Pierce Out!

ORAL PIERCING
Why you shouldn’t submit to “pierce” pressure
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A Publication of the Massachusetts Dental Society
The history of oral piercing dates back to ancient times. The earliest known oral piercing, in the figure of a dog, was created in Egypt in 1500 B.C. and was considered to be a symbol of royalty. Later, Mayan and Aztec cultures administered ritualistic tongue piercings as a religious offering to honor their gods. It’s probably safe to say that the people in these cultures did not consider the oral health implications of their oral piercing actions.

Fast-forward to today. In this day and age, an earring stud or hoop protruding out of someone’s tongue or lip is not an unusual sight. Today, body piercings are seen as a fashion statement, worn as accessories—as innocuous as wearing a ring or a necklace. Some view it as art, while others view it as a form of expressing their identity. However, oral piercing, which involves the tongue, lips, or cheeks, has actually been implicated in a number of harmful dental conditions and could be a potential risk to your health. So when it comes to making a fashion statement with oral piercing, you’re better off just saying “pierce out.”

In tongue piercing, a barbell-shaped piece of jewelry is placed through the thickness of the tongue with a needle. The end of the jewelry is then placed through the hole and a backing is screwed on. In lip and cheek piercing, a cork is positioned inside the mouth to support the tissue as it is pierced with a needle. The needle is inserted through the tissue and into the cork backing. The needle is then replaced with jewelry and a backing is screwed into place. Healing typically takes four to six weeks but can sometimes take months, and oral piercings are usually administered without anesthesia, which may be reason enough to avoid them for more squeamish types.

All That Glitters . . . Is Not Golden to Your Oral Health

To help educate teens and young adults as to the health dangers of oral piercings, the MDS created a brochure, “All That Glitters . . . Is Not Golden to Your Oral Health.” This informative brochure, along with other brochures covering such topics as the oral health and overall health connection, mouthguards, and the dangers of too much soda consumption, is available to teachers, parents, and children. To request a free copy, contact Bethann Dacey, MDS communications coordinator, at bdacey@massdental.org or visit us online at www.massdental.org/for-the-public.
The Massachusetts Dental Society (MDS) discourages patients from getting oral piercings because of their serious oral health complications, including:

- **Redness and/or swelling** at the piercing site. In certain cases, swelling from a tongue piercing can be so severe that it can actually close off the airway and block breathing.

- **Infection**. The mouth is full of bacteria that can enter the piercing site and cause an infection. Handling the jewelry with unclean hands can also transmit bacteria, and food particles that accumulate around the jewelry can breed bacteria, as well.

- **Excessive bleeding** can occur at the piercing site from damaged blood vessels.

- **Nerve damage** can develop, including numbness and change in taste, if the piercing is done incorrectly.

- **Gum recession** can occur, especially with barbell-type jewelry, where the constant rubbing of the metal against the gum tissue can actually cause recession.

- **Damage to the teeth**. The metal jewelry that comes into contact with teeth can cause breaks or cracks, especially during eating, talking, or sleeping, or if the wearer continuously “plays” with the jewelry.

- **Allergic reactions** to the metal can occur at the piercing site.

- If the jewelry comes loose, it could be easily swallowed and pose a **choking hazard**.

Other side effects have been reported, including scar-tissue formation and speech impediments due to an increase in saliva flow and/or from having a foreign object in the mouth. The National Institutes of Health has even linked hepatitis to oral piercing.

**Still considering getting an oral piercing?**

If you do decide to get an oral piercing, do your research and choose a professional piercer who uses a fresh needle every time. Ensure that the equipment is properly sterilized and that the right type of metal is used—typically, surgical-grade, stainless-steel jewelry is less likely to cause an allergic reaction.

**Already have an oral piercing?**

You will want to be sure to maintain the best oral hygiene possible to prevent infection at the piercing site. Use an antiseptic mouthwash after every meal and brush the jewelry as you would your teeth to remove any food particles or unseen plaque. Once the piercing has healed, consider removing the jewelry before eating, sleeping, or any type of physical activity. Also, make sure to have regularly scheduled dental checkups because your dentist will be able to spot any potential problems, such as soft-tissue damage or cracked teeth.

When it comes to making a fashion statement, oral piercings may look cool, but a healthy smile looks so much cooler.

**Oral piercing may leave you vulnerable to INFECTION**
In late summer, parents help get their children ready for the first day of school by taking them back-to-school shopping for new clothes, shoes, and school supplies. Part of this back-to-school routine includes visits to the pediatrician or family physician for a complete annual physical exam and any required vaccinations. However, these exams, which include vision and hearing tests, overlook an important part of a child’s health—oral health. Cavities are the most prevalent infectious disease among U.S. children, according to the American Dental Association (ADA), and it is estimated that 51 million school hours are lost each year due to dental-related causes.

That’s why the Massachusetts Dental Society (MDS) thinks it’s important that parents schedule a dental exam as part of the back-to-school routine for all students.

Regular dental exams are important because they give dentists the chance to spot any current or future dental problems, such as cavities. As part of the exam, the dentist will examine the child’s mouth, teeth, and gums, and may take X-rays to see how the teeth are developing and if there is any decay not visible to the eye. The dentist may recommend preventive treatment, including fluoride treatments or dental sealants, which consist of a plastic material applied to the chewing surfaces of the back teeth. Dental sealants act as a barrier for protecting teeth from plaque, and they usually last several years before a reapplication may be necessary.

In early 2009, the MDS released its Call to ACTION, a five-year plan for improving the oral health of Massachusetts residents. One of the goals included in this public policy initiative is to require that all children have an oral exam performed by a dentist as part of their health requirements for entering school for the first time.

Every parent wants the best for his or her child, and that includes a happy and healthy smile. So as the sunny summer days wind down and you start making a checklist of what needs to be done to get your child ready for the school year, make sure to include a dental visit on that list. Don’t have a regular dentist? Check out the “Find a Dentist” feature on the MDS Web site (www.massdental.org/findadentist), where you can search by city/town and languages spoken, among other criteria.

Did you know?

51 MILLION SCHOOL HOURS are lost in the United States each year due to dental-related causes.
You may have heard about the link between oral health and overall health. Poor oral health in the form of periodontal (gum) disease has been shown to be a precursor or indicator of cardiovascular disease, stroke, diabetes, and low-birth-weight and/or premature births. And now researchers have found a link between gum disease and yet another physiological condition: rheumatoid arthritis. What’s even more interesting is the finding that when the gum disease was treated, patients saw an improvement in the signs and symptoms of their arthritis. Could flossing help alleviate that aching pain in your knee?

A study published last year in the *Journal of Periodontology*, the official publication of the American Academy of Periodontology (AAP), looked at 40 people who had been diagnosed with both moderate-to-severe rheumatoid arthritis and severe periodontal disease. The study's authors found that when the periodontal disease was treated and the infection and inflammation were eliminated, participants saw a reduction in the level of arthritis pain, swollen joints, and degree of morning stiffness.

Rheumatoid arthritis (RA) is a chronic inflammatory disease of the joints that affects an estimated 1.3 million Americans, according to the Arthritis Foundation. RA occurs when the body’s immune system, which protects us from infection, mistakenly attacks the synovium, the thin membrane that lines the joints. This can result in joint damage, pain, inflammation, loss of function, and disability.

Researchers have looked at the link between periodontal disease and rheumatoid arthritis before. A 2008 study published in the *Journal of Periodontology* found that subjects who suffered from RA were found to have a higher prevalence (eight times more likely, in fact) of periodontal disease.

In the past, the presence of periodontal disease in RA sufferers was often attributed to the loss of manual dexterity, resulting in poor oral hygiene. It was assumed that people with stiff and painful hands, wrists, and fingers were less likely to brush and floss thoroughly. But another study from the *Journal of Periodontology* in 2001 found no difference in the amount of plaque deposits between test subjects with RA and a control group. (Plaque is the sticky, colorless film that forms on your teeth and contains bacteria that can lead to inflammation of the gums.) These results indicate that the progression of gum disease in the RA subjects was due to factors other than oral hygiene.

Interestingly enough, periodontal disease is also an inflammatory disease, according to the AAP. Inflammation is the body’s instinctive reaction to fight off infection, protect against injury, and shield against irritation. Inflammation can be characterized by swelling, redness, heat, and pain around the affected area. While inflammation initially aims to heal the body, chronic inflammation over time can lead to dysfunction of the infected tissues, and, therefore, more severe health complications, says the AAP.

Is it possible that treating one inflammatory disease (periodontal disease) could impact the symptoms in another inflammatory disease (rheumatoid arthritis)? This study points to that; however, more research needs to be done on both diseases before a true causal link is found.

In the meantime, the Massachusetts Dental Society recommends that those suffering from RA adopt the good oral health habits of brushing twice a day and flossing regularly, in addition to visiting the dentist twice a year for checkups and cleanings. After all, healthy gums may be the best natural pain reliever of all.
WOMEN CLOSE THE ORAL CANCER GENDER GAP
According to recent findings, the Oral Cancer Foundation (OCF) concludes that oral cancer rates among women and young people have increased. In the past, the overwhelming majority of oral cancers occurred in men and was diagnosed during middle age, usually attributed to tobacco use (smoking and chewing) and excessive alcohol consumption. Although still primarily found in men over 45 years of age, oral cancer rates have closed the gender gap. While once, one female case was reported for every six male cases, now, one in every two cases reported is a woman. The OCF indicates that this increase is mainly associated with greater tobacco and alcohol use among women. In addition to this disturbing trend, new data indicates that young people—both male and female—are now at a greater risk for oral cancer, often due to exposure to the human papillomavirus 16 (HPV 16)—a strain of the sexually transmitted virus previously connected with an increased risk of cervical cancers.

These new findings make visual screening during routine dental exams more important than ever. A quick visual survey of the mouth, gums, throat, tongue, and lips by a dental professional may be a patient’s best defense against oral cancers, as early detection is crucial to effective treatment. The OCF reports that early detection increases a person’s survival rate to between 80 and 90 percent of those diagnosed with oral cancer or precancerous abnormalities. Later detection and treatment can decrease one’s survival rate to 50 percent. A trained dental professional can detect early warning signs of precancerous and cancerous growths by simply viewing the mouth, but may augment the exam with a fluorescent rinse or a special device called a VELscope that casts a bluish light; both of these methods may expose abnormalities that might otherwise go unnoticed.

Also important to fighting oral cancer is an understanding of your risk factors. Tobacco users and alcohol drinkers are at the greatest risk, but sexually active young people—especially those diagnosed with HPV 16—are now considered at increased risk. In addition, excessive sun exposure may contribute to your risk, as the lips are very vulnerable to solar radiation, and skin cancers may spread into the mouth. And keep in mind that men over 45 years of age are still considered to be at the greatest risk.

According to the OCF, the following are some of the major risk factors and signs of oral cancer:

**Oral Cancer Risk Factors**
- Smoking/Tobacco Use
- Excessive Alcohol Consumption
- Age/Gender
- HPV 16
- Excessive Sun Exposure

**Oral Cancer Signs**
- Bleeding
- White Patches
- Redness
- Persistent Sores
- Unusual Swelling
- Persistent Sore Throat

Regardless of age, sex, or risk factors, an oral cancer screening should be part of a comprehensive and regular dental examination. Current dental guidelines recommend twice-a-year checkups and cleanings, at which time oral cancer screenings should be performed. While the OCF reports the number of oral cancer diagnoses at 35,000 new cases a year, new data indicates this total will continue to rise. But with proper and early detection during routine dental exams, these cases may be treated with lifesaving results.
While perhaps one of the lesser-known cancers, oral cancer still packs a heavy punch. Every day, 100 new cases of oral cancer are diagnosed in the United States, and every hour, one person dies from the disease, according to the Oral Cancer Foundation (OCF). Research has shown that most oral cancers are linked to lifestyle choices—specifically, the consumption of tobacco products. In fact, the OCF says that tobacco use is responsible for 75 percent of oral cancers. This includes any kind of tobacco: cigarettes, pipes, cigars, and smokeless tobacco products. And with an increasing number of cities and towns banning cigarette smoking in public places, more and more smokers are turning to smokeless tobacco products to get their nicotine fix, which is perhaps good news for nonsmokers who don’t want to breathe in cigarette smoke.
But a new smokeless tobacco product being introduced by tobacco companies could pose a potentially serious health threat to children and teenagers: dissolvable smokeless tobacco pellets. Because of its resemblance in both shape and packaging to breath mints, these pellets could easily be mistaken for candy by young children and lead to accidental nicotine poisoning, according to a recent study published online by *Pediatrics* journal. In addition, these pellets could provide an avenue to nicotine addiction for older kids and teenagers, which is especially troubling in light of recent findings that, for the first time, more Massachusetts youths admit to using smokeless tobacco products—including dissolvable tobacco—over cigarettes.

The *Pediatrics* study—a collaboration of the Harvard School of Public Health (HSPH), the Northern Ohio Poison Control Center, the Centers for Disease Control and Prevention, and the Food and Drug Administration—warns that dissolvable tobacco pellets could prove dangerous to children if ingested. The study looked at one new brand of these pellets currently being test-marketed by cigarette manufacturer R.J. Reynolds in three cities (Portland, Oregon; Columbus, Ohio; and Indianapolis, Indiana). The company is also test-marketing dissolvable tobacco sticks, which are the size and shape of toothpicks, and dissolvable tobacco strips, which are similar to breath-freshening strips.

The pellets, which are made of finely ground tobacco with mint and cinnamon flavoring, dissolve in the mouth and look like breath mints or bite-sized candy, making them particularly dangerous for young children if parents leave them in easily accessible places, like a table, countertop, or open purse, where they could be picked up and consumed, say researchers.

"This product is called a ‘tobacco’ product, but in the eyes of a 4-year-old, the pellets look more like candy than a regular cigarette," says MDS member Dr. Gregory Connolly, director of the Tobacco Control Research Program at HSPH and the study’s lead author. "Nicotine is a highly addictive drug, and to make it look like a piece of candy is recklessly playing with the health of children."

Ingestion of tobacco products by infants and children is one of the major reasons for calls to poison control centers, and, according to the study, these pellets each contain 1 mg of nicotine. Small children can experience nausea and vomiting from as little as 1 mg of nicotine. The researchers examined how much nicotine ingestion leads to symptoms of poisoning in children and how many pellets it would take to reach that level. Using median body weights, they discovered that a one-year-old could suffer mild-to-moderate symptoms of nicotine poisoning by swallowing 8 to 14 pellets, while ingesting 10 to 17 pellets could result in severe toxicity or death.

**NOT KID STUFF**

As with all other tobacco products, including cigarettes and chewing or snuff tobacco, the pellets are labeled and regulated for sale to adults only, but labels and laws don’t always prevent teenagers and adolescents from trying—and becoming addicted to—tobacco products. And a big concern about this new line of smokeless tobacco products is their resemblance to breath mints and the fact that kids and teens could be popping pellets right in public, with parents and teachers none the wiser because there are no telltale traces of cigarette smoke odor. And that’s a serious concern because the earlier kids experiment with tobacco, the more likely are their chances of developing an addiction—and potential health problems, such as oral cancer—since nicotine is a highly addictive substance. According to the Massachusetts Department of Public Health, a whopping 82 percent of adult smokers in Massachusetts had their first cigarette before age 19.

So, where there’s no smoke, there’s still fire, because these dissolvable tobacco products contain almost as much nicotine as cigarettes—each cigarette can contain anywhere from 1.89 mg to 3.2 mg of nicotine, according to a 2004 study by the Massachusetts Department of Public Health. These new dissolvable tobacco products contain between 0.6 mg and 3.1 mg of nicotine, according to the U.S. Food & Drug Administration (FDA), making them as much, if not more, of a health threat as cigarettes.

**ALARMING TRENDS**

A recent survey of Massachusetts youths by the Massachusetts Departments of Public Health and Elementary and Secondary Education found that a dangerous trend emerging in recent years is the increased use of smokeless tobacco and other tobacco products, including dissolvable tobacco. This survey found that use of smokeless tobacco among high school students in 2009 was 17.6 percent, which, for the first time, was higher than the rate of cigarette smoking (16.0 percent).

"For the first time, we’re seeing youth using these addictive other tobacco products’ at a greater rate than cigarettes," says Russet Morrow Breslau, executive director of Tobacco Free Mass, a privately funded coalition that advocates for funding and policies that support tobacco prevention.

Many kids and teens may believe that these smokeless tobacco products are safer than cigarettes, but the fact is, they are not. Parents, teachers, and coaches should regularly talk to kids about the dangers of nicotine addiction and the potential risk of oral cancer. Smokeless tobacco is absorbed quickly and directly through the inside of the mouth, making it very dangerous and potentially deadly. Research has shown that more than half of smokeless tobacco users have non-cancerous or precancerous lesions in their mouth, with their chance of getting oral cancer being 400 percent greater than for nonusers.

Many of these smokeless tobacco products are still new and just in the test-marketing phase, so time will have to tell the health implications of their use. In the meantime, the FDA is closely monitoring the products.

So while these dissolvable tobacco products may be a substitute form of nicotine for adult smokers in settings where smoking is banned, the truth is, there really is still no such thing as harmless tobacco.
When it comes to a bright smile, many consumers today look for "lightning in a bottle"—that one tooth whitener that removes stains and returns a smile to its former undimmed and shining glory. The search for this lost smile has created a growing market of tooth-whitening products and techniques, from common whitening toothpastes available in supermarkets, to over-the-counter gels and strips found in drugstores, to dental office methods that involve special solutions and equipment.

As we age, it is natural for teeth to lose some of their original luster, but certain foods, beverages, and, of course, tobacco use can significantly increase discoloration and dental staining, dimming what were once pearly whites. The first step toward a brighter smile could be as simple as ceasing the use of coffee, tea, caramel-colored soda, and tobacco. If giving these up seems unlikely or unsatisfactory, one might consider a more intensive tooth-whitening regimen.

As with anything that concerns oral health, the Massachusetts Dental Society recommends that individuals consult their dentist before undertaking any program of tooth whitening to ensure the safety, benefits, and results of such a course.

Probably the most common form of tooth whitening is brushing with one of the many whitening toothpastes, called dentifrices, which contain mild abrasives that remove surface stains and discolorations. A quick walk through the oral hygiene aisle of any supermarket or drugstore reveals a multitude of these pastes. With most of these products, the abrasives may clean and polish the teeth, removing stains and making teeth appear whiter.

In recent years, many over-the-counter products have appeared on pharmacy shelves, offering stronger tooth-whitening agents to the general public. For the most part, these products contain a hydrogen peroxide solution, which actually bleaches the dental surface, effectively changing the color of the tooth. It is important to note that this effect will not change the color of veneers, crowns, implants, or fillings. So, after using these products, natural teeth may not match any fillings, cosmetic, or replacement work that has been done.

The simplest over-the-counter methods are whitening rinses that can be swished over the teeth, usually for 30 to 60 seconds, twice a day, before brushing. Arguably the most popular method of at-home tooth whitening are whitening strips and dental trays, which are treated pieces of plastic that form to the teeth and are left on for about 30 minutes every day for 7 to 14 days. Still another at-home regimen uses gels that are brushed onto the tooth surface and left overnight. Some programs even include a special light that should be shined on the teeth to enhance the whitening agent. While these products are readily available to the public, some users have complained of side effects, including tooth sensitivity and irritated gums, and overuse of whitening agents could lead to stripping of the tooth enamel.

In the dental office, tooth-whitening treatments are generally a more intensive version of the peroxide bleaching technique. A dental professional will cover your gums to protect them, and then apply a peroxide solution to the teeth. He or she may also augment the bleaching by exposing the treated areas to a special light or a laser, which may facilitate the lightening process. The most common whitening treatment available through the dental office involves the fabrication of custom trays and the use of more concentrated peroxide gels, which the patient applies at home for a course of 2 to 4 weeks.

Again, while a bright, white smile may be desired, consult with your dentist before undertaking any whitening program. And remember, nothing can replace proper oral hygiene and avoidance of those bad habits that stain and undermine healthy teeth and a healthy mouth.
Is Your Baby Hitting the Bottle Too Much?

As a parent, you try to do everything you can to make sure your baby is healthy and happy, from keeping his or her diaper dry to buying organic baby food. But you may be unaware of one seemingly innocuous practice that could seriously endanger your child’s dental health. Overexposure to sweetened liquids, through a baby bottle, is a risk factor for early childhood caries, known commonly as “baby bottle tooth decay.” Even the most informed parent may not be aware that one of the healthiest liquids found in baby bottles—milk—can cause tooth decay. Are you letting your baby hit the bottle too much?

Baby bottle tooth decay develops when sugary liquids are given and are left clinging to an infant’s teeth for long periods, according to the American Dental Association (ADA). Many beverages commonly given to babies—including milk, baby formula, and fruit juice—contain sugar. Bacteria in the mouth feed off of this sugar and produce acids that attack the teeth, leading to decay.

But it’s not just what you put in your child’s bottle that causes baby bottle tooth decay, it’s also how often and for how long his or her teeth are exposed to decay-causing acids. Every time your child drinks a sweetened beverage, the acids attack the teeth for 20 minutes or more, says the ADA. After prolonged exposure, the teeth can decay. Parents or caregivers who repeatedly offer their baby a bottle containing sugary liquids, either as a pacifier or at bedtime, can do serious harm to their child’s oral health. Letting a child fall asleep while sucking on a bottle is especially harmful, as the sugary liquid can have hours to make contact with bacteria in the mouth.

What’s more, many people don’t realize that a baby’s teeth can start to decay soon after they first appear in the mouth, and by the time the decay is noticed, it may be too late to save the teeth. But you can help prevent this from happening to your child by following these tips from the ADA:

- After each feeding, wipe the baby’s gums with a clean gauze pad. Begin brushing your child’s teeth with a soft, child-sized toothbrush when the first tooth erupts, and clean and massage gums in areas that remain toothless. Begin flossing when all the baby teeth have erupted, usually by age 2 or 2½.
- Never allow your child to fall asleep with a bottle containing milk, formula, fruit juice, or sweetened liquids. If you must put your baby down with a bottle, fill it with fluoridated water only. Fluoride is a substance found in nature that helps prevent tooth decay.
- Avoid filling your child’s bottle with liquids such as sugary juices and soft drinks.
- If your child needs to be comforted between regular feedings, at night, or during naps, give him or her a clean pacifier recommended by your dentist or physician, and never dip the pacifier in any sweetened liquid, such as honey.
- If your local water supply does not contain fluoride, ask your dentist how your child should get it. He or she may recommend fluoride treatments.
- Start dental visits by the child’s first birthday, and make sure to schedule twice-a-year checkups for your child. And if you think your child has dental problems, take the child to the dentist as soon as possible.

Children who experience caries as infants or toddlers have a much greater probability of developing subsequent caries in both primary and permanent teeth, according to the American Academy of Pediatric Dentistry. That is all the more reason to keep a lid on your baby’s bottle consumption.
Important oral health information is right at your fingertips any time day or night when you log on to the Massachusetts Dental Society Web site at www.massdental.org.

There, you’ll find everything you need to know to help keep your mouth healthy between trips to the dentist.

And if you ever need a new dentist, just click on the Find a Dentist page to locate one who’s close to where you live or work.

So take good oral health into your own hands and visit www.massdental.org. When you do, you’ll see that there’s a lot more to your mouth than meets the eye.