

ACE Panel Report

Dental Erosion

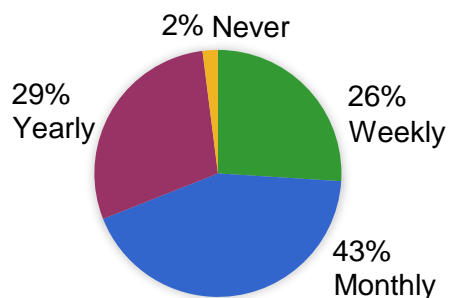
ace@ada.org

Survey Results

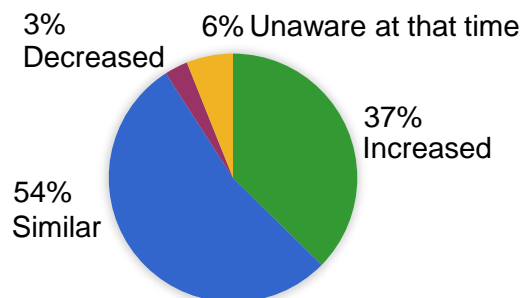
Data reflect the experience of 322 ACE Panel member dentists in the United States.

98% of ACE panelists define **dental erosion** as the **irreversible loss of tooth structure** due to chemical dissolution by acids not of bacterial origin. The acid source can be intrinsic (e.g., gastric acid) or extrinsic (e.g., dietary acids).

Frequency of Erosion Diagnosis



Prevalence Compared to 5 years ago



94% counsel patients to reduce acidic food and beverages once acid erosion is observed. Moderate to severe erosion, however, may be attributed to conditions requiring medical attention.

Clinical Insight: Etiology of Dental Erosion

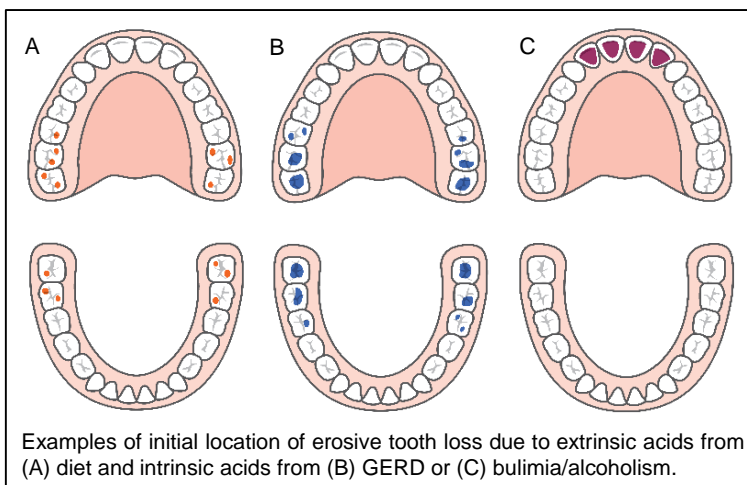
As dental erosion is characterized by a loss of tooth structure, it is important to first differentiate the condition from others that may also cause tooth wear and/or loss. Attrition due to bruxism, for example, may be observed as a flat profile on bitewing radiographs.

When erosion is caused by **diet**, specifically the chewing of acidic foods like sour candies, the occlusal surfaces of the molars are shiny and shallow craters or pits are present. Swishing and/or gargling acidic beverages, such as sodas and sports drinks, may also contribute to acid erosion with initial onset characterized by a chalky appearance on the facial and/or lingual surfaces of the teeth, respectively.

When the initial presentation of erosion is characterized by glistening occlusal surfaces of the molars along with cusp tip pits and/or more significant loss of the tooth structure, **gastroesophageal reflux disease**, or GERD, becomes a more primary concern.

Children may also report “hot burps” when experiencing GERD. Considering the age of the patient, initial signs of erosion on the lingual surfaces of the maxillary incisors may indicate recurrent vomiting, such as with **bulimia** or **chronic alcoholism**.

In addition to identifying the acid source, monitoring the progression at each site of occurrence can help in the management of erosion. Primary teeth erode at a faster rate than permanent teeth so closer monitoring may be required. When appropriate, referral to a patient’s physician may be necessary.



Scheutzel P. *Eur J Oral Sci* 1996;104(2(Pt 2)):178-90; Zero DT. *Eur J Oral Sci* 1996;104(2(Pt 2)):162-77. Taji S, Seow WK. *Australian Dent J* 2010; 55:358-367.

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