Acid Drinks Destroy Teeth

Drinks melt enamel and promote decay.

Trendy drinks are causing a generation of young people to experience decay and loss of tooth enamel unprecedented in modern times. Over-consumption of sugar-laden, acidic drinks, such as boxed juice, sports drinks and soft drinks, is reversing more than 50 years of public health gains realized through preventive measures like fluoridated water and dental sealants.

Acid

Soft drinks, sports drinks and juices pack a double dose of acid and sugar that destroy teeth. Acid softens the enamel and chemically dissolved the outer layer. This is dental erosion.

Sugar

Sugar feeds the bacteria that cause tooth decay. The drinks overwhelm the positive effect of fluoride and cause decay and erosion.

Quantity

Super sizing a drink increases the contact time and causes more damage. Sipping small amounts over time leads to cumulative destruction. The longer it takes to drink a sugar laden, acidic drink, the greater the damage.

Timing

Sports drinks have more acid than soft drinks. When one is dehydrated with no saliva, the acid in the sports drinks dissolves the enamel more quickly. Sipping a sugary, acidic drink all day while driving, studying or working dissolves enamel and promotes cavities.

Prevention

✓ Drink in moderation.
✓ Use a straw.
✓ Drink at one sitting or with food.
✓ Drink water to rehydrate.
✓ Wait one hour to brush after an acidic drink.
✓ Use fluoride and remineralizing products.
✓ Drink milk. Its neutral pH of 6.7 and 1 tsp of lactose (sugar) per 12 ounces are healthy for teeth.

Acid Drinks
Sugar

Quantity
Timing

Acid

Barq’s Root Beer
Minute Maid® Orange Juice
Propel® Fitness Water
Red Bull® Energy Drink
Propel® Fitness Water
Mountain Dew
Diet Coke
Sierra Mist
Full Throttle Energy Drink
Diet Pepsi
Gatorade®
Sunkist® Orange Soda
Dr. Pepper
Vault™ Energy Soda
Mountain Dew AMP
SoBe Energy Citrus
Minute Maid® Lemonade
Pepsi
Diet Schweppes Tonic Water
Coca Cola Classic
Battery Acid

Sugar

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Minute Maid® Orange Juice
Propel® Fitness Water
Red Bull® Energy Drink
Propel® Fitness Water
Mountain Dew
Diet Coke
Sierra Mist
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Please note: Battery acid is listed below only for purposes of comparison, and should never be confused for any reason as a beverage. The pH scale measures the acidity or alkalinity of a solution with pure water in the middle at neutral pH 7. The lower the pH, the stronger the acid.

Acid or pH of common drinks

<table>
<thead>
<tr>
<th>Drink or substance (12 oz. serving)</th>
<th>Acid pH</th>
<th>Tsp Sugar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7.0 (neutral)</td>
<td>0</td>
</tr>
<tr>
<td>Barq’s Root Beer</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td>Minute Maid® Orange Juice</td>
<td>3.8</td>
<td>9</td>
</tr>
<tr>
<td>Propel® Fitness Water</td>
<td>3.4</td>
<td>1</td>
</tr>
<tr>
<td>Red Bull® Energy Drink</td>
<td>3.3</td>
<td>10</td>
</tr>
<tr>
<td>Sprite®</td>
<td>3.3</td>
<td>1</td>
</tr>
<tr>
<td>Mountain Dew</td>
<td>3.3</td>
<td>12</td>
</tr>
<tr>
<td>Diet Coke</td>
<td>3.1</td>
<td>0</td>
</tr>
<tr>
<td>Sierra Mist</td>
<td>3.1</td>
<td>10</td>
</tr>
<tr>
<td>Full Throttle Energy Drink</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>Diet Pepsi</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Gatorade®</td>
<td>2.9</td>
<td>5</td>
</tr>
<tr>
<td>Sunkist® Orange Soda</td>
<td>2.9</td>
<td>13</td>
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<tr>
<td>Dr. Pepper</td>
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<td>10</td>
</tr>
<tr>
<td>Vault™ Energy Soda</td>
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<td>12</td>
</tr>
<tr>
<td>Mountain Dew AMP¹</td>
<td>2.8</td>
<td>11</td>
</tr>
<tr>
<td>SoBe Energy Citrus</td>
<td>2.6</td>
<td>12</td>
</tr>
<tr>
<td>Minute Maid® Lemonade</td>
<td>2.6</td>
<td>10</td>
</tr>
<tr>
<td>Pepsi</td>
<td>2.5</td>
<td>11</td>
</tr>
<tr>
<td>Diet Schweppes Tonic Water</td>
<td>2.5</td>
<td>0</td>
</tr>
<tr>
<td>Coca Cola Classic²</td>
<td>2.4</td>
<td>10</td>
</tr>
<tr>
<td>Battery Acid³</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

¹ Now called AMP Energy.
² In some geographical areas of the U.S. and Canada known simply as “Coca-Cola.”
³ Battery Acid is NOT a drink.

Test by Dr. John Ruby, University of Alabama, Birmingham School of Dentistry, 2007

© Minnesota Dental Association: Sip All Day, Get Decay.