Risk-Based Disease Prevention and Management of Early Childhood Caries (ECC)

A partnership between families and care providers

FLIPCHART

2nd Edition
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How does a CAVITY form?

**CARBOHYDRATES**
(starches and sugars) + **Bacteria**
(from plaque) = **ACID**

**ACID** + **HEALTHY TOOTH** = **CAVITY!!!
Cavities: Multiple Factors are Important

- Bacteria
- Sugars/Starches in foods and drinks
- Frequency of eating
- Amount of Saliva

TIME
Why Do Cavities Form?

It's not just **WHAT**, but **HOW**, and **HOW OFTEN**!

After a starchy or sugary snack, **bacteria** in our mouth make **acids** that last for **20-40 minutes** after.

The more often we eat or drink sugars or starches, the **greater the risk for cavities** to form (danger zone).
Early Childhood Cavities

- Normal Healthy Primary Teeth
- Chalky White Spots
- Brown Spots
- Severe cavities (Decay)

Preventing Cavities is a Partnership between **YOU** and **US**

With good control of the cavity process at home

Age 2

With no change

Age 3

Age 14

Cavities can be repaired but fixing them ALONE does not prevent new ones!
SODA and JUICE = ACID

pH Scale – Measures the Amount of Acid

ACIDIC

Battery Acid (Ouch!)

Low number = Bad!!

Neutral

If the pH on the surface of teeth drops below 5.5, teeth are at risk for decay and cavities!

Critical pH

5.5
100% Natural Juice = 100% Sugar

Even in 100% natural juice with no added sugar, there is still sugar because fruit naturally contains sugar. It is better to eat fresh fruit or drink water.
**How much sugar is in your child’s favorite drink?**

<table>
<thead>
<tr>
<th>Drink</th>
<th>Sugar Cubes</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 ounces</td>
<td>20 cubes</td>
</tr>
<tr>
<td>15.2 ounces</td>
<td>15 cubes</td>
</tr>
<tr>
<td>12 ounces</td>
<td>12 cubes</td>
</tr>
<tr>
<td>32 ounces</td>
<td>32 cubes</td>
</tr>
<tr>
<td>14 ounces</td>
<td>14 cubes</td>
</tr>
<tr>
<td>14 ounces</td>
<td>14 cubes</td>
</tr>
<tr>
<td>8 ounces</td>
<td>8 cubes</td>
</tr>
</tbody>
</table>
How much sugar is your child drinking?

One 12 oz can

Around 25 grams or 5 tsp of sugar in one 12 oz serving (180 calories)

One 8 oz Juice box

Around 25 grams or 5 tsp of sugar in one 8 oz serving (140 calories)

One 12 oz serving

Around 25 grams or 5 tsp of sugar in one 12 oz serving (75 calories)

One 12 oz can

Around 39 grams or 8 tsp of sugar in one 12 oz can (140 calories – all from sugar)
Some High Risk Foods and Drinks

Cavity Producing Score

0        1      2      3      4       5      6     7      8      9     10    11    12

Vegetables
Peanut butter
Nuts

Milk

Fresh fruit
(excluding bananas)

Tortillas
Pasta
Rice
Beans

Crackers

Soda
Kool-Aid

Cookies
Donuts
Chips

Bananas
Raisins
Jam

Candy

“All things in moderation”

Adapted from Papas AS et al, 1989
## Sugar in Cereals

### Cereals high in sugar

<table>
<thead>
<tr>
<th>Cereal</th>
<th>Sugar per serving* (g)</th>
<th>Sugar amount (by weight)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raisin Bran Crunch</td>
<td>20</td>
<td>38%</td>
</tr>
<tr>
<td>Cocoa Puffs</td>
<td>12</td>
<td>44%</td>
</tr>
<tr>
<td>Froot Loops</td>
<td>12</td>
<td>41%</td>
</tr>
</tbody>
</table>

*1 serving = ¾ - 1 cup

### Cereals low in sugar

<table>
<thead>
<tr>
<th>Cereal</th>
<th>Sugar per serving* (g)</th>
<th>Sugar amount (by weight)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cheerios</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>Corn Flakes</td>
<td>2</td>
<td>7%</td>
</tr>
<tr>
<td>Shredded Wheat Original</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>

Better for the teeth!!
Sugar-free gum and sugar-free gum sweetened with xylitol has been shown to reduce plaque acid and tooth decay.

Only gum with the ADA seal are sugarless.
Gummy/Slippery Snacks in Grooves of Teeth

Chewy candy

Dried fruit

Gummy snacks and vitamins

Serving: 2 Gummy Bears
Sugar Per Serving: 3g
Sugar-sweetened Medicines

taken often or regularly

Liquid or chewable medications with sugars

Frequent doses

High risk for cavities

After each dose, drink water and/or brush teeth to get a Healthy, clean, cavity-free smile
Medicines that Cause Dry Mouth

- Some common medications can increase the risk of cavities by drying your child’s mouth (decreases saliva flow).
- Examples include oral inhalers (asthma meds, ex. albuterol) and anti-histamines (allergy meds)

Solution:

- Keep taking the medications as advised BUT also brush your child’s teeth with fluoride toothpaste and ensure your child drinks water often.
- If you have any questions, ask your doctor if the medications your child is taking puts him or her at risk for dry mouth.
Oral Health for Children with Special Needs

Medicines, special diets, and oral motor habits can increase the risk of oral health problems for many children with special needs, such as:

- Cavities
- Gum disease
- Crooked teeth
- Trauma to teeth
- Tooth pain

Talk with your child's dentist and pediatrician about any questions or issues including how medicine, treatment, or diet may affect your child's oral health.

Keep a water bottle at the bedside

Knee to Knee Position

- Allows infants, toddlers and children with special health care needs to be safely examined.
- Helps to see the teeth better
- Makes it easier for child to hold still and keep mouth open
Bottles and Sippy Cups: It’s what’s inside that counts

Only water to bed

No more than 4 oz juice once each day

Breastfeeding

Healthy Balanced Diet → Healthy Bodies

**Tips for Brushing Teeth**

- Approach child from behind
- Use a small, soft-bristled toothbrush
- Brush teeth for 2 minutes
- Lift the lip to brush along the gum lines
- Concentrate on the back molars which are prone to cavities
- Brushing doesn’t have to take place in the bathroom
- Help with brushing until age 7

*Show that tooth brushing can be fun!*

*Lift the Lips*
Flossing Tips for Flossing Teeth

- Start flossing your child's teeth once a day as soon as the teeth touch
- Floss from behind your child
- Floss sticks or picks may be easier to use instead of regular string floss
# Fluoride Cavity Protection

*Available from many sources*

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<th>Fluoridated Water</th>
<th>Fluoride Toothpaste and Rinses</th>
<th>Fluoride Varnish</th>
<th>Fluoride Supplements</th>
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</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Fluoridated Water" /></td>
<td><img src="image2.png" alt="Fluoride Toothpaste" /></td>
<td><img src="image3.png" alt="Fluoride Varnish" /></td>
<td><img src="image4.png" alt="Fluoride Supplements" /></td>
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</table>

**Fluoridated Water**
- Fluoridated Water
  - Available from many sources

**Fluoride Toothpaste and Rinses**
- 0.25mg & 0.5mg F chewable tabs
- NaF 1000 ppm F toothpaste with xylitol
- NaF 5000 ppm F >6 years of age
- Stannous fluoride 1000 ppm F
- Calcium and phosphate +/- F-

**Fluoride Varnish**
- Available from many sources

**Fluoride Supplements**
- Available from many sources
Choices of Toothpaste

NO Fluoride Protection

Cavity Protection
How much FLUORIDE toothpaste?

<2 years old

SMEAR

2 - 5 year olds

PEA-SIZE

WAIT 30 minutes before eating or drinking and no rinsing!
Using Fluoride toothpaste or stannous fluoride can stop cavities!

Important: Wait 30 minutes before eating, drinking or rinsing after brushing with fluoride toothpaste or stannous fluoride (Gel-kam).
Stannous fluoride (ex. Gel-kam) can kill the bacteria that cause cavities.
Applying Fluoride Varnish

Fluoride Varnish Application

Dry the Teeth                             Brush Varnish on ALL surfaces

After a Varnish Application:

Wait until the next day to:

• Brush or floss teeth
• Eat hard, crunchy, sticky, foods (fruit snacks, Doritos, pretzels)
• Drink hot liquids
Acknowledgements

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This flip chart was developed with the intent to help Care Providers communicate more effectively with children and families about preventing and managing early childhood caries. Dental caries is almost entirely preventable if families know how to control risk factors and enhance protective factors. Working in partnership, care providers and families can optimize the oral health of children.

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