



# **26 Ways Dentistry Can Change Your Life**



**Dental Circle of Excellence**

# **Welcome to:**

## **“26 Ways That Dentistry Can Change Your Life!”**

*A collection of news about your Love Life, Career, Heart Disease, Kids' Grades, Cancer and more.*

### **1.**

## **Can a new smile make you appear more successful and intelligent?**

Previous consumer studies have proved that a beautiful smile will make you more attractive. But according to research conducted by Beall Research & Training of Chicago, a new smile will make you appear more intelligent, interesting, successful and wealthy to others as well.

Dr. Anne Beall, a social psychologist and market research professional carried out the independent study on behalf of the American Academy of Cosmetic Dentistry (AACD). Pictures of eight individuals were shown to 528 Americans, a statistically valid cross section of the population. The respondents were asked to quickly judge the eight people as to how attractive, intelligent, happy, successful in their career, friendly, interesting, kind, wealthy, popular with the opposite sex, and sensitive to other people they were.

Two sets of photos were created, with each set showing four individuals before undergoing cosmetic dentistry, and four after treatment. Half the respondents viewed set A, the other half set B. The eight subjects viewed by respondents were evenly divided by gender. Two had mild improvements through cosmetic dentistry, two had moderate improvements, and four had major improvements to their smiles, to give a wide range for respondents to view. None, however, had visibly rotten teeth, missing teeth or catastrophically bad dental health in the before shots. Respondents were not told that they were looking at dentistry, but were asked to make snap judgments rating each person for the ten characteristics, on a scale of one to ten, with “one” being “not at all,” and “ten” being “extremely.”

The results indicated that an attractive smile does have broad ranging benefits:

<b>Characteristic Average</b>	<b>“Before” rating</b>	<b>“After” rating</b>	<b>Increase</b>
Attractive	4.6	5.9	1.3
Intelligent	5.9	6.5	.6
Happy	6.2	6.8	.4
Successful in their career	5.8	6.7	.9
Friendly	6.3	6.8	.5
Interesting	5.4	6.1	.7
Kind	6.0	6.4	.4
Wealthy	4.9	5.9	1.0
Popular with the opposite sex	5.0	6.2	1.2
Sensitive to other people	5.6	6.1	.5

While the change was most dramatic for Attractive, Popular with the opposite sex, Wealthy and Successful in their career, the change was statically significant in all areas.

**Below are some before and after images that were used in the above study.**









**In an independent study conducted on behalf of the AACD in 2004, we discovered:**

Virtually all Americans (99.7%) believe a smile is an important social asset.

96% of adults believe an attractive smile makes a person more appealing to members of the opposite sex.

Three-quarters (74%) of adults feels an unattractive smile can hurt a person's chances for career success.

When asked, "*What is the first thing you notice in a person's smile?*" The most common responses were:

- Straightness
- Whiteness & Color of Teeth
- Cleanliness of Teeth
- Sincerity of Smile
- Any Missing Teeth?
- Sparkle of Smile

And when asked, "*What types of things do you consider make a smile unattractive?*" The most common responses were:

- Discolored, Yellow, or Stained Teeth
- Missing Teeth
- Crooked Teeth
- Decaying Teeth & Cavities
- Gaps & Spaces in Teeth
- Dirty Teeth

And finally, when respondents were asked, "*What would you most like to improve about your smile?*" The most common response was:

- Whiter & Brighter Teeth

## 2.

### What's in a Smile?

*By Kimberly Read & Marcia Purse, About.com Updated: October 24, 2007*

OK ... so you have a sappy, supposedly inspirational quote. It's just an old wives' tale -- just a silly quip. It doesn't really mean anything. Right? Maybe ... maybe not. Doug Horton says, "Smile, it's free therapy." There just may be something to this!

In psychology, there is a theory entitled the "facial feedback" hypothesis. This hypothesis states that "involuntary facial movements provide sufficient peripheral information to drive emotional experience" (Bernstein, et al., 2000). Davis and Palladino explain that "feedback from facial expression affects emotional expression and behavior" (2000). In simple terms, you may actually be able to improve your mood by simply smiling!

A number of research projects support this hypothesis. One study, conducted by Levenson and Friesen, found that involuntary biological changes similar to those caused by emotions were experienced by participants who were instructed to make certain faces. That is, a person told to make an angry face experienced increased blood flow to the hands and feet, which is also seen in those who are experiencing anger. Participants from another study involving posed faces reported more favorable impressions of other people when they were asked to smile.

Research has also found that when you mimic the face of someone else, it may cause you to feel empathy for the other person (Berstein, et al., 2000). In another research setting, participants were either prevented or encouraged to smile by being instructed how to hold a pencil in their mouths. Those who held a pencil in their teeth and thus were able to smile rated cartoons as funnier than did those who held the pencil in their lips and thus could not smile (Davis & Palladino, 2000).

So what does all of this mean? The next time you are down - the next time you are feeling blue or just plain old blah -- SMILE!! An action as simple as that just may improve your spirits. It is most certainly not a cure-all, but in the struggle with the



gloomies, every thing that helps in even a small measure is worth a try! Dame Sybil Hathaway sums it up best, "Smile, damn it !! Smile."

Having trouble forcing a smile? Here are a few suggestions that may help liven things up!

- jump on the bed (my personal favorite)
- make faces at yourself in the mirror
- bake cookies
- dance
- find a playground and swing on the swingset
- find your baby pictures
- hug someone you love
- take a walk in the rain
- watch cartoons you loved as a kid
- imitate a well-known comedian - with exaggeration
- visit a pet store

*Works Cited*

*Bernstein, D. A., Clarke-Stewart, A., Penner, L. A., Roy, E. J., & Wickens, C. D. (2000). Psychology (5th ed.). Boston, MA: Houghton Mifflin Company.*

*Davis, S. F., & Palladino, J. J. (2000). Psychology (3rd ed.). Upper Saddle River, NJ: Prentice-Hall, Inc.*

### 3. Smiles to Influence

Almost 70 years ago, in his landmark book “How to Win Friends and Influence People,” Dale Carnegie talks about the all important need of humans to have meaningful relationships with others and how good social interrelationships can lead to much success in life and in business. Interestingly, in his book he devoted the very first chapter to the importance of a smile, it being the “big secret of dealing with people.” In this chapter, he spoke of the importance of using the smile to create good, positive first impressions and cited Charles Schwab as an example. Schwab was known for his influential smile, and through empirical observation, became well aware of its power. But was this empirical observation true to science? In a study done by the University of Oxford and the Virginia Polytechnic Institute, conducted with the intention of assessing the method humans use most to identify cooperative partners, researchers studied the effect of the smile; the results of the study lent “support to the prediction that smiles can elicit cooperation amongst strangers in a one-short interaction.” In simple words, a smile can win friends and influence people.



## **Smiles to Please**

The smile is the most basic facial expression and when we deprive ourselves of it we are denying ourselves pleasure. Yet the public spends far more on makeup products (billions of dollars every year) than they spend in all fields of dentistry combined. The reason? Humans have an unstoppable urge to be liked and appreciated. We have learned that a pleasant appearance makes us more popular. The first things people notice on a person's face are the eyes, the mouth and the smile (or lack thereof). A smile makes us appear more cooperative and research also shows that a pleasant smile induces a similar response, bringing pleasure to the person with the smile and the person receiving the smile. No amount of makeup or jewelry will ever do that.

## **Smile as a Therapy**

The ultimate value of the smile is its ability to bring us joy, but is the smile a result of a joyous occasion? Or can the smile itself give us pleasure? On this subject, research by J. K. Hietanen and V. Surakka in 1997 shed light on the fact that a smile can actually induce a "feeling of pleasure," even if the smile is that of a stranger in a photo, as long as the smile is genuine. Hietanen and Surakka attempted to explain the neural mechanism that can allow the receiver, or the person being smiled at, and the signaler, or the person smiling, to share a feeling of true pleasure thanks to the smile. It is no wonder that most advertisements in magazines and on television include people laughing and smiling with gorgeous teeth. Marketing experts are well aware of the pleasure-inducing power of smiles.

With so much hard evidence of the deep value of a smile, how could we as dentists not help people enjoy their smiles? Throughout my professional life as a cosmetic dentist, I have heard thousands of people tell me they avoid smiling because they don't have the confidence in their teeth to do so. Knowing the pleasure smiles can bring to those giving and receiving them, what a tragedy it is for the person who doesn't willingly smile and for the loved ones around them. Conversely, we have all had the pleasure to see first hand those whose lives have changed as a result of being able to smile freely for the first time in their lives. Our profession is one that improves the quality of life of our patients. It

brings happiness to others. It brings pleasure and positive therapy. It makes people more influential and makes it easier for them to have friends. Can anyone find a better way to spend their resources and their lives than in giving the gift of a smile to their patients?

*By J. Luis Ruiz, DDS*

*Bibliography\_1. Carnegie, A., How to Win Friends and Influence People. Simon & Schuster\_2. Scharlemann, P. W., Eckel, C. C., 2001 The Value Of A Smile: Game Theory With A Human Face. Journal of Economic Psychology.\_3. Dumas, G., 1948. The smile; Psychology And Physiology.75006 Paris, France: Presse Unirsitaires de France. 127pp.\_4. Hietanen, J. K., Surakka, V., 1997. Facial expressions are contagious. International Journal of Psychophysiology.*

## 4.

### Smile!

## The Remarkable Personal Benefits of Smiling

by SixWise.com

There may be more to the song "Put on a Happy Face" than just a catchy tune-putting on a happy face is actually good for you, and those around you. Now there's a reason to smile.

#### Need a Quick Laugh?

The new employee stood before the paper shredder looking confused.

"Need some help?" a secretary walking by asked.

"Yes," he replied, "How does this thing work?"

"Simple," she said, taking the fat report from his hand and feeding it into the shredder.

"Thanks," he said, "but where do the copies come out?"

#### Smile Your Way to a Better Future

Researchers of a study led by Dr. Dacher Keltner of the University of California were able to predict the future success (30 years down the road!) of 21-year-old women just by looking at their photographs. The key appeared to be the intensity of the women's smiles.

"Women who displayed more positive emotion were more likely to be married by 27, less likely to have remained single into middle adulthood and more likely to have satisfying marriages 30 years later. This means we can take photos at a wedding and from them we may be able to tell how the marriage will go," said Dr. Keltner.

How intense a woman smiled was related to personality tests and psychologists ranked the women by how they expressed emotions like joy and happiness. How did they know the smiles weren't being faked? They used computer technology to measure 44 aspects of facial activity. If a smile were not genuine, certain muscles would not move (for instance, certain muscles around the eyes that we don't consciously control move when we feel emotion).

### **Be Happy: Fight Illness Better**

People who are optimistic (and these are the people who are out there smiling!) have stronger immune systems and are actually able to fight off illness better than pessimists.

"The research is very clear," says Christopher Peterson, Ph.D, a University of Michigan professor who's been studying optimism's link to health for over two decades, "This is not some social science generalization. There is a link between optimistic attitudes and good health. It has been measured in a variety of ways. Overall, we have found that optimistic people are healthier. Their biological makeup is different. They have a more robust immune system."

#### **A Joke to Get You Smiling**

Little Johnny's kindergarten class was on a field trip to their local police station where they saw pictures, tacked to a bulletin board, of the 10 most-wanted criminals. One of the youngsters pointed to a picture and asked if it really was the photo of a wanted person. "Yes," said the policeman. "The detectives want very badly to capture him." Little Johnny asked, "Why didn't you keep him when you took his picture?"

It also appears that people who are optimistic are more likely to take care of themselves, which may be another reason why they tend to be healthier. Says Peterson, "Optimistic

people act differently ... [and] are more likely to do the things that public health experts say are associated with good health. Generally speaking, they eat sensibly, they don't drink senselessly, they exercise and they get their sleep."



### **Smile: You'll Live Longer**

According to a study published in the November 2004 issue of the Archives of General Psychiatry, elderly optimistic people, those who expected good things to happen (rather than bad things), were less likely to die than pessimists.

In fact, among the 65- to 85-year-old study participants, those who were most optimistic were 55 percent less likely to die from all causes than the most pessimistic people. What's more, after researchers adjusted the results for age, smoking status, alcohol consumption, physical activity and other measures of health, the optimists were 71 percent less likely to die than the pessimists!

### **Smiling Feels Like Eating 2,000 Chocolate Bars**

That's right-according to The British Dental Health Foundation, a smile gives the same level of stimulation as eating 2,000 chocolate bars. The results were found after researchers measured brain and heart activity in volunteers as they were shown pictures of smiling people and given money and chocolate.

Dr. Nigel Carter, chief executive of the Foundation, pointed out, "We have long been drawing attention to the fact that smiling increases happiness both in yourself and those around you, so it is good to receive the backing of this scientific research ... A healthy smile can improve your confidence, help you make friends and help you to succeed in your career ... "

#### **A Little More Smile Motivation ...**

A driver tucked this note under the windshield wiper of his automobile:  
"I've circled the block for 20 minutes.  
I'm late for an appointment, and if I don't park here I'll lose my job.  
Forgive us our trespasses."

When he came back he found a parking ticket and this note: "I've circled the block for 20 years, and if I don't give you a ticket, I'll lose my job.  
Lead us not into temptation."

#### **Smiling is Contagious**

What's even better is that the more you smile, the more others will too. Says psychologist Dr. David Lewis, "Seeing a smile creates what is termed as a 'halo' effect, helping us to remember other happy events more vividly, feel more optimistic, more positive and more motivated."

So what are you waiting for? Go ahead ... Smile!



## 5.

### A Healthy Smile May Promote a Healthy Heart

CHICAGO—January 08, 2008—Each year, cardiovascular disease kills more Americans than cancer. And while most people are aware that lifestyle choices such as eating right, getting enough exercise and quitting smoking can help prevent cardiovascular disease, they may not know that by just brushing and flossing their teeth each day, they might also be avoiding this potentially lethal condition.

An article published in the December issue of the *Journal of Periodontology (JOP)*, the official publication of the American Academy of Periodontology (AAP), suggests that periodontal patients whose bodies show evidence of a reaction to the bacteria associated with periodontitis may have an increased risk of developing cardiovascular disease.



“Although there have been many studies associating gum disease with heart disease, what we have not known is exactly why this happens and under what circumstances,” said JOP editor Kenneth Kornman, DDS, PhD. “The findings of this new analysis of previously published studies suggest that the long-term effect of chronic periodontitis, such as

extended bacterial exposure, may be what ultimately leads to cardiovascular disease.”

Researchers at Howard University identified 11 studies that had previously examined clinically-diagnosed periodontal disease and cardiovascular disease. The team then analyzed the participants’ level of systemic bacterial exposure, specifically looking for the presence of the bacteria associated with periodontal disease, as well as measuring various biological indicators of bacterial exposure. They found that individuals with periodontal disease whose biomarkers showed increased bacterial exposure were more likely to develop coronary heart disease or atherogenesis (plaque formation in the arteries).

“While more research is needed to better understand the connection between periodontal disease and cardiovascular disease, this study suggests the importance of taking care of your teeth and gums and how that can help you take care of your heart,” said Susan Karabin, DDS, President of the AAP. “With the number of people with heart disease continuing to increase, it is important to understand that simple activities like brushing and flossing twice a day, and regular visits to your dental professional can help lower your risk of other health conditions.”

*American Academy of Periodontology*

## 6. Your Way to a Healthy Smile

**Good oral hygiene may help the whole body, experts believe**

*By Sarah Baldauf*

Posted February 14, 2008

Derita Malcom had a recent revelation—one profound enough that her two adolescent kids hear about it every night. "I preach: 'Take care of your teeth,'" she explains. Removing her upper denture before bed, Malcom, 49, tells her kids, "Look at mama's teeth" and the damage caused by gum disease. "I had such a fear of the dentist that I really neglected my mouth," says the elementary school secretary from Chesterfield, Va. The consequences are not limited to her mouth.

Malcom's diabetes may have been harder to manage because of her long neglect of oral health. Before she underwent a series of dental procedures last year, Malcom's A1c level, which reflects blood sugar control, was far above the safe range. Now, since she has a new dedication to home care and is nearing the end of her dental work, Malcom's sugars are closer to normal. "I didn't make the connection that it could improve my diabetes," she says. She's not alone.

Three in four American adults have at least mild periodontal (gum) disease, or gingivitis. More severe disease, or chronic periodontitis, may affect as many as 30 percent. Regardless of severity, gum problems can be quite stealthy; pain is minimal and bleeding or reddened gums may be the only sign. Yet disregarding oral health could have serious overall repercussions. Recent research suggests that uncorrected gum issues make blood sugar more difficult for diabetics to control. Diabetes, in turn, can cause or worsen gum disease. "It's a two-way street," says Susan Karabin, president of the American Academy of Periodontology. The underlying mechanisms are not fully understood, but gum disease involves chronic inflammation—which can trigger insulin resistance, a hallmark of diabetes—and also bacterial infection. "Periodontal disease creates the wound that allows [oral bacteria] to gain access to the rest of the body," explains Steven Offenbacher, director of the Center for Oral & Systemic Diseases at the University of North Carolina.

People with gum disease may also be more likely to have a heart attack, stroke, or thickening of the arteries. Again, the culprits may be inflammation, a major factor in cardiovascular disease, and chronic low-level infection. Oral bacteria have been found in arterial plaque and can induce a process that leads to blood clots.

The flip side, says Karabin, is that "a healthy mouth means a healthy body." Research published last year in the *New England Journal of Medicine* found that blood vessel function improved significantly in patients given intensive treatment for severe periodontitis, compared with those who had only basic plaque removal and polishing.



Cliff Sloan is quite literally taking such findings to heart. After the Chevy Chase, Md., resident had a heart attack eight years ago, his internist prescribed medication, maintenance of healthy habits—Sloan, now 50, was already a runner with a healthy diet—and an aggressive approach to oral health, including treatment for receding gums. Since then, Sloan, the publisher of the Web magazine *Slate*, has alternated every three

months between visits to his regular dentist and intensive cleanings by a periodontist, or gum disease specialist. "The stakes are just too high" to ignore the apparent connection, says Sloan.

Chronic disease is not the only state that warrants extra attention to oral health. Infection control is critical to surgical patients, for example, and a dentist's or periodontist's sign-off is not infrequently required before patients proceed to the or, especially for heart or orthopedic procedures. Hormonal and developmental changes, too, can boost a person's risk of oral problems. Adolescents often have gingivitis due to a combination of raging hormones, orthodontia, and lax oral hygiene. Add an unhealthful habit—a study in the *Journal of the American Medical Association* this month found an increase in gum disease in young adults who were heavy users of marijuana—and the odds of oral health problems worsen still.

### **Those at risk.**

Getting on in years also ups the ante. A shift in hormones puts post-menopausal women at risk of osteoporosis, which may raise the chances of developing periodontal disease. Entering menopause with pre-existing gum disease may speed the destruction of jawbone, making implants and other repairs more challenging. Old age may bring arthritis and lessened dexterity with floss and toothbrush. But losing teeth is no longer a foregone conclusion, says Richard Price, spokesman for the American Dental Association, though visits to the dentist most likely need to increase. Transportation an issue? "Some dentists make house calls," he adds. Contact the local dental society.

Pregnancy may introduce pitfalls, too. "If you're thinking of becoming pregnant or if you *are* pregnant, be sure you have no oral infection," says Offenbacher. About half of expectant mothers develop gingivitis, due in part to hormones, making frequent dental visits important. Research suggests that having gum disease makes a pregnant woman several times more likely to deliver a preterm, low-birth-weight baby. High levels of prostaglandins, a labor-inducing chemical associated with severe gum disease, may be to blame. Insurance companies like Aetna and Cigna have begun covering extra cleanings

for pregnant women and additional deep cleanings, known as scaling and root planing, for those with more severe gum disease. Pilot trials suggested deep cleanings in such women reduce premature birth and low birth weight. A larger 2006 trial found they're safe but have no clear benefit.

Aetna, Cigna, and others are also now offering stepped-up care for members who carry their dental coverage and have certain chronic diseases—and the insurers are reaping savings when they do so. In research conducted with the Columbia University College of Dental Medicine, Aetna saw a reduction in total medical costs of 9 percent for members with diabetes, 16 percent for those with coronary artery disease, and 11 percent for those with stroke or other cerebrovascular disease.

Certain dentists routinely test blood pressure and refer patients to a physician if they find clues of systemic disease, and there's growing interest in expanding that aspect of dentistry. "We want to see the dentist become much more active in the role of diagnosis and screening," says Daniel Meyer, senior vice president of science and professional affairs for the American Dental Association.

# 7.

## Healthy smile, healthy you: The importance of oral health

Regular dentist visits can do more than keep your smile attractive — they can tell dentists a lot about your overall health, including whether or not you may be developing a disease like diabetes.

New industry research suggests that the health of your mouth mirrors the condition of your body as a whole. For example, when your mouth is healthy, chances are your overall health is good, too. On the other hand, if you have poor oral health, you may have other health problems.

Research also shows that a healthy smile may actually prevent certain diseases from occurring.

### **Gum disease and health complications**

According to the Academy of General Dentistry, there is a relationship between gum (periodontal) disease and health complications such as a stroke and heart disease. Women with gum disease also show higher incidences of pre-term, low birth-weight babies.

Further research shows that more than 90 percent of all systemic diseases (involving many organs or the whole body) have oral manifestations, including swollen gums, mouth ulcers, dry mouth and/or excessive gum problems. Such systemic diseases include:

- . diabetes
- . leukemia
- . cancer
- . heart disease
- . kidney disease

Since most people have regular oral examinations, their dentist may be the first health

care provider to diagnose a health problem in its early stages.

### **Poor oral health can lead to problems**

If you don't take care of your teeth and gums, your poor oral hygiene can actually lead to other health problems, including:

- . Oral and facial pain. According to the Office of the Surgeon General, this pain may be largely due to infections of the gums that support the teeth and can lead to tooth loss. Gingivitis, an early stage of gum disease, and advanced gum disease affect more than 75 percent of the U.S. population.
- . Problems with the heart and other major organs. Mouth infections can affect major organs. For example, the heart and heart valves can become inflamed by bacterial endocarditis, a condition that affects people with heart disease or anyone with damaged heart tissue.
- . Oral cancer. Poor oral care can contribute to oral cancer, which now takes more lives annually than cervical or skin cancer.
- . Digestion problems. Digestion begins with physical and chemical processes in the mouth, and problems here can lead to intestinal failure, irritable bowel syndrome and other digestion disorders.

### **What you can do**

Seeing a dentist regularly helps to keep your mouth in top shape and allows your dentist to watch for developments that may point to other health issues. A dental exam also can detect poor nutrition and hygiene, growth and development problems and improper jaw alignment. Provide your dentist with a complete medical/dental history and inform him or her of any recent health developments, even if they seem unrelated to your oral health.

*Information courtesy of the Academy of General Dentistry*



## 8. Oral Health and Older Adults

People are living longer and healthier lives. And, older adults also are more likely to keep their teeth for a lifetime than they were a decade ago. However, studies indicate that older people have the highest rates of periodontal disease and need to do more to maintain good oral health.



Whatever your age, it's important to keep your mouth clean, healthy and feeling good. And it's important to know the state of your periodontal health.

- . At least half of non-institutionalized people over age 55 have periodontitis.
- . Almost one out of four people age 65 and older have lost all of their teeth.
- . Receding gum tissue affects the majority of older people.
- . Periodontal disease and tooth decay are the leading causes of tooth loss in older adults.

What you may not realize is that oral health is not just important for maintaining a nice-looking smile and being able to eat corn on the cob. Good oral health is essential to quality of life. Consider a few of the reasons:

- . Every tooth in your mouth plays an important role in speaking, chewing and in

maintaining proper alignment of other teeth.

- . A major cause of failure in joint replacements is infection, which can travel to the site of the replacement from the mouth in people with periodontal disease.
- . People with dentures or loose and missing teeth often have restricted diets since biting into fresh fruits and vegetables is often not only difficult, but also painful. This likely means they don't get proper nutrition.
- . Most men and women age 65 and older report that a smile is very important to a person's appearance. And, maybe most importantly, recent research has advanced the idea that periodontal disease is linked to a number of major health concerns such as heart disease, stroke, respiratory disease and diabetes.

While your likelihood of developing periodontal disease increases with age, the good news is that research suggests that these higher rates may be related to risk factors other than age. So, periodontal disease is not an inevitable aspect of aging. Risk factors that may make older people more susceptible include general health status, diminished immune status, medications, depression, worsening memory, diminished salivary flow, functional impairments and change in financial status.

### **Medications and Oral Side Effects**

Older adults are likely to take medications that can impact oral health and affect dental treatment. Hundreds of common medications - including antihistamines, diuretics, pain killers, high blood pressure medications and antidepressants - can cause side effects such as dry mouth, soft tissue changes, taste changes, and gingival overgrowth.

Dry mouth leaves the mouth without enough saliva to wash away food and neutralize plaque, leaving you more susceptible to tooth decay and periodontal disease. In addition, dry mouth can cause sore throat, problems with speaking, difficulty swallowing and hoarseness. Your dentist or periodontist can recommend various methods to restore moisture, including sugarless gum, oral rinses or artificial saliva products.

Be sure to tell your periodontist and other dental professionals about any medications that you are taking, including herbal remedies and over-the-counter medications.



### **Special Concerns for Older Women**

Women who are menopausal or post-menopausal may experience changes in their mouths.

Recent studies suggest that estrogen deficiency could place post-menopausal women at higher risk for severe periodontal disease and tooth loss.

In addition, hormonal changes in older women may result in discomfort in the mouth, including dry mouth, pain and burning sensations in the gum tissue and altered taste, especially salty, peppery or sour.

In addition, menopausal gingivostomatitis affects a small percentage of women. Gums that look dry or shiny, bleed easily and range from abnormally pale to deep red mark this condition.

Most women find that estrogen supplements help to relieve these symptoms.

Bone loss is associated with both periodontal disease and osteoporosis. Osteoporosis could lead to tooth loss because the density of the bone that supports the teeth may be decreased. More research is being done to determine if and how a relationship between osteoporosis and periodontal disease exists. Women considering Hormone Replacement Therapy (HRT) to help fight osteoporosis should note that this may help protect their

teeth as well as other parts of the body.

### **Dental Implants**

More and more older people are selecting dental implants over dentures as a replacement option for lost teeth. Whether you have lost one or all of your teeth, dental implants allow you to have teeth that look and feel just like your own.

Older adults have similar success rate with implants compared with younger people. As long as you're in good health and your periodontist can restore healthy gums and adequate bone to support the implant, you're never too old to receive a dental implant.

A dental implant is an artificial tooth root placed into your jaw to hold a replacement tooth or bridge in place. While high-tech in nature, dental implants are actually more tooth-saving than traditional bridgework, since implants do not rely on neighboring teeth for support.

In addition, dental implants are intimately connected with the gum tissues and underlying bone in the mouth. Therefore, they prevent the bone loss and gum recession that often accompanies bridgework and dentures and preserve the integrity of facial features. When teeth are missing, the bone which previously supported these teeth begins to deteriorate. This can result in dramatic changes in your appearance, such as increased wrinkles around the mouth and lips that cave in and lose their natural shape.

Since periodontists are the dental experts who specialize in precisely these areas, they are ideal members of your dental implant team. Not only do periodontists have experience working with other dental professionals, they also have the special knowledge, training and facilities that you need to have teeth that look and feel just like your own.

Talk with your periodontist to find out if dental implants are an option for you.

### **Denture Care**

Denture wearers need to avoid plaque buildup that can irritate the tissues under the dentures. Thoroughly clean dentures daily and remove dentures at night to avoid bacteria

growth. If you wear dentures, you need to continue to see a dental professional regularly. Because mouths continually change, dentures need to be checked for proper fit to avoid irritation, increased bone loss and infections. A change in the fit of partial dentures could indicate periodontal disease.

### **Perfecting Your Smile**

Cosmetic periodontal procedures are not just for people in their 20s and 30s. You can have the smile you desire at any age.

A study by the American Dental Association and Oral-B in 1998 found that nearly half of survey respondents age 65 and older selected a smile as the first thing they notice about people. Almost 80 percent in this age group also reported that a smile is very important to a person's appearance.

### **Preventing Periodontal Disease**

Even if you've managed to avoid periodontal disease until now, it is especially important to practice a meticulous oral care routine as you age. Receding gum tissue affects a large percentage of older people. This condition exposes the roots of teeth and makes them more vulnerable to decay and periodontal infection.

To keep your teeth for a lifetime, you must remove the plaque from your teeth and gums every day with proper brushing and flossing. Regular dental visits are also important. Daily cleaning will help keep calculus formation to a minimum, but it won't completely prevent it. A professional cleaning at least twice a year is necessary to remove calculus from places your toothbrush and floss may have missed.

If you have dexterity problems or a physical disability, you may find it difficult to use your toothbrush or dental floss. Your dentist or periodontist can suggest options such as an electric toothbrush or floss holder or a toothbrush with a larger handle.

### **Treating Periodontal Disease**

In the earlier stages of periodontal disease, most of the treatment involves scaling and root planing, which means removing plaque and calculus in the pockets around the tooth

and smoothing the root surfaces. In most cases of early periodontal disease, scaling and root planing and proper daily home care are all that are required for a satisfactory result. More advanced cases may require surgical treatment.

Once you've been treated for periodontal disease, periodontal maintenance procedures or supportive periodontal therapy enables you to gain control of the disease and increase your chances of keeping your natural teeth. In addition to a dental examination, a thorough periodontal evaluation is performed. Harmful bacterial plaque and calculus are then removed from above and below the gum line. If necessary, root planing may be used to smooth root surfaces that are infected. In addition, your periodontist or other dental professional will review your at-home oral hygiene routine and may suggest modifications tailored for your condition.

© American Academy of Periodontology

## 9.

### **Ten Foods for a healthy, beautiful smile: protect your teeth and gums with these stellar foods - Diet and nutrition: how to eat right**

BELIEVE IT OR NOT, THE FOODS you consume can affect your smile as much as brushing or flossing. Every time you eat sugary or starchy foods, the bacteria in plaque get another chance to form decay-causing acid. And bad breath can make you want to hide even the most pristine teeth. But choosing foods that naturally fight bacteria, remove plaque, strengthen enamel, and freshen breath is a good way to preserve your pearly whites.



**Pick these 10.**

#### **1. Celery**

Celery protects your teeth in two ways. The extra chewing it requires produces plenty of

saliva, which neutralizes the bacteria *Streptococcus mutans* that causes cavities.

Additionally, chomping on naturally abrasive foods massages gums and cleans between teeth. Try This: Snack on a handful of raw celery or carrots once a day.

## **2. Cheese**

Studies from the last decade show that cheese, with its low carbohydrate and high calcium and phosphate content, provides several benefits for your teeth. It helps balance your mouth's pH (an acidic pH encourages the growth of cavity-causing bacteria). Cheese also preserves and rebuilds tooth enamel and produces saliva, which kills the bacteria that cause cavities and gum disease. Try This: Enjoy a 1-inch cube (about 1/2 ounce) of cheese after dinner instead of a sweet dessert.

## **3. Green Tea**

Green tea (*Camellia sinensis*) contains substances called catechins that kill the bacteria in your mouth that turn sugar into plaque (a sticky mass of bacteria, sugars, proteins, and fats that produces cavity-causing acid when it comes in contact with sugary or starchy foods). Catechins also wipe out the bacteria that cause bad breath. Try This: Drink 2 to 5 cups of green tea (regular or decaffeinated) a day, says Mindy Green, director of research at the Herb Research Foundation in Boulder, Colo. Consider making a thermos of green tea to drink at work. The night before, steep 3 to 4 green tea bags in 4 cups of boiling-hot water in a covered thermos for three to five minutes. Remove the bags. Serve the tea the next day over ice or after reheating it.

## **4. Kiwis**

For their size, kiwis pack more vitamin C than any other fruit. In fact, one large kiwi supplies more than 100 percent of your recommended daily amount. If you don't get enough vitamin C, research shows that the collagen network in your gums can break down, making your gums tender and more susceptible to the bacteria that cause periodontal disease. Try This: Instead of topping your morning oatmeal with brown



sugar, use a sliced kiwi.

## **5. Onions**

Onions contain powerful antibacterial sulfur compounds. In a 1997 test tube study, onions killed various types of bacteria, including *S. mutans*. Research indicates that they are most powerful when eaten freshly peeled and raw. Of course, raw onions can do a number on your breath, so be sure to have some fresh parsley on hand (see below). Try This: Add a few onion slices to salads and sandwiches each day.

## **6. Parsley**

Chewing parsley or mint leaves after a pungent meal will help you maintain sweet-smelling breath. These herbs contain monoterpenes, volatile substances that travel quickly from your bloodstream to your lungs, where their odor is released via your breath. Try This: Top zesty dishes with a few tablespoons of minced fresh parsley or garnish dessert with a few sprigs of fresh mint.

## **7. Sesame Seeds**

According to fossils, our Paleolithic ancestors had great teeth. Anthropologists suggest that this is partly due to the cleansing action of primitive foods like seeds, which slough off plaque and help build tooth enamel. Sesame seeds, for example, are also high in calcium, which helps preserve the bone around your teeth and gums. Try This: Sprinkle a tablespoon of sesame seeds on salads and steamed vegetables a few times a week for a gentle teeth cleaning and 87 mg of calcium.

## **8. Shiitake Mushrooms**

A 2000 study in *Caries Research* showed that lentinan, a sugar found in shiitake mushrooms, prevents mouth bacteria from creating plaque. Try This: A few times a

week, add four to five sliced shiitakes to soups or stir-fries. Buy fresh shiitakes or dried ones, which can be reconstituted by soaking them in hot water for about 25 minutes before use.

## **9. Wasabi**

Otherwise known as Japanese horse-radish, this condiment not only provides zing to sushi, it also protects your teeth. A 2000 study in *Biofactors* revealed that the substances that make wasabi taste hot, called isothiocyanates, also inhibit the growth of cavity-causing bacteria. Try This: Eating wasabi a few times a week will protect you from cavities. For a smile-saving salad dressing, combine 3 tablespoons rice wine vinegar, 1 tablespoon honey, 1 teaspoon wasabi paste, 1 teaspoon soy sauce, and 1/2 teaspoon sesame oil.

## **10. Water**

Drinking water keeps your gums hydrated and is the best way to stimulate saliva--your body's greatest defense against the bacteria that cause plaque and cavities. Rinsing your mouth with water also helps wash away trapped food particles that decompose in the mouth and cause bad breath. Try This: Aim to drink six 8-ounce glasses of purified water throughout each day to keep your gums (and whole body) hydrated and to stimulate saliva. If you can't brush your teeth after eating, be sure to rinse your mouth with water.

### **Save Your Smile with These Easy Tips**

In addition to regular brushing, following these suggestions can greatly increase the life of your teeth and gums.

**Watch Out for Minimeals.** Eating small meals throughout the day can help you control your weight. But every time you eat, bacteria grow in your mouth.

**The Fix:** Brush your teeth or rinse with water after each meal or snack.

Avoid Sugary Sips. Slowly sipping sweetened beverages exposes your teeth to sugar for long periods.

**The Fix:** Switch to water or unsweetened green tea.

Freshen Breath Naturally. Chewing sugary gum or candy between meals feeds plaque, which can cause cavities.

**The Fix:** Chew on a whole clove or tea-tree-flavored toothpick to help freshen breath and kill bacteria.

Choose Desserts Wisely. Eating sweets at the end of your meal leaves an enamel-corroding sugary residue.

**The Fix:** Choose cheese or low-sugar fruits like pears and apples as dessert.

Floss Daily. Not flossing for even one day allows cavity-causing plaque to begin forming between teeth.

**The Fix:** Try brushing and flossing right after dinner when you still have energy,

*Linda Knittel is a freelance writer in Portland, Ore. When eating Japanese cuisine, her favorite, she opts for a little extra wasabi and green tea to keep her teeth healthy.*

# 11.

## How are Dental Health and Heart Disease Related?

It's sometimes difficult to tell, but research beginning in the 2000s suggests that you see your dentist to find out. Several different studies conducted by cardiologists, and by periodontists (specialists in gum disease) now suggest that there are several connections between dental health and heart disease. People with gum disease, with false teeth, or with deteriorating teeth are all much more likely to have heart disease. These are correlative studies, not cause and effect studies, but further research in this area may suggest that keeping your mouth healthy is one of the keys to having a healthy heart.

One study on dental health and heart disease connects the high risk of gum disease in patients who require heart transplants. In an Australian study, 77% of a group of over 80 patients requiring heart transplant had periodontal disease. This was compared to a group not requiring transplant and with healthy hearts where only 13% had periodontal disease. This study may be slightly flawed since only 80 people requiring transplants were compared to a much larger group of people not requiring them, over 900 people. Still, combined with other studies, these findings suggest dental health and heart disease may be related.

What many similar studies reveal is that people who suffered heart attacks, who need transplants, or who need heart surgery are much more likely to have dental problems. Chief among these was periodontal or gum disease, which means a large amount of bacteria are present in the mouth. In this case, you can't get by with brushing or flossing, since gums can bleed and thus be open to receiving bacteria into the blood stream.

It is theorized that one of the connections between dental health and heart disease is what the blood stream does with bacteria from the mouth. It may end up lining the walls of your arteries, causing atherosclerosis and artery blockage, or alternately, certain forms of strep bacteria can cause vegetative matter to grow in the valves of your heart, called *bacterial endocarditis*. Prevention of gum disease is important, and this means flossing

regularly, and getting two teeth cleanings a year. If you have gum disease, you should check with your doctor or dentist about antibiotic mouthwashes that can help remove bacteria from your mouth prior to flossing.

Another connection between dental health and heart disease is the theory that tooth loss may actually change the diet and cause poorer cardiovascular health. Either due to missing teeth, or poorly fitting dentures, people may not eat a diet as high in fiber. Softer foods may mean more fatty foods, and a significantly unbalanced diet, which increases risk of heart disease. It's thus important to get properly fitting replacement teeth or crowns as needed so you can consume recommended amounts of dietary fiber.

Dental health and heart disease have an even more firmly established connection that has long been known. People who have had surgeries, especially surgeries that used artificial valves, conduits or stents absolutely need antibiotic treatment prior to receiving any type of dental treatment, even a teeth cleaning. It is always important to talk to your dentist about heart conditions or surgeries you've had, and to ask your cardiologist if you need what are called prophylactic antibiotics prior to seeing the dentist. This large single dose of antibiotics taken an hour prior to dental work does prevent the greater risk of developing bacterial endocarditis.

Further, treatment for certain forms of heart disease may exacerbate gum disease. Certain medications like calcium channel blockers or ACE inhibitors may come in chewable form and many contain sugar. Heart disease medications may create a snowball effect that actually worsens the very diseases they are supposed to treat by causing greater dental problems. This issue might be addressed by taking pills you can swallow rather than chew so that teeth are unaffected by medications.

*Written by Tricia Ellis-Christensen*

## **12.**

### **Periodontal Disease Negatively Affects Diabetes**

Numerous studies indicate that the presence and severity of periodontal disease can increase the risk of poor blood sugar control in diabetics. One study that compared diabetic patients with minimal and severe periodontal disease found that those with the more severe periodontal disease had a significantly greater number of cardiovascular complications, including stroke, angina, and heart failure.

Another study found that the treatment of periodontal disease in diabetics might actually improve the diabetics' ability to control diabetes. Although there are no known definitive reasons why periodontitis impacts blood sugar control in diabetics, a few theories have been created. Acute bacterial and viral infections control an increase in the body's resistance to insulin, which aggravates blood sugar control. In diabetics, further infection exacerbates insulin resistance and significant worsens its ability to regular blood sugar.

Periodontal disease and diabetes have a complex interaction. Anyone with diabetes, regardless of the severity, should have a thorough oral health examination. If gum disease is found, every effort should be made to eliminate it.

## **13.**

### **Could Social Troubles Be Your Smile's Fault?**

If you have front teeth that are stained, cracked, chipped, dark, or missing, it's possible that some of your personal troubles are your smile's fault. Your smile is one of the first features people notice about you. It is either attractive or repellant because other people make judgments about you based on how your smile looks. Are your teeth even and white? Is your smile inviting? Does it say you are open, full of confidence and high self-esteem? It's amazing how many characteristics other people read into your personality based on your smile's appearance.

Your smile is one of the first nonverbal cues you give to people. You may notice that other people treat you a certain way right when they meet you, often without even talking to you. You may have also heard the phrase that "When you smile, the whole world smiles back at you." If you're ashamed of how your teeth look, if you're embarrassed about your smile, if you're covering up your mouth with your hand when you speak, other people may read these nonverbal signals in a negative way. They may think you have a low self-esteem, that you have little confidence, that you're not capable of a more important job, or of sustaining a deep and lasting personal relationship.

Of all the features you can change about yourself, your smile is one of the easiest and fastest to fix. Once you make a decision to improve your smile, once you find the right dentist who is trained in cosmetic dentistry, you can begin your journey toward having a smile that can lead your life toward personal success.

## **14. A Whiter Smile Can Bring in More Green**

Tooth whitening can help most people look better, up to 95 percent of them. It's not mere vanity that makes people seek cosmetic dentistry. Smiles are among the first features anyone, including a job interviewer, notices about you. Within the first 30 seconds, a prospective employer may make a first impression based on your smile regarding your openness, friendliness, honesty, intelligence, and social status. The easiest and fastest way to improve your smile, assuming it is healthy already, is through tooth whitening.

According to the American Dental Association, the number of people bleaching their teeth has increased more than 300 percent in the last four years. Generally, you can whiten your teeth using one of three methods: in-office bleaching, at-home bleaching, or whitening toothpaste. In-office bleaching has the most dramatic results with your teeth becoming up to eight shades whiter in about an hour.

To put your best foot forward in a job interview, make sure your smile measures up. Consider a variety of cosmetic dental procedures, from teeth whitening to a set of porcelain veneers.

## **15. Attractive Smile Leads to Better Relationships**

To get a date with Mister or Miss Right, 84 percent of adults perceive having an attractive smile as important, according to a survey conducted by Harris Interactive. This poll of 1,000 American adults between the ages of 18 and 50 years found that more than one-third would not be likely to set up their best friend on a blind date with someone with bad teeth. One-third would not be likely to kiss someone with bad teeth. An overwhelming majority--85 percent--considers a person's smile to be very or somewhat important when meeting someone for the first time. Almost 9 out of 10 Americans polled said they thought people with good teeth are more attractive. Among many factors, this poll explored the importance of smiles in the social arena, as well as dating and marriage.



Fortunately, improving a smile is now more accessible than ever because cosmetic dentistry is available to just about everyone. Even the subtlest change in your smile can make a dramatic difference in the way you look and feel about yourself, and the way



others perceive you. Talk to your cosmetic dentist and ask about white fillings, teeth whitening, dental bonding, dental crowns and dental veneers. Then sit back in your chair and wait for your new life to begin.

## **16. When Changing Your Image, Start With Your Smile**

According to studies by social psychologists, most people spend about 30 seconds appraising you before they begin to form a laundry list of impressions about you. Impressions formed in the first 30 seconds might include: your educational level; your career competence and success; your personality; your level of sophistication; your trustworthiness; your sense of humor; and your social heritage. For better or worse, this means that appearances count in today's world, according to Susan Bixler's book *The Professional Image*, published by Adams Media Corporation.

When meeting someone for the first time, the way you look is even more important than what you say. Sociolinguist Albert Mehrabian found in his comprehensive research on communication that 7 percent of a verbal message comes from the words used; 38 percent comes from the vocal tone, pacing, and inflection; and 55 percent is transmitted by the speaker's appearance and body language. Your smile is one of the first features people notice about you in the business world, as well as in personal encounters.

A new smile can make you look better and younger, boost your self-confidence and self-esteem, as well as increase your communication ability, your sex appeal, and impact on your personal and professional relationships. And getting that smile isn't as complicated as you might imagine. Many people can have a dramatic change in their smile with just a few visits to the dentist. So many options are available today that there is no reason why you need to suffer the injustice of a poor job or a failed relationship just because you don't have an attractive smile.

# 17.

## Your Child's Smile Affects Lifetime Success & Earnings

### **Dental Problems Can Lead to Poor Self-Image for Children**

Poor oral health has a negative impact on children's overall health and well being. Anxiety and depression in children can be the result of a poor self-image and self-esteem caused by dental problems, such as chipped, broken, or missing teeth, dark or stained teeth, or pain in the mouth as a result of cavities or gingivitis.

For children, cavities are a common problem that begins at an early age. Tooth decay affects more than one-fifth of U.S. children ages 2-4 years, half of those ages 6-8, and nearly 60 percent of those aged 15, according to the Centers for Disease Control and Prevention. Low-income children are hardest hit: about one-third have untreated decay. Untreated cavities may cause pain, dysfunction, absence from school, underweight, and poor appearance--problems that can greatly reduce a child's capacity to succeed in life.

Dental problems affect children's ability to communicate verbally and nonverbally with peers and teachers. If they're embarrassed by their teeth, they may be always covering up their mouth with their hands, be afraid to smile, or reluctant to speak for fear of showing their teeth while they talk in class. All of these traits as a result of poor dental health can negatively impact the child's school performance and attendance.

The solution is to take your child for an oral health assessment by his or her first birthday, and every six months thereafter.

### **How Important Is Your Child's Smile to Their Future Success?**

Want a glimpse of your children's future? Gaze into their mouth. A child's healthy smile is an indicator of a bright and successful destiny. The reason is that healthy teeth and gums are now closely linked to overall health, according to many recent studies that have found a connection between what happens in the mouth to diseases in other parts of the

body. Unfortunately children are among those with the worst oral health in the country, partly because parents wait until the child goes to school before going to the dentist.

Recent research findings have linked chronic oral infections to diabetes, heart and lung disease, stroke, and low-birth weight babies. In addition, serious dental problems in children can undermine their self-esteem, lead to long-term stress and depression and interfere with normal physical functioning, such as breathing, swallowing, eating, and speaking.

What this all points to is that optimal oral health in children portends a favorable fate that includes overall health, high self-esteem, self-confidence, regular attendance at school, good grades, graduation, employability, success at job interviews, and perhaps more importantly attainment of satisfying personal relationships.



### **Don't Wait Until Kindergarten for Your Child's First Dental Visit**

According to the American Academy of Pediatric Dentistry, your child's first dental visit

should occur by his or her first birthday. In many cases your dentist will not find anything wrong, but parents shouldn't consider this a "wasted" visit. It is the beginning of instilling a lifetime of good dental care, which many studies have proven lead to high self-esteem, more confidence, good grades, better overall health, and success in career and personal relationships.

About 37 percent of children have not seen a dentist before entering kindergarten, according to the Centers for Disease Control. Although many Americans mistakenly assume that oral disease has been eradicated, nearly one-third of U.S. children have little or no access to dental care and suffer from oral diseases that compromise health, appearance, and self-esteem.

Most dental problems are preventable, but if not treated, they escalate, leading to cavities, gingivitis, and missing teeth. These in turn affect a wide range of social relationships.

## **18. Poor Dental Health During Pregnancy Can Cause Pre-term and Low-Birth-Weight Babies**

The state of a mother's dental health can have a big impact on the overall health of her baby. If a pregnant woman has gum disease, she is more prone to having a baby with pre-term/low-birth weight, sepsis, a lower Apgar score, and an elevated temperature.

Researchers in Santiago, Chile examined 870 women with gingivitis, aged 18 to 42 years, and found that periodontal treatment significantly reduced the pre-term/low-birth weight rate, according to a recent issue of the *Journal of Periodontology*. The results indicated that women who received periodontal treatment consisting of plaque control, scaling, and daily rinsing with chlorhexidine before 28 weeks of gestation had a significantly lower incidence of pre-term/low-birth weight babies than women who did not. In fact, pregnancy-associated gingivitis afforded more than a two-fold increase in the risk for pre-term births.

Women with pregnancy gingivitis should visit their dentist as soon as possible to receive treatment and preventive maintenance so that they could give their babies a healthy start. Gum disease is easy to treat, there is no risk to the mother or child, and the results can be dramatic in terms of improving the chances of delivering a healthy baby.

# 19.

## It Turns Out That Over-The-Counter Whitening Systems Are Not Too Good For You

When all your friends tromped to their dentists to have their teeth whitened, you thought that absurd. Not for wanting blinding smiles, but for bothering to—and paying for—dental appointments, handmade bleaching trays...well, that's what drugstores are for.

Right there on Aisle 8 sit zillions of *Advanced Tooth Whitening Systems!* Each one more *Advanced!* than the other. Oscar-winning smiles from the comfort of your couch.

But experts at The University of Texas Dental Branch at Houston are siding with your wiser friends. In short: until you've talked to your dentist, don't try this at home. It could save your teeth—or your life.

### **Bite the Bullet—Call Your Dentist**

Joe C. Ontiveros, D.D.S., M.S., director of esthetic dentistry at the UT Dental Branch, lent credence to the controversy and concerns dentists are now having about over-the-counter (OTC) whitening products and their possible connection to oral cancers and other serious oral diseases. The concern about these products stems from peroxide's known capability of producing free radicals, which have been implicated in various biological consequences, Ontiveros said.

“The foremost reason to see your dentist before bleaching is to have an oral exam performed. The dentist can determine the cause of discolored teeth, screen for periodontal disease, check for decay, assess the condition of existing restorations and identify any exposed roots,” he added.

If you have tooth or gum sensitivity, your tooth roots might be exposed from receding gums. Bleaching can make it worse.

The concentration of certain chemicals in tooth whiteners can also vary from product to product, causing potential damage and susceptibility to cancers and disease. Individuals can be protected from overexposure to these chemicals by a dentist who can monitor the levels and adjust the whitening procedure appropriately.

Kathy O'Keefe, D.D.S., M.S., clinical associate professor at the Dental Branch, who also works in private practice in Houston, acknowledges that one of the possible dangers to the at-home systems are the one-size-fits-all bleaching trays that simply cannot keep the bleaching product from leaking into the mouth.

“At a dental office, an impression is made of the patients' teeth first, so when the tray is made, it wraps around the teeth and therefore the bleach stays in the concentrated area,” she says.

Another reason to make that appointment is that some people will not get that blinding white smile no matter what product they use—particularly those with tetracycline stains that run through the entire tooth. In those cases, porcelain veneers, crafted by an esthetic dentist are used. And those patients with veneers cannot use OTC bleaching products because the chemicals will change the surface of the veneer.

#### Addicted to Whiter White

Researchers also have found that consumers often can't resist the desire for whiter teeth, leading to abuse of over-the-counter products.

O'Keefe says her office has a built-in system that helps to prevent such behavior. “We only sell two boxes of bleach at a time,” O'Keefe says. “This way we can monitor how much the patient uses.”

Jessica Neff, a senior manager in development for a large over-the-counter tooth whitening company, says she went through a period where she tried products that were painful, damaging, inconvenient or just simply ineffective.

Neff admits that she was a “victim” of the whitening craze that boomed about five years ago. Addicted to “whiter than white,” Neff says “I was constantly going from one system

to the next, looking for the best way to brighten my smile, until I finally realized I was ruining the substructures of my teeth.”

Neff now uses the product she promotes, a topically-applied whitener designed by a New York esthetic dentist. And even though Neff believes her product is a safe, revolutionary system, she says the company still recommends consulting a dentist before use.

### **Brown Teeth and First Impressions**

Tooth whitening is recommended by job recruiters, dating services, meddling grandmothers and both men's and women's magazines as the easiest, most cost-effective way to make one personal change that will catapult a first, second and third impression.

“Procter and Gamble completed a study regarding tooth brightness and appearance. An overwhelming majority (90 percent) of these surveyed viewed people with whiter teeth as healthier and more attractive,” Ontiveros says. “Many people feel this may influence professional advancement and personal relationships.”

Neff says that a recent report by Mintel, a supplier of product and consumer intelligence, showed that there are largely more females, along with 18-24 year olds, concerned about oral appearance issues, such as whitening.

For that reason, researchers say, these groups will be watched more closely when evaluating the possible connection between oral cancer and whiteners.

### **Bleaching is Safe... the Right Way**

Ontiveros makes it clear that the general idea of whitening your teeth to remove natural discoloration is safe and can be effective. In fact, a large number of clinical trials in humans over the last 10 years have demonstrated the safety of bleaching.

“Hydrogen peroxide exposure from tooth whiteners is limited to the oral cavity and is incapable of reaching systemic levels,” he says. “Human saliva also contains many protective enzymes, which help prevent potential damage to cells during oxidative reactions in the oral cavity.”



Although a direct connection between oral cancers and over-the-counter tooth whitening has not been made, enough factors are present to have researchers looking for more and to have you looking for your friends—so you can tell them they were right all along.

*STORY BY*  
*Erika Hargrove*

## **20.**

### **Oral health: A window to your overall health**

**Gum disease can let bacteria enter your bloodstream and wreak havoc elsewhere in your body. Or sometimes, signs of a disease may first show up in your mouth.**

While the eyes may be the window to the soul, your mouth is a window to your body's health. The state of your oral health can offer lots of clues about your overall health. Oral health and overall health are more connected than you might realize.

Your oral health is connected to many other health conditions beyond your mouth. Sometimes the first sign of a disease shows up in your mouth. In other cases, infections in your mouth, such as gum disease, can cause problems in other areas of your body. Learn more about this intimate connection between oral health and overall health.



## **The connection between oral health and overall health**

Your mouth is normally teeming with bacteria. Usually you can keep these bacteria under control with good oral health care, such as daily brushing and flossing. Saliva is also a key defense against bacteria and viruses. It contains enzymes that destroy bacteria in different ways. But harmful bacteria can sometimes grow out of control and lead to periodontitis, a serious gum infection.

When your gums are healthy, bacteria in your mouth usually don't enter your bloodstream. However, gum disease may provide bacteria a port of entry into your bloodstream. Sometimes invasive dental treatments can also allow bacteria to enter your bloodstream. And medications or treatments that reduce saliva flow or disrupt the normal balance of bacteria in your mouth may also lead to oral changes, making it easier for bacteria to enter your bloodstream. Some researchers believe that these bacteria and inflammation from your mouth are linked to other health problems in the rest of your body.

## **Oral health and other health conditions**

Here's a look at some of the diseases and conditions that may be linked to oral health:

- . **Cardiovascular disease.** Research shows that several types of cardiovascular disease may be linked to oral health. These include heart disease, clogged arteries, stroke and bacterial endocarditis. Some researchers believe that bacteria from gum disease can enter your bloodstream and travel through your arteries to your heart, affecting your cardiovascular system. Although periodontal disease seems to be associated with heart disease, more studies are needed before the link can be confirmed with certainty.
  
- . **Pregnancy and birth.** Gum disease has been linked to premature birth. Some research has shown that disease-causing organisms in a pregnant woman's mouth can wind up in the placenta or amniotic fluid, possibly causing premature birth. Unfortunately, treating periodontal disease during pregnancy may be too late, because the infection may have already spread in the woman's body. This is why it's vital to maintain excellent oral health before you get pregnant.
  
- . **Diabetes.** Diabetes increases your risk of gum disease, cavities, tooth loss, dry mouth, and a variety of oral infections. Conversely, poor oral health can make your diabetes more difficult to control. Infections may cause your blood sugar to rise and require more insulin to keep it under control.
  
- . **HIV/AIDS.** In some cases, one of the first signs of AIDS may appear in your mouth, with severe gum infection. You may also develop persistent white spots or unusual lesions on your tongue or in your mouth.
  
- . **Osteoporosis.** The first stages of bone loss may show up in your teeth. Your dentist may be able to spot this on routine dental X-rays. If bone loss worsens from year to year, your dentist can suggest that you discuss the issue with your other health care providers.
  
- . **Other conditions.** Many other conditions may make their presence known in your mouth before you know anything's wrong. These may include Sjogren's syndrome, certain cancers, eating disorders, syphilis, gonorrhea and substance abuse.

## **What you can do about oral health**

If you didn't already have enough reasons to take good care of your mouth, teeth and gums, the relationship between your oral health and your overall health provides even more. Resolve to practice good oral hygiene every day. You're making an investment in your overall health, not just for now, but for the future, too.

*By Mayo Clinic Staff  
Feb. 7, 2007*

## **21. BAD BREATH (HALITOSIS)**

Whether you call it bad breath or halitosis, it's an unpleasant condition that's cause for embarrassment. Some people with bad breath aren't even aware there's a problem. If you're concerned about bad breath, see your dentist. He or she can help identify the cause and, if it's due to an oral condition, develop a treatment plan to help eliminate it.

What you eat affects the air you exhale. Certain foods, such as garlic and onions, contribute to objectionable breath odor. Once the food is absorbed into the bloodstream, it is transferred to the lungs, where it is expelled. Brushing, flossing and mouthwash will only mask the odor temporarily. Odors continue until the body eliminates the food. Dieters may develop unpleasant breath from infrequent eating.

If you don't brush and floss daily, particles of food remain in the mouth, collecting bacteria, which can cause bad breath. Food that collects between the teeth, on the tongue

and around the gums can rot, leaving an unpleasant odor.



Bad breath can also be caused by dry mouth (xerostomia), which occurs when the flow of saliva decreases. Saliva is necessary to cleanse the mouth and remove particles that may cause odor. Dry mouth may be caused by various medications, salivary gland problems or continuously breathing through the mouth. If you suffer from dry mouth, your dentist may prescribe an artificial saliva, or suggest using sugarless candy and increasing your fluid intake.

Tobacco products cause bad breath. If you use tobacco, ask your dentist for tips on kicking the habit.

Bad breath may be the sign of a medical disorder, such as a local infection in the respiratory tract, chronic sinusitis, postnasal drip, chronic bronchitis, diabetes, gastrointestinal disturbance, liver or kidney ailment. If your dentist determines that your mouth is healthy, you may be referred to your family doctor or a specialist to determine the cause of bad breath.

Maintaining good oral health is essential to reducing bad breath. Schedule regular dental visits for a professional cleaning and checkup. If you think you have constant bad breath, keep a log of the foods you eat and make a list of medications you take. Some medications may play a role in creating mouth odors. Let your dentist know if you've had any surgery or illness since your last appointment.

Brush twice a day with fluoride toothpaste to remove food debris and plaque. Brush your tongue, too. Once a day, use floss or an interdental cleaner to clean between teeth.

Mouthwashes are generally cosmetic and do not have a long-lasting effect on bad breath. If you must constantly use a breath freshener to hide unpleasant mouth odor, see your dentist. If you need extra help in controlling plaque, your dentist may recommend using a special antimicrobial mouth rinse. A fluoride mouth rinse, used along with brushing and flossing, can help prevent tooth decay.

*Copyright 1995-2008 American Dental Association.*

## 22.

### **The Dentist's Way to Add 8-12 Years to Your Life**

**Regular tooth cleanings with periodontal therapy just might prolong your life,** according to the latest research by dental experts. As strange as it may sound, an infection in your gums can travel through your body to other organs, such as your heart, digestive system, and lungs. This is why it's more important than ever to go for regular dental check-ups and ensure that your periodontal health is constantly managed.

Periodontal disease and poor oral hygiene may be indicators of premature death, according to Dr. Michael F. Roizen in his classic book *Real Age: Are You as Young as You Can Be?* That's because gum disease has been linked to heart disease, diabetes, respiratory disease, digestive problems, osteoporosis, and immune problems. Young men who had a maximum oral hygiene index of 6 (0 indicating ideal oral hygiene and 6 poor oral hygiene) had a three to four times higher risk of dying sooner than those who had a hygiene index of 0. In addition, young men with periodontitis had a nearly three fold increased risk of dying from coronary heart disease.

The word *periodontal* means "around the tooth." Periodontal disease is a chronic bacterial infection that affects the gums and bone supporting the teeth. Periodontal disease can affect one tooth or many teeth. It begins when the bacteria in plaque (the sticky, colorless film that constantly forms on your teeth) causes the gums to become inflamed

#### **It's Not Just Your Teeth You're Saving--It's Your Life.**

Worldwide, periodontal disease may affect as many as three of four people, but only about 15 percent get treated. That spells trouble for the heart and other parts of the body. Gum disease creates a higher risk for heart disease, heart attacks and strokes. In one study, men with extensive gum disease were more than four times as likely to develop heart disease (the nation's leading cause of death) than men with healthy gums. Another study involving Arizona's Pima Indians, who rarely smoke, showed those with gum

disease were more than twice as likely to suffer a heart attack than those whose gums were healthy.



Periodontal disease is the most common chronic infectious disease in the world, more common than the cold. Population surveys and studies done in the United States indicate that more than 50 percent of adults have gingivitis and 30 percent have periodontitis, according to the American Academy of Periodontology. The problem increases with age.

The bottom line is that periodontal disease may be far more serious threat to your health than previously realized. To prolong your life, take action now to protect your gums. See a dentist.



## **23.**

### **Tooth Loss Affects Digestive Disorders**

Tooth loss is the result of an advanced state of periodontal disease, in which the gums become so infected they cannot hold the teeth any longer. When teeth fall out, it is more difficult to eat, and people without teeth--even those who wear dentures--are the most vulnerable to digestive and other related problems.

Research indicates that changes in food preferences and subsequent nutrient deficiencies are associated with tooth loss. Even those with dentures do not always obtain the necessary nutrients. One study of denture-wearers found that their chewing efficiency was about one-sixth that of a person with natural teeth. Poor chewing has been associated with a decrease in vitamin A and fiber intake and an increase in cholesterol, saturated fat and calories, ingredients that increase the risks of cancer and heart disease. This study concluded that most of the patients with dentures showed a low chewing performance classification. They also took more medication for gastrointestinal disorders than those with a higher chewing performance.

One way to prevent this escalation of problems is to have your teeth cleaned regularly. Periodontal therapy will eliminate any infections in the gums, which will help you keep your teeth for life. This, in turn, will help you eat better, look better, feel better, and live longer.

## 24.

### **No Bones About It: Gum Disease Increases Risk of Osteoporosis**

Researchers at the University of Buffalo and the University of New York at Buffalo found that most people diagnosed with periodontal disease were at a higher risk of underlying osteoporosis. Published in the *Journal of Periodontology*, the study involved more than 2,500 postmenopausal women. It found that women with low bone density, or osteoporosis, were at an 86 percent risk of having gum disease, the major cause of tooth loss in those older than 35 years.

Researchers also discovered a very strong relationship between the advanced form of gum disease that causes bone loss, gum-attachment loss, tooth loss, and osteoporosis. It is believed that eliminating gum disease may also help combat osteoporosis, which affects more than 20 million people in the United States, accounting for nearly 2 million fractures a year.

Once again, the link between gum disease and overall health cannot be overemphasized. Maintain a regular schedule of dental cleanings with your dentist, and be constantly vigilant against gum disease. It could save your life.

We hope that this information will change your mind about the importance of seeing your dentist for a hygiene appointment.

## 25. Dental Checkups: Test May Soon Give Early Breast Cancer Warning

Going to the dentist may be changing in a big way.



If you're like me, what you may remember most about your visits to dentists over the years is how they have to make repeated forays into your personal space to perform good deeds in your mouth. Pretty soon, however, thanks to recent research advances, your dentist will be getting even more personal - by also checking you for signs of breast cancer.

Please relax: The dentist isn't exactly going to be giving you a breast exam.

Here's the scoop: Scientists are developing a saliva test that dentists will be able to use to screen patients for breast cancer. This test will, it is hoped, be able to check saliva for certain proteins whose presence indicates breast cancer, thus giving women a priceless early warning. Thus far, although based on a small population of women, the study results look promising.

The Dental Division of the University of Texas is conducting this research and it's clever! I think it was smart to go the dental route, since studies have shown that women are more apt to see their dentist a couple of times a year than they are to

visit a mammography technician for their annual mammogram.

Saliva analysis has been used in the past to monitor patient response to chemotherapy and to surgical treatment. It only makes sense to also consider what else saliva may be able to tell us about breast cancer.

So the next time you think about getting your teeth cleaned, you might also ask your dentist about how this research is progressing.

Now, if we can also get the dentists to throw in a blood pressure check and a quick eye exam, then maybe in the future your "upper half" can be given a clean bill of health right along with your teeth!

*© 2007 Johns Hopkins University.*

## **26. Poor Dental Health Increases Risk of Cancer**

**Author:** Sheila Guilloton

Oral cancer strikes an estimated 35,000 Americans each year. In 2007, 25% of those diagnosed with the disease, died. In fact, more people die from oral cancers than either melanomas or cervical cancer.

The use of tobacco and excessive alcohol is directly linked to developing oral cancers. However, almost 25% of patients diagnosed with oral cancer did not use either tobacco or alcohol.

Another alarming statistic has been reported by the ADA (American Dental Association). African Americans are particularly at risk for oral cancers. African Americans have an

incident rate 1/3rd higher than Caucasians. More frightening, after contracting the disease, African Americans are twice as likely to die from the cancer.

What is the best way to guard against developing oral cancer. Experts agree that getting in the habit of regular dental check-ups is the best defense. Certainly not smoking and using alcohol in moderation are important but just as with other screenings for cancers, early detection is critical.

Oral screenings are a routine part of a regular dental check-up. A dentist can find a flat, painless white or red spot which may be suspicious yet completely unnoticed by the patient. Testing of the suspicious cells can be done quickly and if they turn out to be cancerous or even pre-cancerous, the cells can be surgically removed. Done early enough, this procedure has a very high probability that the patient will not develop oral cancer.

PAP smears, which have been commonly used since 1955 and colonoscopies, which are quickly becoming part of normal preventative screenings, detect early signs of cancer. Both cervical cancer and colon cancer have falling incident and mortality rates because of early detection procedures.

The same type of care should be taken to detect and prevent oral cancer. Do not put your health at risk because of a mistaken belief that seeing a dentist regularly is not that important.

40% of Americans fail to see a dentist regularly. Why? Some think they cannot afford to take proper care of their mouth because they do not have dental insurance. True dental insurance, especially for individuals is expensive, but dental plans have become increasingly popular. These are very inexpensive, non insurance plans. They offer a fee for service at a discount. The services provided by the participating dentist will be listed in the plan summary and both the regular price and the discount price will be shown. Joining one of these plans is easy and inexpensive and could literally save your life.

Compare all your options and pick a plan that will fit your life style and your pocket book.

Whatever you choose, traditional insurance or dental plan, use the plan regularly. Do not put your life at risk by ignoring the importance of dental check-ups.

## **Take Action Now!**

We offer a full range of dental services and **we absolutely never pressure our patients**. Ultimately our only job is to make sure you have all the information you need to make an informed decision.

**So call today and start on the road to a more confident you!**