

# Dental Health Education Resource Guide

Preschool through 2nd Grade and  
3rd Grade through 5th Grade



Provided by the  
California Dental  
Association's  
Council on  
Community Health





Dear Teacher:

The California Dental Association has developed this dental health and science guide in response to frequent requests from many teachers throughout California. We feel it is vitally important that young children understand the importance of good oral health and preventive dental care. We join you in the concerns voiced by your profession regarding the impact of poor dental health on children's education.

This guide is divided into two parts. One portion focuses on dental health education for preschool through 2nd grade. The second portion focuses on 3rd grade through 5th grade. Each section contains goals and objectives in addition to age appropriate games and puzzles. We hope you find these tools a valuable supplement to your curriculum.

The members of the California Dental Association recognize and appreciate the role teachers play in improving the lives of our children.

Should you have any suggestions or feedback which may assist us in improving this guide, please contact Gayle Mathe, RDH at 800-736-7071, extension 4995 or at [gayle.mathe@cda.org](mailto:gayle.mathe@cda.org).

If you have any questions, please do not hesitate to contact your local component dental society or the California Dental Association at 800-232-7645.



## Preschool through 2nd Grade

### **Objectives & Activities**

1. To assist young children to understand the importance of their teeth
2. To assist young children to understand the importance of healthy teeth
3. To assist young children to understand why it is important to see their family dentist

### **Games and Puzzles:**

- Key dental vocabulary
- The Good and the Bad (2nd graders)
- National Children's Dental Health Month Calendar
- Age appropriate coloring pages with dental health messages

### **Additional Resource Materials:**

Letter to Parents  
Oral Health Fact Sheets



## Objectives *Preschool through 2nd Grade*

1. To assist young children in understanding the importance of their teeth.
2. To assist young children in understanding the importance of healthy teeth.
3. To assist young children in understanding why it is important to see their family dentist.

### Objective 1 Activities:

Display pictures from magazines that show people smiling, eating, talking, etc.

- Ask the class what the people in the pictures are doing with their mouths.
- Ask the class what these people would look like if they didn't have teeth and couldn't smile.
- Ask the class to say the words "teeth" and "toothbrush." Then ask them to say the words without their tongues touching their teeth.
- Ask each student: What is your favorite food? Make a list of some of the favorite foods.
- Ask the class which of these foods could be eaten without teeth. Which ones must be chewed.
- Ask the class how many of them brush and floss their teeth each day. Ask them how many of them have been to a dentist. Ask how many of them know what decay is.

### Objective 2 Activities:

- Ask the class about some of the things they can do to keep your teeth clean.
- Ask the class why it is important to keep their teeth clean.
- Explain to the class that some germs in their mouth stick to teeth. This is called plaque. Plaque is hard to see. It is almost invisible. Plaque can cause decay (a little hole in the tooth), so we want to keep plaque away by brushing and flossing.
- Explain to the class that they should brush their teeth in the morning and at night.
- Ask the class how many of them brush and floss their teeth each day.
- Show the class the proper way to brush. Brushing should be done gently, in little circles, getting to all sides of the teeth. Remind the students that they may need to have an adult help them floss since it can sometimes be difficult. Demonstrate proper flossing techniques.
- Remind the class that they should only use a small amount of fluoride toothpaste (about the size of a pea), and should always spit out the excess paste after they finish brushing.



### Objective 3 Activities:

- Ask the class how many of them have been to see a dentist.
- Ask the class who else was at the dentist's office. Possible responses: Dental hygienist, dental assistant, receptionist.
- Explain that each of these individuals is a dental helper. They help people keep their teeth clean and their smiles pretty.
- Ask why it is important to see a dentist regularly.
- Sing the following song (to the tune of "Row, Row, Row, Your Boat") with the class.

*Brush, brush, brush your teeth, brush them every day.*

*Right, left, up, down, clean the plaque away.*

*Brush, brush, brush your teeth, brush them every day.*

*Front, back, take off the plaque, now we smile all day.*

- Ask the class to draw a picture of a happy smile.
- Complete some of the dental health games or puzzles.



# Key Dental Vocabulary

*(Preschool - 2nd grades)*

tooth

enamel

bacteria (tooth bugs or germs)

sugar

floss

toothbrush

toothpaste

healthy

decay ("cavities")

dentist

hygienist

dental assistant

gums

sweets

checkup

smile

plaque

Dudley



# The Good And The Bad

Color the squares that help you live a happy and healthy life.

Write in one good and one bad thing in the squares provided.

brush your teeth	smoke cigarettes	eat sticky candy
be nasty	visit the dentist	do your homework
play with friends	yell at people	take drugs
GOOD	smile	help your teacher
get lots of sleep	fight	pick up trash
hit a playmate	recycle paper	laugh
breathe clean air	say something nice	chew tobacco
make your bed	steal money	do your chores
floss your teeth	BAD	recycle cans





## February is National Children's Dental Health Month.

Put a star in the box each day you brush and floss your teeth. A month full of stars means you are keeping your smile healthy. Awesome job!

# February

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28



# Count and Color

Chris has been very busy drawing pictures of toothbrushes! Count the toothbrushes. Draw a pea-sized ball of toothpaste on each toothbrush.

Color the toothbrushes bright, happy colors!



# Coloring Sheet



**A HEALTHY SMILE IS PRETTY AS A PICTURE!**



## 3rd Grade through 5th Grade

### **Objectives & Activities**

1. To assist children to understand the importance of good oral health
2. To educate children on what causes tooth decay
3. To encourage daily oral care at home and to see a dentist regularly

### **Games and Puzzles:**

- Key dental vocabulary
- What is the Secret Word
- Fill-in the Blank
- The Good and the Bad (3rd graders)
- Vocabulary Word Search Puzzle
- Crossword Puzzle
- National Children's Dental Health Month Calendar

### **Additional Resource Materials:**

Letter to Parents  
Oral Health Fact Sheets



## Objectives *3rd Grade through 5th Grade*

1. To assist children in understanding the importance of good oral health.
2. To educate children on what causes tooth decay.
3. To encourage daily oral care at home and to see a dentist regularly.

### Objective 1 Activities:

- Ask the class to say, “Dudley the Dinosaur visits the dentist twice a year.” Now, ask them to say it again without letting their tongue touch their teeth. Let the class know that by keeping their teeth healthy they are actually helping people better understand them when they talk. Remind them that if they don’t take good care of their teeth, they could fall out, or have to be removed which would make talking difficult.
- Ask the class to imagine eating without having teeth. Ask them if they could eat carrots, apples, or cookies without their teeth.
- Ask the class to imagine smiling without clean, healthy teeth. Ask them to draw a picture of a person without clean, healthy teeth and what they would look like when they smiled.

### Objective 2 Activities:

- Explain to the class that plaque is a sticky substance that forms on their teeth. Explain that if the plaque is not brushed and flossed away it can cause decay and possible tooth loss.
- Explain that plaque contains bacteria that eats away at the surface of their teeth.
- Explain that the best way to remove plaque from their teeth is to brush and floss at least twice a day.
- Explain that when teeth are exposed to plaque for a very long time that they could start to hurt and have to be removed.
- Explain that if they don’t take care of their teeth that the plaque will eat away at their teeth and the only person who can fix their teeth is a dentist.



### Objective 3 Activities:

- Remind the class to brush and floss their teeth at least twice a day.
- Show the class how to properly brush and floss their teeth. Remind them to always use toothpaste with fluoride and to only use a pea size amount on their brush. Don't forget to spit it out after brushing!
- Remind the class that brushing and flossing breaks up the plaque so it can't attack their teeth. Let the class know that by using a fluoride toothpaste they are actually making their teeth stronger and more resistant to plaque build-up.
- Encourage the students to go home and show an adult how to properly brush and floss. If they have a brother or sister at home, show them too.
- Remind the students that they may need to have an adult help them floss since it can sometimes be difficult. But not to fear, when they are older they will be able to floss all by themselves.
- Encourage the class to eat nutritious foods from all of the major food groups, such as, breads, fruits, vegetables, meat/poultry, and dairy every day.
- Remind the class to limit the number of sweets and to brush and floss after each meal and snack.
- Remind the class to visit their dentist for regular check-ups and teeth cleaning.



# Key Dental Vocabulary

(3rd - 5th grades)

tooth	smile
enamel	sealants
dentin	mouthguard
bacteria	Dudley
sugar	decay
acid	chew
floss	molar
toothbrush	jaws
toothpaste	
fluoride	
healthy	
nutrition	
fillings	
dentist	
hygienist	
dental assistant	
plaque	
gums	
sweets	
checkup	



## What is the secret word?

Fill in the boxes with words from the word list.  
Then find the secret word and use it in a sentence.

### Word List

Plaque      Cavity      Apple      Dentist  
Tooth      Floss      Brush      Smiles

XXXXXXXXXX	B			S		XXXXXXXXXXXXXXXXXX	
	L	A		U			
XXXXXXXXXXXXXXXXXXXXXXXXXXXXX X				A			L
XXXXXXXXXXXXXXXXXXXXX			F			S	
XXXXXXXXXXXXXXXXXXXXX			C			I	T
XXXXXXXXXXXXX				N	T		S T
XXXXXXXXXXXXXXXXXXXXXXXXXXXXX					O		H
	M		L		S	XXXXXXXXXXXXXXXXXXXXX	

The secret word is

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### Sample sentence

Yesterday I went to the dentist and had \_\_\_\_\_  
placed on my back teeth to help prevent decay.



## Fill-in-the-Blank Game

Use the following words in the sentences below.

brush    floss    molars    decay    plaque  
teeth    snacks    dentist    smiling    nutritious  
happy    visited    fluoride    sweet    sealants

1. It is important to limit the number of \_\_\_\_\_ snacks and eat more \_\_\_\_\_ foods.
2. The dentist said that \_\_\_\_\_ can help to strengthen the enamel on my \_\_\_\_\_.
3. Keeping my teeth healthy protects them from \_\_\_\_\_ and keeps me \_\_\_\_\_.
4. When I went to the \_\_\_\_\_ I learned how to \_\_\_\_\_ and \_\_\_\_\_.
5. When I \_\_\_\_\_ the dentist \_\_\_\_\_ were placed on my \_\_\_\_\_.
6. If I do not brush and floss to remove the sticky \_\_\_\_\_ from my teeth, and limit eating sweet \_\_\_\_\_, I can get decay.
7. A healthy smile is a \_\_\_\_\_ smile.





# The Good And The Bad

Color the squares that help you live a happy and healthy life.

Write in one good and one bad thing in the squares provided.

brush your teeth	smoke cigarettes	eat sticky candy
be nasty	visit the dentist	do your homework
play with friends	yell at people	take drugs
GOOD	smile	help your teacher
get lots of sleep	fight	pick up trash
hit a playmate	recycle paper	laugh
breathe clean air	say something nice	chew tobacco
make your bed	steal money	do your chores
floss your teeth	BAD	recycle cans



# Vocabulary Word Search Puzzle

**Instructions:** Locate the words below in the puzzle. The words can be forwards, backwards, diagonal, up or down.

t	n	a	t	s	i	s	s	a	l	a	t	n	e	d	a	i	l	d	n	j	c	n	o
e	m	f	r	c	u	t	m	w	f	l	u	o	r	i	d	e	k	q	p	h	s	u	u
e	h	q	e	d	l	n	x	i	y	g	y	e	l	d	u	d	b	w	e	v	m	t	t
t	b	s	n	j	t	s	e	a	l	a	n	t	s	t	e	z	r	c	l	o	c	r	r
s	o	i	a	c	i	d	a	o	p	e	h	v	b	f	m	u	k	t	g	n	x	i	t
a	l	r	m	q	z	t	b	a	c	t	e	r	i	a	k	u	q	o	j	w	p	t	s
p	e	k	e	b	s	m	o	y	x	c	m	i	f	s	p	a	v	o	y	e	h	i	i
h	j	p	l	v	d	t	z	o	o	f	i	l	l	i	n	g	s	t	g	h	e	a	t
t	a	s	t	e	e	w	s	n	t	k	w	f	o	t	g	j	r	h	t	c	l	n	n
o	d	t	j	r	a	u	r	g	t	h	e	h	s	b	x	i	m	b	u	d	h	s	e
o	w	f	s	a	q	y	d	i	o	d	o	z	s	p	k	v	c	r	r	f	z	n	d
t	o	c	g	l	w	e	x	e	h	p	x	m	o	u	t	h	g	u	a	r	d	w	y
a	y	u	z	o	b	v	g	r	n	t	h	e	a	l	t	h	y	s	g	m	e	j	k
q	m	s	o	m	x	c	a	v	i	t	i	e	s	f	a	y	i	h	u	o	c	l	q
s	x	c	n	u	v	f	w	e	t	s	i	n	e	i	g	y	h	p	s	c	a	z	d
h	s	l	p	e	u	q	a	l	p	g	m	n	b	k	s	w	a	j	a	q	y	u	i

tooth  
floss  
cavities  
plaque  
Dudley

enamel  
toothbrush  
fillings  
sweets  
decay

dentin  
toothpaste  
dentist  
checkup  
mouthguard

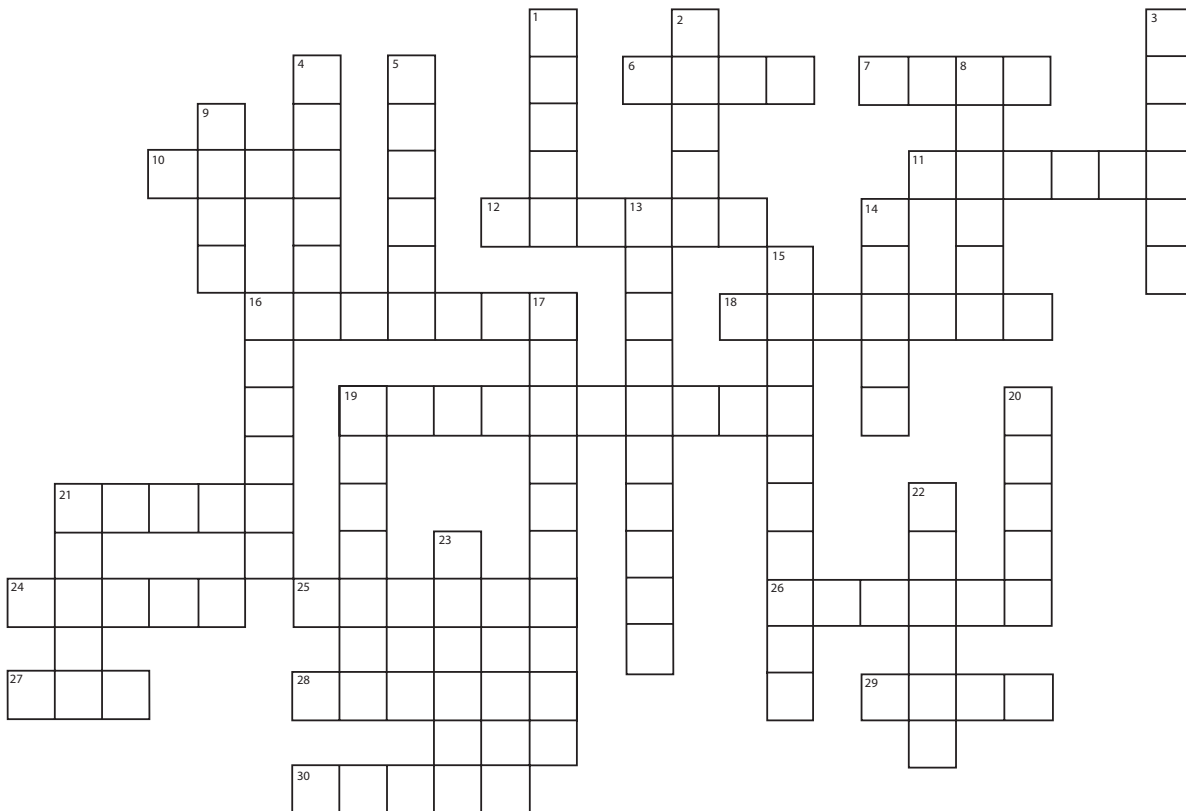
bacteria  
fluoride  
hygienist  
smile  
molar

nutrition  
healthy  
dental assistant  
sealants  
jaws

acid  
sugar  
gums  
chew



# Gen and Flossy are putting their heads together to solve this crossword puzzle.



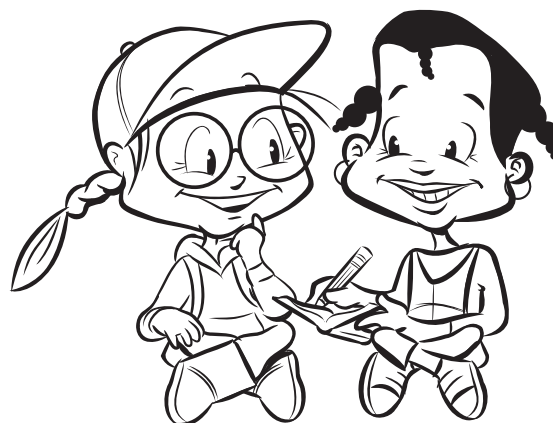
## ACROSS

- 6 Your first teeth.
- 7 They hold your teeth in place.
- 10 Smile.
- 11 If not removed, can lead to cavities.
- 12 The hard outer layer of a tooth.
- 16 What your dentist applies to protect teeth from decay.
- 18 Visit your \_\_\_\_\_ regularly.
- 19 Sing into this to make your voice louder.
- 21 Brush your teeth at least \_\_\_\_\_ a day.
- 24 Pictures of your teeth.
- 25 A dentist uses this to help see all your teeth.
- 26 The words of a song.
- 27 Use only a \_\_\_\_\_-sized amount of toothpaste when you brush.
- 28 Limit between meal \_\_\_\_\_.
- 29 Musical group.
- 30 Clean between your teeth with dental \_\_\_\_\_.

## DOWN

- 1 The part of a tooth that you can see is called the \_\_\_\_\_.
- 2 Den likes to break- \_\_\_\_\_.
- 3 Only eat sparingly to keep your smile healthy.
- 4 Don't forget to brush your \_\_\_\_\_.
- 5 A \_\_\_\_\_ hygienist cleans your teeth at the dentist's office.
- 8 \_\_\_\_\_ are back teeth used for grinding food.
- 9 Bang on this to keep the beat!
- 13 Wear this to protect your smile while playing sports.
- 14 Drink this instead of soda pop.
- 15 Broccoli and carrots are nutritious \_\_\_\_\_.

- 16 Den and Gen's last name is \_\_\_\_\_.
- 17 Use this to keep teeth clean.
- 19 Buck and Flossy's last name is \_\_\_\_\_.
- 20 Flossy and Buck are \_\_\_\_\_.
- 21 Most kids have all their baby teeth by the age of \_\_\_\_\_.
- 22 Six-stringed instrument.
- 23 Den wears \_\_\_\_\_ to straighten his teeth.



ACROSS: 6 - BABY, 7 - GUMS, 10 - GRIN, 11 - PLAQUE, 12 - ENAMEL, 16 - SEALANT, 18 - DENTIST, 19 - MICROPHONE, 21 - TWICE, 24 - XRAY, 25 - MIRROR, 26 - LYRICS, 27 - PEA, 28 - SNACKS, 29 - BAND, 20 - FLOSS  
 DOWN: 1 - CROWN, 2 - DANCE, 3 - SWEETS, 4 - TONGUE, 5 - DENTAL, 8 - MOLARS, 9 - DRUM, 13 - MOUTHGUARD, 14 - WATER, 15 - VEGETABLES, 16 - SMILEY, 17 - TOOTHBRUSH, 19 - MCGRINN, 20 - TWINS, 21 - THREE, 22 - GUITAR, 23 - BRACES





## February is National Children's Dental Health Month.

Put a star in the box each day you brush and floss your teeth. A month full of stars means you are keeping your smile healthy. Awesome job!

# February

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Dear Parent:

Today, your child's class participated in a dental health presentation on why their teeth are important and how to keep their smiles healthy. The class learned about the importance of keeping their teeth clean through daily brushing and flossing. They also learned that it is important to eat healthy foods and visit their dentist regularly.

Please take a moment to go through the materials, which were provided to your child by the California Dental Association. These games and puzzles will help to reinforce the importance of good dental health and nutrition.

As a parent, you can serve as a role model by taking care of your own teeth. It's important to help children establish a good oral health routine at an early age. Good dental health today may prevent decay and possible tooth loss in the future.

Help your child keep a healthy smile for a lifetime!

If you have any questions, please do not hesitate to contact your child's teacher, your local component dental society or the California Dental Association at 800-232-7645.





## Emergencies

Oral injuries are often painful, and should be treated by a dentist as soon as possible. Dental Emergencies may include teeth that have been knocked out (evulsed), forced out of position (extruded), or broken (fractured.) Sometimes lips, gums or cheeks have cuts.

### Evulsed teeth

When a tooth is knocked out you should:

- Attempt to find the tooth
- Immediately call your CDA member dentist for an emergency appointment
- Gently rinse, but do not scrub the tooth to remove dirt or debris
- Place the clean tooth in your mouth between the cheek and gum
- Do not attempt to replace the tooth into the socket. This could cause further damage
- Get to the CDA dentist as soon as possible. If it is within a half hour of the injury, it may be possible to re-implant the tooth
- If it is not possible to store the tooth in the mouth of the injured person (e.g., a young child,) wrap the tooth in a clean cloth or gauze and immerse in milk

### Extruded teeth

If the tooth is pushed out of place (inward or outward), it should be repositioned to its normal alignment with very light finger pressure. Do not force the tooth into the socket. Hold the tooth in place with a moist tissue or gauze. Again, it is vital that a CDA dentist see the injured individual as quickly as possible.

### Fractured teeth

How a fractured tooth is treated will depend on how badly it is broken. Regardless of the damage, a CDA dentist should always be consulted as quickly as possible to determine appropriate treatment.

**Minor fracture** – Minor fractures can be smoothed by your CDA dentist with a sandpaper disc or simply left alone. Another option is to restore the tooth with a composite restoration. In either case, you should treat the tooth with care for several days.

**Moderate fracture** – Moderate fractures include damage to the enamel, dentin and/or pulp. If the pulp is not permanently damaged, there are a variety of procedures your CDA dentist can use to restore your tooth to its original shape and function, including the placement of a full permanent crown. If pulpal damage has occurred, further dental treatment may be required.

**Severe fracture** – Severe fractures may mean a traumatized tooth with a slim chance of recovery. However, there are dental procedures available to restore even severely damaged teeth and a CDA dentist should be consulted as soon as possible to determine if treatment is possible.

### Injuries to the soft tissues of the mouth

Injuries to the inside of the mouth include tears, puncture wounds and lacerations to the cheek, lips or tongue. The wound should be cleaned right away and the injured person taken to the emergency room for the necessary suturing and wound repair.

Bleeding from a tongue laceration can be reduced by pulling the tongue forward and using gauze to place pressure on the wound area.



## Sealants

Preventing tooth decay can become even easier. You may already be aware that daily brushing and flossing are the most important weapons against the formation of plaque, the primary cause of cavities. In addition to your regular routine of brushing and flossing, your dentist can apply a coat of plastic material – called a sealant – on the top or biting surfaces of your back teeth. This plastic coating creates a barrier on your teeth and seals out the decay-causing bacteria that live in plaque.

### **What is plaque and why does it cause cavities?**

The food and liquids you eat and drink combine with bacteria to produce a sticky film called plaque. Plaque attaches on and in between teeth, where it starts to eat away at the tooth enamel. If plaque is not removed regularly by brushing and flossing your teeth, it can produce acids that will create pits or holes (cavities) in the tooth. This is tooth decay.

### **How can sealants help prevent cavities?**

Applying a thin plastic coating to your teeth makes it harder for the plaque to stick to the tiny grooves on the biting surfaces of the back teeth - protecting the tooth surface and reducing the risk of forming cavities.

### **Is it difficult to apply sealants?**

No. Sealant placement is quick, simple and painless. Most often, sealants will last for several years. At regular check-up visits, your CDA member dentist or dental hygienist will check to see that sealants are still in place.

### **Who should get sealants?**

Sealants are most effective in reducing cavities in children with newly formed permanent teeth. In fact, all children should have their molars (back teeth) evaluated for sealants soon after they erupt. For most children, this occurs approximately at ages 6 and 12. Sealants can also be useful in cutting down formation of decay in adult teeth, as well. An application of sealants is a preventative measure to keep teeth healthy. It is an effective way to reduce the need for fillings and more expensive treatments that may be required to repair the damage from cavities, so sealants can save you money. Ask your CDA member dentist whether sealants would be an appropriate treatment for you and your children to help prevent tooth decay.

## Preventing Decay with Fluoride

### What is fluoride (flor-ahyd)?

Fluoride is a mineral that is naturally present in different amounts in almost all foods and water. Fluoride is also used in many dental products such as toothpaste and mouth rinses.

### How does fluoride help stop cavities?

Fluoride works in two ways: topically and systemically. Topical fluorides (meaning fluoride put right on the teeth) strengthen teeth that are in the mouth. As fluoride washes over the tooth surface, it is added into the outer surface of the tooth, making it stronger which protects teeth from cavities. Topical fluoride also helps protect and make the root surfaces less sensitive by adding fluoride into the naturally occurring "softer" root surface. Systemic fluorides are those that are swallowed via food and water and are used by the body when the teeth are forming. If fluoride is taken regularly during the time when teeth are forming (6 months to 6 years-old), it will be added into the enamel layer (outer layer of the tooth) as they develop, creating a stronger, more cavity resistant tooth. Systemic fluorides also protect teeth topically; fluoride is in saliva, which is always washing over the teeth. Fluoride can help the tooth repair itself where it may have been damaged by acids early in the cavity process.

### How can I get fluoride?

Topical fluoride comes from toothpastes, mouth rinses, gels, and varnishes which are placed directly on the teeth. Children are usually provided with topical fluoride at their dental checkups. Topical fluoride is one of the best ways to get fluoride to teeth. If you or your child has cavities or teeth that are sensitive to cold, your CDA member dentist may give you a product that has more fluoride than products you buy at the store.

Systemic fluoride is available by drinking tap water that either has naturally occurring fluoride or has had fluoride added to help fight cavities. In communities without fluoridated water, people can purchase bottled water that has fluoride or your CDA dentist or your child's pediatrician can prescribe fluoride tablets or vitamins. Remember, the fluoride must be swallowed to have systemic effects.

### Who benefits from fluoride?

Everyone can benefit from fluoride's ability to help stop cavities. Almost 60% of people living in California have fluoridated drinking water. If your community is considering fluoridating its water supply, supporting these efforts helps not only you and your children, but everyone in the community.

### If some fluoride is good, is more fluoride better?

The benefits of fluoride have been well known for over 60 years and are supported by many health and professional organizations, including the California Dental Association, the American Dental Association, The American Medical Association, the United States Centers for Disease Control and Prevention, the U.S. Public Health Service and the World Health Organization. However, as with all substances we swallow, there are safe levels, levels that are the best for our overall health, and levels that are not good. When too much fluoride is taken, a condition called dental fluorosis can result. While dental fluorosis is not harmful, it can cause your child's teeth to have brown or white spots.

Parents should be aware of the sources of systemic fluoride. If your community water supply is fluoridated at "optimal" or the perfect level to help prevent cavities, then your children should not take fluoride tablets or fluoride vitamins. Additionally, young children (those who cannot spit after brushing their teeth) should only use a small, pea-sized amount of fluoride toothpaste so that they do not swallow too much fluoride.

### What to remember?

Fluoride alone will not prevent cavities; it is only one part of what is needed for strong teeth and good oral health. Brush your teeth at least twice a day with a fluoridated toothpaste, floss daily, eat a balanced diet, and limit how often you snack in between meals, especially on sweet and sticky foods. Visit your CDA member dentist regularly and follow his or her recommendations for your family's dental care.



## Mouthguards

Anyone who participates in sports, whether for pleasure, in youth or adult leagues, or even on a professional level – knows that losing isn't the worst thing that can happen to a player; sustaining a serious injury is, particularly when that injury is preventable. That's why it's so important for adults and children who are active in sports to wear protective gear such as helmets, shin guards, knee and elbow pads, and mouthguards. Wearing a mouthguard can prevent serious injury and save a lot of pain. Each year this simple safety measure prevents more than 200,000 oral injuries among athletes.

### **Mouthguards aren't mandatory in most sports. Why are they important?**

Facial and head injuries can be sustained in nearly every game, from "contact" sports such as football, soccer and basketball, to "noncontact" sports like baseball, gymnastics, bicycling or skateboarding. Damage to the teeth, lips, tongue and jaws are frequent occurrences in both children and adults. General dentists see more injuries to the mouth as a result of playing sports than from almost any other single cause. A survey conducted by the University of Texas found nearly 5 percent of male college athletes who played football, basketball, soccer, volleyball, baseball, ice hockey and lacrosse without wearing a mouthguard sustained some oral injury. That's more than 2,000 injuries in just a single year at the college level alone! It's at the junior high, high school, community and amateur levels that most injuries occur.

Although more research is needed, mouthguards may help prevent serious injuries such as concussions. The literature has shown that mouthguards definitely help prevent fractured jaws and teeth, severe cuts to the cheek and tongue (often requiring surgery for repair), and traumatic damage to the roots and bone that hold teeth in place. Mouthguards are designed to help cushion the mouth, teeth and jaw, preventing significant damage where sports injuries are most prevalent. While mouthguards are not required equipment in many sports, wearing one is an important precaution for athletes of any age and ability.

### **What should I know before choosing a mouthguard?**

All mouthguards are not created equal. Depending upon the design and materials used, mouthpieces will vary in fit, protection, ease of maintenance and longevity. Listed below are several types of mouthguards. Consult your CDA member dentist before you make a decision.

**Custom-made.** Formed by your dentist from a cast model of your teeth, these custom-made guards are designed to cover all the teeth and are shown in the literature to be the best type of protection. These mouthguards can cushion falls and blows to the chin. Custom-made mouthguards may be slightly more expensive than commercially produced mouthpieces, but they offer the best possible fit and protection and are the most comfortable.

**Mouth-formed.** These guards are generally made of acrylic gel or thermoplastic materials shaped to fit the contours of your teeth. They are placed in boiling water then attempted to be formed and molded to the teeth. They are commercially produced and do not offer the same fit and protection as a custom fitted mouthguard made from a model of the mouth.

**Ready-made stock.** Commercially produced, off-the-shelf mouthguards are the least expensive, but also the least comfortable and the least effective protective mouthpieces. These rubber or polyvinyl pre-formed guards can be purchased at most sporting goods stores. They offer no attempt at fit whatsoever and are not recommended in the dental literature. (brushing their teeth) should only use a small, pea-sized amount of fluoride toothpaste so that they do not swallow too much fluoride.

### **What can I do to make my mouthguard last?**

Like all sports equipment, proper care will make any mouthguard last longer. Keep your mouthpiece in top shape by rinsing it with soap and water or mouthwash after each use and allowing it to air-dry. With proper care, a mouthguard should last the length of a season. The condition of the mouthguard should be checked before each use,

particularly if the athlete has a tendency to chew on it. Mouthguards may be checked by your CDA member dentist at your regularly scheduled examinations.

**Wearing a mouthguard makes good sense.**

If you or your children participate in sports, make sure that you are informed about the most common injuries that can occur during play and take appropriate steps to be protected. Always wear a properly fitted mouthguard when you play. Do not wear removable appliances (retainers, bridges, or complete or partial dentures) when playing sports.

Staying in shape – and intact – is an integral part of an overall strategy for all sports. Protecting against injuries will keep you in the game. Keep your competitive edge. Protect both your general and oral health for your best performance on and off the field.



## Nutrition

The food you eat directly affects your general health and your oral health. A diet low in important nutrients can make it hard for the body's immune system to fight off infection. According to the World Health Organization, diet and nutrition influence head/face development, oral cancer and oral diseases development. Dental diseases related to diet include cavities, developmental defects of enamel, dental erosion and periodontal (gum) disease.

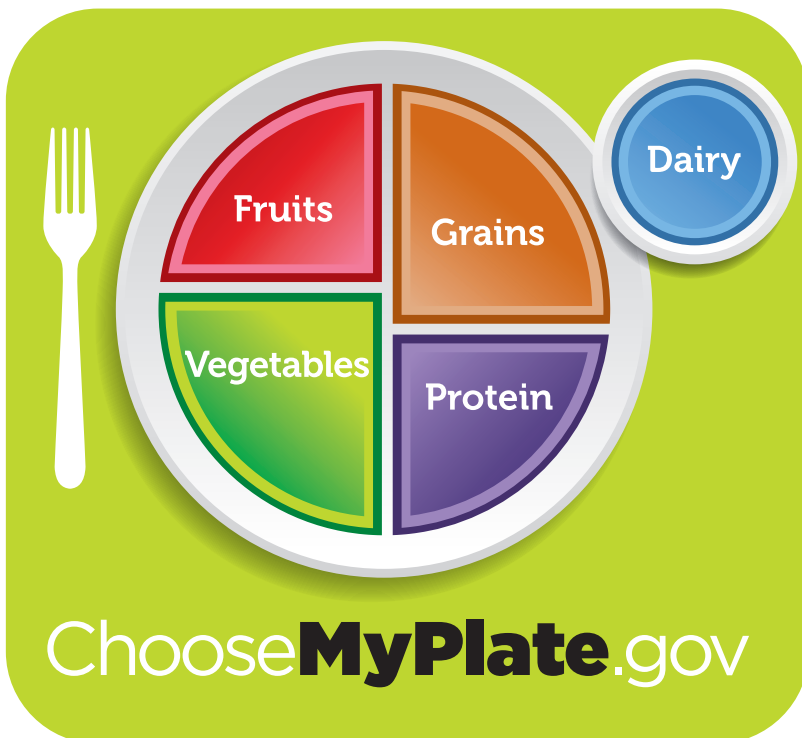
Eating patterns and food choices are important factors that affect the development of tooth decay. Bacteria stick to the film on your teeth called plaque. Bacteria feed on what you eat, especially sugars (including fruit sugars) and cooked starch (bread, potatoes, rice, pasta, etc.). About 5 minutes after you eat, or drink, the bacteria begin making acids as they digest your food. These acids can break down the tooth's outer surface and dissolve valuable minerals, resulting in cavities. Children and adults consume record amounts of sugar-filled sodas, sweetened fruit drinks, and non-nutritious snacks that affect their teeth. These items generally have little, if any nutritional value and over time take a toll on teeth.

When choosing foods keep the following in mind:

- **Variety**—Eat foods from all food groups
- **Proportionality**—Eat more fruits, vegetables, whole grains, fat-free or low-fat milk, and less foods with sugar, cholesterol & salt
- **Moderation**—Limit the number and amount of foods containing added sugars, cholesterol, salt
- **Activity**—Be physically active every day

Children should have at least 60 minutes of physical activity each day; adults need at least 30 minutes each day. While 30 minutes a day of moderate intensity physical activities provide health benefits, being active for longer or doing more vigorous activities can provide even greater health benefits.

For meals and snacking, choose nutritious foods and drinks that are low in sugar. Brush thoroughly twice a day with fluoridated toothpaste. Floss daily. Call your CDA member dentist to schedule regular checkups and cleanings.





## USDA Daily Allowances

	Age	Vegetables	Fruit	Milk	Meat & Beans	Grains	Fats & Oils
Children	2-3 years old	1 cup	1 cup	2 cups	2 ounces	3 ounces	3 teaspoons
	4-8 years old	1½ cups	1 - 1½ cups	3 cups	3-4 ounces	4-5 ounces	4 teaspoons
Girls	9-13 years old	2 cups	1½ cups	3 cups	5 ounces	5 ounces	5 teaspoons
	14-18 years old	2½ cups	1½ cups	3 cups	5 ounces	6 ounces	5 teaspoons
Boys	9-13 years old	2½ cups	1½ cups	3 cups	5 ounces	6 ounces	5 teaspoons
	14-18 years old	3 cups	2 cups	3 cups	6 ounces	7 ounces	6 teaspoons
Women	19-30 years	2½ cups	2 cups	3 cups	5½ ounces	6 ounces	6 teaspoons
	31-50 years old	2½ cups	1½ cups	3 cups	5 ounces	6 ounces	5 teaspoons
	51+ years old	2 cups	1½ cups	3 cups	5 ounces	5 ounces	5 teaspoons
Men	19-30 years	3 cups	2 cups	3 cups	6 ½ ounces	8 ounces	7 teaspoons
	31-50 years old	3 cups	2 cups	3 cups	6 ounces	7 ounces	6 teaspoons
	51+ years old	2½ cups	2 cups	3 cups	5½ ounces	6 ounces	6 teaspoons

The USDA oversees the nutritional health of the nation. The dietary recommendations are designed to promote optimal health and to prevent obesity-related diseases including cardiovascular disease, type 2 diabetes and cancers. The USDA's recommendations recognize that people have different dietary needs at various stages of life. Visit <http://www.choosemyplate.gov> for more information.



# Orthodontics

## Braces... for me?

Braces, or orthodontic treatment, can benefit both children and adults. And recent advances in esthetics have made braces less noticeable than in the past. Brackets, the part of the braces that holds the wires, are bonded to the front of the teeth and can be metal, clear or tooth-colored. Sometimes the brackets can be fastened to the back of the teeth. Newest in esthetic orthodontic treatment are “invisible” braces – clear, removable, molded plastic aligners that move your teeth into new positions.

### How do I know if I need braces?

Your CDA member dentist will evaluate your occlusion (bite) and may recommend braces if your bite is not properly aligned (malocclusion). Malocclusion may result from crowded teeth, missing teeth, extra teeth, or jaws that are out of alignment. In children, malocclusions can be hereditary, or can be the result of accidents, thumb sucking, early loss of baby teeth or other forces that impact tooth position and jaw development. For adults, malocclusions often result from missing teeth or shifts that occur over time in the bite. Of course, an adult may have a malocclusion that was never corrected as a child and decide to correct it as an adult!

Children should be evaluated by a CDA dentist early in their development. Often, early orthodontic intervention in a developing child can head off larger corrections that would need to be made later on in life as you get older.

### How are orthodontic problems corrected?

The process that moves teeth is the same in everyone, child or adult. Steady pressure placed on the tooth puts pressure on the bone that holds the tooth, causing that bone to break down. Simultaneously, the tension created on the bone that is being “pulled” causes it to grow and fill in behind the moving tooth. Because bones in adults are no longer growing and forming, orthodontic procedures in adults may take a bit longer than in children, but the process is essentially the same for everyone. Once the “active” appliances that move teeth are removed, retainers must be worn so that teeth stay in place and the bone around them becomes stable. However, the mouth is a dynamic

environment. With forces applied daily from chewing, swallowing, etc., teeth will naturally move over time and people should be aware that in order to keep teeth in the same place indefinitely and prevent future shifting or relapse, regular use of a retainer may be necessary.

Innovations in orthodontics make them esthetic and effective for children and adults alike. Your CDA member dentist will evaluate the benefits of orthodontics for you and advise you on your options. If you have been waiting for a straighter, more beautiful smile, or a more functional bite . . . wait no longer!

## Preventive Care

Prevention is the key to keeping your teeth healthy and your smile beautiful for a life time.

### Why Brush?

Brushing your teeth after meals and between-meal snacks not only gets rid of food particles, it removes plaque, the sticky film that forms on teeth. Plaque is made up of bacteria that produce acids that cause tooth decay and gum disease, so thorough removal of plaque is the main goal of brushing. Using a fluoride toothpaste is also important because the fluoride reduces bacteria levels, as well as remineralizes tooth surfaces, making them stronger.

Your CDA member dentist or dental hygienist can instruct you on the proper method for brushing and recommend the best toothbrush for you. Generally, a brush with soft, end-rounded or polished bristles is less likely to injure gum tissue or damage the tooth surface. The size, shape and angle of the brush should allow you to reach every tooth. Children need smaller brushes than those designed for adults. Remember: worn-out toothbrushes can not properly clean your teeth and may injure your gums. Toothbrushes should be replaced every few months or when the bristles show signs of wear.

### Why Floss?

To prevent tooth decay and gum disease, plaque must be thoroughly removed from all tooth surfaces. Unfortunately, your brush can't reach effectively between your teeth and under the gumline. Because tooth decay and periodontal disease often start in these areas, it is as important to floss on a daily basis as it is to brush.

Flossing is a skill that needs to be learned. Do not be discouraged if you find it difficult at first. Your CDA member dentist or dental hygienist can help you learn to floss properly and give you tips on how to make it easier. With practice, you will find that flossing takes only a few minutes of your time each day.

There are also other types of interdental cleaners, such as thin spiral brushes or wedge-shaped wooden sticks that can be used to help keep your gums and the spaces between your teeth clean and healthy. Your dentist or dental hygienist can

help you choose, and instruct you on the proper use of the oral health aides that are best for you.

### What About Mouthwashes, Toothpastes And Other Oral Care Products?

There are a variety of products available to help support your oral health. Mouthrinses, gels and toothpastes with fluoride can be used to help prevent decay. Some mouthwashes and toothpastes contain ingredients with antibacterial properties and can help prevent or control gingivitis (gum inflammation). Others contain ingredients to reduce the formation of tartar, the hardened plaque that forms on teeth over time. Gum and mints containing xylitol, a natural sweetener that reduces decay causing bacteria, can be used as part of an overall strategy to help reduce cavities.

If you are already using an over-the-counter product for your oral health, it is always a good idea to consult with your CDA member dentist on its appropriateness for you. Depending on your individual situation, your CDA member dentist may recommend use of a specific product.

### Are Regular Checkups Really That Important?

Yes! When your CDA member dentist looks in your mouth, he or she is not only looking for the signs of tooth decay and gum disease, but also for signs of systemic diseases – as your mouth is often a good indicator of your overall health. Conditions such as precancerous or cancerous lesions, diabetes, blocked salivary glands, and even HIV or AIDS can often be detected in an oral exam. Additionally, there is growing evidence of links between periodontal disease (gum disease) and heart disease, some respiratory diseases and low-birth weight babies. To maintain your general health, it is important to maintain your oral health!

Beyond the connection to your general health, regular dental care is essential to preventing more complicated dental problems from developing. Good oral hygiene practices, that includes daily brushing and flossing, eating a healthy diet and visiting your CDA member dentist for a check-up twice a year – or as often as your CDA member dentist recommends – is the best way to keep your teeth healthy and your smile beautiful for a lifetime!