Oral Health Zone

Issue 1

Discover why Irish Children have more dental disease than their European counterparts

Your dental queries answered

Eat for your teeth

How well do you really know your teeth?

While you are waiting....

If you've arrived a little early for your dental visit or appointments are running a little behind, it can be a time of boredom, frustration and even stress. As you think of all the things you could be doing or places you could be, impatience can often take hold.

So, why not take this time as an opportunity, by planning your visit in advance.

For example, you could:

Think of questions for your dentist
We usually think of questions we want to ask our dentist when we've left the dental practice so why not take some time to write a list of questions in the waiting room. Don't be afraid of taking the list out during your appointment. Your dentist wants you to make the most of your appointment and will help in anyway he/she can.

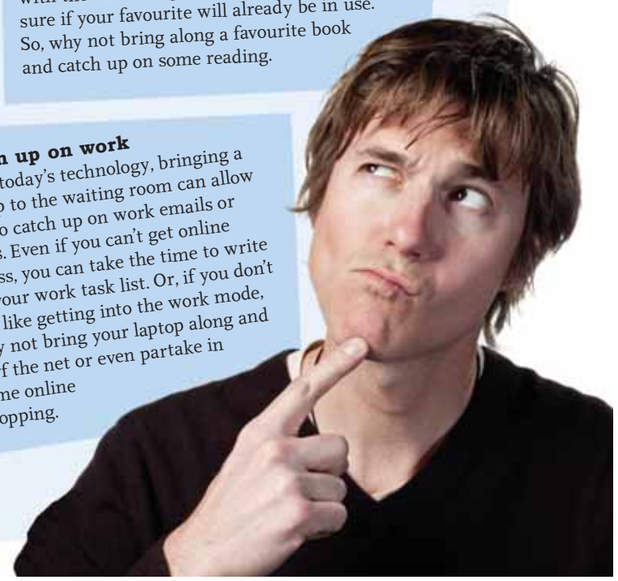
Write a to-do-list
These days we don't get many precious minutes to ourselves so take this as an opportunity to catch up on things. Writing a to-do list is a great stress buster and just getting your list down on paper and planning a schedule can make tasks seem instantly more manageable.

Make use of your mobile phone
Making a phone call to your aunt in Australia may well be frowned upon by fellow patients but catching up on your texting is perfectly acceptable waiting room etiquette. Or why not take the time to organise your contacts, play a game (silently) or plan your calendar.

Bring along your own reading material
While many waiting rooms are well stocked with the latest magazines, you can never be sure if your favourite will already be in use. So, why not bring along a favourite book and catch up on some reading.

Provide your own backing music
The waiting room is the ideal opportunity to plug in your i-pod and indulge in some music therapy. Not only will it help you relax and allow you to listen to your music of choice, it will also ensure that any unwanted noise can be drowned out effectively.

Catch up on work
With today's technology, bringing a laptop to the waiting room can allow you to catch up on work emails or tasks. Even if you can't get online access, you can take the time to write up your work task list. Or, if you don't feel like getting into the work mode, why not bring your laptop along and surf the net or even partake in some online shopping.



Conduct some personal grooming
If you're of the female gender, bring along your nail file and buffer and give your nails a good once over. However, remember that not everyone favours the strong scent of nail polish so maybe leave the painting until you are in the comfort of your own home!

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DeCare Dental

Oral Health Zone

Welcome to the first ever edition of Oral Health Zone, the Dentist Waiting Room Magazine. Oral Health Zone has been created as a non-profit magazine to provide useful tips, articles and advice to help you get a healthy smile and great dental health.

So, while you're waiting for your dental appointment, why not take a little time to Get to Know Your Teeth (pg. 5), check out some common dental concerns in our Ask the Dentist section (pg 9) or browse through our range of articles on both you and your child's oral health.

If you're trying to entertain your child in the waiting room, our Tooth Fairy Story on page 17 should provide some welcome relief.

We hope you find the magazine of interest and that you take home some tips to enhance your dental health.

The Oral Health Zone Team

inside

Eat for your teeth

Good dental health, like good general health, depends on having healthy eating habits. This includes having an adequate intake of calcium and vitamin D for healthy bone and healthy tooth development. Our teeth can be affected as much by our diet as by not brushing our teeth regularly. Our modern diet which can be very high in sugary carbohydrates and fat is not conducive to having good dental health or general health for that matter.

How Saliva Protects Our Teeth

Nature does a great job in preventing damage to our teeth through the action of saliva in our mouths. Every time we eat food the plaque bacteria in our mouths produce acid that makes the outside layer of our teeth unstable and calcium and other minerals flow into our saliva. The saliva protects our teeth by neutralising the acid and depositing the minerals, including fluoride, back into our teeth after 20 to 30 minutes.

However, our teeth and saliva cannot cope if we eat carbohydrate foods too frequently during the day. Eventually, so many minerals are lost that bacteria are able to invade the tooth and dental decay begins. Tooth erosion is caused by consuming acidic foods or drinks like apple and orange fruit juice and soft drinks too frequently.

The Good Stuff

Our greatest nutritional requirement for healthy living is for foods from the Bread, Cereals and Potatoes category with 6 - 12 portions required per day depending on the level of physical activity, followed by the Fruit and Vegetable category at 6 portions or more per day.

We have a lower requirement of three portions per day of Milk, Cheese and Yogurt and two portions of Meat, Fish, Eggs, Beans and Peas.

Good Stuff Snacks

Between-meal snacks that are best for our teeth include fruit, raw vegetables, sandwiches, breads, yoghurts, low fat cheese and scones. Cereals are excellent energy providers for active teenagers but avoid sugar coated types. Milk, water and sugar-free squashes are very suitable and diet drinks only in moderation can be an alternative.

Bad Stuff Snacks

We have no nutritional requirement for high fat foods or confectionery, including sweets, biscuits, cakes and snacks but these can be enjoyed in small quantities as part of a balanced diet.

Recent studies have shown that 40% of children in the 9 – 17 year age group are eating sugary high fat foods like fizzy drinks, sweets, biscuits etc three or more times a day.

Rising consumption of soft drinks is causing concern because it is displacing milk in the diet of teenage girls.

If teenagers do not get enough dietary calcium in these vulnerable years, they increase their risk of developing osteoporosis in later life.

Frequent consumption of sugary fizzy drinks put teeth at risk to dental decay and can also cause erosion of the enamel because of their acidic nature. Dental erosion is also a concern with diet soft drinks because of the acidic nature of these drinks.

Fruit juices are an important source of vitamins in the diet. However, they should only be taken at meals for two reasons.

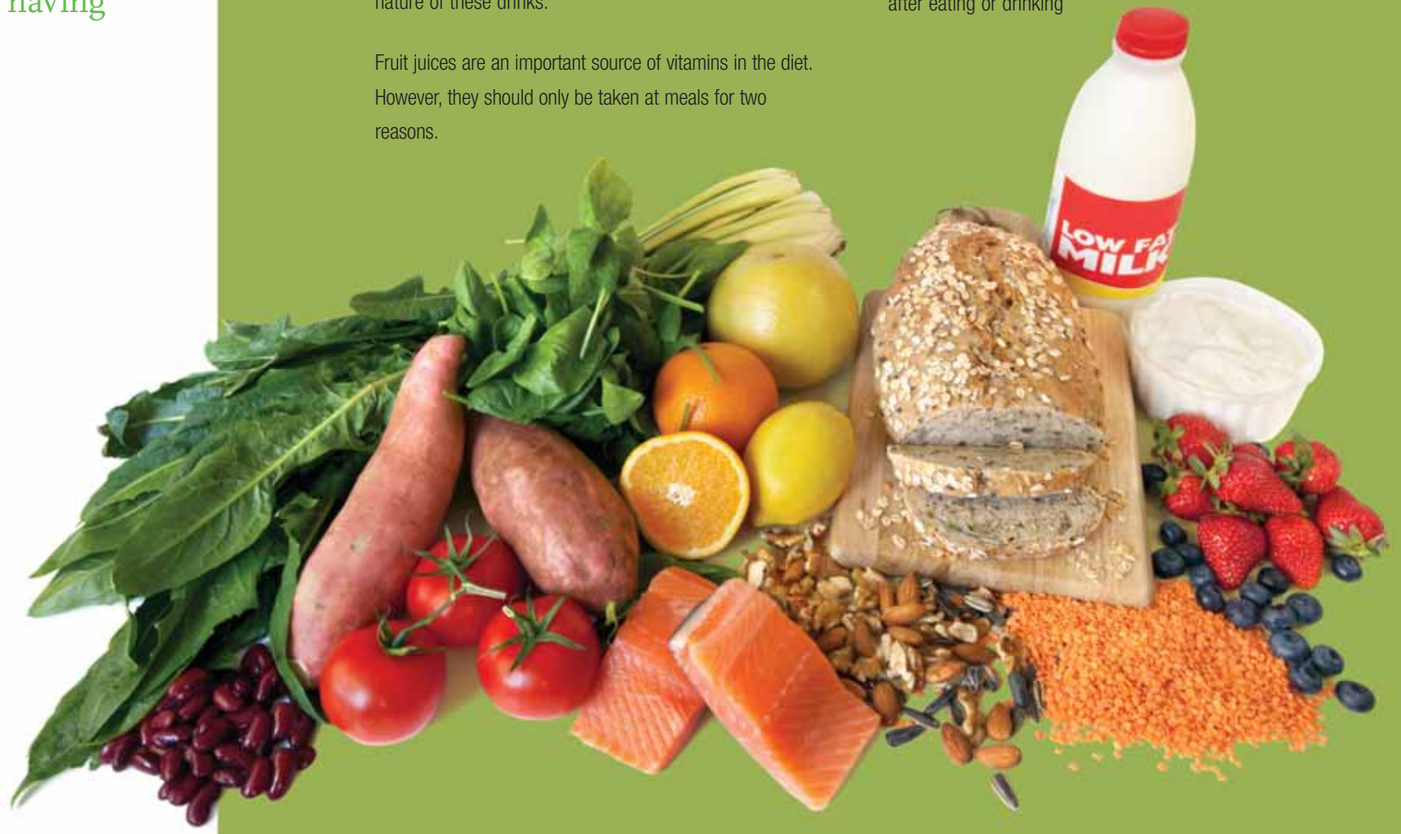
The frequent consumption of fruit juices can lead to enamel erosion because of high acidity and they can also cause dental decay because of high fructose content.

The bottom line

Try to limit the number of times you eat or drink including main meals during the day to six.

- Treats like sweets should be included at the end of a meal.
- Avoid sugary foods that dissolve slowly in the mouth like lollipops and hard boiled sweets.
- Use a straw when drinking fizzy sugary drinks, as the drink is directed to the back of the mouth, thus avoiding the teeth.
- Drink plenty of water, especially if a drink is required at night time.

Finally remember to brush your teeth at least twice a day, morning and evening with fluoride toothpaste. Do not brush teeth immediately after meals, as teeth are vulnerable to loss of minerals until at least 30 minutes after eating or drinking



Sources: 1. Irish Nutrition and Dietetic Institute - www.indi.ie 2. Dental Health Foundation Ireland - www.dentalhealth.ie

Get to know your Teeth

We use them every day to bite, chew and eat. They brighten up our smiles and add definition to our faces. But when it comes to the crunch, how much do we actually know about our teeth?

What's what in our mouth...

Molars

Molar teeth are found in all four quadrants of our mouth. They have a large crown with four or more cusps and a broad chewing surface. They are the largest of the teeth. Molars are grinding teeth and are used to chew, crush, and grind food before swallowing.

Premolars

The premolars are only found in adult teeth. These teeth are located in all four quadrants of our mouth just before our molars. These teeth feature a chewing surface that is used to tear and crush food. Premolars are smaller in size than molars and have a flatter biting surface.

Canines

The canines have the longest roots in both arches of adult and child teeth. These teeth have a sharp cutting edge designed for piercing, tearing or griping food. Because of the structure and location of the canines, they are commonly referred to as 'eye teeth' forming the cornerstone of the dental arches.

Incisors

There are two types of incisors found in adult and child teeth; central incisors and lateral incisors. The central incisor is the most anterior tooth toward the midline and is found in the upper and lower teeth. The lateral incisor is found next to the central incisor and is normally smaller in size and has smaller roots than the central incisors. The incisor teeth are sharp teeth used for shredding food or cutting food into small chewable pieces.

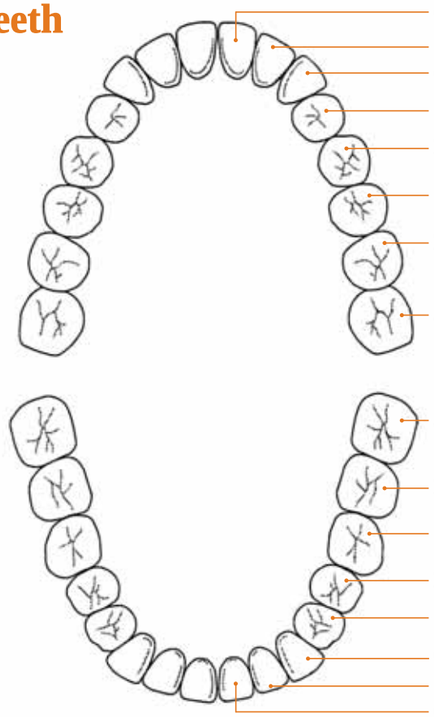
Baby Teeth Explained

Every individual develops two sets of teeth during the first 21 years of life. The first set begins to appear at approximately six months of age and are called primary teeth. They are often referred to as baby or milk teeth.

There are 20 primary teeth in the mouth. Normally, all twenty teeth erupt by the time a child is two years old. The first ones to erupt, at approximately six and a half months of age, are the lower central incisors. The last ones to appear are usually the upper second molars from 21 to 30 months. The eruption times of the individual teeth can vary considerably from one individual to another.

Once a child has all of their deciduous teeth, no visible changes in the teeth occur until around age six. At this time, the permanent molars begin to erupt.

Permanent Teeth



Adult Teeth Explained

Our second set of permanent teeth are often referred to as adult teeth and usually being to appear when a child is six to seven years of age. At five to twelve years of age the maxillary arch and the mandibular arch enlarge and grow.

The permanent teeth begin to exert pressure on the primary teeth and the primary teeth begin to shed or fall out. During this stage, the child has some primary teeth and some permanent teeth.

There are 32 permanent teeth in the normal adult mouth. However, not all individuals develop a full compliment of 32 teeth and it is not unusual for some teeth to be absent. In many instances, the third molars never appear and there is considerable variation in the age at which they erupt.

Sometimes, extra teeth appear in excess of the normal thirty-two. They often have to be removed to prevent injury to adjacent teeth or to improve the patients appearance.

Teeth by Numbers

Have you ever noticed when your dentist or hygienist examines your teeth, that a lot of numbers seem to fly around?

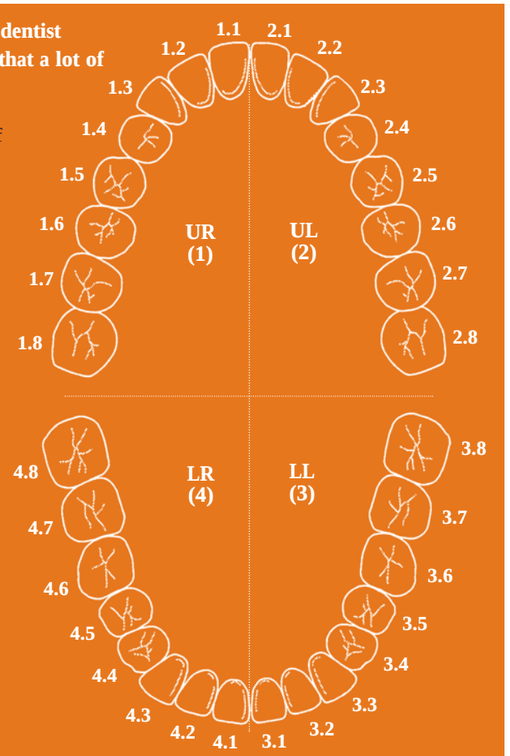
That's because Dentists use a variety of numbering systems to identify teeth in our mouth. Today, the F.D.I. (Federation Dentaire International) system is being increasingly adopted worldwide.

In this system, the permanent teeth are given two numbers, the first number indicating the quadrant and the second number identifying each tooth in the quadrant.

So, the Patient's upper right quadrant of the mouth is referred to as 1, then each tooth in this quadrant is numbered from 1 to 8, moving from the incisors back to the molars.

The quadrant numbers are

Upper Right - 1 **Upper Left - 2**
Lower Right - 4 **Lower Left - 3**



Remember, it's the patient's left or right, not the dentists!

Diagram shows permanent teeth

Gingivitis

Why you should know what this word means

What is Gingivitis?

Gingivitis is a very common but mild form of gum disease that causes swelling of the gums.

Mild gum disease occurs due to the presence of plaque in the mouth especially near the margin between the gum and the tooth. Plaque is a sticky material made of bacteria, mucus, and food debris that develops on the exposed parts of the teeth.

If plaque is not removed effectively by brushing or cleaning your teeth and gums at least once every 24 hours, the bacteria it produces release toxins that cause the gums to become inflamed. The gums become swollen and tender and will bleed if brushed, these are the signs of gingivitis (mild gum disease).

Because gingivitis is mostly a mild condition, it can often go undetected. In its early stages it is a completely reversible condition that can be treated simply by cleaning the gums and teeth properly.

However, if left untreated, gingivitis can lead to more harmful gum disease in individuals who are susceptible to the more serious form of gum disease called periodontitis. For this reason, it is important to know what gingivitis is and how to treat it.

How can you tell if you have it?

The most common signs of gingivitis are red, swollen or bleeding gums that are sore to touch. If you have gingivitis, you may experience little or no pain so watching for the early warning signs is essential. For example, if your gums bleed when you brush your teeth, you should never ignore it. This is a good time to check out your oral hygiene skills because gingivitis in the early stages can be completely reversed by good self care.

Can I do anything myself to make gingivitis better?

Yes, you can brush your teeth and gums for at least three minutes daily using a soft bristle brush and a recommended brushing technique.
Use dental floss for cleaning in between your teeth. You can supplement your brushing and flossing if necessary with a recommended mouth rinse. You will notice an improvement after three days using this regime and after one week the symptoms of gingivitis including redness, swelling and bleeding should disappear completely.

When should I go to a dentist for help?

If the symptoms do not subside, you may have some periodontal (gum) disease and you will need to make an appointment with your dentist who will be able to investigate your condition and make a diagnosis and treatment plan. This may involve scaling of your teeth and a number of visits to the hygienist who will also review your oral hygiene skills. Your gums may bleed more when you are pregnant, but this tendency disappears once your baby is born.

What is periodontal (gum) disease?

Periodontal (gum) disease occurs when inflammation in the gingiva spreads further into the tissues that support the tooth in the bone. The tissues attaching the tooth to the bone and the bone itself are gradually eroded. This can take place at one site in the mouth (localised) or it can affect some or all of the teeth in the mouth (generalised).

What is the cause of periodontal (gum) disease?

The primary cause is unknown, but the disease almost always occurs in the presence of a bacterial plaque biofilm. Certain factors are known to aggravate the condition. Factors which are known to make periodontal disease worse are smoking, poorly controlled or untreated diabetes and hereditary factors.

Trauma from over vigorous tooth brushing may cause the gums to recede. This is a form of periodontal disease which can be arrested but not reversed by a change in tooth brushing technique.

How can you prevent it?

Good oral hygiene and plaque control using a combination of a good brushing technique, interdental flossing and sometimes a recommended mouthwash is understood to slow down the progress of most forms of periodontal disease. All of these should be carried out under the general supervision of a dentist who will monitor the progress of the disease.

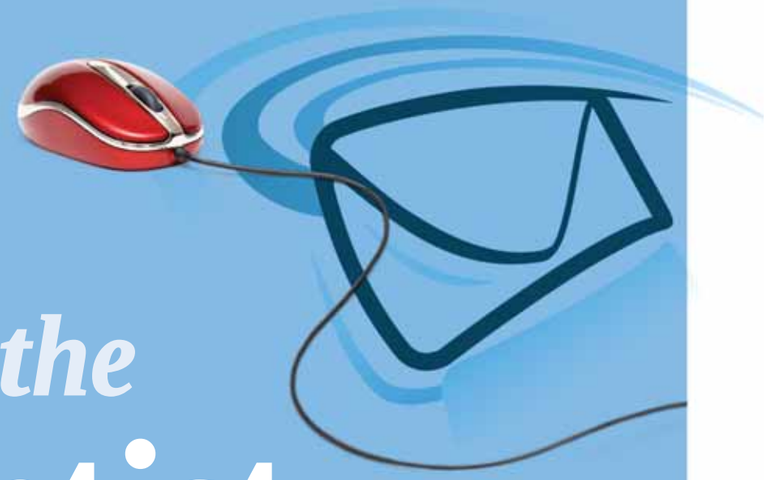
How can you treat periodontal (gum) disease?

If you have developed periodontal (gum) disease the first step is to reduce the level of inflammation by having your teeth and gums cleaned professionally by a dentist often with the help of a hygienist. When the swelling and bleeding have subsided, the dentist will then be able to do a full periodontal examination and assessment of each tooth and surrounding bone. A deep scaling is then carried out on each segment of the mouth over three to four visits. This will be accompanied by extensive education in oral hygiene and plaque control and regular maintenance visits. The aim of treatment is to slow down progress of the disease, so that the teeth can be retained in a functional condition for as long as possible. This is a realistic goal for most people with moderate to severe periodontal disease. Occasionally, it may be necessary for your own dentist to refer you to a periodontal (gum) specialist if you are a complicated case.

Can periodontal (gum) disease affect my general health?

Recently, there has been discussion about possible links between periodontal (gum) disease and general health. Some researchers have found evidence that people who have periodontal (gum) disease have increased risk of heart disease or stroke. Elevated levels of certain polypeptides (proteins) have been found in people who have severe gum disease. This may be caused by the inflammatory process itself or it may be caused by oral bacteria getting in to the bloodstream from the inflamed gums and releasing the protein. This protein can cause clotting at remote sites in the body including in small blood vessels in the heart or brain. Measuring this effect at a population level is proving more difficult. However, it would be wise to take this information on board as you resolve to improve your own oral hygiene and to make a regular checkup with your dentist part of your annual routine to maintain your oral health and your general wellbeing.

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



...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 is the Chief Dental Officer for DeCare Dental in Ireland and Europe. Dr Gavin joined the team from the Department of Health and Children where he held the post of Chief Dental Officer advising the Minister and Department on all matters relating to oral health with specific responsibility for planning oral health services.

This included the role of Dental Adviser to the General Medical Services Payment Board and the Department of Social, Community and Family Affairs. Dr Gavin played a key role in the recent Forum on Fluoridation.

Prior to Dr Gavin's appointment with the Department of Health and Children, he was Principal Dental Surgeon at the Eastern Health Board Dublin North West Region with responsibility for planning, evaluation and delivery of dental services at regional level.

A Trinity College Dublin dentistry graduate, Dr Gavin has lectured at the Dublin Dental Hospital and School of Dental Science, Trinity College Dublin. Dr Gavin is widely published and is a member of the Irish Dental Association, European Association of Dental Public Health and the International Association of Dental Research.

Q: My two year old daughter drinks a lot of orange squash. We try diluting it as much as possible, but I am worried this will damage her teeth.

A: Try to wean her off this as soon as you can and replace it with ordinary tap water.

The orange squash is potentially harmful in two respects. It is usually heavily sweetened, so bacteria in plaque can metabolise acid and over time infiltrate the enamel and dentin causing dental decay.

The orange squash is also acidic, so this can lead to chemical erosion or wearing away of the tooth enamel causing sensitivity and further risk of dental decay.

Fruit juice unsweetened, and diluted one measure to five measures of water given in a cup at mealtimes is the ideal and safest way for a child to receive a fruit juice.

Q: I had a wisdom tooth extracted yesterday. It is still bleeding and clotting. Is this normal?

A: Apply a mouth pack (available from your local pharmacy) to the wound and bite on it for a half hour to an hour.

A small amount of bleeding is no harm. However, losing a large amount of blood is not normal and may require follow up in the form of some extra stitches to give more stability and protection to the blood clot. The blood clot is the focus of healing for the wound and should not be disturbed if at all possible. You can help the clotting process, by limiting the amount of mouth rinsing and by not applying any sucking pressure near the socket.

Keep on liquids for a few days and drink through a straw.

If bleeding continues after these simple measures have been applied, return to your dentist for a full assessment to rule out any other cause for the bleeding.

Q: Can tooth whitening damage tooth enamel? Is it suitable if teeth have already received white fillings?

A: Tooth whitening treatments, if performed according to manufacturer's instructions, do not appear to cause any long lasting damage to tooth enamel. The main side effect of using bleaching agents is tooth sensitivity, which eases after a few days.

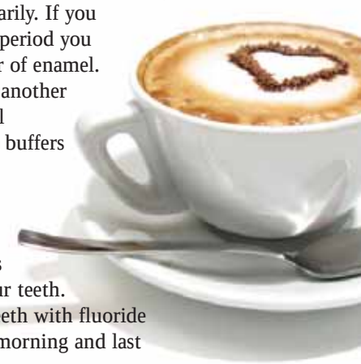
Tooth whitening is not suitable for use on teeth if these teeth have been crowned or if they have white fillings. Only natural tooth structures can be lightened, not tooth coloured fillings, tooth coloured bonded restorations, crowns or veneers.

Different people's teeth react differently to bleaching. Some individuals experience temporary tooth sensitivity or gum irritation from bleaching agents.

A 10% carbamide peroxide treatment in a tray made by your dentist and used at night time is the safest, most cost effective and best researched whitening treatment available. Tooth whitening should always be carried out under the supervision of your dentist, especially when higher strength treatments greater than 10% carbamide peroxide are being used. In situations where whitening is not effective, you may want to investigate other alternatives like veneers with your dentist.

Q: I have heard that you shouldn't brush your teeth immediately after drinking coffee. Is this true?

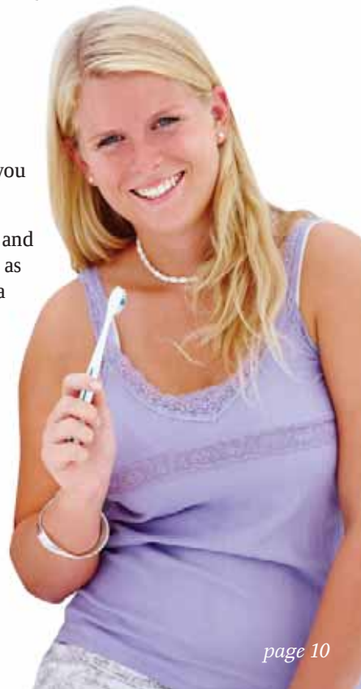
A: Yes, it is true. However, the problem is not with the coffee itself. It is the milk and sugar in the coffee which can be metabolised by bacteria in your mouth into acid. The acid causes the outside layer of enamel (hard white material on the outside of the tooth) to demineralise (soften) temporarily. If you brush your teeth during this period you may brush away the top layer of enamel. If you leave the brushing for another 20 to 30 minutes, the enamel rehardens itself as your saliva buffers the acid in your mouth.



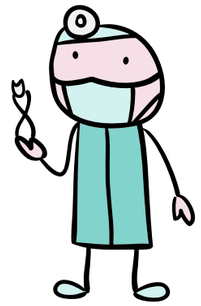
Food and drinks which are acidic, including most soft drinks, fruit juices and sports drinks have this effect on your teeth. It is best if you brush your teeth with fluoride toothpaste first thing in the morning and last thing at night.

Q: I am pregnant and my gums bleed every time I brush. Is there anything I should be doing?

A: There is no need to be concerned at this increased tendency for your gums to bleed when you are pregnant. It is caused by the elevated hormone levels in your blood that you get when you are pregnant. It makes your gums more sensitive to the presence of plaque bacteria. The gums become inflamed more easily, leading to redness, swelling and bleeding when you brush.



Continue cleaning, brushing and flossing your teeth and gums as best you can with the aid of a mouthwash if necessary. Visit your dentist and hygienist, this is a good time to have your teeth checked and cleaned. You will also learn how to improve your oral hygiene technique. Your gums will return to normal after your baby is born.



Dental Sealants: Prevent Tooth Decay

What if you could prevent tooth decay from forming in your own or your children's teeth and avoid having to endure the dentist drill? Preventing tooth decay before it appears can mean less pain and less money spent in the long run. Proper brushing and flossing are essential to removing plaque on the smooth surfaces of teeth to help keep your mouth cavity free. But did you know that the indentations on the chewing surfaces of the back teeth, called pits and fissures, are one of the most common places that tooth decay occurs and also one of the most difficult to clean properly? Toothbrush bristles often cannot reach the tiny grooves in these teeth to remove plaque effectively. How can we prevent decay from occurring in these pits and fissures that our toothbrushes cannot reach? One solution may be dental sealants.

What are dental sealants?

A sealant is a plastic film-like material that is applied to the chewing surfaces of the back teeth. The plastic material bonds to the pits and fissures of the teeth and acts as a barrier to protect the teeth from decay causing bacteria.

Who can benefit from sealants?

Sealants are most often recommended for children who have newly erupted permanent teeth. First and second permanent molars erupt into the mouth at about ages six and twelve years. Having sealants applied to these teeth shortly after they erupt protects them from developing cavities in areas that are difficult to clean. Adults who have existing pits and grooves in the biting surfaces of back teeth may also benefit from sealants. Also, individuals who experience frequent dry mouth may benefit from the extra protection of sealants since their teeth are often deprived of the protective benefits of saliva, which makes them especially vulnerable to cavities.

How are sealants applied to teeth?

A dentist or hygienist must apply sealants, but the procedure is simple and fast with very little, if any, discomfort. First, the teeth to receive the sealants will be cleaned and thoroughly rinsed. An acid solution or gel will then be applied to the tooth to help the sealant bond with the tooth. The sealant material will then be painted onto the teeth, much like nail polish on a fingernail, and allowed to dry and form a bond on the chewing surface of the tooth. Your dentist may use a special curing light to help the sealant material harden. It will take a dental professional only a few minutes to seal each tooth. Once applied sealants can last from five to ten years.

How effective are sealants?

Because sealants act as a physical barrier to decay causing bacteria, sealants are nearly 100% effective in protecting teeth from cavities in pits and fissures, if applied properly. A systematic review of 16 studies found that permanent molar teeth with sealants had almost 80% less tooth decay on the biting surfaces than teeth that were not sealed. Dental sealants are also cost effective. Having sealants applied is less than the cost of having a cavity filled.

Prevention is the key to keeping your mouth and teeth healthy. Be sure to brush twice a day with fluoride toothpaste containing at least 1,000 parts per million of fluoride, clean between your teeth daily with floss, eat healthy foods, and visit your dentist regularly. Ask your dentist if you or your children would benefit from the added protection of dental sealants.

Sources: American Dental Association: www.ada.org Academy of General Dentistry: www.agd.org Centers for Disease Control: www.cdc.gov/nohss
Irish Oral Health Services Guideline Initiative: Pit and Fissure Sealants: Evidence - based guidance on the use of sealants for the prevention and management of pit and fissure caries. 2010 http://ohsrc.ucc.ie/html/guidelines.html

Expert View

An Interview with Anne O'Connell, Paediatric Dentist.

Anne is currently a Consultant Paediatric Dentist at the Dublin Dental Hospital and the National Childrens Hospital,Tallaght. She also maintains a part-time private practice. Anne is a board-certified paediatric dentist who completed her training in the Eastman Dental Centre in New York. Additionally she completed a Cariology training programme at the University of Rochester. She was on faculty at the University of Maryland at Baltimore before being recruited to the National Institute of Dental and Craniofacial Research in Bethesda, USA. Anne was the Director of Clinical Research Core facility and Staff Paediatric Dentist at NIDCR. Since 2000, Anne is the Director of Paediatric Dentistry training in Trinity College Dublin. She has numerous publications in both basic science and clinical peer reviewed journals and lectures nationally and internationally. She has a special interest in developmental abnormalities of the dentition and disorders of eruption, as well as oral health of infants and toddlers.

What is Paediatric Dentistry?

Paediatric Dentistry is an age-related speciality that provides comprehensive preventative and therapeutic oral healthcare needs for infants and children through adolescence, including those with special health care needs (children who demonstrate intellectual, medical, physical, psychological and/or emotional problems). This means that paediatric dentists provide basic oral care, as well as specialist services for children.

What is the difference between a paediatric dentist and a patient's local dentist?

Paediatric dentists have chosen to work with children and have completed 3 years of additional training covering all aspects of oral health care for children, from newborn infants and toddlers, through adolescence. Paediatric dentists understand that the mouth structure and dental needs of children are different than those of adults. This training includes a range of behaviour management skills to help children cope with dentistry and will help anxious children feel secure during dental treatment. They are competent to treat the oral and dental needs of children including traumatic injuries, restorative care, minor oral surgical procedures, and interceptive orthodontics.

Paediatric dentists also work closely with paediatricians, surgeons and anaesthetists as part of a team in the overall care of children who have extra needs, such as children with cleft lip (palate).

Do paediatric dentists see only children with special needs?

No. All children will benefit from attending a paediatric dentist. However, a paediatric dentist will be able to treat more challenging children due to their extra training. They also have additional experience in using nitrous oxide sedation and general anaesthesia for children who are very young, fearful or have extensive treatment requirements. You can attend a paediatric dentist privately or obtain a referral from your dentist for access via the public health system.

In the area of paediatric dentistry, what trends have you experienced in recent years?

Thankfully in recent years, many parents have realised the positive effect of good oral health on their children and the social importance of a nice smile. Fewer parents are willing to accept extractions as the only possible treatment for baby teeth. Tooth coloured fillings are now requested routinely.

The parent's interest in their child's oral health is heightened by the fact that most parents are encouraged to be present during the child's treatment for child protection reasons. Due to concern for their child's oral health well-being, parents often research various options for dental treatment on the Internet. However, it is essential that they discuss this with their dentist, as not all information sourced is reliable or pertinent to their child's situation.

Obviously in the current climate, patients are also looking for added value. As with all services, shopping around for dental treatment based purely on cost is not always the best option. Parents should weigh up all factors, such as experience, cost, service and reliability. Over time, many children build up a relationship with their dentist and this trust can lead to better diagnosis and prevention of oral health problems.

What are some of the most commonly reported problems that you have seen?

Tooth decay is still very prevalent in the Irish population, with somewhere in the region of 24% of Irish 5 year old's experiencing tooth decay. Many parents rely solely on the school dental service for dental treatment. Unfortunately, by the time the child is first examined through the school service, many of the problems are already present. Pain and infection can be avoided. Parents should bring their children for dental check ups to their own dentist or to a paediatric dentist from 1 year of age.

In addition to tooth decay, accidents still continue to happen and it is estimated that between 25-30% of Irish children have experienced trauma to their teeth. Parents should insist on their children using mouth guards and safety equipment whenever possible. The outcome of many dental injuries is improved by early access to a dentist. Baby teeth that are knocked out are not replaced. Permanent teeth that are knocked out should be put back into the correct position as soon as possible by the parent or caregiver and then stabilised at the dental office. Many parents are reluctant to do this so the next best action is to put the tooth into a glass of milk and get to a dentist immediately. All other injuries should also be seen as quickly as possible to achieve the best possible outcome.

Another commonly presented paediatric issue, is an issue known as MIH (molar incisor hypomineralisation). This is a defect of the enamel (white covering of the teeth), which presents without a known cause. It is estimated that 20% of Irish children have this condition, which may appear as white/yellow splotches on either the front and back permanent teeth, may be sensitive and may cause breakdown of teeth in an otherwise healthy mouth. It is treatable but parents are often unaware of the issue, as they do not examine their child's teeth at home. To combat this, all children should have a dental visit within six months of the permanent back teeth erupting into the mouth (age six to seven years).

Other common issues that require dental assistance include, problems with tooth eruption, extra teeth, ulcers, thumb sucking and cheek biting.

What dental problems could a baby or toddler have?

One third of children under age five have decay in their baby teeth. The earlier the dental visit, the better the chance of preventing dental problems. A dental visit by age one is recommended to identify specific issues that will prevent poor oral health.

Why do young children sometimes need braces?

A paediatric dentist will carefully watch how a child's teeth erupt and develop. In some children, use of braces at an early stage will prevent bigger problems in the future. If a child continues to suck their thumb after the permanent front teeth erupt, then a brace might help to stop the habit.

Who should parents contact if a child falls and hurts his/her teeth?

Paediatric dentists have extra training in the management of trauma in toddlers and children. The most frequent age group for dental trauma is from six months to three years with the upper central incisors most frequently injured. Permanent teeth that are injured should be evaluated as a matter of urgency by the child's dentist, who will suggest a visit to the paediatric dentist if necessary. Appropriate treatment of traumatised immature permanent teeth will improve the outcome for the injured teeth.

How many paediatric dentists are there in Ireland?

Currently there are seventeen practicing paediatric dentists in Ireland. Some are in Dublin and Cork Dental Schools, many are in private practices and some are employed by the HSE (hospital and community service). The training in Ireland for Paediatric Dentistry is a three year full time course at the Dental School, Trinity College Dublin. There are two trainees at present.

Where can people get a list of Paediatric dentists?

Unlike USA, Canada, UK and Scandanavia, Paediatric dentistry has not yet been recognised as a speciality in Ireland, so this list is not available from the Dental Council. Your local dentist will be able to direct you to the nearest paediatric dentist.

A Grim Tale

Why do Irish children have more dental disease (cavities) than children in some other European countries?

While the oral/dental health of Irish children has improved dramatically over the last 30 years, it has not kept pace with improvements recently elsewhere in Europe.[1] This development is a bit of a puzzle for oral health experts, because Irish children on the surface would appear to have an advantage over children in other countries.

Ireland experiences an epidemic of dental disease in the 1950's and 1960's

Ireland, like most other developed western countries was experiencing an epidemic of dental disease in the 1950's and 1960's.[2] [3] This epidemic was caused by the rising consumption of sugar and confectionery products experienced during this period of relative prosperity in Ireland.[4] [5]Dentists at the time were very busy extracting teeth in children.

Health authorities here responded to this state of affairs by implementing a public health measure to reduce dental decay that had been adopted successfully in the United States.[6] The adding of tiny amounts of fluoride at one part per million to our public water supplies commenced in 1964.[7]

Dental health of Irish children improves

As part of this initiative a baseline study of the dental health of Irish children was carried out.[3] This allowed comparison of children's dental health in Ireland at that time with children in later years and also with children in other countries. A follow up national survey in 1984[8] picked up a turning of the tide of dental decay in our children, reducing from an average of 4.7 in 1962 to 2.6 decayed teeth per 12 year old child in fluoridated areas and 3.3 in non fluoridated areas.

Introduction of fluoride toothpaste

Around this time it was noticed that improvements in dental health were beginning to occur in other western developed countries that did not have the benefit of water fluoridation. These countries instead experienced the effects of the widespread introduction of fluoride toothpastes which began in the early 1970's. There was no other change noted in these populations other than the introduction of fluoride toothpastes as dietary patterns and sugar consumption remained largely the same[9] Ireland also benefited from this downward trend with a further reduction in dental decay levels reaching an average of 1.1 decayed teeth for 12 year old children in fully fluoridated areas and 1.3 in non fluoridated areas in 2002[10]

Continued improvements in children's dental health in Europe

However, this figure of 1.3 for 12 year olds in our non fluoridated areas compares unfavourably with some other European countries which have continued to experience further improvements in children's dental health. The Netherlands, Denmark, Sweden, Switzerland, and near neighbours England have all managed to reduce the average number of decayed teeth to less than 1 per child. Other countries comparable in size and in stage of development to Ireland that did not fare as well as expected, were Scotland 1.8 and Israel 1.6.[1]

Different health behaviours linked to dental decay levels in European children

Much consideration has been given by experts to understand why children in some countries including Ireland did not continue to make further oral health gains on top of earlier successes as expected.

Some possible explanations have emerged from a cross national survey on health behaviour in school aged children (HBSC) carried by the World Health Organisation in 2002. This survey looked at the reported health behaviour patterns of children including sweet eating, soft drink consumption and tooth brushing frequency.[1]

When a group of investigators from Latvia in 2010 compared health behaviours of children with dental decay levels of 11 to 13 year old children in 27 countries some startling observations were made.

Ireland, Scotland and Israel were amongst the highest daily consumers of sweets occupying three of the top four spots. All three countries could be identified as relative underperformers in terms of the dental health of their children.[1]

By contrast countries that reported the highest levels of tooth brushing of more than once a day, Switzerland 84%, Denmark 77%, England 77%, Netherlands 78%, Sweden 79% were also the countries experiencing the lowest levels of dental decay in their children. The performance of Irish children on the tooth brushing table was a mediocre 58%.[1] These findings, even though they come from a population study comparing dental disease levels with reported behaviours, cannot be taken lightly especially when combined with results from other studies.[11]

What Ireland could do to improve the oral / dental health of its children

Ireland has invested significantly in dental services including preventative dental services for children since 1990.[12] In addition to the widespread availability of fluoride toothpaste, Ireland has the added benefit of fluoride in its water supplies. However, it would seem that if Ireland is to achieve further significant improvements in the dental health of its children, much greater emphasis will have to be given in future to the implementation of effective population health initiatives that focus on healthy eating for children[13] and more frequent tooth brushing with fluoride toothpaste.[12] Such initiatives, in addition to improving dental health could also help to curb the rising epidemic of obesity in our children.[14]

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References

1. *Zaborskis A, Milciuviene S, Narbutaite J, Bendoraitiene E, Kavaliauskiene A. Caries experience and oral health behavior among 11 – 13 year- olds: an ecological study of data from 27 European countries, Israel, Canada and USA. Community Dental Health (2010) 27,102-108.*
2. *Medical Research Council. Dental Caries in Ireland. Dublin: Stationery Office 1952.*
3. *Minister for Health: reports on incidence of dental caries in school children and on the analysis of public piped water supplies in the different counties,1961-1965 Dublin, Republic of Ireland: Stationery Office; 1965.*
4. *Screenby, L.M.(1982). Sugar availability, sugar consumption and dental caries. Comm.Dent. Oral Epidemiol.10,1-7.*
5. *Gustafsson BE, Lunqvist C, et al. The Vipeolm dental caries study: the effect of different levels of carbohydrate intake on caries activity in 436 individuals observed for five years. Acta Odont. Scand. 11, 232-364.*
6. *Arnold H A, Dean HT, Knutson JW. (1953). Effect of fluoridated public water supplies on dental caries prevalence, results of the seventh year of study at Grand Rapids and Muskegon. Mich.Public Hlth Rep. 68, 141-8*
7. *O'Hickey S. Water fluoridation and dental caries in Ireland: background, introduction and development. J Irish Dent Assoc 1976; 22:61-66*
8. *O'Mullane D, Clarkson J , Holland T, O'Hickey S, Whelton H. Children's Dental Health in Ireland 1984. Dublin: Government Publications; 1986 Res 1982;61(Sp Iss): 1317-1320*
9. *Renson CE, Sardo-Infirri j et al, Changing patterns of oral health and implications for oral health manpower: Part 1. Int.Dent.J. 35, 235-51.*
10. *Whelton H, Crowley E, O' Mullane D, Harding M, Guiney H, Cronin M, Kelleher V.(2004) North South Survey of Children's Oral Health in Ireland 2002.Dublin: Brunswick Press.*
11. *Whelton H, Crowley E, O' Mullane D, Donaldson M,Cronin M, Kelleher V.(2004) dental caries and enamel fluorosis among the fluoridated and non fluoridated populations in the Republic of Ireland in 2002. Community Dental Health. 21: 37-44.*
12. *Department of Health (1994) Shaping a Healthier Future: A strategy for effective healthcare in the 1990's Dublin Stationery Office.*
13. *World Health Organisation (2003): Diet, nutrition and the prevention of chronic diseases. Report of Joint WHO/FAO Expert Consultation.World Health Organisation Technical Report Series 916. Geneva: World Health Organisation.*
14. *O Neill J, Kiely M, Flynn A, Flynn M A, McCarthy SN, Burke SJ, Hannon EM, Gibney MJ. Prevalence of overweight and obesity in Irish school children, using four different definitions. Eur J Clin Nutr. 2007 61 (6): 743-51*

The Tooth Fairy

Once a upon a time there lived a little boy called Johnny. Now Johnny was like any average six and a half year old ... except for one thing. Johnny didn't believe in the Tooth Fairy...

So, when all the other boys and girls lost their teeth and left them under their pillow for the Tooth Fairy, Johnny just laughed. Even when they brought in shiny coins the next day from the Tooth Fairy, Johnny laughed even harder.

But then one night in the middle of the Summer, everything changed forever for Johnny....

You see, Johnny had never had a tooth fall out before. Then one day when he was playing football in school, he bounced up to head the ball and he felt something move in his mouth. He stopped and felt around in his mouth and to his surprise and horror, out popped one of his front teeth!

So, with one tooth less, Johnny went back to class. The other children noticed his gummy smile immediately and little Ellen Murphy said; 'Wow, Johnny, you've lost your first tooth. Let's hope the Tooth Fairy comes!' Johnny just pouted and raised his eyes to heaven.

As the teacher read a story to the class, Johnny began to daydream. No matter how hard he tried, Johnny couldn't get the Tooth Fairy out of his mind. 'How silly all those boys and girls are. How could a tiny little fairy exist and if she did, how could she get under your pillow without waking you up!.'

But then he got to thinking and started to hatch a very clever plan to prove just how right he was about the Tooth Fairy...

That evening, Johnny went home and when his parents noticed his missing tooth and asked him was he leaving his tooth out for the Tooth Fairy, he just nodded and smiled.

But he had a very different idea. When he went to bed that night, he brushed his teeth as usual and said goodnight to his parents. Then he went up to his room and closed the door tight. He pushed a chair up against the door so that no-one could get in. Now, he thought, if the Tooth Fairy really exists, she'll just have to fly in the window!

Then he carefully placed the tooth under his pillow and pressed it down as hard as he could. 'It will take a very strong Tooth Fairy to get that tooth out', he thought to himself happily. Then he tucked himself up for the night and fell asleep with a wide smile.

The next morning, he woke up when he saw the sun streaming in the window. He stretched and yawned and then suddenly remembered his plan to trick the Tooth Fairy. He glanced over to the door and saw that the chair he had pushed up against it was still perfectly in place. 'So, no-one had been in his room', he thought.

He sprang up and pulled up his pillow, expecting to find the tooth he left there the night before. BUT HE COULD HARDLY BELIEVE HIS EYES!

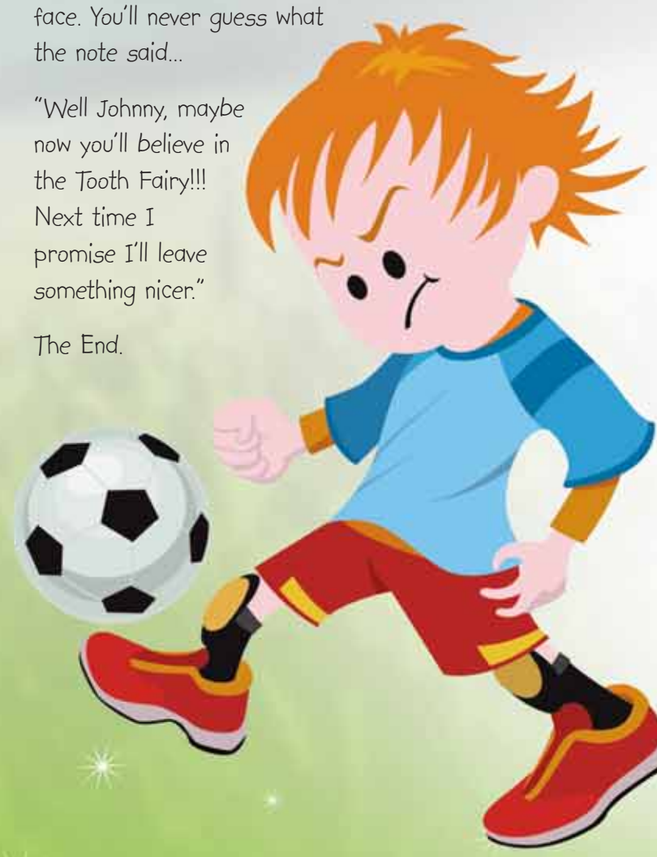
Exactly where he had placed his tooth, now lay a little grey stone and on top of the stone was the tiniest note he had ever seen! It was so small that he could barely even make out the words.

So, he went to the press and took out the lab set that he'd got for Christmas from his Auntie Mary. He put the microscope on the floor, lay down and ever so carefully placed the tiny piece of paper under the microscope.

He read it and a look of shock came across his face. You'll never guess what the note said...

"Well Johnny, maybe now you'll believe in the Tooth Fairy!!! Next time I promise I'll leave something nicer."

The End.



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