

Dental Health Resources for School Nurses

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Missouri Dental Association

Stop the Pop Start Right



Stop the Pop!

S T P

*get healthy
prevent decay*

MDA
Missouri Dental
ASSOCIATION

MDA Improving Missouri Smiles
FOUNDATION

The graphic features a close-up of a dental stethoscope on a tray. The background is divided into green, orange, and red diagonal sections. The word 'STOP' is written in large, bold letters, with each letter inside a colored circle.



start right

PARENTS MAKE THE DIFFERENCE

a practical guide to your
baby's dental health

The graphic shows a baby holding a blue teething ring. The background is light green with a circular pattern. The text is in a mix of blue and black fonts.

Stop the Pop

- * Began in 2001 to address members' **concerns about effects of soda consumption** they were seeing in their patients' dental health ... **especially teens.**
- * Also concerned about beverages available in schools and vending machines.
- * Since that time, more than 1 million brochures have been distributed throughout Missouri and in many states.

Did You Know?

Money down the drain » Americans spent \$73.9 billion on regular and diet carbonated soft drinks in 2009, according to *Beverage Digest*. That figure grows to \$115 billion when including non-carbonated beverages such as juice drinks, teas and energy drinks.

Starting young » One-fifth of 1- and 2-year-old children consume soft drinks. Those toddlers drink an average of 7 ounces—about 1 cup—each day. Almost half of all children between ages 6 and 11 drink soda, with the average child drinking 15 ounces a day.

Leading in a bad way » American adults and children drank an estimated 714 eight-ounce servings of soft drinks, per capita—that's more than 44 gallons! The U.S. has the highest per capita consumption of carbonated soft drinks in the world.

Sizes have grown » In the 1950s, a bottle of soda was 6.5 ounces. Today, a 12-ounce can is standard and a 20-ounce bottle is common—as are the super-sized drink cups from restaurants and convenience stores. Larger sizes mean more calories, more sugar and more acid from a single container of soda.

Too much, too sweet » The American Heart Association recommends women consume no more than 6 teaspoons and men no more than 9 teaspoons of added sugars per day. Even one 20-ounce soda contains far more than that. Almost 50% of added sugar in our diets comes from soda, energy drinks, sport drinks, fruit drinks and sweet tea.

Caffeine in a can » The amounts of caffeine in one or two cans of caffeinated soft drinks can affect performance and mood, increase anxiety in children and reduce the ability to sleep.

Better keep exercising » To burn off the calories in a 20-ounce bottle of regular soda, a 135-pound person would have to vigorously walk three miles in 45 minutes, play basketball for 40 minutes or bike for 22 minutes!

Some statements in "Did You Know?" were adapted from the Center for Science in the Public Interest website about Liquid Candy (cspinet.org). A complete list of references is available at www.msdental.org/stopthepop.

Stop the Pop is an educational program of the Missouri Dental Association. For more information or to order brochures go to www.msdental.org or call 573-634-3436. Revised 2013.



Check the Label

Always read the label! Regular soft drinks contain acid and sugar that can lead to tooth decay. Diet or sugar-free drinks may not have sugar, but most always contain acid. Usually flavored milks, energy drinks, sport drinks, fruit drinks and sweetened tea have loads of extra sugar.

Nutrition Facts

Serv. Size 1 Can (regular)

Amount Per Serving

Calories 140

Total Fat 0

Sodium 50mg

Total Carb 39g

Sugars 39g

Protein 0g

CARBONATED WATER,
HIGH FRUCTOSE CORN SYRUP
AND/OR SUCROSE, CARAMEL
COLOR PHOSPHORIC ACID,
NATURAL FLAVORS, CAFFEINE

Nutrition Facts

Serv. Size 1 Can (diet)

Amount Per Serving

Calories 0

Total Fat 0

Sodium 40mg

Total Carb 0g

Protein 0g

CARBONATED WATER,
CARAMEL COLOR, ASPARTAME,
PHOSPHORIC ACID, POTASSIUM
BENZOATE (TO PROTECT TASTE),
NATURAL FLAVORS, CITRIC ACID

What is pH anyway and what does it mean for your oral health?

The pH tells you how acidic something is. A normal mouth has a pH of 6.3 to 7, which is close to neutral with no damage done to teeth. Tooth enamel begins to de-mineralize (dissolve) at pH levels less than 5.5. Soda has an average pH of 2.5, which is far below this point—very acidic. Tooth enamel is the hardest substance in the body, but it becomes porous and soft when constantly exposed to acid. Tooth enamel erosion is extremely harmful because it weakens the tooth and makes it prone to decay and breakage.

	pH (acid) Level* Low number = BAD FOR TEETH	Sugar Amount** Per 12-ounce serving (1 can)
Pure Water	7.00 (Neutral)	0.0
Coffee (Average, Black)	5.00	0.0
Barq's Root Beer	4.61	10.71 tsp.
Diet Dr. Pepper	3.41	0.0
Diet Sprite	3.17	0.0
Red Bull Energy Drink	3.10	9.29 tsp.
Nestea	3.04	6.07 tsp.
Diet Mountain Dew	2.95	0.0
Dr. Pepper	2.92	9.64 tsp.
Sprite	2.90	9.29 tsp.
Gatorade	2.83	5 tsp.
Mountain Dew	2.80	11.07 tsp.
Diet Pepsi	2.77	0.0
Diet Coke	2.70	0.0
Pepsi	2.43	9.64 tsp.
Coca-Cola	2.30	9.64 tsp.
Battery Acid (Yikes!)	1.00 (Acidic)	0.0

*Acid amounts from the study "Enamel and root surface erosion due to popular U.S. beverages," 2006. Authors: L. Ehlen, T.A. Marshall, F. Qian, J.J. Warren, J. Wefel, M.M. Hogan, and J.D. Harless. College of Dentistry, University of Iowa, Iowa City and from University of Minnesota School of Dentistry, 2000. *Northwest Dentistry* Vol 60, No. 2. **4.2 grams = 1 teaspoon.

Stop the Pop!

STOP

get healthy prevent decay

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Americans consume huge quantities of soft drinks each year.

Carbonated soft drinks are the most-consumed beverages, with an average of **44.7 gallons consumed per person, per year!**



How Tooth Decay Starts

- Soda and other soft drinks have lots of refined sugar, such as high fructose corn syrup. Bacteria in the mouth process the sugar and produce acid.
- This acid, plus the extra acid already present in the drink, demineralizes (weakens) your tooth enamel. The enamel is the strong, outer coating of the teeth that guards against tooth decay and protects your teeth for life! When the acid makes it weak, tooth decay (cavities) can begin. Think of it like this: The acid makes tiny pores or holes in your enamel.
- Each acid "attack" lasts about 20 minutes, and each sip you take resets the clock.
- Remember! Diet or sugar free drinks may not have sugar, but often contain harmful acid.

See your MDA dentist for regular checkups and cleanings!

Reducing Tooth Decay

- Choose water; it's best for your health.
- If you're going to drink soda, don't sip all day. Drink a serving all at once, such as with a meal. Constant sipping exposes teeth to prolonged sugar and acid attacks.
- If you do drink soda, sports drinks or fruit juices, do so in moderation! Try limiting it to no more than a 12-ounce serving (1 can) per day.
- After drinking a soda, rinse your mouth with water to dilute the sugar and acid, or chew sugar-free gum with xylitol which has been shown to discourage tooth decay.
- Brush at least twice daily with fluoride toothpaste and floss daily to remove plaque buildup between teeth and along gums.



Stop the Pop Math [+]

Here are some math equations to think about before you buy that next soda pop!

If the average family consumes a case of regular brand name soda each week, it will cost about \$6 or \$312 each year. A large drink from your favorite fast food restaurant or convenience store is about \$1 a day or \$365 a year. If you decided to skip the soda and instead saved this amount over a year ... what could you spend it on? We can think of lots of fun stuff—like clothes, recreation and games, or even a vacation!

An even more shocking number is the cost of fixing tooth decay! Many children begin consuming soda early in life. It can lead to severe tooth decay which will likely have to be fixed by a dentist in an outpatient surgery center. The cost to fix one baby tooth that has nerve damage from a large cavity will be hundreds of dollars. Multiple cavities treated can cost thousands!

Just "Stop the Pop" to save a lot of money, plus have better oral and overall health!

Would You Sit Down & Eat That Much Sugar?

Spoon out 10 teaspoons of sugar. This is about how much is in a 12-ounce can of regular soda. Now spoon out 17 teaspoons for a 20-ounce bottle. Can you imagine "eating" that much sugar at one time? Then why drink it! Need another visual? Drinking 1 can of soda every day = more than 32 pounds of sugar in one year ... it's like loading up eight, 4-pound bags of sugar into your grocery cart! Think diet is better? Think again! It may not have the sugar but still contains acid that can harm tooth enamel.

The Look of Decay

Ever wondered what tooth decay looks like? Check out these pictures ... YUCK!

The top picture is a more shocking, severe case of decay. However, the bottom picture also shows decay, but in a more subtle way that may go unnoticed. See those white, chalky lines along the gums in the bottom picture? It's a big term called "decalcification" which essentially is the start of tooth decay.

The person in this picture wore braces to straighten teeth, but didn't practice good oral hygiene which caused the tooth enamel to break down. In the same way, this is what tooth decay caused by soft



Photos courtesy of JE Kendrick, DDS & American Association of Orthodontists

drinks looks like when it starts, and it can become more severe to look like the brown spots in the top picture. Brush and floss daily, choose healthy foods and beverages, and see a dentist regularly ... or this could be your teeth on the way to decay.

S

T

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Enough is Enough

Soft drinks, juices and sports drinks provide huge amounts of sugars to many diets. Each day, soda consumption alone provides the average teenage boy about 15 teaspoons of refined sugars, the average girl about 10 teaspoons. These amounts roughly equal the recommended daily limits for teens' sugar consumption from all foods. It's not just soft drinks that are the problem. Many other beverages, like sports drinks and fruit juices, have sugar and acid that can cause decay.

Why Should You Care?

Sugar and acid in these beverages can create the perfect environment for tooth decay. Drinking too much also can contribute to other health problems, such as osteoporosis, kidney stones, and especially weight gain and obesity, which are big risk factors for Type 2 Diabetes in teens and adults. Soft drinks are a problem not only for what they contain, but for what they push out of the diet—better beverage choices like water or milk. Fewer than 50% of adolescent girls consume enough calcium daily, which can lead to early development of osteoporosis. Girls who drink carbonated beverages are 5 times more likely to have bone fractures than those who don't drink soda.

A Few Statistics

- * Sugar drinks single-largest source of calories in the American diet in 2010.
- * Sugar drinks accounted for 46% of all added sugars in the American diet in 2010.
- * In 2011, beverage companies produced enough sugar drinks (*sodas, fruit drinks, sports drinks, sweetened teas, energy drinks*) **to provide an average of 45 gallons per American—or slightly more than nine 12-ounce cans a week.**

A Few Statistics

- * Soda, energy drinks and sports drinks were the top source of calories in teens' diets in 2006.
- * In 2008, teenage boys consumed an average of 273 calories a day from sugar drinks, nearly twice the American Heart Association's recommended consumption of added sugars from all sources.
- * **In 2013, each day 27% of teens drank one or more soda; 19% drank two or more; 11% drank three or more.**



return for refund

Coca-Cola

6 1/2 FL OZ

Enjoy *Coca-Cola* CLASSIC

12 FL OZ (355 mL)

WIN 7 COKE FREE COKE OR CONCERT CASH

20 oz

Enjoy *Coca-Cola* CLASSIC

20 FL OZ (1.25 PT) 591 mL

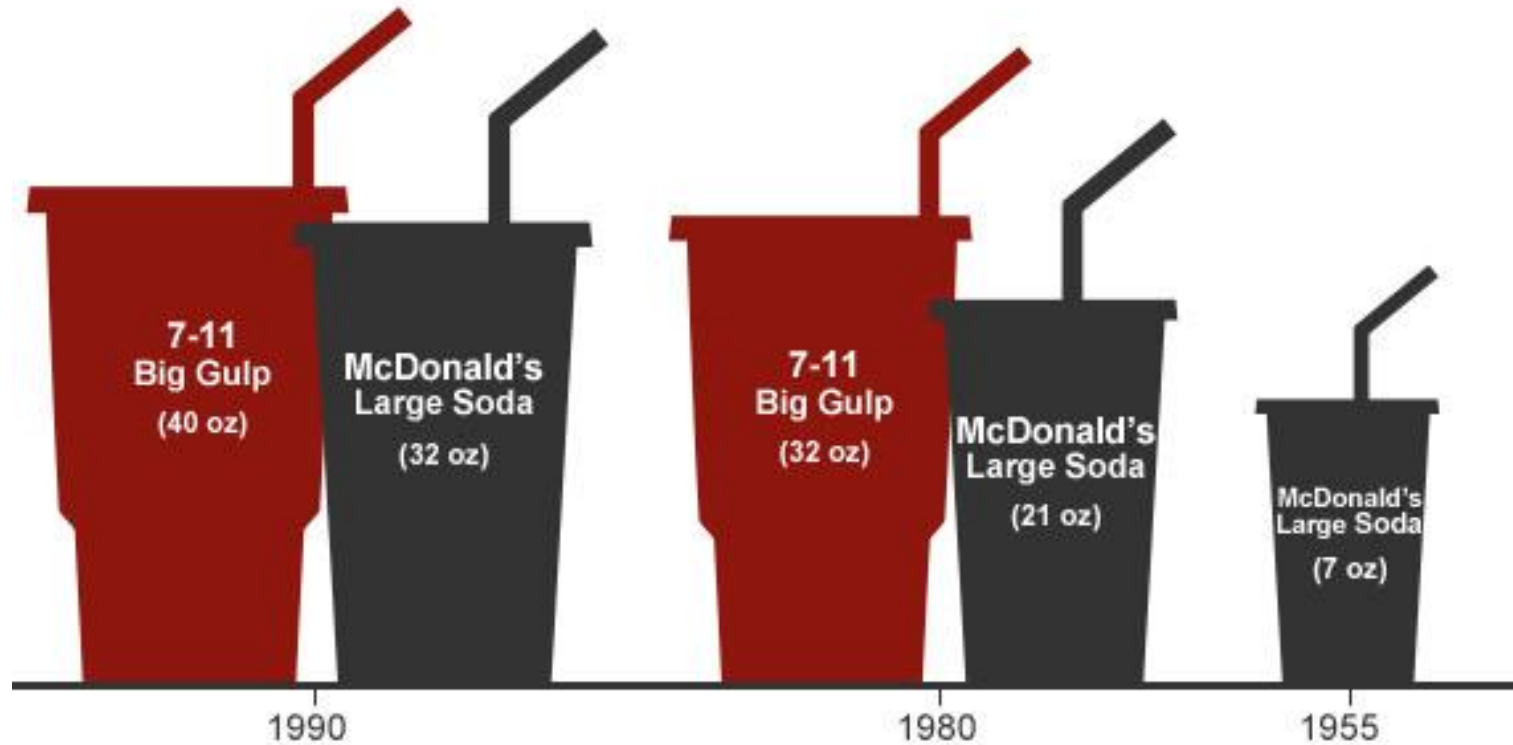
WIN 1 WINNER FREE COKE OR NASCAR GEAR

1 LITER

Enjoy *Coca-Cola* CLASSIC

1 LITER 33.8 FL OZ (1 QT 1.8 OZ)

SODA FOUNTAIN DRINK SIZE CHANGES





TAURINE + GINSENG
CAFFEAINE * CARARANA * GINSENG
LO-CAR
MONSTER
ENERGY

CAFFEAINE * CARARANA * GINSENG
AMP
ENERGY
ENERGY SUPPLEMENT
16 FL OZ (1 PT) 473 mL

lightly carbonated.
Serve chilled.
12.9
Red Bull
ENERGY DRINK
with Taurine. Vitalizes body and mind.
12 FL OZ (355 mL)

VANILLA

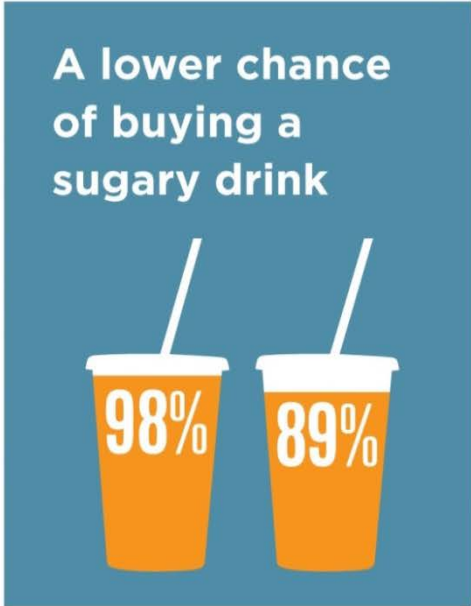
CAFFEAINE * CARARANA * GINSENG
ROCKSTAR
ENERGY DRINK
16 oz





Signs were posted in corner stores with easy-to-understand calorie information, including number of miles of walking necessary to burn off a 20 oz. sugary drink

When compared to no signs being posted, the calorie information led to:



The healthier choices continued six weeks after the signs came down.

Start Right

- * Began in 2005 to address members' concerns about **new parents getting information** for their newborn about the importance of keeping **baby teeth healthy**.
- * Distributed to Parents as Teachers, WIC, hospitals, etc.
- * School nurses can share its availability with PAT programs in their districts.



caring for YOUR CHILD'S TEETH

during your pregnancy [before birth]

- If you keep your mouth healthy, your baby is more likely to have healthy teeth and gums.
- Science shows that mothers with active tooth decay problems, gum problems or both will transmit the bad bacteria to the baby and make the baby more susceptible to decay and gum disease.
- It is safe to see your dentist during pregnancy, so that your mouth can be in optimum health. Discuss having decayed teeth repaired and getting treatment for gum disease.

birth to 6 months [before teeth erupt]

- Begin cleaning your baby's mouth during the first few days after birth.
- Wipe baby's gums with a clean, soft washcloth after each feeding. This helps your infant get used to having the mouth cleaned and checked.

6 months to 1 year [as teeth erupt]

- As baby teeth begin to appear, a soft washcloth can be used to wipe teeth clean after feedings.
- It is recommended a child receive a dental well baby check-up by their first birthday. Ask your dentist to perform this check-up or to refer you to a pediatric dentist. A pediatrician also may be able to assess a child at high risk for dental decay and refer to a dentist.

1 to 3 years [as teeth erupt]

- Children will have all 20 baby teeth between ages 2 to 4.
- Brush your child's teeth at least twice daily. Bedtime is the most important time to make sure the teeth are free of plaque.
- Although the child is gaining independence, parental assistance is needed to brush properly. Some kids older than age 5 still may need supervision.
- Once back molars appear, begin brushing the teeth with a child-size, soft toothbrush and a tiny smear of fluoride toothpaste (choose a brand with the American Dental Association seal). For children ages 2 to 5, a pea-size amount of fluoride toothpaste should be used. Swallowing too much fluoride toothpaste can be harmful to your child.
- Start gentle flossing when the spaces between your child's teeth begin to close. Sometimes the back molars will be close together even though there still are spaces between the front teeth.
- Replace your child's toothbrush when the bristles are bent.
- Check your child's teeth monthly for changes. White spots or lines on the front or back side of teeth are indications of early cavities. See a dentist right away to prevent cavities from becoming worse.
- Schedule regular dental visits for your child.

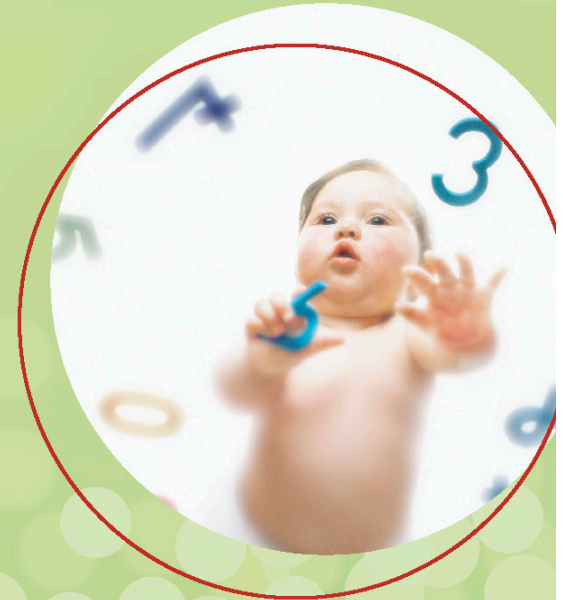
thumb sucking & pacifiers

Sucking is a natural reflex and can comfort babies and toddlers. Most children will gradually stop a pacifier or thumb sucking habit between the ages of 2 and 4.

It is best if children stop sucking pacifiers by ages 1 to 2. Studies reveal that children who continue to suck a thumb, finger or pacifier past age 2 can increase the risk of an improper bite, which may permanently distort the shape of the jaws and how teeth align.

Thumb and pacifier sucking can affect the teeth essentially the same way. However, a pacifier habit is often easier to break, because you can take it away. Stopping the thumb sucking habit will be successful only when the child is ready.

If you have concerns about thumb sucking or pacifier use, consult your dentist.



start right

PARENTS MAKE THE DIFFERENCE

a practical guide to your
baby's dental health

MDA
FOUNDATION

Engaging Educating Empowering



START RIGHT IS A PROGRAM OF THE MISSOURI DENTAL ASSOCIATION FOUNDATION AND IS SUPPORTED BY THE MISSOURI ACADEMY OF PEDIATRIC DENTISTRY.

For more information or to order brochures go to
www.modental.org or call 573-634-3436. REVISED 2013.



do all you can BABY TEETH ARE CRUCIAL

You want to do all you can to ensure your baby's overall health, but have you thought about their oral health?

Parents may think of a newborn baby as having no teeth, but the primary teeth that will erupt over the next few years already are present beneath the gums when your child is born. These teeth are crucial to your child's dental development and important to their total health.

PARENTS MAKE THE DIFFERENCE

by properly cleaning their child's teeth, ensuring healthy food and beverage choices, and creating good oral health care habits, which help prevent decay from an early age.

the importance of "baby" teeth

Primary or "baby" teeth serve your child the same way your teeth serve you: These teeth enable proper chewing and correct speech development, and affect facial appearance. Primary teeth also guide permanent teeth into place, aid in jaw and face formation, and influence your child's overall health.

about teething

- Most babies get their first tooth between ages 6 and 14 months. On average, all 20 primary teeth will have erupted by about age 3.
- When teething, babies may become fussy, sleepless and irritable, lose their appetite or drool more.
- To provide relief, they can chew on a cool washcloth, spoon or teething ring. Gums can be massaged with a clean finger. Children's acetaminophen or ibuprofen can be given an hour before bedtime, according to package instructions.
- Avoid numbing agents like Orajel or Anbesol. Babies can injure themselves if they rub their numb tongue or lips against their teeth. The active ingredient is benzocaine; if swallowed repeatedly, it can cause serious health issues.
- Diarrhea, rashes and a fever are not normal symptoms of teething. If your infant has these symptoms, it could be signs of another illness; consult with your child's physician.

primary teeth eruption chart

UPPER TEETH	ERUPT	SHED
Central Incisor	8-12 mos.	6-7 yrs.
Lateral Incisor	9-13 mos.	7-8 yrs.
Canine (cuspid)	16-22 mos.	10-12 yrs.
First Molar	13-19 mos.	9-11 yrs.
Second Molar	25-33 mos.	10-12 yrs.

LOWER TEETH	ERUPT	ERUPT
Second Molar	23-31 mos.	10-12 yrs.
First Molar	14-18 mos.	9-11 yrs.
Canine (cuspid)	17-23 mos.	9-12 yrs.
Lateral Incisor	10-16 mos.	7-8 yrs.
Central Incisor	6-10 mos.	6-7 yrs.

what really matters:

PREVENTING EARLY CHILDHOOD CAVITIES

It's not the bottle, it's the beverage! As soon as baby teeth come in, decay can start to occur if teeth are not properly cared for. The most common cause of tooth decay in children younger than age 3 is known as "baby bottle tooth decay." This decay can result from frequent exposure to sugary liquids in both bottles and sippy cups.

Parents may think decay this early doesn't matter because "it's just baby teeth." However, decayed baby teeth can affect the developing permanent teeth yet to come in, as well as the child's eating, speech, and overall health and self-esteem. Severely decayed teeth not only cause pain, but may result in expensive surgery to fix or remove the teeth. What's more, infants with tooth decay always will be more cavity prone than infants with healthy teeth. Get started early to help ensure good oral health for your baby!

what happens to cause decay?

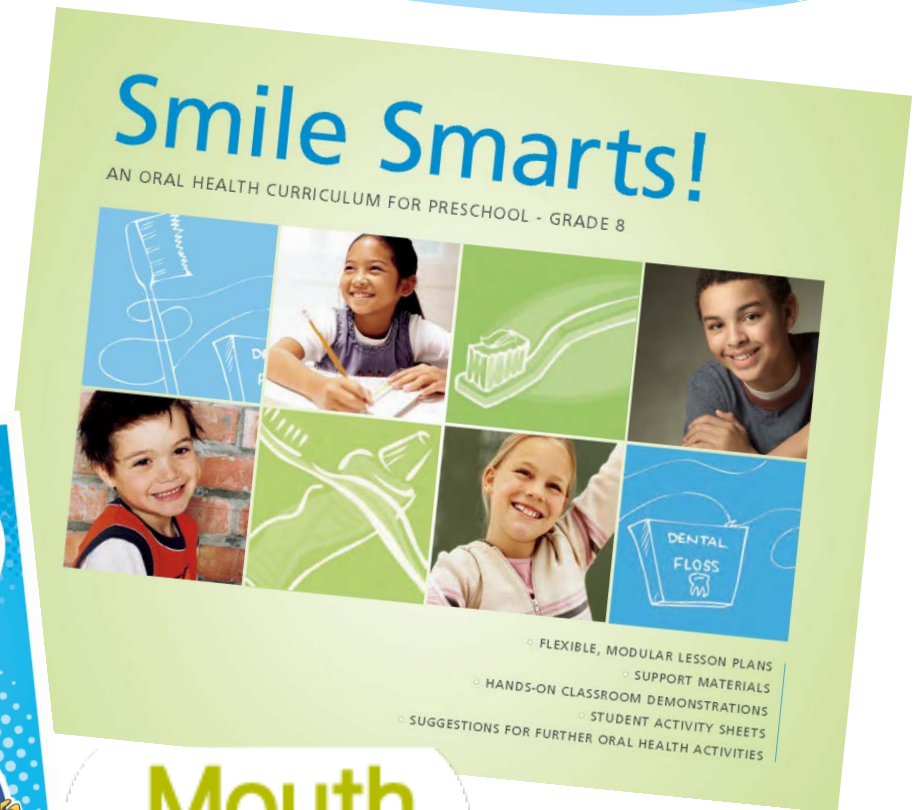
- Milk, formula and juice all contain some kind of sugar, as do many snacks.
- Sugars from beverages and snacks combine with the bacteria in the mouth to create a sticky film, known as plaque.
- If sugars aren't cleaned from the child's teeth, this plaque build-up can eat away at tooth surfaces (enamel), which can result in tooth decay.

what can parents do to prevent decay?

1. Don't allow your infant or toddler to fall asleep with a bottle or sippy cup filled with anything but water.
2. As long as your infant is taking the bottle or nursing, wipe the gums and teeth after each feeding. As they age, progress to using a child toothbrush and brush at least twice daily, especially before bedtime.
3. Around age 1, wean your infant from the bottle and begin teaching drinking from a regular cup.
4. Try to make milk and juice available at meal time only, so a child isn't sipping on these beverages throughout the day. Give your child water in between meals and snacks.
5. It's not just what children drink, but what they eat! Many popular snacks, such as fruit roll-ups and gummy fruit snacks contain extra sugar and coat the teeth. Even dried fruits, like raisins, have natural sugars which can get stuck in and between tooth surfaces, making teeth harder to clean.
6. As an alternative, you can give your child snacks like Jell-O, pudding and yogurt. These may have sugar, but they won't be stuck on the teeth for long periods of time because they wash away easily. Other great choices are real fruit and cheese, which is not only a healthy snack, but has been shown to fight decay.



MouthHealthy Smile Smarts CDHM



modental.org/schools

for listing of resources shared today