The germs that cause tooth decay use sugar to grow and live.

When you eat or drink sugary foods the germs feed on the sugar and make plaque (plak).

Plaque is a sticky, smelly substance that forms on teeth after eating. (Fuzzy teeth = plaque!)

Brushing and flossing remove plaque.

Plaque makes acid which attacks tooth enamel, the hard outer layer that protects the tooth.

Frequent acid attacks weaken tooth enamel and create a hole — a cavity!

The tooth hurts when the cavity grows bigger and gets closer to the tooth nerve.

See a dentist to stop the cavity from getting larger and repair the damage.

**What Causes a Cavity?**

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- Brushing and flossing remove plaque.
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- Frequent acid attacks weaken tooth enamel and create a hole — a cavity!
- The tooth hurts when the cavity grows bigger and gets closer to the tooth nerve.
- See a dentist to stop the cavity from getting larger and repair the damage.

**How to Brush**

- Place the toothbrush against the gum line at a 45-degree angle. Use a small circular motion to brush your teeth.
- Brush back and forth on the chewing surfaces of your teeth holding the brush flat. Do not forget the back of your teeth.
- Brush your tongue! This will freshen your breath and remove germs.
- Brush at least 2 times a day for at least 2-3 minutes.
- Brush at bedtime to remove bacteria that can cause decay while you are sleeping.

**How to Floss**

- Wrap about 18 inches of floss around the middle fingers.
- Slide the floss between the teeth. (Do not snap the floss into the gums but guide the floss gently just below the gumline).
- As the floss reaches the gum line, make a C-shape around the tooth until you feel pressure against your tooth.
- Gently scrape the tooth surface with the floss.
- Move the floss as it becomes soiled and repeat the process for each tooth. Floss every day.

**What About Fluoride?**

Fluoride is a natural element found in rocks and soil, in fresh water, and in ocean water.

**Fluoride:**

- Prevents tooth decay;
- Strengthens tooth enamel;
- Kills germs that cause tooth decay.

Health experts endorse water fluoridation as the single, most effective public health measure to improve oral health.

**Fluoride Toothpaste & Varnish**

- Using toothpaste with fluoride provides extra protection from germs that cause cavities when you brush at least twice a day for two minutes.
- Minimize your child's risk of swallowing toothpaste by controlling the amount of toothpaste on the toothbrush.
- Ask your dentist about fluoride varnish. It is a safe and effective way to prevent, reduce, or even reverse the onset of tooth decay.

**Flossing Tips**

- Prethreaded flossers are helpful for children learning how to floss or for those who have trouble with arm movement.
- All types of floss are acceptable: flavored or unflavored, wide or regular, waxed or unwaxed.

**Children should never floss without an adult's help.**

A dentist or dental hygienist can show you how to floss your child's teeth.

**Brushing Tips**

- Always use a soft-bristle toothbrush.
- Replace your toothbrush every 3 months.
- Never share toothbrushes; it spreads germs.
- Children at high risk for tooth decay should use toothpaste that has fluoride as early as possible.

**How Much Toothpaste With Fluoride?**

- **Age 2 and Under:** Slight smear the size of a grain of rice
- **Age 3 - 5:** 1/2 of pea-size
- **Age 6+**: pea-size

It is best to spit and not rinse after brushing.

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Acid & Sugar vs. Tooth Enamel

- Lemons and limes are very acidic. Sucking on them can slowly wear away tooth enamel, the outer layer that protects the tooth.
- The acids in soda, tea and juice also wear away tooth enamel.
- Even diet or “sugar-free” soft drinks have acids that can harm your teeth.
- An acid attack usually lasts 20 to 40 minutes. Every sip starts a new acid attack.
- Sodas have no nutritional value except for sugar and calories. Sugar feeds bacteria that cause tooth decay.

Save Tooth Enamel...

- Eliminate highly acidic foods and drinks from your diet such as sodas, lemons, and other citrus fruits and juices.
- If you still eat or drink acidic foods and drinks, use a straw and when done, rinse your mouth with water.
- Brush with toothpaste with fluoride using a soft bristled toothbrush.

The smaller the acid number, the stronger the acid!

<table>
<thead>
<tr>
<th>Acid**</th>
<th>Sugar**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low = Bad</td>
<td>Per 12 ounce Serving (1 can)</td>
</tr>
<tr>
<td>Pure Water</td>
<td>7.00</td>
</tr>
<tr>
<td>Barq’s Root Beer</td>
<td>4.61</td>
</tr>
<tr>
<td>Diet 7UP</td>
<td>3.67</td>
</tr>
<tr>
<td>Apple Juice (13.5 ounces)</td>
<td>3.40***</td>
</tr>
<tr>
<td>Sprite</td>
<td>3.42</td>
</tr>
<tr>
<td>Diet Coke</td>
<td>3.39</td>
</tr>
<tr>
<td>Orange Juice</td>
<td>3.3 to 4.2***</td>
</tr>
<tr>
<td>Grape Minute Maid Soda</td>
<td>3.29</td>
</tr>
<tr>
<td>Mountain Dew</td>
<td>3.22</td>
</tr>
<tr>
<td>Fresca</td>
<td>3.20</td>
</tr>
<tr>
<td>Orange Slice</td>
<td>3.12</td>
</tr>
<tr>
<td>Diet Pepsi</td>
<td>3.05</td>
</tr>
<tr>
<td>Nestea</td>
<td>3.04</td>
</tr>
<tr>
<td>Gatorade</td>
<td>2.95</td>
</tr>
<tr>
<td>Dr. Pepper</td>
<td>2.92</td>
</tr>
<tr>
<td>Hawaiian Fruit Punch</td>
<td>2.82</td>
</tr>
<tr>
<td>Orange Minute Maid Soda</td>
<td>2.80</td>
</tr>
<tr>
<td>Coke Classic</td>
<td>2.53</td>
</tr>
<tr>
<td>Pepsi</td>
<td>2.49</td>
</tr>
<tr>
<td>Battery acid</td>
<td>1.00 (ouch)</td>
</tr>
</tbody>
</table>

*Laboratory tests, University of Minnesota School of Dentistry, 2000.
**USDA: 4.2 grams = 1 teaspoon of sugar

Tips to Avoid Tooth Decay

1. Brush your teeth at least twice a day with toothpaste that has fluoride.
2. Floss at least once a day.
3. Do not share eating utensils or drink from the same cup. Each family member should have their own toothbrush.
4. Visit your dentist twice a year for a routine checkup and cleaning.
5. Drink plenty of water! Avoid sugary foods and drinks. Watch out for acids in sodas and juices.

If you want to know more about keeping your teeth healthy, contact the:

Office of Oral Health
Family Health Administration
Maryland Department of Health and Mental Hygiene
201 West Preston Street, 3rd Floor
Baltimore, MD 21201
410-767-5300
http://fha.maryland.gov/oralhealth/
e-mail: oralhealth@dhmh.state.md.us

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The Department, in compliance with the Americans with Disabilities Act, ensures that qualified individuals with disabilities are given an opportunity to participate in and benefit from DHMH programs, services, and accommodations.

Martin O’Malley, Governor
Anthony G. Brown, Lieutenant Governor
Joshua M. Sharfstein, M.D., Secretary

Some tips for good oral health from the Maryland Department of Health and Mental Hygiene