

Acids in the Oral Environment

Acids, whether from an external or internal source, cause the teeth to become weaker, change colour and become sensitive. What are the causes of these acids, and what can we do about them?

Causes of an Acidic Environment

Medical Conditions that Cause an Acid Environment

- **Bulimia** - when the stomach acids are repeatedly forced out of the body through the oral cavity, the mouth becomes acidic.
- **Acid reflux (Gastroesophageal reflux)** - a condition when acids from the stomach flow up into the esophagus and occasionally into the mouth.
- **Pregnancy** - often pregnant mothers report "morning sickness." This is when nausea and emesis (vomiting) happens up to multiple times/day, usually in the first trimester.

Dietary Sources of an Acid Environment

External dietary sources that cause an acidic oral environment are carbonated drinks, pop, diet drinks, juices, sour foods, alcohol/wine, frequent sugar consumption, sucking on lemons or limes, lemon water. Holding cough drops or candies in the mouth or in the cheek area can also cause localized erosion to that specific area.

Effects of Acid Reflux on the Oral Cavity

When the stomach's acids are refluxed into the oral cavity, it changes the PH level of the mouth to be more acidic. These acids start by breaking down the outer most layer of the tooth called the enamel. This process is called erosion. If this progresses over a long period of time, the second layer of the tooth, the dentin, starts to become exposed. This can cause teeth to be more prone to chipping, attrition (wear in the biting surface) and tooth decay. The worst effects are usually seen in the top teeth on the inside and biting surfaces, giving them the appearance of being translucent or grey-yellow in colour.



Treating Acid Erosion

- Pro-enamel toothpaste - with potassium nitrate and sodium fluoride
- In office fluoride treatments
- Use of a tooth paste with higher amounts of fluoride that can be prescribed by the Dentist
- MI Paste - minimizes dental erosion by reducing high oral acid levels and supplies and replenishes calcium phosphate to help prevent mineral loss from teeth
- Fluoride rinses daily/weekly
- Maintain regular hygiene appointments
- Rinse with water after being exposed to the acids. Do not brush immediately after. Wait approx 60min until the saliva naturally neutralizes the acids.
- The dental hygienist can help to identify signs and symptoms of erosion as well as their causes and recommend home care instructions and products that can help
- Change dietary habits
- A referral to your family doctor to determine the source of the erosion (if source is unknown) is usually recommended

