Oral Health Zone

Issue 2

Summertime & Sports Drinks

Flossing & Interdental Cleaning Methods

Caring for your Child's Teeth

Toothpastes & Mouthwashes

Ask the Dentist

How to Avoid the Waiting Room Jitters

If you are prone to some nerves before seeing the dentist, you are not alone. Dental anxiety is a real issue for an estimated 180,000 Irish Adults. Whatever the reason, the jittery feeling keeps many people from receiving even routine dental care. There are several ways to overcome these fears and make your dental visit a very manageable and pleasant experience.

Here are some tips to help you combat the dental jitters.

- Find a dentist that lets you feel in control. Ask a friend or co-worker for a recommendation.
- If you are seeing a new dentist, consider making a *"get-to-know-you"* appointment to discuss your anxiety and build your trust level.
- Get the facts about any procedure - sometimes what you imagine is far worse than today's reality.
- Be an active participant in your care - ask your dentist about his or her policy concerning sedation and general anaesthesia and what may be suitable for you.
- Work with your dental team, so they understand your fears and can even develop hand signals to help communicate during the appointment.
- Schedule your visit when you are not rushed or under pressure, as this will just add to your stress levels.
- If the sound of the treatment bothers you, bring your iPod or MP3 player so you can listen to your favourite music.
- Playing some soft or classical music on your iPod in the waiting room can also help to ease your nerves in advance of your treatment.
- Visualisation of a beach, clouds or a place that has pleasant associations for you can help take your mind off matters at hand.
- Focus on breathing regularly and slowly while relaxing your entire body.
- Avoid coffee, tea and other caffeinated beverages prior to a dental visit, as caffeine can make you more nervous.

Remember that regular dental exams can help to prevent minor and major treatment. So, the best cure for the dental jitters is visiting the dentist more often!

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DeCare Dental

Oral Health Zone

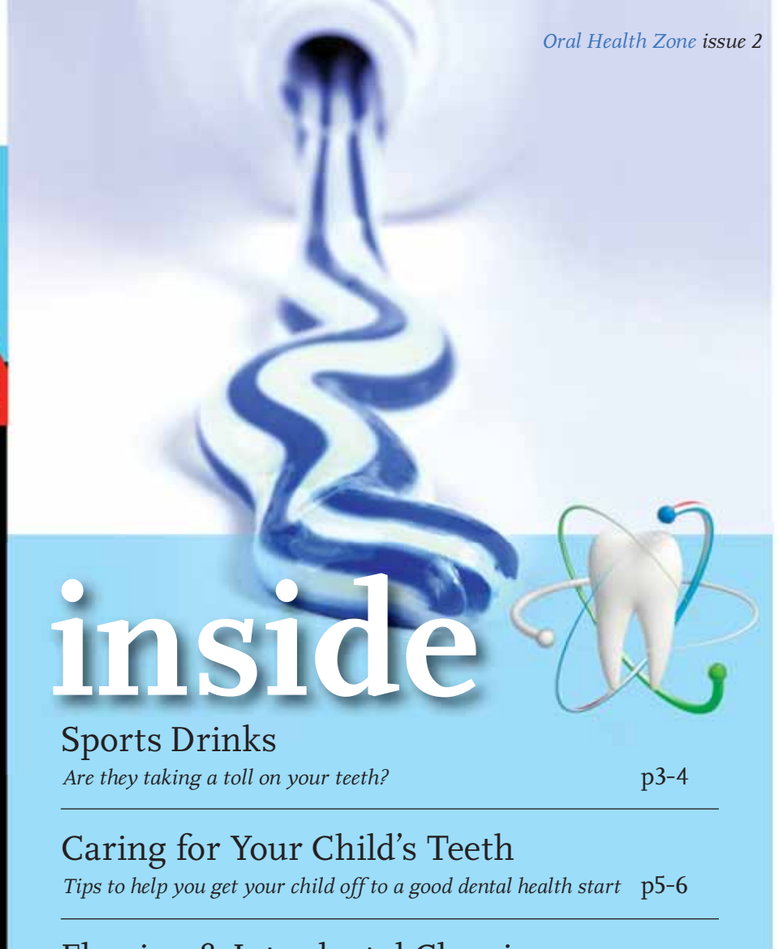
Welcome to the second edition of the Oral Health Zone, a magazine for the dentist's waiting room.

The first edition of the magazine received a great response, so we are delighted to bring you another edition of oral health tips and articles.

Oral Health Zone has been created by DeCare Dental Insurance Ireland as an initiative to promote awareness and knowledge about dental health issues for Irish consumers attending dental practices in Ireland. The more informed you are about your dental health, the more you can do to protect it. Remember, your oral health is not just about creating that perfect smile, research shows that good oral health contributes to your general health and well-being.

So, browse through our range of articles - get some background on toothpaste and mouthwashes (pg. 9), get the wisdom on wisdom teeth (page 15), find out how you can best care for your child's teeth (pg 5), read top advice from our resident dental expert (pg 11) and much more...

We hope you enjoy.
The Oral Health Zone Team



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Summertime & Sports Drinks

Can Take a Toll on Teeth

People who are just trying to stay cool during the summer months or are active in summer sports are consuming lemonade and sports drinks at a considerable rate. High energy sports drinks are often used to rehydrate after exercising. Recent studies have found that popular sport drinks and beverages containing high acidity may be a cause for concern. These beverages can cause irreversible damage to the dental enamel resulting in long-term dental problems.

Does what I drink matter?

According to a recent study in the Academy of General Dentistry's clinical journal, tooth enamel damage caused by non-cola and sports beverages is 3 to 11 times greater than from cola-based drinks. The beverages that were cited as causing the most significant concern included lemonade, energy drinks, and sports drinks, followed by supplemented fitness water, iced tea and cola beverages.

What is tooth erosion?

Erosion is the loss of tooth enamel caused by continuous contact with acidic substances. Enamel is the hard outer coating of the tooth that protects the inner sensitive dentin (the layer of tooth under the enamel). When the enamel is worn away, the dentin underneath is exposed. This can lead to pain and sensitivity, and increases the chances of tooth decay. One Irish study found evidence of severe dental erosion in 1 child out of every 5 examined.

What is the role of pH?

The pH (potential of hydrogen) value is used to measure the acidic nature of substances. It is measured on a scale of 0-14, 0 meaning lower pH and therefore more acidic. Foods and beverages with a low pH value are cited as a major contributor to irreversible dental erosion. Every time you eat or drink anything acidic, the enamel on your teeth becomes softer for a short while and loses some of its mineral content.

Increasing the consumption of acidic, carbohydrate (sugar) rich sports drinks increases the risk for the development of tooth decay. Most soft drinks contain one or more acids, such as citric and phosphoric acid. Sports drinks often contain additional acids and additives to give the drinks a longer shelf life and to give them their tangy taste. Regardless of whether you consume sugar-laden soft drinks or naturally sweetened fruit drinks, the sugar content in each affects your teeth similarly. This can be confusing when trying to choose which type of beverage to drink. Some beverages, such as sports drinks, feature natural sugars and are marketed as being a healthier choice. This claim is misleading. Even beverages with natural sugars can be cause for concern to your teeth.

What is the role of saliva?

Saliva acts as your mouth's natural defense system, washing food and beverages away and slowly neutralising acidity in your mouth restoring it to its natural balance. However, if acid exposure occurs too frequently, your teeth do not have a chance to be restored or repaired. Over time, you can start to lose the enamel surface of your teeth. People who continuously bathe their teeth in acidic substances have a higher probability of tooth erosion.

How do I minimize the risk of tooth erosion?

- Keep the contact time of low pH beverages and foods to a minimum. Avoid sipping over an extended period of time
- Rinse your mouth with water for 30 seconds to dilute sugar and acids
- Drink water or low-fat milk in place of acidic beverages
- Use a straw positioned toward the back of the mouth to limit the contact of acids and sugars with your teeth
- Chew sugar-free gum to stimulate saliva flow
- Drink fluoridated water and brush with remineralising fluoride toothpaste to reharden the teeth
- Limit the intake of sports and soft drinks as well as other low pH beverages

Even though the heat of summer appears to be a perfect time to increase one's consumption of sports and soft drinks, lemonade, ice tea and other summertime beverages, there are important indications that what we drink may have a dramatic effect on the health of our teeth. Read labels. The sugar and acid found in most of these sweetened beverages can be a major contributing factor to tooth erosion. Dental erosion is irreversible. So make smart decisions about what you drink - the health of your teeth depends on it.

Sources: 1. Academy of General Dentistry: www.agd.org; 2. American Dental Association: www.ada.org; 3. Dental erosion in five year old Irish school children: Harding MA, Whelton H, O Mullane DM, Cronin M. Community Dent. Health, 2003 Sep;20(3):165-70

Caring for your Child's Teeth

Why boiled tap water should be used to make up infant formula

Use boiled tap water when making up infant formula. This will ensure the baby teeth are exposed to tiny amounts of fluoride as soon as they erupt. Bottled waters should not be used unless they have a label indicating suitability for use with infant formula.

Why the dental health of parents can affect the future dental health of their children

Babies are born without decay producing bacteria strep mutans in their mouths. They are infected with these bacteria by kissing and sharing utensils with infected parents and siblings. If parents and siblings have little or no dental decay in their mouths, transmission of the bacteria is greatly reduced.

When to start cleaning baby teeth

When the first baby teeth appear in the mouth at about 6 months you can start cleaning them straight away. There is no need to use a brush, instead use a piece of gauze wrapped around your small finger to rub away any plaque or debris that collects on the teeth.

When to introduce a toothbrush

All the baby teeth appear in the mouth from about 6 months to 2 years. A small, soft toothbrush should be introduced gradually during this period, according to the willingness of a child to accept it. Use tap water for cleaning, toothpaste should only be introduced after 2 years.

When to use fluoride toothpaste

A small pea-sized amount of fluoride toothpaste should be introduced after the child's 2nd birthday. If you can find a suitable flavour, adult toothpaste can be used. The problem with some children's toothpastes is that the level of fluoride is too low and may have little or no protective effect.

Why young children need to be supervised when cleaning their teeth

Young children need to be supervised with tooth brushing until about six years of age. It is important that they use the correct pea sized amount of fluoride toothpaste and ideally should spit out rather than rinse out after brushing. This keeps small amounts of fluoride in their saliva giving extra protection to their teeth. It also takes a number of years for children to have sufficient manual dexterity to be able to apply the correct level of pressure to their gums (gingiva) and teeth when removing dental plaque.

How to supervise your child's tooth brushing

For children under six years, the emphasis should be on getting the habit established as a daily practice of at least once or preferably twice a day, first thing in the morning and last thing at night. Demonstrate the correct pea-sized amount of tooth paste. Provide a toothbrush with soft bristles, which is the appropriate size for the age and stage of development of the child. As a general rule, use a brush with a small head and short handle for baby teeth and a brush with a bigger head and longer handle for the permanent teeth. The parent or carer should assume responsibility for monitoring the cleaning of the gums until the child can demonstrate the necessary competence for this task.

Teach your child to brush both teeth and gums

The vast majority of people clean their teeth using a simple scrub technique. A slight modification of this is an easy and effective method for cleaning the gums. The soft bristles of the brush are angled so that they fit right into the sulcus or gum margin where the gum meets the teeth. A very short back and forth motion using gentle pressure, almost like a vibration of the bristles, over two or three teeth at a time will dislodge most plaque from this vital area for gum health. Particular care is needed in the area where the teeth meet each other; plaque removal from this area is usually deficient because of the changing curvature of the teeth and gum margin. It will take about two minutes using this method to go around the mouth doing the inside, outside, uppers and lowers and finishing by scrubbing the biting surfaces. Good gum health can be achieved and maintained using this method once every 24 hours.

Sources: 1. Clinical Periodontology and Implant Dentistry, Jan Lindhe, Thorkild Karring, Niklaus P. Lang. Editors 4th edition, Blackwell Munksgaard 2006
2. Department of Health and Children (2002) Forum on Fluoridation. Stationery Office Dublin. www.fluoridationforum.ie
3. Dental Caries, The Disease and its Clinical Management, Ole Fejerskov, Edwina A.M. Kidd Editors, Blackwell Munksgaard 2006

Electric Toothbrushes

- Reviewed for You

Modern electric toothbrushes are superior to ordinary toothbrushes in removing dental plaque and can do so in a shorter time. They are also effective at removing dental plaque in the embrasure areas where the teeth meet each other and are more successful than ordinary toothbrushes in this respect. The newer electric toothbrushes achieve this by the bristle tufts rotating back and forth at high frequency. Children over six years can be taught how to use an electric toothbrush safely. The novelty value can be a big motivational factor in getting both adults and children to brush their teeth and gums effectively. However, this can decrease over time leading to some complacency. An electric toothbrush should be considered an essential healthcare item for a person with established gum disease or for a person with a disability who is unable to brush his/her own teeth effectively.

Getting Stuck In

The low-down on flossing and interdental cleaners

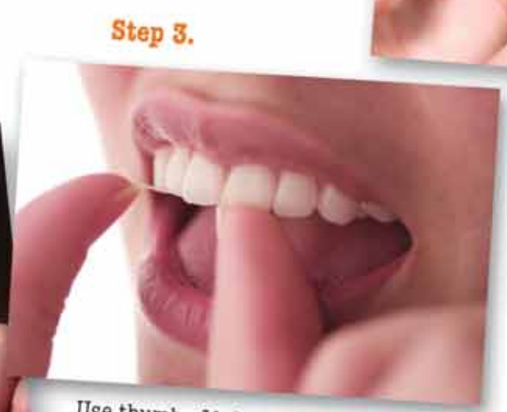
When to use dental floss and other interdental cleaners

While tooth brushing is almost a universal practice amongst people everywhere, interdental cleaning, including use of dental floss is not practiced regularly by the majority of the population, even in the most advanced societies. Therefore, it is important to give this cleaning method a proper context. There is little point in emphasising interdental cleaning for young children unless there are special circumstances that render it necessary, such as a high decay rate or signs of persistent gum disease (very rare). On the other hand, all teenagers and adults should be competent to carry out dental flossing which is the most widely used interdental cleaning method. Tooth brushing, no matter how well it is performed, is unable to dislodge dental plaque in the interproximal areas where teeth contact each other. This is another vital area for gum health, as serious gum disease will often progress from this spot in the 10 -15% of the population who are susceptible. Even those who are not susceptible to serious gum disease may experience localised gum infections that will respond to good oral hygiene practices including effective brushing and flossing.

How to use Dental Floss

Step 1. Release 12 to 14 inches from the spool.

Step 2. Wrap floss around both middle fingers leaving about 3 inches free for application.



Step 3. Use thumb of left hand and forefinger of right hand to guide the floss between contact points of the front teeth upper and lower.

Step 4. Use a sawing action to gently guide the floss down and up the side of each tooth, this removes the plaque effectively.

Step 5. For the back teeth use both forefingers to guide the floss into the contact points and use the sawing action to guide the floss up and down the side of each tooth

Some people may find this task difficult especially if their manual dexterity is compromised in any way. There are several types of flossing aids with handles that make this easier and you can purchase these at your nearest pharmacy or large retail store. Dental floss should always be used with great care as rough handling could damage your gums; the sawing action protects against any unnecessary force being used.

Other interdental cleaners

When gum disease is already established and the gum has receded from the interproximal area between neighbouring teeth, dental floss is no longer as effective.

Toothpicks are an effective substitute for dental floss in these situations and are used extensively by the population in Scandanavia.

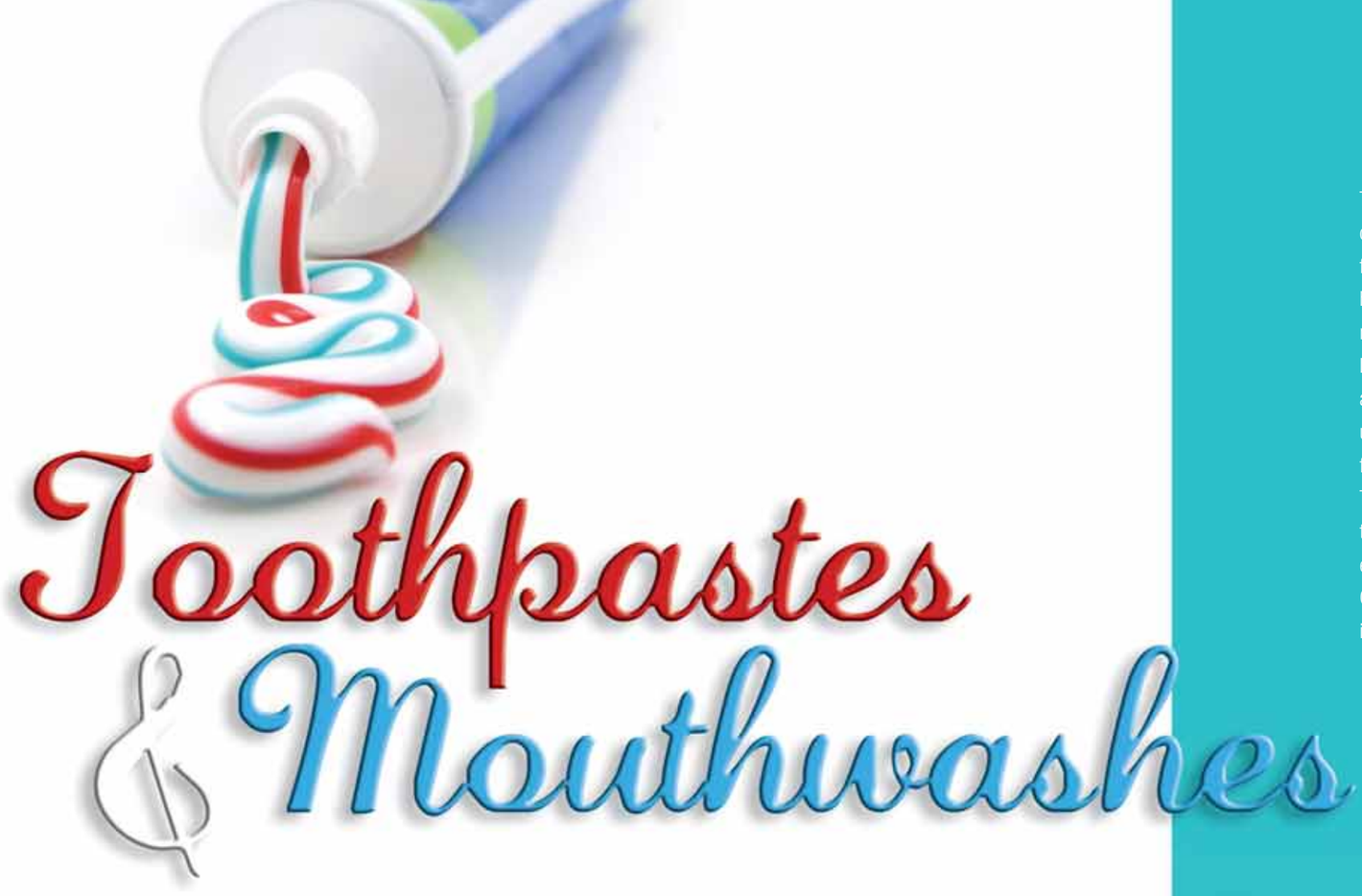
Interdental brushes are an alternative to toothpicks and can be bought in a wide variety of sizes to fit exactly into the interdental spaces.

Like dental floss, toothpicks and interdental cleaners have to be used with great care to avoid causing sensitivity and tissue damage. Supervision by a dentist or hygienist is essential until competence has been achieved.

Don't forget to clean your tongue....

The main benefit of tongue cleaning on oral health is to eliminate and prevent bad breath (halitosis). In individuals who have good gum health the accumulation of bacteria on the back of the tongue are the main sources of sulfide gases which are responsible for malodour giving rise to bad breath. Tongue brushing and tongue scrapers are highly recommended for individuals suffering from halitosis (bad breath). Tongue cleaning may also be of benefit as part of the treatment of gum disease in helping to reduce the overall amount of pathogenic bacteria in the mouth.

Sources: 1. Clinical Periodontology and Implant Dentistry, Jan Lindhe, Thorkild Karring, Niklaus P. Lang. Editors 4th edition, Blackwell Munksgaard 2006



Toothpastes & Mouthwashes

How important are toothpastes for keeping teeth and gums healthy?

Toothpastes with fluoride have a long history of proven success in preventing and modifying the impact of dental decay and are important for adults and children alike.

The effect of toothpastes on gum disease is not as straight forward. The presence of abrasives does assist with plaque and stain removal. The presence of pyrophosphates inhibits the hardening of plaque and subsequent calculus formation above the gum margin, allowing easier removal of plaque by brushing. Toothpastes with an additive called triclosan do have a limited impact on gum disease, by reducing plaque and gingivitis (mild gum infection). Sodium lauryl sulfate, a detergent present in many types of toothpaste, has a plaque inhibiting effect similar to triclosan.

Are mouthwashes necessary for keeping my teeth and gums healthy?

It is unlikely that mouthwashes will ever assume more importance than mechanical methods, such as brushing, electrical tooth brush, floss, toothpicks, interdental brushes, for preventing gum disease and fluoride toothpaste will remain the most important method for preventing tooth decay. However, some mouthwashes can play an important supportive role in the prevention of gum disease, when recommended and advised by a dental professional. This should happen in specific situations and should never be on a long-term basis, except in exceptional circumstances.

The most effective mouthwash is one containing chlorhexidine digluconate, usually taken as a 10 ml rinse for 60 seconds at a strength of 0.2%. This compound has been extensively researched and proven to be the most effective anti-plaque agent available for public use. It is most effective when used as a preventive agent against plaque accumulation and gingivitis. It can also be used effectively as a preventive agent on its own or with fluoride added to the mouthwash to prevent dental decay. This means it has several useful applications for keeping teeth and gums healthy. It has not been proven to be effective in the treatment of established gum disease. Chlorhexidine can be used when normal plaque removal is difficult, for example:

- Following extensive gum treatment
- During orthodontic treatment after braces have been fitted
- For medically compromised individuals who might be predisposed to mouth infections
- For mentally, physically disabled persons, for individuals who are high risk for dental decay and for individuals who suffer from recurrent mouth ulcers.

Chlorhexidine is rarely used on a long-term basis, mainly because of some annoying side effects. Long-term use causes staining of the teeth that requires professional cleaning to remove. Staining can also occur on the tongue and there is temporary alteration of taste sensation. These side effects are not a problem with short term use. Chlorhexidine can also be used effectively as a spray or in varnish format.

A second mouthwash with proven effectiveness as an anti-plaque agent is one containing essential oils, menthol, thymol, eucalyptol and methyl salicylate. This compound has been used for more than 100 years and is also effective at reducing mouth odours. Although not as efficacious as chlorhexidine as an anti-plaque agent, it does have the advantage of having minimal side effects so it can be used for longer periods. Other mouthwashes have varying levels of anti-plaque activity and are also valuable as mouth fresheners.

Safety tips concerning tooth cleaning devices and cleansing agents.

Inappropriate use of toothbrushes can result in damage to the gums and the teeth.

Over vigorous brushing can result in short-term damage in the form of oral ulceration and in long-term permanent damage in the form of gum recession.
Over vigorous brushing with toothbrushes and with interdental brushes can also cause serious dental erosion. A recommended toothbrush with soft bristles using gentle pressure especially near the gum margin should be used. Similar gentle pressure should be used with interdental brushes.

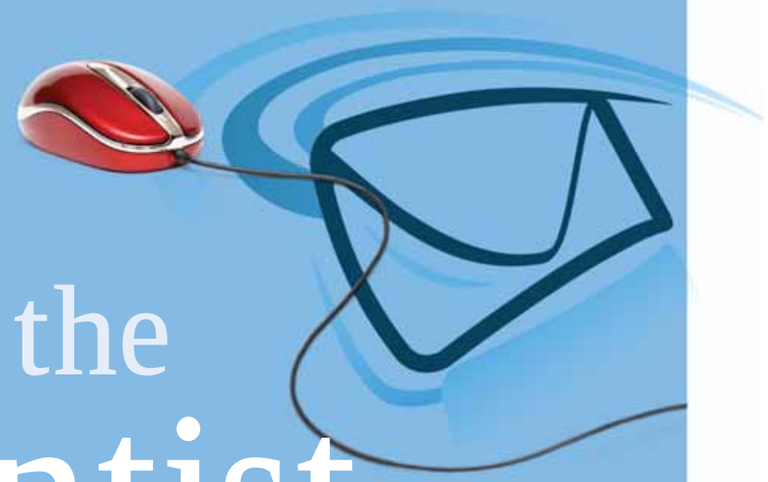
It is more difficult to cause damage to the teeth or gums with an electric toothbrush.

Recommended mouthwashes should be used under the guidance of a dental professional - long-term continuous use of mouthwashes is rarely necessary for good oral health.

Mouthwashes may be used regularly as mouth fresheners and as part of daily grooming.

Toothpastes, especially those with fluoride, have a long track record of proven effectiveness. Use of these toothpastes, except based on specific clinical advice, is not recommended for children under two years. Toothpastes are constantly undergoing modification with new ingredients being added. Although rare, there have been reports of hypersensitivity in some individuals to specific ingredients especially in multi purpose toothpastes. Symptoms include burning sensation, ulceration and sore mouth. These sensations are temporary and cease when the offending toothpaste is changed to a different brand. Always discuss unusual oral symptoms with your dentist.

Sources: 1.Clinical Periodontology and Implant Dentistry, Jan Lindhe, Thorkild Karring, Niklaus P. Lang. Editors 4th edition 2006
2.Department of Health and Children (2002) Forum on Fluoridation. Stationery Office Dublin. www.fluoridationforum.ie



...ask the Dentist

Welcome to the 'Ask the Dentist' corner, where your dental queries and worries are answered.

The following questions are a sample of your most frequently asked queries. If you have dental queries that you would like answered, please visit www.decaredental.ie to submit your question online or browse our archive of dental questions and answers. Dr. Gavin will endeavour to answer all queries. Answers provided are for general, non-diagnostic purposes only. Information provided is not a substitute for the professional medical advice provided by your dentist.

Meet our resident dental expert, Dr. Gerard Gavin

Dr Gerard Gavin, who is a registered dentist with the Dental Council of Ireland, is the Chief Dental Officer for DeCare Dental in Ireland and Europe. Dr Gavin joined the DeCare team in 2004 from the Department of Health and Children where he held the post of Chief Dental Officer.

In this role, he advised the Minister and Department on all matters relating to oral /dental health, with specific responsibility for planning dental health services, including The Dental Health Action Plan 1994 - 1998.

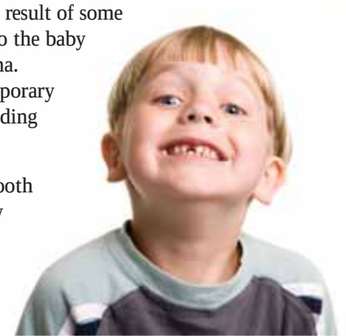
Dr. Gavin, in his previous roles as a Lecturer in the Dublin Dental Hospital / School of Dental Science Trinity College Dublin and Principal Dental Surgeon in the Eastern Health Board, played a leading role in developing Dental Health Education / Oral Health Promotion as an academic discipline and also as a practical intervention in the community health services in the Dublin region.

A Trinity College Dublin dentistry graduate, Dr. Gavin is widely published in dental public health. He is also responsible, unless otherwise stated, for the content and scientific accuracy of the oral health tips and dental articles of the Oral Health Zone publication.

Q: My son has just turned three. About three weeks ago he fell and banged his mouth. A few days ago I noticed that one of his front teeth had turned grey. Will he lose the tooth? Will it affect his permanent teeth?

A: There is no need to worry; your son will probably lose his front baby tooth at around six years of age, just before the permanent front tooth comes into the mouth. The grey colour is the result of some bleeding that has occurred into the baby tooth after receiving the trauma. The grey colour may be a temporary or a permanent feature, depending on the status of the tooth.

Sometimes, the nerve of the tooth dies following trauma. Usually there is no damage done to the permanent tooth developing underneath.



This would be a good time to take your son to see a dentist who could advise you whether the tooth is dying or not and if any intervention is required.

Q: I had treatment on my root canal recently. I had the nerve taken out and I had a temporary filling put in the tooth, until the next stage could be done. The temporary filling has now fallen out. My main issue is the cost of a root canal. Are there other options available to me other than an extraction?

A: Unfortunately, these are your only two options. In fact, the sooner you complete the root treatment, the better your chances of a successful outcome. Delaying completion of the treatment will allow infection to become established in the root canal.

Temporary fillings in root canals are not a good idea because they fall out so easily. A successful root canal treatment will allow you to retain your tooth in the long term, although it may be necessary to have the tooth crowned to strengthen it.

If the tooth is extracted, you may need to have it replaced by an implant crown, a bridge or by a metal denture. It is not always necessary to have a tooth replaced. Much will depend on its position in the mouth and the health of other teeth nearby. Regarding dental costs, you should search the internet because there is excellent value in Ireland at the moment. Many dental practices are now publishing their prices online on their own websites. For more information go to the Vhi DeCare Dental Directory at www.ddii.ie, click on the *Find a Dentist* link which will bring you to a list of dental practices, some with website addresses, where you will find dental prices posted.

Q: What is your advice regarding breastfeeding and having dental work done involving amalgam silver fillings?

A: The scientific advice regarding silver amalgam fillings is that they are perfectly safe and offer many advantages over other types of fillings because of their lower cost, easy placement and durability. However, as in all things in life, it is wise to use precautions when dealing with the very young even if the possibility of harm is remote. For your own peace of mind, why not postpone any type of non urgent operative dental treatment until you have finished breastfeeding.

Having old fillings removed is more hazardous than placing new ones, because an aerosol containing amalgam particles is created by the dental drill. Other materials have disadvantages also, so it is preferable for a rapidly developing infant to have as little contact as possible with these types of substances.

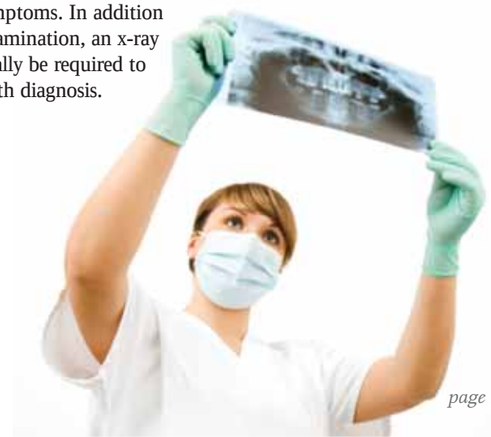
Q: I suffer from a recurring mouth ulcer on the tip of my tongue which generally lasts approximately two weeks. Is this normal? I have used a gel but this does not seem to have any effect.

A: A recurring mouth ulcer should always be followed up and investigated further, initially by your own dentist and sometimes by your own doctor and if necessary by an expert in oral medicine. A reassuring aspect of your ulcer is that it appears to heal; this differentiates it from a more serious ulcer that does not heal.

A very important aspect of the investigation of your ulcer is to look for predisposing factors. There may be a sharp tooth, filling or denture which is traumatising your tongue. Alternatively, you could be having a reaction to some foods containing certain preservatives, or you may have an iron deficiency. Your own medical doctor will test you for the iron deficiency. Tell your dentist about your ulcer on your next visit and ask for advice about relieving symptoms, if these are a concern to you.

Q: I received a blow to my cheek bone two months ago. I have a numb feeling in some teeth, which has improved, but is still noticeable. Is this common? How long before I recover fully?

A: As a general rule, you should always seek advice when experiencing numbness following trauma to the face because of the possibility of an undiagnosed jaw fracture. Make an appointment with your dentist as soon as possible and explain your symptoms. In addition to an examination, an x-ray will usually be required to assist with diagnosis.



Treating Cavities in Permanent Teeth

Today, tooth decay remains one of the most widespread diseases in the world. It is a disease process whereby bacteria in the mouth interacting with fermentable carbohydrate, mainly sugar, produce acids which can progressively break down hard tooth structure and penetrate enamel, dentin and eventually the nerve tissue of the tooth. If left untreated the disease may cause a cavity (hole in the tooth), pain, death of the nerve tissue, loss of the tooth, infection in the surrounding tissues and rarely death of an individual.

In reality, tooth decay is rarely uniformly progressive and is more of a dynamic process which can be modified and arrested by changing the diet and adopting preventive measures. The most important preventive measure is keeping fluoride at a certain minimum level in saliva close to the tooth surface, where it continually hardens and rehardens the outside surface of the tooth. This works very well on the smooth surfaces of the teeth. Fluoride in water and in toothpaste helps to achieve this.

On the biting surfaces of the teeth, the grooves and fissures are more difficult to keep clean, so a hard plastic or glass like material called Fissure Sealant was developed to prevent dental decay on these sites. These can be used on the permanent molar teeth of children or adults, who are considered high risk for developing dental decay.

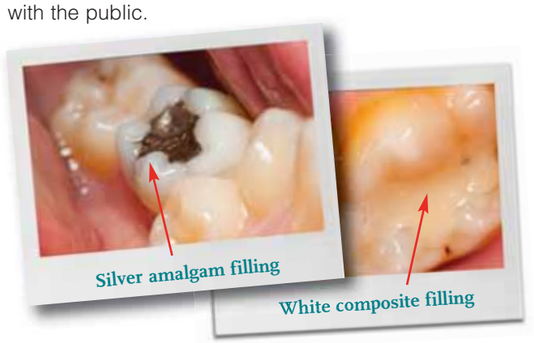
So, what are the options when preventive methods have failed and tooth decay has taken hold in the form of a cavity in a tooth?

White composite filling

As a general rule, it makes more sense to fill a small cavity in a permanent tooth with a white composite filling material. Less drilling is required and more tooth substance can be preserved than for a silver filling of the same size. There is also the added advantage of being able to fissure seal the surrounding grooves and fissures at the same time as the filling is being placed. Even for larger cavities, white fillings are gaining in popularity with dentists and with the general public. The newer materials can match tooth colour almost to perfection. Composite adhesive filling technology is now so adaptable that this type of filling can be used in a whole variety of situations with confidence and predictability. The main drawbacks are the time and the high level of precision and skill that are required to place this type of restoration successfully.

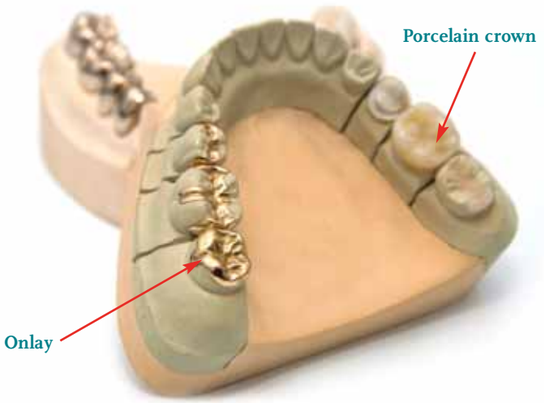
Silver amalgam fillings

Silver amalgam fillings are very durable and provide great service over a long period. The material is less technique sensitive and can be placed much more quickly than composite and is therefore less expensive. These fillings are still being used extensively to treat medium to large size cavities in back molar teeth. The main drawbacks are a less than ideal appearance and more tooth removal required for preparation. Environmental concern about mercury usage is making this material less popular with the public.



Inlay and Onlays

Sometimes, when a cavity is considered to be too extensive, a decision is made to place an inlay or an onlay in order to protect the structural integrity of the tooth. An inlay is contained within the tooth area while an onlay extends to replace one or more tooth cusps (pointed area of biting surface of tooth). Inlays and onlays are constructed from composite, porcelain or gold. They may be fabricated at the chair side (direct) or indirectly in a dental laboratory.



Crowns

Crowns are similar to onlays except that they enclose the entire tooth, covering all tooth surfaces like a cap. Crowns are used in a number of situations:

- To protect a tooth that has been severely weakened as result of a large cavity
- To protect a root-treated tooth from root fracture
- To cover a dental implant
- To cover a tooth, which is supporting a Metal denture
- To improve appearance as well as to strengthen a weakened tooth

Crowns are usually made indirectly. The dentist prepares the tooth and takes an impression or mold, which is then sent to a laboratory for the construction process. It is then returned for insertion and cementing on to the tooth by the dentist. The crown can be made from a variety of materials but is usually made from either gold on its own or a combination of gold or other precious material bonded to porcelain.

A new type of manufacturing process developed in Switzerland called CEREC, using a whole range of computer assisted technologies to make ceramic restorations including inlays, onlays and crowns, has become very popular with dentists. These restorations can be constructed at the chair side in a single sitting. As the technology keeps improving, the CEREC crowns can match natural appearance and give good protection to restored teeth. This technology may also be used to construct high quality inlays, onlays and veneers from porcelain.

Example of a dental crown

Sources: 1. Dental Caries, The Disease and its Clinical Management, Ole Fejerskov, Edwina A.M. Kidd Editors, Blackwell Munksgaard 2006.

The Wisdom On Wisdom Teeth

Wisdom teeth are no different than other teeth, except that they are the last ones to grow into the mouth. Some people do not grow any wisdom teeth.

Healthy and properly positioned wisdom teeth can be as useful as other teeth. However, they can cause problems if the teeth do not erupt into the mouth properly.

What is an impacted wisdom tooth?

The term that is used to describe wisdom teeth that don't come through normally is impacted wisdom teeth. Two reasons for this are a lack of space, or other teeth being in the way. Impaction means that the tooth may be partially trapped by the jawbone, back teeth or gums. These teeth can grow sideways, emerge only part way from the gum or remain trapped beneath the gum and bone. Just because a tooth has not erupted doesn't mean it is impacted. The persons teeth may be developing slowly and it may be too early to tell. Only a dentist, with use of x-rays, can determine if the jaw size can accommodate up to four wisdom teeth and whether the teeth are growing properly.

Problems with wisdom teeth.

For most people, wisdom teeth cause no problems at all, but some people can suffer problems such as inflammation of the surrounding gum, a higher risk of tooth decay, gum disease in other teeth, and possibly problems with teeth in later life.

Removal of wisdom teeth is a fairly common procedure to be carried out in our health service in Ireland.
In common with other countries, impacted wisdom teeth have sometimes been removed whether or not they were causing problems, this is often referred to as prophylactic removal of wisdom teeth.

This practice is being questioned by leading researchers including highly respected academics and oral surgeons. The National Institute of Clinical Excellence in the UK reports no reliable evidence to suggest that operating on impacted wisdom teeth that are not causing problems has any benefit for the patient as every operation has some associated risk.

Based on an assessment of the evidence NICE recommends that impacted wisdom teeth that are free from disease and otherwise healthy teeth should not be operated on as there is no reliable research to suggest that this practice benefits patients.

On the contrary, patients who have healthy wisdom teeth removed are being exposed to the risks of surgery which can include:

- nerve damage
- damage to other teeth
- infection
- bleeding
- very rarely death

When should wisdom teeth be removed?

NICE recommends that only patients, who have diseased wisdom teeth, or other problems with their mouth, should have their wisdom teeth removed. Your dentist or oral surgeon will be aware of the sort of disease or condition which would require you to have surgery. These conditions include:

- untreatable tooth decay
- damage to adjacent teeth
- abscesses
- recurrent infection of overlying gum
- cysts
- tumours
- if the tooth is in the way of other surgery

Removing the tooth

The actual extraction can be done by a dentist or it may be referred to an oral surgeon who is a specialist dentist. The decision is based on the dentist's and the patient's preference and any case specifics such as how deep the roots are and whether the teeth are erupted or impacted. Some wisdom teeth can be removed with ease in a few minutes, especially upper wisdom teeth. Lower wisdom teeth are usually more difficult and can take anything from 30 minutes to an hour. The procedure can be done in the dentist's surgery or in the oral surgeon's surgery, a special surgical day care centre or in a hospital or dental hospital.

It can be performed under local anaesthetic, intravenous sedation or general anaesthesia.

Before the operation

Pre-operative instructions are comprehensive and may include fasting instructions for a general anaesthetic. No food or drink for six hours before the operation and no smoking to reduce chance of infection and improve healing.

The operation

There are several methods that can be used to remove wisdom teeth. An extraction involves getting access to the tooth through the soft and sometimes hard tissue (bone), gently detaching the connective tissue between the tooth and bone, and removing the tooth.

After the operation

After a general anaesthetic or sedation expect to be out of action for least two days, avoiding driving and other complex tasks requiring full attention span. The first six to eight hours are usually uncomfortable and will require medication prescribed by the surgeon or strong over the counter pain medication. Swelling should be controlled by ice packs and bleeding with a pressure pack of folded gauze pads placed over the extraction site. A soft diet is generally best for the first few days following the extraction.

Teeth can be brushed the next day, but be careful to avoid the surgical area for the first few days. If you notice any unusual bleeding, swelling or pain in the days following the surgery call your dentist or oral surgeon immediately.

How to prevent a dry socket

Dry socket is the most common complication following a wisdom tooth extraction. This is a very painful condition which is often accompanied by a foul odour and bad taste. It occurs when the normal healing process is interrupted by an improperly formed blood clot or if a newly formed blood clot is dislodged too early. This results in the underlying bone being exposed. A blood clot is a necessary foundation for new tissue and bone to grow and heal over a two month time-frame. When the clot is lost, the cavity becomes dry and is unable to heal, resulting in a painful post operative complication. The condition is preventable. A few simple steps can help prevent the condition:

- Follow instructions of your dentist or oral surgeon carefully
- Avoid disturbing the wound for the first 24 hours
- Avoid drinking with a straw because the suction will interfere with blood clotting
- Avoid smoking because it can contaminate the extraction site and delay healing
- Avoid excessive mouth rinsing which may interfere with blood clotting

Sources: 1. American Dental Associastion: www.ada.org 2. Academy of General Dentistry: www.agd.org
3. American Association of Oral and Maxillofacial Surgeons www.aaoms.org 4. National Institute of Clinical Excellence www.nice.org.uk

Do you know how to handle a dental emergency?

Did you know that on average 1 in 12 children in Ireland will break a permanent tooth before the age of 15? With children actively partaking in sport and play from an early age, you never know when a dental emergency may occur.

So, be sure to have your dentist's telephone number to hand and check if the practice has an out-of-hours service.

Following these tips will help you to be prepared for the unexpected

Displaced Teeth: If a tooth is pushed in or out, use light finger pressure to move the tooth back to its normal position. Do not force the tooth. Use a moist cloth or gauze to hold the tooth in place. See a dentist within 30 minutes.

Broken Tooth: If a tooth is broken or chipped, see a dentist immediately. Try to find the broken or chipped portion of the tooth and take it with you.

Toothache: To combat toothache, rinse the mouth with warm water to clean it. Use floss to remove any food that may be trapped between teeth. You may give your child a child-friendly painkiller, but you must visit your dentist immediately to find out the cause of the toothache.

Tears & Cuts: For tears, cuts or punctures to the cheeks, lips or tongue, clean the wound immediately with warm water and then go to a hospital or emergency centre for treatment. If there is a cut to the tongue, pull the tongue forward and apply pressure to the area with clean gauze to stop the bleeding.

Knocked Out Tooth: If a tooth is knocked out, it is vital to get your child to the dentist IMMEDIATELY. If the dentist replants a knocked out tooth within 30 minutes, even up to one hour, it may be possible to save the tooth.

- Find and pick up the tooth by the enamel or top portion of the tooth to prevent damage to the root
- Handle the tooth as little as possible and do not touch the root
- If the tooth is dirty, gently rinse it with cold running water for 10 seconds
- If possible, replace the rinsed tooth in the socket and hold it in place with your fingers. Ask your child to gently bite down on it
- If you cannot replace the tooth in the socket, keep it moist in a container of milk
- Transport the tooth to your dentist in a glass of milk or, in the case of an older child, in the child's mouth (next to the cheek)
- For 'baby' teeth, do not try to replace the tooth in the socket. This could damage the formation of the permanent tooth bud
- Seek advice from your dentist as soon as possible

Sources: 1. American Dental Association: www.ada.org 2. American Association of Endodontists: www.aae.org
3. Andreasen, J.O. Andreasen, F.M. Backland, L.K.Flores, M.T. (2003) Traumatic Dental Injuries-A Manual. Second Edition Blackwell Munksgaard,Oxford. www.dentistry.blackwellmunksgaard.com

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