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# grin!™

news, notes &  
entertainment to  
keep your smile  
healthy & happy

fall  
2015  
volume 4, issue 3

**The Latest  
in Tooth  
Technology**

**5** Vitamins and  
Nutrients that Keep  
Mouths Healthy

**By the Numbers:**  
Children's Oral Health  
Survey Results



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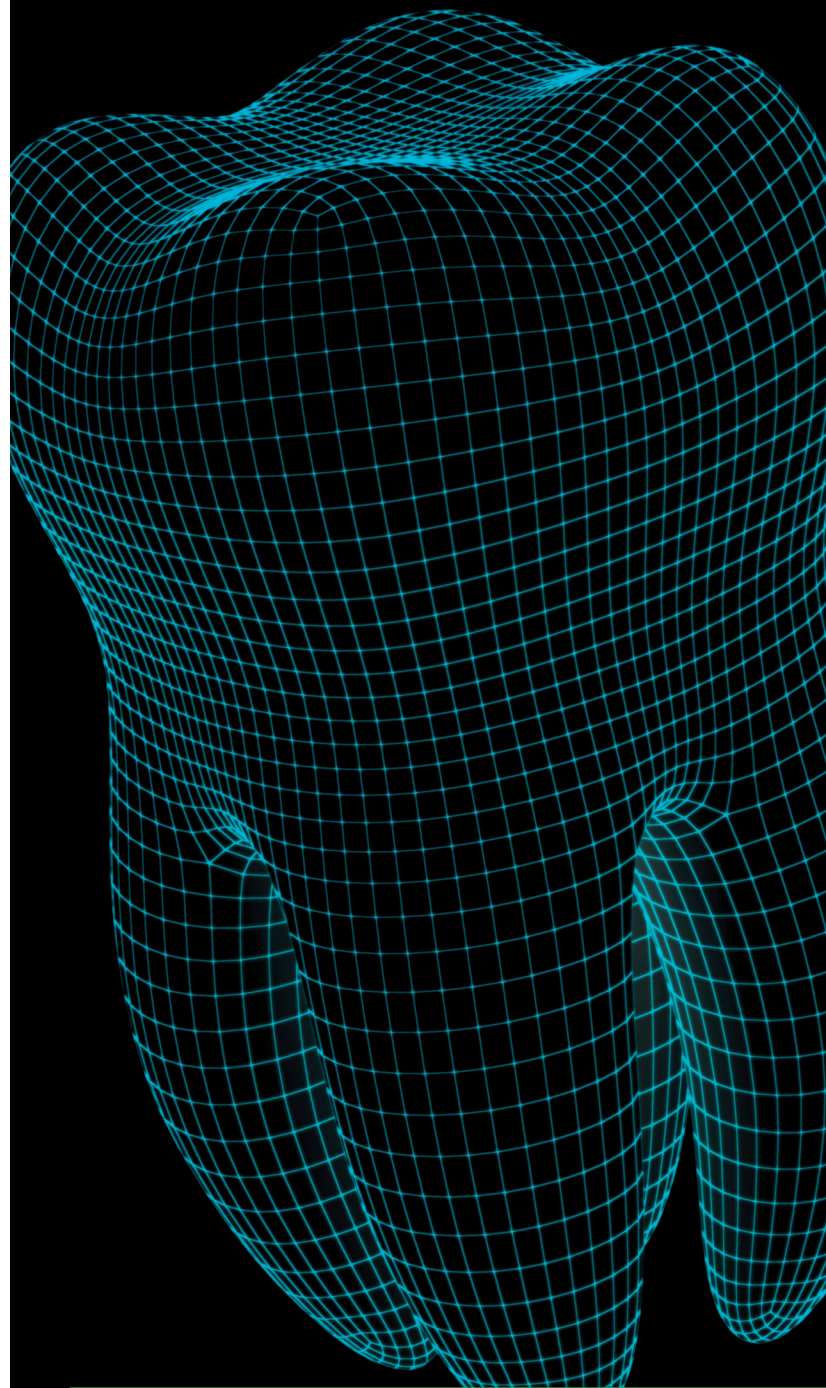
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# cavity-free calendar



## August

**August 21 is National Senior Citizens Day.** Make sure you – or the older adults in your life – keep regular dental visits and maintain good oral health routines.

## September

As your kids head back to school, pack their lunches with some mouth-friendly options such as yogurt, fruit and veggies.

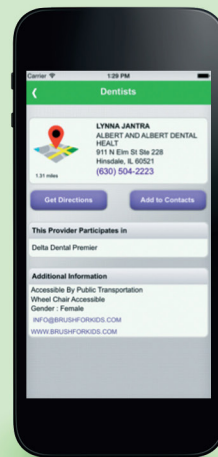
## October

**Celebrate National Dental Hygiene Month** by brushing twice a day for two minutes and flossing at least once daily.



## dental benefits on the go

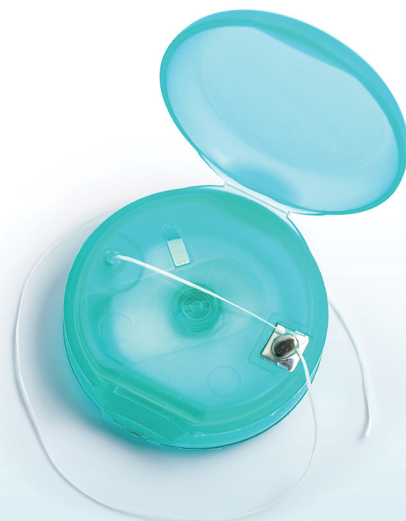
Delta Dental's free mobile app gives you access to recent claims and coverage information from the convenience of your phone when you log in. You can also access your ID card. Looking for an in-network dentist? Our app can help. You can search for a dentist by network, dental specialty, location or a provider's last name. And by clicking on a dentist's name, you can view additional information, add the dentist to your contacts, and get directions to the dental office. **Download our free app today using your Apple or Android device!**



## two-word answers

**Q: How much floss should I use each time?**

**A: 18 inches.**





# on topic with dr. kohn

help children get straight a's in oral health

*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.*



Parents often obsess over their children's grades in school, but what about their oral health grade? The Delta Dental Children's Oral Health Survey asked parents what letter grade they would give their child's current oral health. Only 26 percent said A, 50 percent B, 19 percent C and 3 percent D or F. Most children do better academically when parents help with their studies, and the same goes for oral health. Staying engaged and interested in your child's dental routine can help ensure a lifetime of good oral health "grades." Start by focusing on a few simple steps: brushing for two minutes with fluoride toothpaste twice a day, flossing daily and seeing a dentist regularly.

**Find out more about our survey results on page 14.**

## the history of oral health: x-rays



Physicist **Wilhelm Röntgen** accidentally discovered X-rays in 1895. The **first X-ray** ever taken was of his wife's hand. She had to hold her hand still for 15 minutes!

The **"X"** stands for "unknown."

The first dental X-ray took a whopping **25 minutes**.





# readers ask, we answer

Dawn asks:

*"I keep my toothbrush in a cup on the counter. Is there a more sanitary way I should store it?"*

Hi, Dawn. The American Dental Association recommends storing your toothbrush in an upright position, so it sounds like you're already doing well. If you share the toothbrush cup with your spouse or children, make sure the bristles don't touch, or germs can spread from one toothbrush to another. It's best to let your toothbrush air-dry between uses, so don't use a cover or store it in a closed container or drawer. Also, if you store your toothbrush on the counter, be sure to keep it 3 to 4 feet away from the toilet.

While we're talking toothbrush maintenance, here's another quick tip: Don't forget to replace your toothbrush every three months. That's typically when bristles start to get frayed, which means they aren't as effective at cleaning your teeth. If your toothbrush looks worn before the three-month mark, go ahead and replace it.



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



**Edmund Kells**, a prominent New Orleans dentist, took the first dental radiograph of a live person in 1896.

X-rays are a form of **electromagnetic radiation (EMR)**. Other familiar forms of EMR include visible light, radio waves and microwaves.

Scientists originally believed X-rays passed through the body as harmlessly as light. When Thomas Edison's assistant died of skin cancer in 1904 after working extensively with X-rays, it was realized precautions should be taken to keep **exposure to a minimum**.





# mouth-friendly recipe: teddy bear toast

*This whimsical toast is sure to bring a smile to any child's face. And it only takes a few minutes to make!*

## Ingredients:

1 slice of whole-wheat bread  
1 banana  
1 tablespoon no sugar  
added peanut butter  
3 raisins

## Directions:

Place the slice of bread in a toaster. While the bread is toasting, cut the banana into slices. Then spread 1 tablespoon of peanut butter on the toast. Arrange two slices of banana in the top rounded corners of the toast, forming the bear's ears. Put one banana slice in the middle for the mouth. Finish the teddy bear by adding a raisin for a nose at the top of the banana slice, and two raisin eyes just above it.



**KEEPING YOU  
COVERED:**  
*toothfairytrickytreats.com*

Halloween doesn't have to be a fright for your teeth. The Tooth Fairy has lots of tricks up her sleeve to help your family have a healthy Halloween – from providing alternatives for sugary treats to making sure your kids strategically eat candy with meals to help prevent cavities.

**For tips, a pumpkin carving template, coloring pages and more, stop by  
TOOTHFAIRYTRICKYTREATS.COM.**

***IT'S JUST ONE OF THE MANY FREE RESOURCES  
DELTA DENTAL OFFERS!***





# 5 VITAMINS AND NUTRIENTS *that keep mouths healthy*

*It's common knowledge that vitamins and minerals are vital for maintaining a healthy body – and a healthy mouth. But do you know what function each substance serves? Here's a quick guide to the top five vitamins and minerals that make your mouth smile.*

## *Calcium*

Calcium not only plays a major role in building strong teeth, it's also responsible for the strength of your bones. Milk, yogurt and cheese are all great sources of calcium. For non-dairy foods, try soybeans, dried figs, broccoli and turnip greens to reach your recommended daily calcium intake.







## Vitamin D

Vitamin D helps the body absorb calcium – without it, your body breaks down bone to get the calcium it needs. Good sources of vitamin D include fortified milk and cereals, fatty fish and exposure to sunlight.



## Phosphorous

After calcium, phosphorus is the most abundant mineral in the body – and 85 percent of it is found in bones and teeth, contributing to the strength of these structures. Phosphorus is found in many foods, so you're likely obtaining enough of the mineral just by eating pork, beef, chicken, fish, tofu and eggs.



## Potassium

Having enough potassium boosts bone mineral density, which helps teeth and bones retain calcium. Bananas are a well-known source of potassium, but the mineral is also found in sweet potatoes, prunes, carrots, orange juice and fish.



## Vitamin K

Vitamin K plays a part in bone health by helping produce osteocalcin, which helps prevent the breakdown of bone. This includes your jawbone, which helps keep teeth in place. Get your daily dose by eating spinach, asparagus, broccoli, soybeans, eggs, strawberries and meats.







# THE LATEST IN TOOTH TECHNOLOGY

*New technology is always emerging – and it's no different in the dental world. These developments demonstrate ways technology is being used to help your mouth stay healthier longer.*



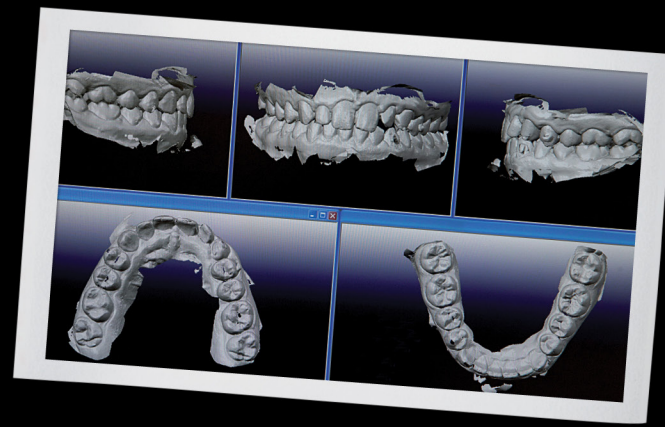
## Tooth Regeneration Gel

Dentists in the U.S. fill millions of cavities every year – but with new regeneration gel, they might be able to hang up the drill and heal some cavities simply and painlessly. The gel or thin film contains a hormone that encourages bone regeneration. While the gel does not prevent cavities, it can heal them in about a month. The days of drilling aren't over just yet – numerous clinical trials will have to be completed before regeneration gels are proven to work to treat cavities in humans.



## Various Digital Applications

Digital dentistry is still a bit on the pricy side, so not all dental offices currently offer these services. As with most technology, however, prices will likely come down – after all, the first microwave cost \$2,000! Here are a few ways dentists can use digital applications to improve your smile:



- **Digital X-rays** produce clearer images in a shorter time and have been shown to result in significantly less radiation exposure than traditional X-rays.
- **Cone-beam computed tomography** (CBCT) imaging is the dental equivalent of a medical CT scan. An X-ray machine rotates around the patient's head and captures a 3-D view of the teeth, jaw, gum and nerves. A CBCT scan can recognize tumors and diseases that don't appear on traditional X-rays.
- **Digital dentures** are made using computer design and digital manufacturing. They provide the advantage of having a permanent digital record that can be easily duplicated if the original dentures are lost or damaged.

## Oral Sensors

Wearable technology has been rising in popularity, and thanks to scientists in Taiwan, it may even be in our mouths! A newly developed sensor system can track what your mouth is doing 94 percent of the time. This can aid the user in monitoring munching while dieting, and can also help determine a diagnosis during sickness by monitoring the frequency and severity of coughs. The device is still in the early stages of development – it's currently challenging to wear, as there is a thin wire that connects the sensor to the outside world.



## CAD/CAM-Generated Crowns

If you crack or break a tooth, your dentist will likely recommend a crown, a custom-fitted cap that covers the tooth and helps restore its shape, strength and appearance. This procedure often takes multiple visits to complete, but with computer-aided design (CAD) and computer-aided manufacturing (CAM), dentists can now create crowns in less than an hour. A tiny camera is used to create a 3-D image of the drilled tooth. Then a computer program constructs an image of what the tooth will look like with the crown in place. Once the image is approved, a machine makes a custom ceramic crown that can be cemented into place.

**Though these trends might not be available in the near future, up-and-coming oral technologies are something to keep your eye on.**

# Dental Records:

## WHAT TEETH CAN TELL US ABOUT HISTORY

*You know that brushing, flossing and routine dental visits go a long way toward keeping your teeth and mouth healthy for the rest of your life. But your teeth can say a lot about you even after you're gone. Like your bones, tooth enamel is so hard that it's one of the last substances in the human body to break down. That's why forensic dentists can use teeth to discover information about the deceased hundreds and even thousands of years after their deaths. Here are three facts about historical figures that have been uncovered by doing just that.*



### KING TUT needed braces.

King Tutankhamun, better known as King Tut, ruled thousands of years ago, ascending to the Egyptian throne in 1333 B.C. when he was 9 or 10 years old. In 2014, scientists conducted a “virtual autopsy” of the child king, an analysis that used more than 2,000 computer scans of his mummified remains to create an image of what he would have looked like. The results: King Tut had overly large front teeth and a heck of an overbite, a condition where the top teeth severely protrude or overlap the lower teeth.

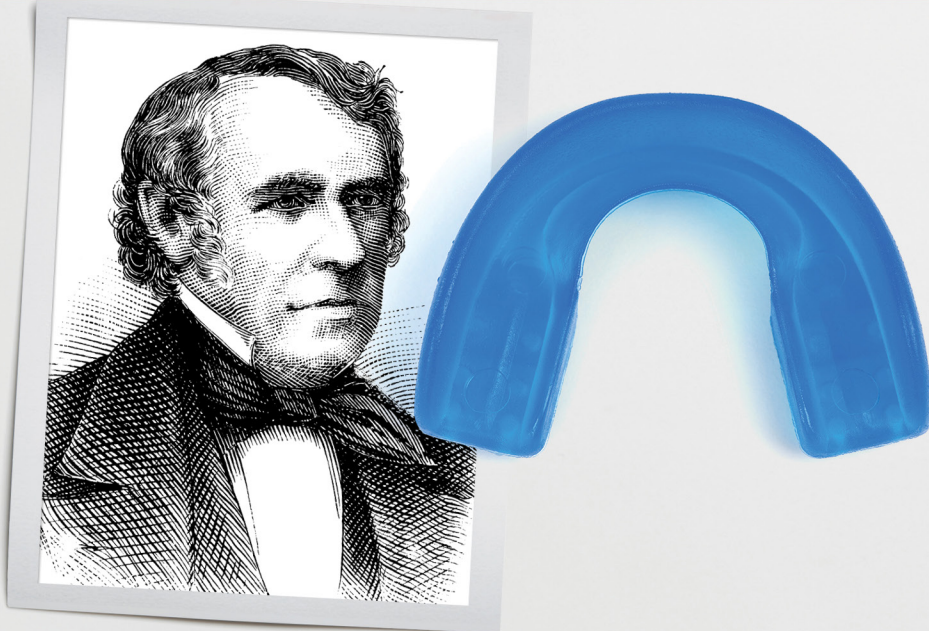
Ancient Egyptians didn't have access to orthodontia, but if Tut had been a kid in 2015 instead of 1333 B.C., his dentist likely would have recommended braces to help correct his overbite. This type of alignment problem can lead to issues such as tooth decay, periodontal (gum) disease, jaw strain and more.



## ZACHARY TAYLOR suffered from anxiety.

Twelfth U.S. President Zachary Taylor died mysteriously in 1850 after serving just 14 months in office. According to Taylor's death certificate, the official cause of his demise was cholera, an intestinal infection. But many began to wonder if the president had been assassinated by poison. The rumor persisted for more than 100 years, and in 1991, Taylor's body was exhumed and analyzed. The result: no poison. What a forensic dentist (odontologist) did find, however, was that Taylor had a great set of teeth for a man in his 60s, especially considering he lived in the days before fluoride and modern dental science. His biggest problem, indicated by his worn-down front teeth, was that the stresses of being a politician led him to grind his teeth (bruxism).

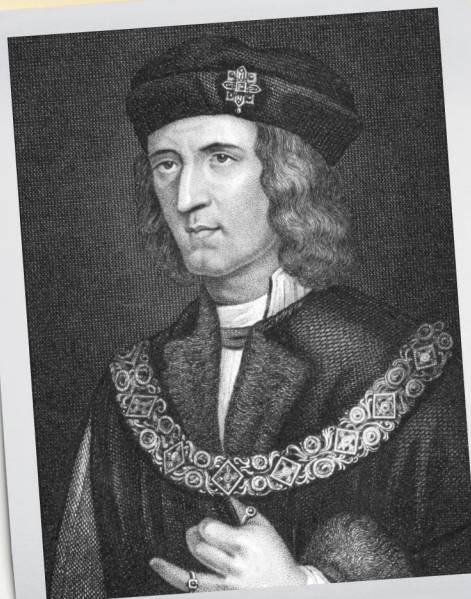
Were Taylor alive today, his dentist would recommend strategies to reduce stress or prescribe a nighttime mouthguard to prevent tooth grinding during sleep.





## KING RICHARD III had a sweet tooth.

England's King Richard III died more than 500 years ago in 1495 – but thanks to his dental records, we've recently learned a lot about his health and habits. The king's skeleton, lost for many centuries, was discovered in 2012 when archaeologists dug up a parking lot in England.



Dental Records

A general dental practitioner from London examined the royal remains and announced that Richard must have been a fan of sugary and starchy treats, because his teeth showed considerable decay. And, like Zachary Taylor, the king also had surface loss on a number of his teeth, hinting that he may have suffered from bruxism.

But that's not the end of King Richard's dental woes. Two of his teeth had been removed entirely, presumably due to decay, and tartar was still visible on some of the teeth in his upper jaw. Sounds like Richard could have benefited from regular brushing and flossing, since tartar occurs when plaque isn't effectively removed.

The king's lack of oral hygiene may end up being beneficial for historians. The dentist who examined Richard's teeth believes that analyzing the tartar may show bacteria that will provide information about King Richard's diet and health practices.



*From diets to nervous habits, it's amazing what teeth can reveal. Your mouth can still say a lot about you, even when you haven't talked for centuries!*



# By the Numbers: CHILDREN'S ORAL HEALTH

*During National Parenting Awareness Month in March, Delta Dental polled more than 1,300 parents about their children's oral health. Here's what we discovered:*

## THE COMMON TASKS PARENTS SAY CHILDREN DRAG THEIR FEET ABOUT DOING:



**45%** said **BRUSHING THEIR TEETH.**



**42%** said **EATING THEIR VEGGIES.**



**41%** said **HELPING WITH CHORES.**



**32%** admit their  
**CHILDREN BRUSH ONLY  
ONCE A DAY OR LESS.**



**52%** of parents  
think their  
**CHILDREN DON'T BRUSH  
OFTEN ENOUGH.**



**61%** of parents say their  
**CHILDREN'S TEETH ARE FLOSSED  
LESS THAN ONCE A DAY.**



# SURVEY RESULTS



**53%** of parents give **REWARDS FOR GOOD HABITS.**



**16%** of parents **PUNISH BAD HABITS.**



**$\frac{4}{10}$**

**PARENTS BRUSH THEIR OWN TEETH  
WHILE THEIR KIDS ARE BRUSHING.**



For tips on taking care of children's teeth or to read more results from the Delta Dental Children's Oral Health Survey, visit [deltadental.com](http://deltadental.com).



# brushing up



*Ever wonder what your dentist is really thinking? Grin! wanted to find out, too, so we talked to Delta Dental network dentist Dr. Luke Powell of Hazel Green Dental in Hazel Green, Alabama.*

**What's the best dental advice you've ever received?** A professor once told me, "Drilling on a tooth does not make it stronger." Of course, I use a dental drill to treat teeth every day, but that advice reminds me to be as conservative as possible when tooth structure must be removed.

**Do you brush and floss as much as you recommend?** I do, actually. I've always been fascinated with gadgets and am currently testing products both at home and at the office in order to make good recommendations to our patients. My teeth and gums stay really clean!

**What's your favorite dental joke?** May the floss be with you.

**Why did you decide you wanted to be a dentist?** My father is a dentist, so I have always known that dentistry is an awesome career. I have two older brothers who did not become dentists, so I figured someone in our family should!

**Do you have any fillings?** I've been fortunate enough to never have a cavity. Having a dad for a dentist probably helped!

**If you could tell patients to stop doing one thing, what would it be?** Stop drinking so many soft drinks, please! In my practice, it is rarely a food item that gets our patients into cavity trouble. It's almost always soda, or even sweet tea, that can damage the teeth very quickly.

**What dental technology are you especially grateful for?** I am so grateful that dental implant technology has made such tremendous progress. The ability to replace missing teeth from the root to the crown is so rewarding to me and my patients.

**What's the most unique dental issue you've come across?** We recently saw a patient with seven wisdom teeth! Needless to say, I referred him to one of the fine oral surgeons we have here in north Alabama.



*If you'd like to recommend your dentist for a Brushing Up interview, email [grin@deltadental.com](mailto:grin@deltadental.com) with his or her name and contact information.*

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