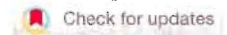


## What is dental erosion?



**Y**our teeth are covered by enamel, which is hard but can be damaged. If your teeth are exposed to acidic food or liquids over time, enamel can be lost. This process is called dental erosion.<sup>1</sup>

### WHERE DOES THE ACID THAT CAUSES DENTAL EROSION COME FROM?

Common sources of acids associated with dental erosion<sup>2,3</sup> include acidic food and drinks, acid reflux, and vomiting.

**Acidic food and drinks.** Dental erosion is associated acidic food and drinks. For example, eating acidic fruits more than twice a day, drinking soda every day, or drinking sports drinks once a week may contribute to dental erosion.<sup>4</sup>

**Acid reflux.** During acid reflux, acid is forced out of the stomach and back into the mouth. People who have untreated acid reflux for a long time may be at risk for dental erosion.<sup>2</sup>

**Vomiting.** Repeated vomiting over a period can put you at risk for dental erosion.<sup>2</sup>

### WHAT SHOULD YOU WATCH FOR?

Early signs of dental erosion are shallow pits on your teeth, a flattening of your back teeth, or both.<sup>5</sup> As more enamel is lost, the dentin is exposed, which can cause changes in how your teeth look and can cause tooth pain.<sup>6,7</sup>

**Tooth appearance.** You may notice that your front teeth appear to shorten or start to look yellow.

**Tooth pain.** Dentin is sensitive, so you may experience sharp tooth pain when, for example, your teeth are touched or the temperature in the mouth changes to hot or cold.

### WHAT CAN YOU DO?

Unfortunately, once enamel is lost, it cannot be replaced. But you can take the following steps to prevent or stop dental erosion: drink water or milk while eating; avoid eating or drinking acidic food or beverages; if you drink acidic beverages, use a straw placed behind your front teeth, and don't swish the liquid around or hold it in your mouth; rinse your mouth with water or milk after vomiting, eating acidic food, or drinking acidic beverages; and if possible, wait at least 1 hour before brushing your teeth after vomiting, eating acidic food, or drinking acidic beverages.<sup>3,8-10</sup>

Here are other tips to think about.

- Chewing sugar-free gum can increase saliva flow, which helps remove acid.
- Use a soft-bristle brush and fluoride toothpaste when you brush your teeth.

- Look for products that have the American Dental Association Seal of Acceptance to help prevent or reduce enamel erosion from dietary acids. The Seal means an independent group of scientific experts has agreed that the products are safe and effective when used as directed.

### CONCLUSION

Dental erosion is caused by repeatedly exposing your teeth to acid over time. Talk to your dentist if you think you are at risk of developing dental erosion. You can work with him or her to map out a plan to keep your enamel healthy and your smile looking great. ■

<https://doi.org/10.1016/j.adaj.2018.04.011>

Prepared by Anita M. Mark, senior scientific content specialist, ADA Science Institute, American Dental Association, Chicago, IL.

**Disclosure.** Ms. Mark did not report any disclosures.

Copyright © 2018 American Dental Association. Unlike other portions of JADA, the print and online versions of this page may be reproduced as a handout for patients without reprint permission from the ADA Publishing Division. Any other use, copying, or distribution of this material, whether in printed or electronic form, including the copying and posting of this material on a website, is prohibited without prior written consent of the ADA Publishing Division.

"For the Patient" provides general information on dental treatments. It is designed to prompt discussion between dentist and patient about treatment options and does not substitute for the dentist's professional assessment based on the individual patient's needs and desires.

You can find more information for patients at [ADAcatalog.org](http://ADAcatalog.org) or at [MouthHealthy.org](http://MouthHealthy.org).

1. Kanzow P, Wegehaupt FJ, Attin T, Wiegand A. Etiology and pathogenesis of dental erosion. *Quintessence Int.* 2016;47(4):275-278.
2. Scheutzel P. Etiology of dental erosion: intrinsic factors. *Eur J Oral Sci.* 1996; 104(2, pt 2):178-190.
3. Zero DT. Etiology of dental erosion: extrinsic factors. *Eur J Oral Sci.* 1996; 104(2, pt 2):162-177.
4. Jarvinen VK, Rytomaa II, Heinonen OP. Risk factors in dental erosion. *J Dent Res.* 1991;70(6):942-947.
5. *Tooth Erosion: The harmful effects of acid.* Chicago, IL: American Dental Association; 2017.
6. Schlueter N, Jaeggi T, Lussi A. Is dental erosion really a problem? *Adv Dent Res.* 2012;24(2):68-71.
7. Meurman JH, ten Care JM. Pathogenesis and modifying factors of dental erosion. *Eur J Oral Sci.* 1996; 104(2, pt 2):199-206.
8. Schlossman M, Montana M. Preventing damage to oral hard and soft tissues. In: Spolarich AE, Panagakos FS, eds. *Prevention Across the Lifespan: A Review of Evidence-Based Interventions for Common Oral Conditions.* Charlotte, NC: Professional Audience Communications; 2017:97-120.
9. Carvalho TS, Colon P, Ganss C, et al. Consensus report of the European Federation of Conservative Dentistry: erosive tooth wear—diagnosis and management. *Clin Oral Investig.* 2015;19(7):1557-1561.
10. Anuschi BT, Higham SM. Dental erosion: possible approaches to prevention and control. *J Dent.* 2005;33(3):243-252.