

Introduction

- Dental erosion is the irreversible loss of tooth enamel caused by acid-based chemical dissolution without the presence of microorganisms (Schlenz, et al., 2022).
- The veracity of the teeth; number; pH, and composition of the saliva; and plaque may cause erosion on tooth surfaces (Sen, et al., 2022).
- There is an association between tooth wear and acids from diet, dental caries, and intake of carbohydrates.
- Once erosion occurs, you may need fillings, crowns, a root canal or even tooth removal. Veneers may also be an option to better the look of your smile.
- Bacteria in your mouth thrive on sugar, and they produce acids that can eat away the enamel (Schlenz, et al., 2022).

What Foods cause Acid Erosion?

- Wine
- Lemon juice and orange juice
- Water
- Soda
- Energy drinks
- Spices
- Mustard
- Fruits such as apples, grapes, peaches, blueberries, and pineapple.
- Pineapple juice
- Vinegar
- Bread
- Rice

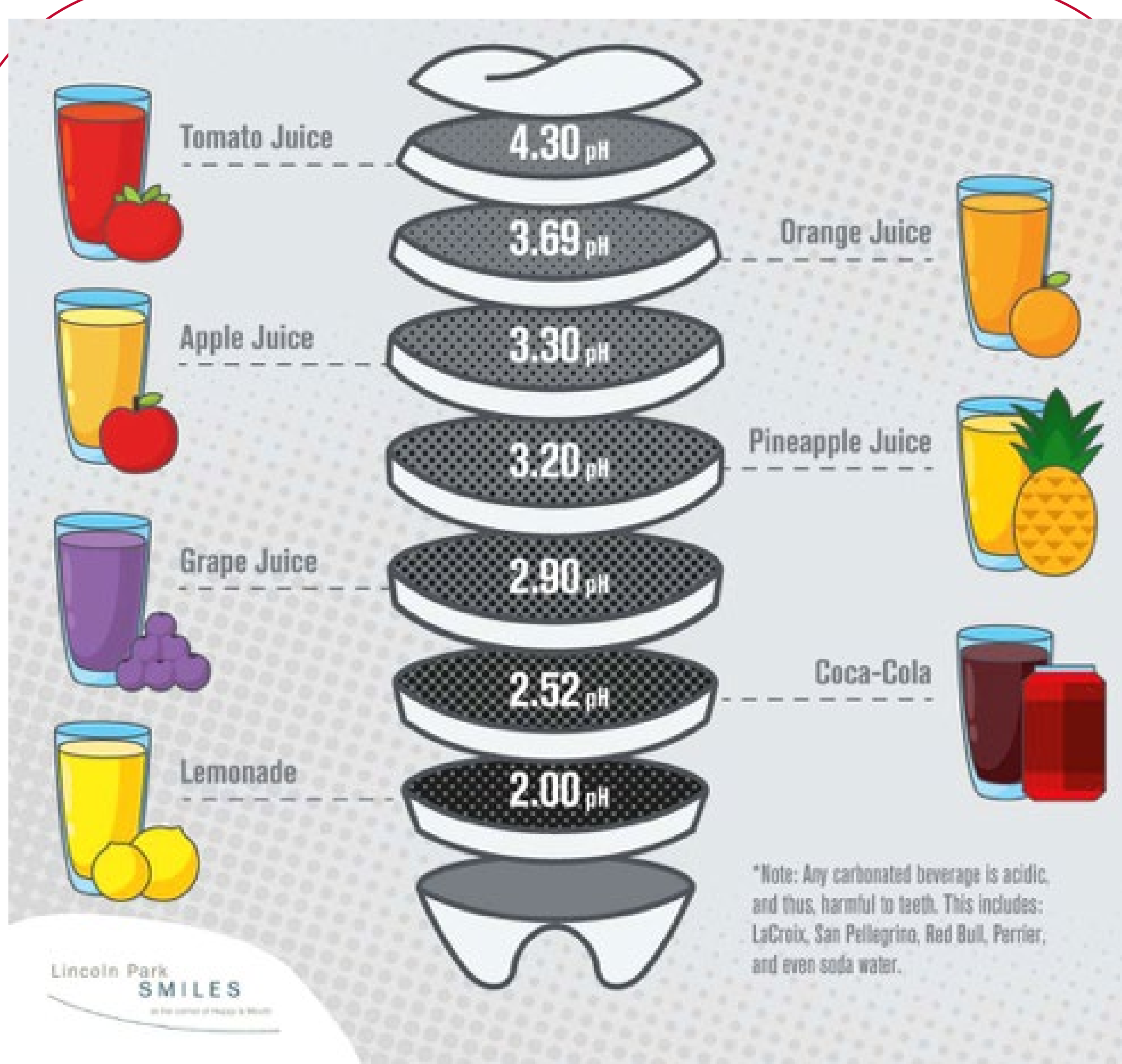
Erosion Prevention and Therapeutic Aids

- After eating acidic foods, wait an hour before brushing to allow your saliva to naturally wash out acids and re-harden your enamel.
- Soft drinks and other acidic liquids should be avoided. If you must indulge, drink through a straw.
- Rinse your mouth with water after eating or drinking acidic foods or beverages.
- Saliva aids in the regulation of acidity, it works as a buffer. (Tocoli, et al., 2018).
- Xylitol helps keep your saliva flowing and protect your teeth.
- Look for the ADA Seal of Acceptance for dental health products. This indicates that the product is both safe and effective.

Acid Erosion Effects on Teeth

- Acid erosion changes the appearance of your teeth
- It allows microorganisms to enter the mouth, which can lead to cavities or infection.
- Feel pain or sensitivity when consuming hot, cold or sweet drinks
- Yellowish discoloration of the teeth
- Restorations may change overtime
- In extreme cases, a periapical abscess may develop
- Tooth loss may also occur in extreme cases

Comparison of pH and Acidity Among Different Acidic Juices



Admin. (2022, April 20). *The dangers of acidity in beverages on teeth - popular but harmful drinks*. LPS Dental. Retrieved April 25, 2022, from <https://www.lincolnparksmiles.com/the-dangers-of-acidity-in-beverages/>

Role of the Dental Hygienist

- Educate the patient on how acid erosion could be caused and prevented.
- Educate patients about how there could be hidden acid in different food items that could cause acid erosion.
- Teach the patient on how to properly maintain good oral hygiene.
- Recommend different products to help with sensitivity caused by erosion, such as mouthrinse or denterfice based on individual needs.
- Help prevent acid erosion from occurring by teaching the patient good oral habits.
- Explain possible therapeutic options to help ease the discomfort that the acid erosion caused.

Sound vs. Eroded Teeth

Sound Teeth



Second photograph assessed by the participants. all healthy teeth. (n.d.). Retrieved April 25, 2022, from https://researchgate.net/figure/Second-photograph-assessed-by-the-participants-All-healthy-teeth_fig2_335279471

Eroded Teeth



(2018, February 6). *Enamel-teeth-erosion-neo-dentistry: Smile Kyle: Neo dentistry. Smile Kyle | NEO Dentistry*. Retrieved April 25, 2022, from <https://smilekyle.com/what-causes-acid-erosion-of-tooth-enamel/enamel-erosion/>

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- Tocolini, M., Brancher, A., de Souza, F., & Gonzaga, C. (2018). *Evaluation of the erosive capacity of children's beverages on primary teeth enamel: An in vitro study*. Journal of Clinical and Experimental Dentistry: Community and Preventive Dentistry, <https://doi.org/10.4317/jced.54546>