

grin!®

GO GREEN with
your dental routine

Meet your teeth

Oral cancer screenings
and dental exams

5 tooth-friendly
veggies to plant in
your garden

in this issue of
grin!

LIFESTYLE



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Go green with your dental routine

Small changes to your dental routine can mean big impacts for the environment. Check out our tips for oral hygiene habits that help keep the Earth clean.

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Meet your teeth

You use them every day, but how well do you really know them? Open wide to learn about the types, functions and lifecycles of your teeth.

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DENTAL BENEFITS



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Oral cancer screenings and dental exams

April marks Oral Cancer Awareness Month. We take a look at early warning signs, tips for prevention and ways that routine trips to the dentist can help.

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What is a periodontal exam?

grin! more

Introducing the new *Grin!* website.



View web-exclusive content, videos and more!

WELLNESS



Super greens for pearly whites

Vitamin K helps fortify bones and teeth – and kale is packed with it! Get to know the history and health benefits of this leafy superfood.

DENTAL BENEFITS



Know your oral health score

Determine your risk for oral health problems with our free risk assessment tool, LifeSmile Score. Share the report during your next dentist visit to keep your mouth in tiptop shape.

Access the digital version anytime, anywhere at grinmag.com.



On topic with Dr. Kohn

Select beverages with health in mind

As I've gotten older, I've become more aware of what I put into my body. I'm a believer of the old adage "you are what you eat." Everything you eat and drink can have positive and/or negative effects on your overall health and well-being. The healthier the foods and drinks you consume, the better you will look, feel, sleep and perform in physical activities.

I've also become more aware of the importance of staying hydrated throughout the day. When it comes to liquids, I generally stick with plain water. I always have bottled water with me in the car, but tap water is also great because it usually has the extra benefit of fluoride. Unsweetened coffee, iced tea and hot tea count as colored water in my book. Recent studies have pretty much dispelled the common belief that these drinks are dehydrating.

For a long time, I've avoided soda, fruit juice and any other non-alcoholic fizzy beverages. This is because of the highly acidic nature of most soft drinks and the fact that added sugars are bad for teeth, weight and overall health. In this issue of *Grin!*, we discuss non-sweetened carbonated water on page 16. Carbonation itself doesn't appear to be harmful when it comes to sparkling water, and drinking carbonated water can be a good source of hydration. Just watch out for those with added sugar or citric acids. And if you're over 21 years old, the occasional beer, wine, scotch or other adult beverage can add to a happy, mellow life.



Meet Delta Dental's Vice President of Dental Science and Policy, Bill Kohn, DDS. Formerly the director of the Division of Oral Health at the Centers for Disease Control and Prevention, Dr. Kohn has timely tips and valuable insights to share as our resident dental expert.

Mouth-friendly recipe: Acai bowls

Acai (ah-sah-EE) bowls – made from delicious acai berries – are all the rage right now. And, lucky for you, they're full of mouth-friendly vitamins and nutrients. Plus, they're easy to customize with your favorite toppings. The choices are nearly endless!

Ingredients for one acai bowl:

- 1 100g packet unsweetened frozen acai
- 1 frozen banana
- ½ cup orange juice*
- ½ cup water

*Or try yogurt, coconut milk, sparkling water or another fruit juice.

Directions:

- ① Run the frozen acai packet under hot water for 5 to 10 seconds.
- ② Cut the packet open and squeeze the acai into a blender.
- ③ Add the banana, orange juice and water.
- ④ Purée until completely smooth, adding more water or juice if needed.
- ⑤ Add your favorite toppings.
- ⑥ Enjoy!

Topping ideas:

- Fresh berries
- Kiwi
- Mango
- Peaches
- Granola
- Nuts and/or seeds
- Almond butter
- Coconut chips



History of oral health: Dental instruments

Dental instruments are high-tech, specialized and very effective, but they haven't always been that way. Take a look at the sometimes-questionable tools of the past.

Tooth extraction took the form of a "bird beak" in the 14th century when Guy de Chauliac developed the **dental pelican**. Teeth were secured into the end of a curved shaft and then pulled out sideways.



Dental drills today run at hundreds of thousands of rotations per minute, while the earliest dental drills ran as slow as 2,000 rotations per minute.

Patients of George Fellows Harrington had to cover their ears during procedures. In 1864, he invented a **clockwork dental drill** that ran faster than previous drills but emitted a deafening noise.

Today's **dental drills reach such high speeds by operating with air or electricity**. While the noise may scare some, they make dental work significantly easier and far more accurate.

To avoid dental drills in the future, take care of your smile by using your dental benefits for preventive exams and cleanings.

1300s

1790

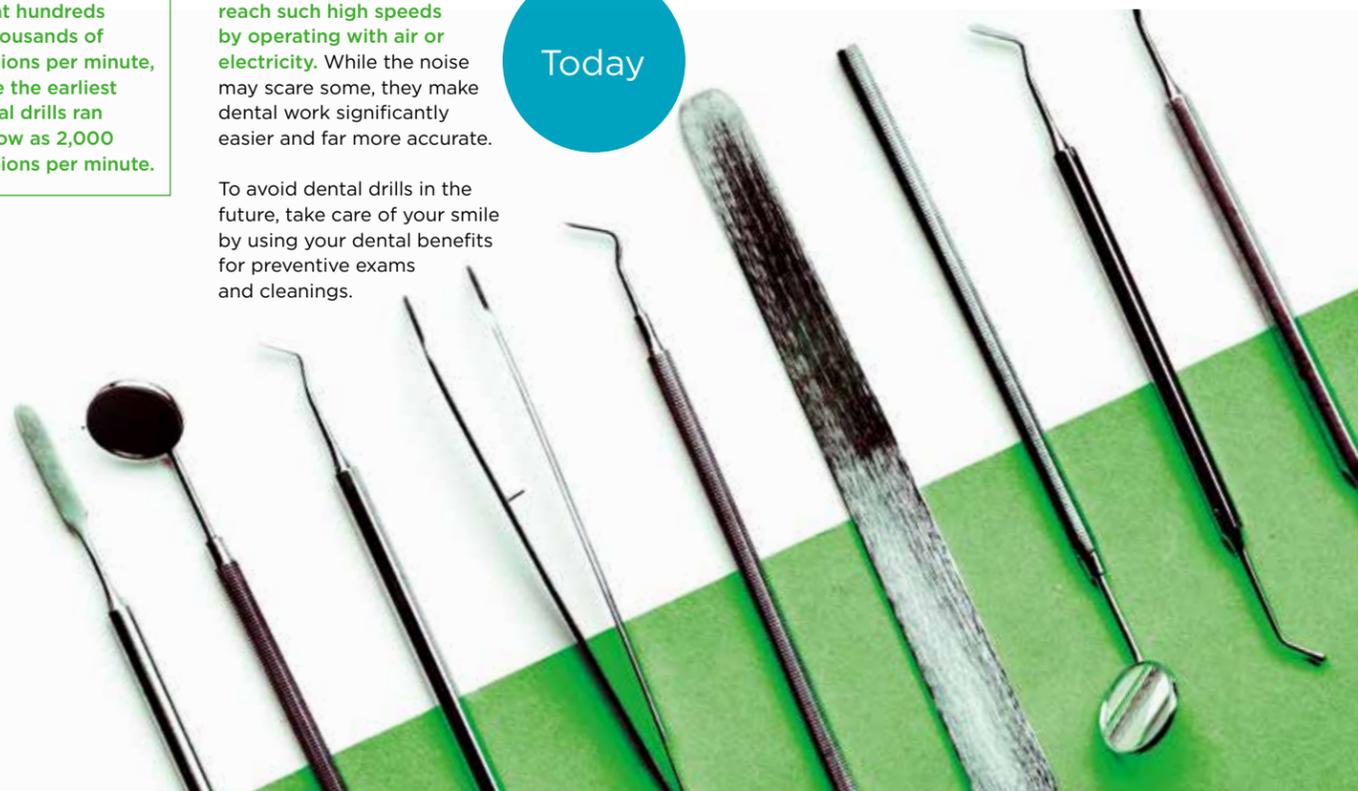
1864

1957

Today

Foot-treadle spinning wheels expanded from thread spooling to dental drilling in 1790. Invented by George Washington's personal dentist, John Greenwood, the **first dental drill was powered by a foot engine**. While it was difficult to use and operated at a super slow speed, it opened the gateway for future development.

Dental instruments in the U.S. made a huge leap forward when John Borden invented the **first modern dental drill** in 1957. His high-speed, air-driven dental drill took only minutes to prep teeth for fillings.



Readers ask, we answer

Madison asks:

"What is my dentist checking when she puts a dental instrument under and around my gums?"

Hi, Madison. Your dentist is, in fact, performing a periodontal exam. With most Delta Dental plans, this exam, as well as regular checkups and cleanings, is covered at little or no out-of-pocket cost to you.

During a periodontal exam, your dentist is checking the health of your gums. At the top of the gumline, teeth aren't actually connected to the gums. There are spaces or "pockets" that separate them. These pockets can contain bacteria and other indicators of gum disease.

Your dentist inserts a periodontal probe under the gums at various places on the tooth to assess pocket depth. The deeper the pocket, the greater the likelihood that bacteria or gum disease is present.

When your dentist uses a periodontal probe to measure the pockets between your teeth and gums, you may hear her recording numbers. This means that she's taking note of how many millimeters deep they are.

A healthy pocket is usually between one and three millimeters. If it reaches four millimeters or more, it usually contains significant bacterial buildup, and the gum tissue may be pulling away from the tooth. Your dentist will be able to tell you what the problem is and help you address it effectively.

This part of your checkup may feel strange, but it can help you catch oral health issues early to make sure your smile stays healthy.

Have a question you'd like us to answer? Send it to grin@deltadental.com, and it could be featured in an upcoming issue.

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LIFESTYLE

Turning off the water while you brush can save up to **200 GALLONS** per month!



GO GREEN

with your dental routine

A better environment starts little by little with eco-friendly choices and sustainable daily practices. While you're keeping your mouth healthy, why not take some steps to help keep the Earth healthy, too?



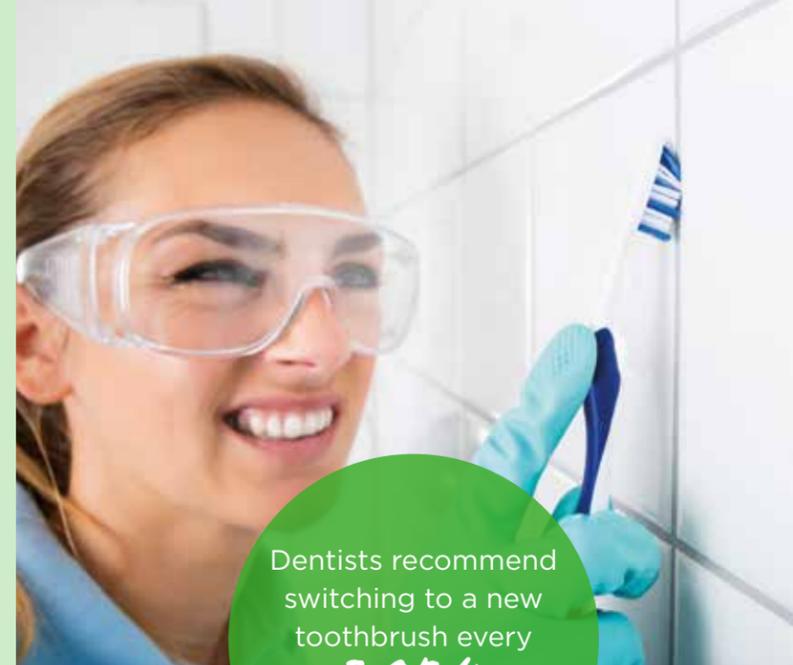
Conserving water
Seventy percent of Earth is covered in water, but only a surprising 1 percent is suitable for human consumption. Make the most of our limited water supply by turning off the water while you brush.

You can apply the same idea to other parts of your daily routine. Try shutting off the tap while scrubbing your hands, taking showers instead of baths and only running the dishwasher when it's full.

LIFESTYLE

Discarding toothbrushes
Toothbrush disposal is another opportunity for sustainable oral health practices. Traditional toothbrushes are typically made with hard-plastic handles and soft nylon bristles that can take hundreds of years to decompose.

Dentists recommend switching to a new toothbrush every three or four months, but that doesn't mean you have to throw yours away. Find ways to reuse old toothbrushes. The bristles are perfect for cleaning hard-to-reach places and for polishing jewelry. They also make great paintbrushes for craft projects.



Dentists recommend switching to a new toothbrush every **3 OR 4 MONTHS.**

Choosing eco-friendly toothbrushes
With a little bit of searching, you can find eco-friendly replacements for your current toothbrush. Try opting for toothbrushes made of recycled plastic. Some companies make traditional toothbrushes with replaceable heads to decrease plastic waste. If you use an electric toothbrush, replacement heads come standard, so you only have to throw away part of your toothbrush when you need a new one.





Look for floss that comes in recyclable or reusable containers.

Recycling oral health products

Several organizations work with consumers and dentists' offices to recycle old toothbrushes, electric toothbrush heads, floss picks and more. These materials can be repurposed into plastic lumber and other consumer products. Search online to get involved or call your dentist's office to see if it participates in any recycling programs.

Choosing eco-friendly floss

When creating an eco-friendly oral health routine, floss is another element to consider. Most floss is made of nylon fibers that don't biodegrade and are too small to be processed by normal recycling plants. Floss containers and floss picks are considered mixed materials that can't be recycled.

Despite the challenges, there are options for flossing with the environment in mind. Instead of nylon floss, choose floss made from silk. It's biodegradable and can be composted naturally. You can purchase floss that comes in recyclable or reusable containers, too.



CELEBRATE NATIONAL EARTH DAY ON APRIL 22!

Make simple changes to your oral health habits to help maintain an environment that makes everyone smile.



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Two-word answers



Q:
Is it common to be able to curl your tongue into a tube?

A:
Very common.

This popular party trick engages the tongue's four intrinsic muscles – the ones that are only connected to other areas of the tongue. Your tongue's other muscles are called extrinsic muscles and attach to other parts of the mouth.

Because of its complex anatomy, the tongue is an all-star player when it comes to mouth function. It rarely gets tired even though it's responsible for distinguishing between flavors, facilitating chewing, initiating swallowing and more. It can curl, contract, extend and bend in any direction.

You can thank your tongue for turning noise from your vocal cords into meaningful words at a speed of up to 90 words a minute.

65%-81% of people have no problem rolling their tongue, according to the University of Delaware.

With all that activity, it's important to keep your tongue in tiptop shape by brushing it daily. The tongue provides an ideal environment for halitosis-causing bacteria, so make sure you're reaching all the way to the back of your tongue when you brush. If you experience bad breath, there's a good chance your tongue is the culprit.

Take care of your tongue, and it'll help you taste, talk and chew anytime you need it to! (Rolls off the tongue, doesn't it?)

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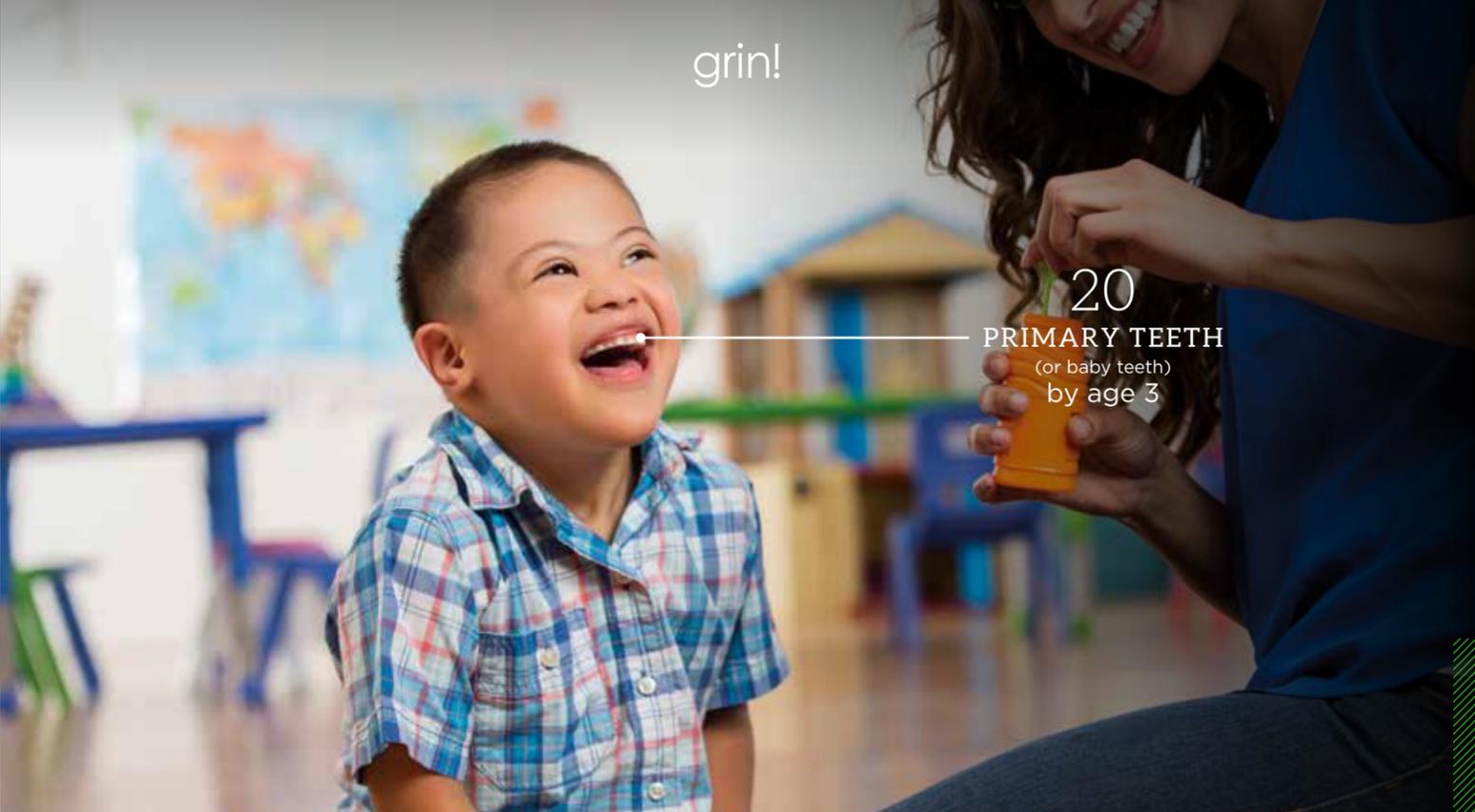
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WELLNESS

WELLNESS

MEET YOUR TEETH

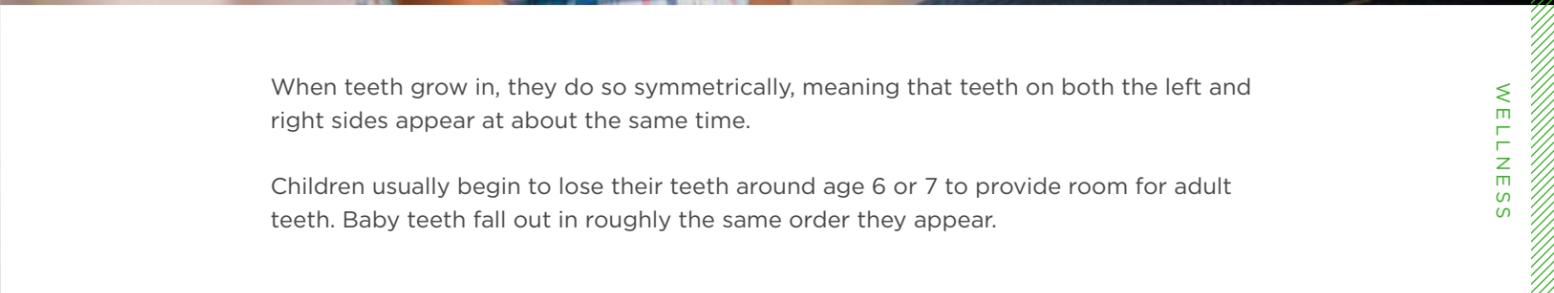
You use them all day long - for everything from meal time to picture time - but how well do you really know them? Take a time-out to *meet your teeth*.



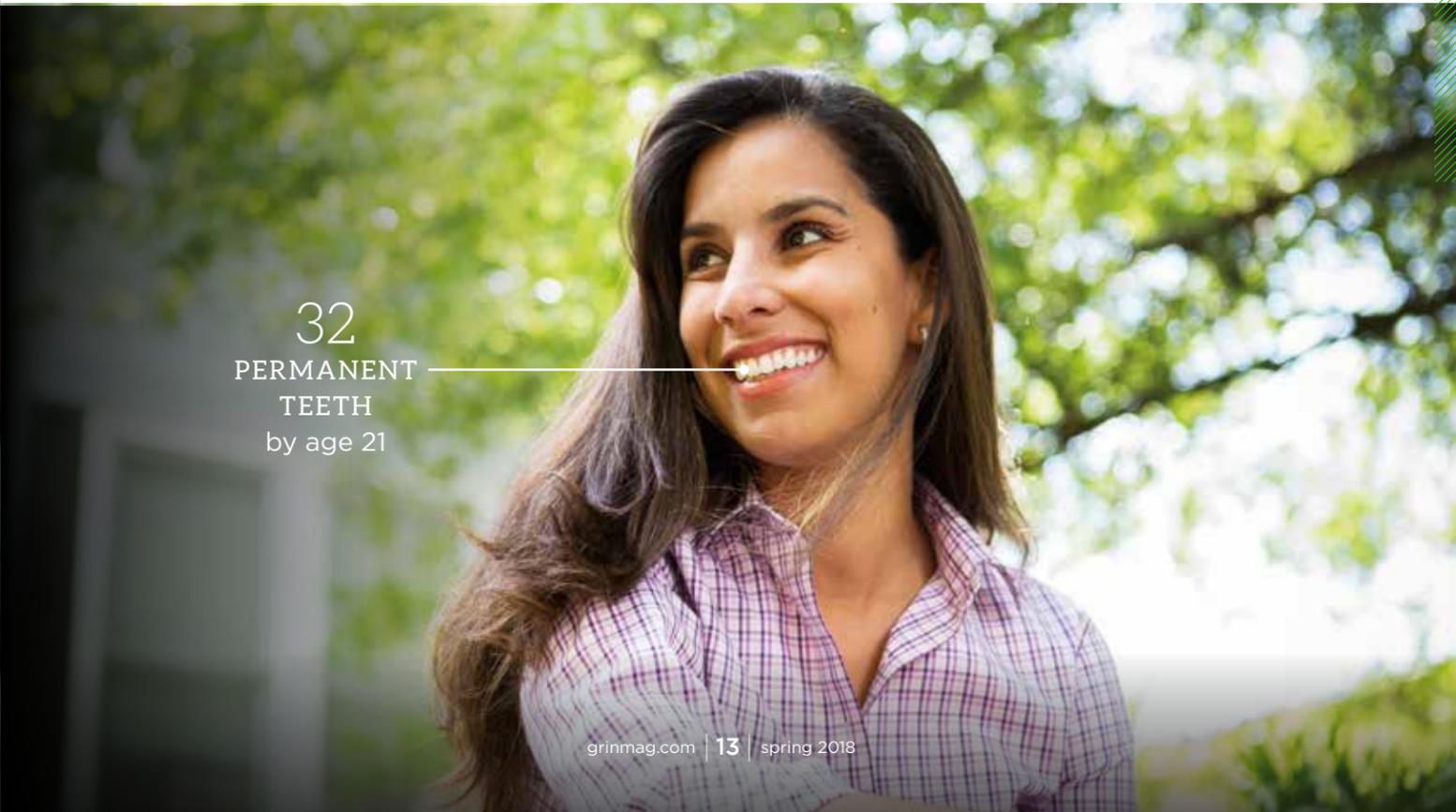
20
PRIMARY TEETH
(or baby teeth)
by age 3

When teeth grow in, they do so symmetrically, meaning that teeth on both the left and right sides appear at about the same time.

Children usually begin to lose their teeth around age 6 or 7 to provide room for adult teeth. Baby teeth fall out in roughly the same order they appear.



32
PERMANENT
TEETH
by age 21

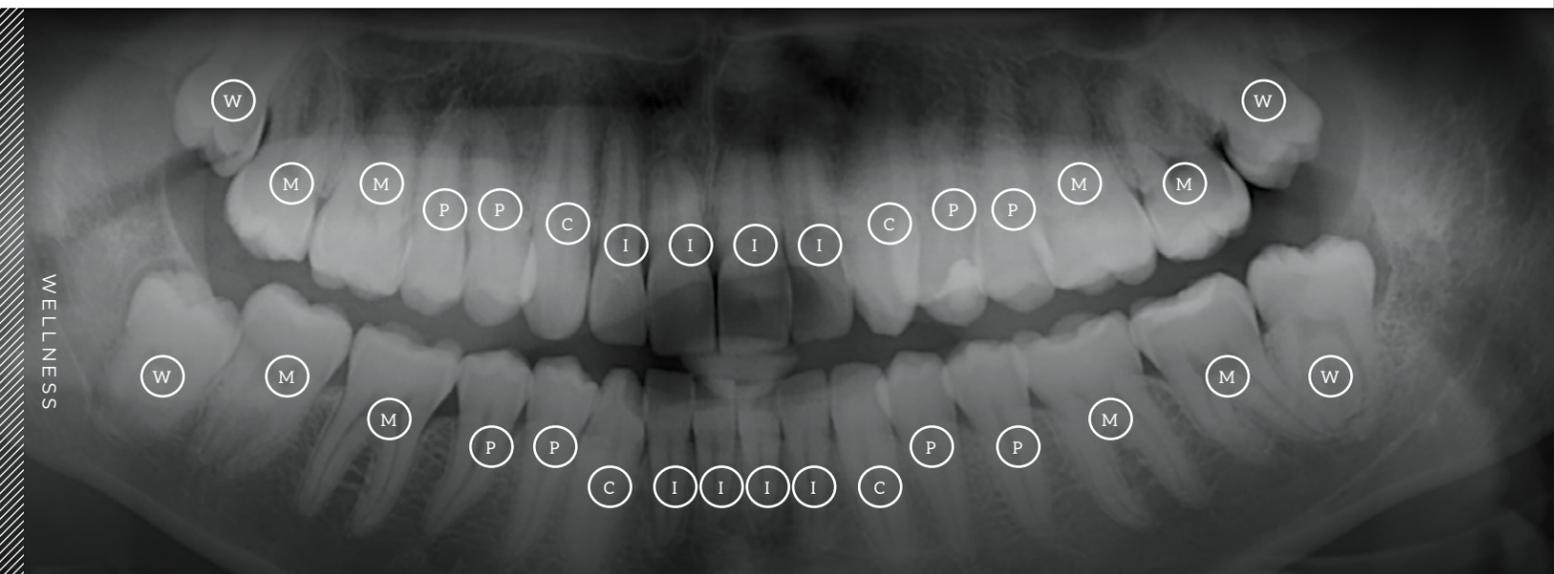




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LIFESTYLE

TAKE A LOOK AT THOSE 32 PERMANENT TEETH from a closer angle.



WELLNESS

- INCISORS**
8 total

I
- CANINES**
4 total

C
- PREMOLARS**
8 total

P
- MOLARS**
8 total

M
- WISDOM TEETH**
4 total

W

The middle teeth on both the upper and lower jaws

Incisors can be divided into central incisors located directly in the center and lateral incisors located to the left and right.

Besides stealing the show as the stars of your smile, incisors serve a crucial role in biting into food. Their narrow edges make them ideal for cutting into food to detach smaller, chewable pieces.

The pointed teeth located outside the incisors (also called cuspids)

Not surprisingly (considering the name), canines are closely linked to carnivorous predators. These teeth are much sharper than other teeth, which allows them to easily rip and tear apart food.

The teeth located between the molars and canines

These teeth have only two points on the surface, while molars have four. Like molars, premolars are flat and are responsible for grinding up food for swallowing. They also help move food from the front of the mouth to the back for chewing.

The teeth located near the back of the mouth

Molars are used to mash and grind food so it can easily be swallowed and digested. They have a flat base with a larger surface area to make the grinding process easier.

A third pair of molars in the very back of the mouth (also called third molars)

Wisdom teeth typically appear around age 17 but are usually not necessary for efficient chewing or healthy digestion. Sometimes they're surgically removed if they're causing problems or if there's not enough room for them to fully erupt.

Your spring smile list

Get grinning in the fresh springtime sunshine with these fun to-do's.

- 1 Weave a flower crown with dandelions from your backyard.
- 2 Hop on your bike and discover a new trail (but don't forget your helmet and mouth guard).
- 3 Surprise someone by leaving a May Day basket on their porch. Look online for DIY ideas.
- 4 Plant some tooth-friendly veggies in your garden. Find ideas on pages 18-19.
- 5 Stroll through the farmers market for fresh produce.
- 6 Enjoy colorful blooms and floral scents at your local botanical center.
- 7 Clean out your closets and donate unused items to charity.
- 8 Grab your friends for a round of mini golf.
- 9 Search for smooth, flat rocks to skip across a pond or lake.

10 Pull on your rain boots and splash in the biggest puddle you can find.



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Dental trend spotlight: Sparkling water



Drinking sparkling water is a hip trend, but is it good for your smile?

Any carbonated drink gets its effervescence from carbon dioxide that turns into carbonic acid once ingested. In some carbonated drinks, this carbonic acid can wear away enamel, making teeth more susceptible to cavities. Trading soft drinks for fizzy water can be a good choice, however, because sparkling water is typically far less acidic.

The level of acid in most sparkling water does not pose a threat to your teeth, according to the American Dental Association. When researchers soaked teeth in sparkling water versus regular water, they observed no significant difference in enamel erosion. More research is needed to fully explore the topic, but current knowledge suggests the coast is clear.

So, enjoy those bubbly wonders, but make sure they don't become your main source of hydration. Without the fluoride from most tap water, teeth may be at higher risk for tooth decay over time.

Try these tips to keep your beverage choices even more mouth-friendly:

- Watch out for sparkling water with harmful additives. Some flavors like lemon and orange contain higher levels of citric acid, while others are sweetened with sugars, which can put you at greater risk for cavities.
- Remember that adding a slice of lemon or lime to your glass of sparkling water can increase acid levels and wear away tooth enamel.
- Minimize the amount of time carbonated water is in your mouth. It's better to drink it all in one sitting or with a meal rather than slowly sipping on it throughout the day. Also, avoid holding it in your mouth or swirling it around before swallowing.

Our verdict: Enjoy sparkling water in moderation, but make plain water your drink of choice.



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Oral cancer screenings and dental exams

With Oral Cancer Awareness Month in April, let's take a moment to review how you can take steps to keep your mouth healthy.

The American Cancer Society estimates that about 51,540 people in the U.S. will be diagnosed with oral cavity and oropharyngeal cancers in 2018. While those numbers are staggering, routine trips to the dentist can help. Because dentists may be able to detect oral cancer early, they can significantly improve the chances for successful treatment and provide greater treatment options.

Oral cancer indicators

Your dental hygienist and dentist will look for signs and symptoms of oral cancer when they perform a regular checkup.

Common indicators include:

- White or red patches in your mouth
- A sore that won't heal
- Loose teeth
- Difficulty or pain when swallowing
- Difficulty wearing dentures
- A lump in your neck or cheek
- Pain in the mouth that doesn't go away

There are easy steps you can take to prevent oral cancer, like doing a self-exam at home, limiting alcohol intake and not smoking or using other tobacco products. According to the American Cancer Society, you should do a self-check about once a month. Simply use a mirror to get a good view of your mouth and take note of any issues (see *Oral cancer indicators*).

If you notice any of these indicators, be sure to bring them up during your next dental exam so your dentist can examine your mouth for signs of oral cancer.

Because dental checkups can be an effective measure for finding and diagnosing oral cancer and other oral health issues early, they are 100 percent covered under most dental plans. The importance of regular checkups can't be overstated, so make sure to visit your dentist.

Take steps this April and every month to ensure a strong defense against the possible threat of oral cancer.

5 tooth-friendly veggies to plant in your garden

With springtime blooming, gardeners are rustling through their toolsheds and breaking out their shovels. Among the cornucopia of possibilities to plant, fresh vegetables stand out as some of the best options for harvesting a healthy smile.

Vegetables grow with distinct nutrients that encourage optimal oral health and contain vitamins and minerals that can help strengthen teeth. And because they are rich in fiber, veggies can help stimulate saliva flow. Increased levels of saliva can neutralize cavity-causing acids and wash away bacteria before they hide and spread in mouth crevices.

If you're planning to tend a garden this year, consider planting the seeds for a healthy smile with these tooth-friendly veggies that taste good, too. Happy gardening!

WELLNESS



1 Spinach
The abundance of calcium in spinach can help protect tooth enamel, strengthen your jaw bones and the bone that supports your teeth, and help prevent tooth loss. Spinach needs about six weeks of cooler temperatures, so plant it before the last spring frost.



2 Broccoli
With a full helping of vitamin C, broccoli helps strengthen gums and other soft tissues in the mouth. It also goes a long way toward helping defend against gum disease, gingivitis and tooth loss. Plus, broccoli provides a substantial amount of calcium that helps fortify bones and teeth.



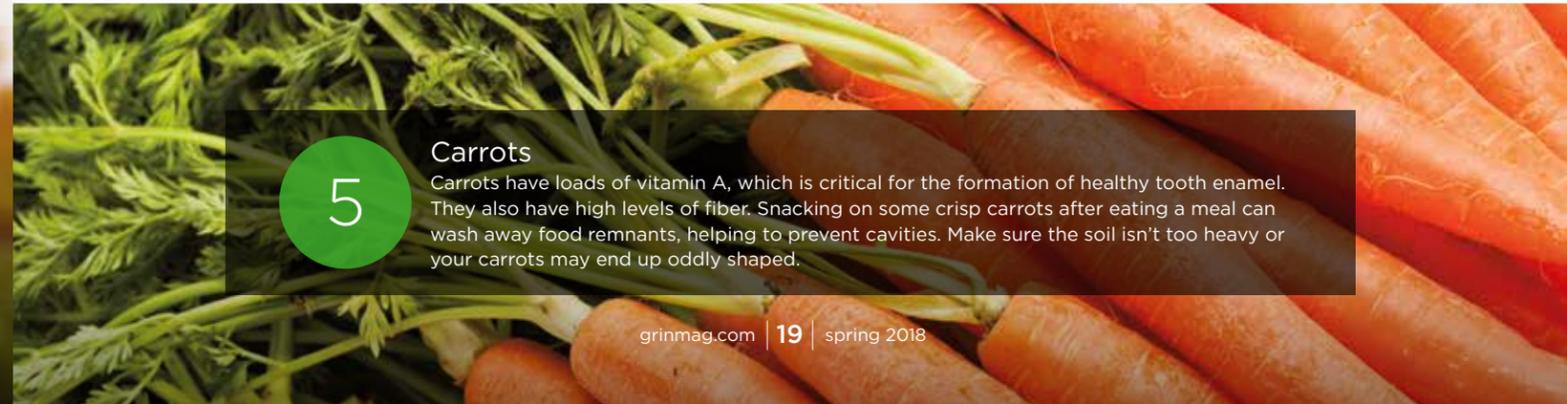
3 Sweet potatoes
Sweet potatoes aren't just tasty - they also contain vitamin A, which helps keep mucous membranes healthy and encourages quick recovery from mouth problems like cuts and surgeries. Similar to broccoli, the vitamin C in sweet potatoes encourages healthy gums. Be careful not to overwater your sweet potatoes!



4 Kale
Kale packs a powerful punch (and a hearty crunch) of calcium, folic acid, vitamin A and vitamin K. Not only can a vitamin K deficiency negatively affect your mouth's healing process, but a healthy dose can help block substances that break down bones.



5 Carrots
Carrots have loads of vitamin A, which is critical for the formation of healthy tooth enamel. They also have high levels of fiber. Snacking on some crisp carrots after eating a meal can wash away food remnants, helping to prevent cavities. Make sure the soil isn't too heavy or your carrots may end up oddly shaped.



WELLNESS

A man and a woman are smiling broadly while riding a roller coaster. The man in the foreground is wearing a blue t-shirt and has a wide, joyful expression. The woman behind him is also smiling and has her hand raised. The background shows the wooden tracks of the roller coaster against a blue sky with light clouds.

/ A smile can say
**THIS IS FUN,
I THINK**

Every smile tells a story. And each one can say something powerful. As the nation's leading dental benefits provider, Delta Dental makes it easy to protect your smile and keep it healthy with the largest network of dentists nationwide, quick answers and personalized service. **Learn more at [DeltaDental.com](https://www.DeltaDental.com).**

 **DELTA DENTAL[®]**

smile power[™]