

stDental Times

February 18, 2013



Welcome to our latest newsletter. stDental Times is a quarterly publication. It is produced in house and written by the doctors. Its aim is to improve your dental health and raise awareness.

Did you know that Dr. Andrew Huang also has a biweekly blog? Check it out @ www.stdental.com/news.

Want a quick answer to your dental question? Our office Facebook page (www.facebook.com/SantaTeresaDental) is the perfect place for that. It is also a good place to connect with others and have an innocent laugh with dental related jokes.

In this newsletter, we would like to go back to basics and answer those questions that are asked everyday - what is a cavity and how do we diagnose it at early stage so it prevents a more serious problem such as a root canal or dental infection? We have recently purchased a Spectra—a carious detection aid technology which utilizes fluorescence for early cavity detection. Read on, we promise that it's quite exciting!

Sincerely,

Dr. Andrew Huang &

Dr. Ann Lien

Produced in-house by Santa Teresa Dental to improve your dental health and awareness

What is a cavity?

A cavity is a hole in the tooth that is caused by decay. In order to understand what happens when your teeth decay, it's helpful to know what's in your mouth naturally. Let's discuss some key elements:



Saliva — Your mouth and teeth are constantly bathed in saliva. Saliva keeps teeth and other parts of your mouth moist and washes away bits of food. Saliva contains minerals that strengthen teeth. It also includes buffering agents; they reduce the levels of acid that can decay teeth. Saliva protects against some viruses and bacteria.

Plaque — Plaque is the soft film on your teeth. It is actually colonies of bacteria, yeasts and viruses clumping together in a gel-like organic material. Also in the mix are bacteria byproducts, white blood cells, food debris and body tissue.

Turn to [Cavity](#), pg 3

Spectra – the latest carious detection aid technology



We are so excited to introduce Spectra – the latest carious detection aid technology. Of course, it does not substitute a clinician's judgment, but it serves as a good supplement and an excellent patient educational tool. What is Spectra? Let's go over some basics.

What is a cavity?

It is the destruction of dental hard tissue caused by lactic acid producing bacteria.

What is fluorescence?

It is the emission of visible light. Fluorescent procedures are based on illustrating certain fluorescent substances like porphyrins, which grow in bacterial populated areas. When the area is stimulated with light of a certain wavelength, the molecules absorb the light energy and release part of the light energy with a different wavelength.

When porphyrins are stimulated with a light wavelength of 405 nm, they glow red with Spectra whereas sound enamel glows green.

Turn to [Spectra](#), pg 3

Kid's Corner - Let's get excited about brushing!

This article is written by Dr. Ann Lien.

As the dentist for kids, I get asked this question a lot - *how do I as a parent get a toddler excited about brushing?*

I recommend to start **brushing your child's teeth and gums early**, even before their first baby tooth erupts. It is easy to do. Just use a wet gauze or soft baby cloth to massage their gums gently. By doing this, your child is getting use to your finger in their mouth. It will help future brushing go easier.

By the time the first tooth erupts, use a soft toothbrush, such as an Oral B stage 1 baby toothbrush, a MAM training toothbrush or an Orajel baby tooth/gum cleanser. Most children at this stage like to chew their toothbrush which is a good start. **Toothpaste is not necessary at this time.**

I know from personal experience that my daughter will eat the entire paste before she will give up her brush! Wet gauze or wet cloth might not work anymore at this stage, because your toddlers start to experiment with their teeth and start to bite.

Make it fun!

- Sing a song together while you brush their teeth.
- Brush his toy buddies teeth first, then brush your child's teeth.
- Let her brush your teeth first, then you brush her teeth. Lay him down, upside down, with his head in your lap.
- Tickle her so she opens her mouth.
- Go to the store and let him pick out his favorite toothbrush with his favorite characters on it.

Nothing beats role modeling. At this age, your child wants to do everything you do. So **make brushing and flossing a family activity!** And don't forget to **bring your child to our office within six months of their first baby teeth eruption.** His/her first appointment would be fun and exciting.



Smile Show Case

Patient, Sherry Quick, received a smile makeover. Porcelain veneers and crowns as well as dental implants are utilized here to restore her dentition.



Cavity

Continued from [Page 1](#)

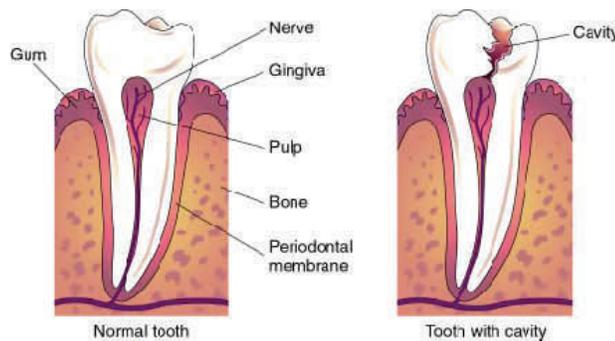
Calculus — If left alone long enough, plaque absorbs minerals from saliva. These minerals form crystals and harden the plaque into calculus.

Bacteria — We have many types of bacteria in our mouths. Some bacteria are good; they help control destructive bacteria. Some are bad and cause damage to teeth.

How Your Teeth Decay

The bacteria in your mouth need food to live and multiply. When you eat sugary foods and other carbohydrates, the bacteria use them as food. The bacteria then produce acids that can dissolve tooth enamel – the outer layer of the tooth.

Turn to [Cavity](#), pg 4



Photos from our 7th annual charity event - Photo with Santa 2012



Spectra

Continued from [Page 1](#)

What are porphyrins?

Porphyrins are produced by some of the bacterial species that are present in the oral cavity. Porphyrins are special metabolites of cariogenic bacteria, mainly Streptococcus Mutants.

What is Spectra?

Spectra is a lightweight handpiece used as an aid for detecting caries, especially early stage enamel caries and hard-to-detect fissure caries after a professional oral cleaning.

How does it work?

The Spectra handpiece has a high resolution, high sensitivity, auto-exposure controlled CCD sensor, a high performance lens system and special LED lamps that emit blue-violet light at a wavelength of 405nm. Light of this particular wavelength causes porphyrins produced by bacteria to fluoresce. When used with the supplied 10mm distance spacer, the fixed focus lens brings all objects within the area of interest in focus enabling it to identify plaque and potential carious lesions. Caries fluoresce red whereas healthy enamel in contrast fluoresces green

Early caries detection has been sited as key to optimal prevention and treatment. "We practice proactive preventative dentistry. With the advances of dental material, we are allowed to keep restorations as small as possible," said Dr. Andrew Huang. "With the aid of Spectra, we can take proactive preventative dentistry to the next level."

Share a Smile New Patients Are Always Welcome!

The finest compliment we can ever receive is a referral from our friends and patients.

Santa Teresa

DENTAL

Family • Cosmetic • Sedation • Invisalign

Office Information

Andrew Huang, DMD

Ann Lien, DDS

16160 Monterey Rd.
Morgan Hill, CA 95037

Office Hours

Mon, Tue, Thu, Fri 9am - 5:30pm
Sat By Appt

Contact Information

Phone: (408) 782-6568
Email: info@stDental.com
Website: www.stDental.com

Office Staff



Becky Wallingford
Registered Dental Hygienist



Sarah H.
Treatment Coordinator



Vanessa N.
Patient Coordinator



Luis M.
Dental Assistant



Brielle C.
Dental Assistant

Cavity

Continued from [Page 3](#)

It's not just candy and ice cream. All carbohydrate foods eventually break down into simple sugars. Foods that break down into simple sugars in the mouth are called fermentable carbohydrates. These include the obvious sugary foods, such as cookies, cakes, soft drinks and candy. But they also include pretzels, crackers, bananas, potato chips and breakfast cereals.

Bacteria in your mouth turn the sugars in these foods into acids. These acids begin to dissolve the mineral crystals in teeth. The more times you eat each day, the more times your teeth are exposed to an acid attack.

This attack can lead to tooth decay, also known as dental caries. First, the acid begins to dissolve calcium and phosphate crystals inside a tooth. A white spot may appear on the enamel in this weakened area. Loss of minerals develops beneath the surface of the enamel. The surface may still be smooth.

At this stage, the tooth can be repaired with the help of fluoride, proteins and minerals (calcium and phosphate) in the saliva. The saliva also helps reduce the acid levels from bacteria that attack the tooth.

Once the decay breaks through the enamel to cause a cavity, the damage is permanent. A dentist must clean out the decay and fill the cavity. Left untreated, the decay will get worse. It can destroy a tooth all the way through the enamel, through the inside dentin layer and down to the pulp or nerve of the tooth. That's why it is important to treat caries at a very early stage, when the process can be reversed.

Preventing Cavities

To prevent your teeth from decaying, you can do two things:

- Strengthen your teeth's defenses with fluoride, sealants and agents that contain calcium and phosphate ions.
- Reduce the number of bacteria in your mouth.

You can never get rid of all the bacteria in your mouth. But you can take steps to control bacteria:

- Brush twice a day.
- Floss daily.
- Reduce the number of times each day that you consume fermentable carbohydrates.

Some prescription mouthwashes (those that contain chlorhexidine) reduce bacteria in your mouth. This can help prevent decay. Chewing sugarless gum, especially those with xylitol, can help reduce bacteria levels and increase the flow of saliva.

Most importantly, visit us regularly. Then Dr. Huang & Dr. Ann can find any decay early, when it can be treated and even arrested.