added sugar - squash that has been specially designed to pose a negligible risk of tooth erosion.

Sugary, acidic drinks, fruit juices, squashes and fizzy drinks should only be taken at meal times.

If comfort feeders and bottles containing sugary drinks are given to young children they can cause severe dental problems.

Milk or water is the only drink that should be given in a baby's bottle. When using feeding bottles hold the baby until the feed is finished. Never leave a baby propped up with a bottle; they might choke and it's bad for their teeth. After brushing teeth at bedtime, allow a child to drink only water afterwards. Never leave a bottle or feeder cup with a sweetened drink by a child's bed overnight.

### What can the dentist do?

Show you the correct way to clean your teeth, especial he vulnerable ones.

Prescribe a specially formulated Toothpaste and/or mouthwashes to stop the problem getting worse

Rebuild the damage tooth structure.

Cover the week areas with protective coating (normally bonded materials that do not require drilling or needles!!)

## Worn Out Teeth



### Do I need treatment?

At the very least you need to realise the problem and take preventative measures to stop it getting worse.

Although in most cases it is essential to place a protective cover when the tooth has been damaged.

### Why do I need treatment?

Enamel protects the dentin which then protects the nerve. Once the nerve is damaged and requires Root Canal Treatment then the Life Expectancy of the tooth is dramatically reduced.

### What happens if I leave it?

The enamel is very hard and resists wear. Once the enamel is lost, the exposed dentin will usually wear away very quickly.

In addition the dentine is much less resistant to decay, so even in a mouth with good plaque and sugar control; decay can be rapid and very destructive.

This is especially true as patient age as the quality of their saliva changes.

### Options for Treatment

The most important things are good oral hygiene and sugar control.

When the damage is severe then the tooth will need active treatment and this may involve a simple adhesive sealant or at the other extreme extraction.

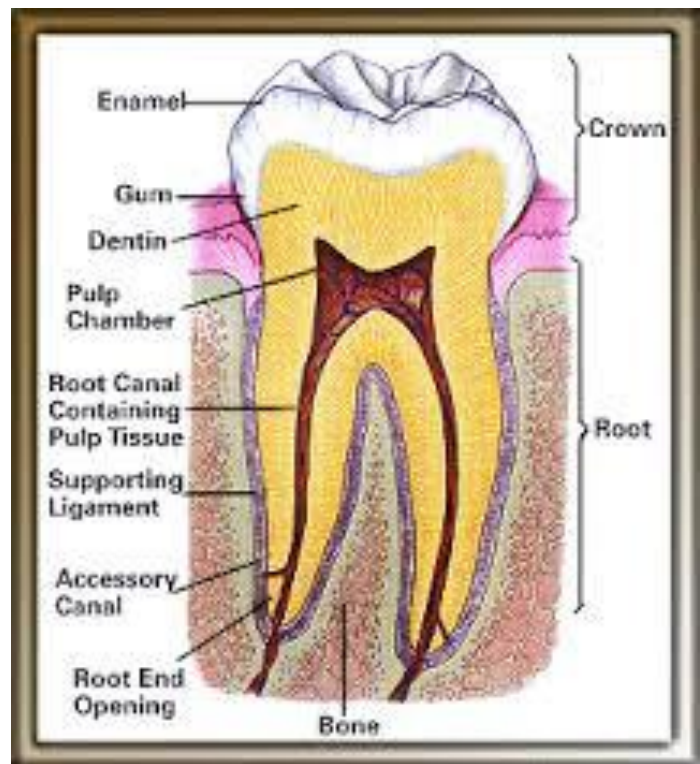
### Bonded adhesive Restorations

This is where we place a bonded filling over the exposed area and because this is harder than dentin it will resist the wearing.

These type of restorations are normally only used in areas that are not on the biting surface, such as the neck or facing of the tooth.

The treatment usually does not involve an injection and is completely pain free.

But they will need maintenance and replacement eventually.



## Night Guards

In cases where there is a grinding action or related jaw pain we advise a night guard.

We have a separate leaflet about night guards. Please ask for one if you want more information

Night Guards are an easy way of preventing/stopping the pain associated with teeth wearing away.



## Root Canal treatment

In some cases this may be required in order to keep the tooth.

This is why it is so essential to stop the problem getting to this stage.

## Crown Build Ups



This is the last resort, but in many cases it is the essential option where the tooth destruction is so severe that the tooth may be lost

When tooth wear is also associated with grinding then it may be very difficult to get a long term result even with crowns.

This is why it is so important to prevent the problem escalating in the first place.



BEFORE

AFTER

## Last but not least

Good Oral Hygiene and sugar control is essential in all cases for long term maintenance