

Enamel Erosion

Dental erosion is the break down of tooth structure caused by the weakening or loss of the tooth's outer layer (called tooth enamel).

THE IMPACT ON ORAL HEALTH

Generally, saliva helps to restore the natural balance of acid in the mouth. When acidic food or drink is consumed, the enamel will soften for a short time. If foods high in acid are consumed on an excessive basis, the mouth can't repair itself and there is greater chance for dental erosion.

The acid breaks down tooth enamel around dental sealants and restorations further compromising teeth and leading to more extensive dental treatment to prevent tooth loss. Teeth may become overly sensitive and unsightly.

CAUSES AND RISKS

Teeth are at risk for erosion when the protective enamel layer is softened. Food and illness can change mouth acidity and weaken the enamel's strength. For instance:

Acid in food/beverages

When acidic food is consumed on an excessive basis, the mouth cannot repair itself and there is greater chance for enamel erosion.

Common food/beverages with acid include:

- Regular and diet soft drinks – phosphoric acid
- Fruit and fruit products – citric and malic acids
- Fermented products (yogurt) – lactic acid
- Grapes and wine – tartaric acid
- Pickles and salad dressing – acetic acid

Gastro-esophageal reflux disease (GERD)

GERD or acid reflux (heartburn) is a disease in which gastric acid is returned from the stomach through the esophagus into the oral cavity. GERD without the symptoms of acid burn or heartburn could still erode tooth enamel.

As professional health-care providers, dental hygienists are primarily concerned with promoting good oral health. Dental hygiene is among the largest of the regulated healthcare professions in the province. In Ontario all dental hygienists are registered with the College of Dental Hygienists of Ontario, which regulates the profession to ensure the public receives safe and ongoing comprehensive oral care.

Diet

Vegetarian diets or any diet having fruit comprising more than 66 per cent of the total food intake also make teeth more susceptible to erosion.

Eating disorders

Eating disorders such as anorexia nervosa and bulimia can have a devastating effect on tooth enamel. Long-term exposure to the acid from vomiting erodes the surfaces of the teeth. People with eating disorders tend to brush aggressively, which can further aggravate enamel erosion, resulting in sensitivity to hot and cold.

Aggressive brushing

Improper and vigorous brushing can erode enamel.

TREATMENT AND PREVENTION

Dental hygienists can discuss individual causes and symptoms of enamel erosion and provide a customized treatment plan.

- Maintain a healthy diet that is low in acidic food and beverages.
- Visit a dental hygienist for regular cleanings and fluoride treatments, if appropriate.
- Use a toothbrush with extra soft bristles and a non-abrasive toothpaste.
- Use fluoride toothpaste if recommended by a dental hygienist.
- Don't sip drinks other than water throughout the day as this can increase acid attacks.
- Drink from a straw to reduce contact between the beverage and teeth.
- Reduce consumption of regular and diet pop, fruit juices and sports drinks.
- Rinse with water for 30 seconds after drinking a beverage that contains acid.
- Delay brushing for at least an hour after consuming acidic food or beverages. Instead, rinse with water, eat hard cheese or chew a stick of sugarless gum.

