



Keep Children's Teeth healthy....

Devastating Dental News.....

The Australian National Oral Health Survey results released by the University of Adelaide show that dental decay affects a significant proportion of children. **Over 40% of children between the ages of 5 years and 10 years have decay in their primary (baby) teeth** and one quarter of children in that age group have not received dental care for their decay. Sadly this sets a trend for those children who continue to experience decay in their adult teeth when they erupt. In fact **more than one third of children between the age of 9 years and 14 years already have dental decay of their adult teeth**. The data of over 24,000 children show that **those living in the Northern Territory and Queensland have the worst dental health of all**.

There appears to be a great deal of confusion in the community about what parents should do to ensure their children's teeth remain healthy and free of tooth decay. This article shows the degree of confusion that exists but will also attempt to provide many answers to the questions parents often ask and may also help adults to learn how to improve their own oral health by following some basic rules.

When should children first visit the dentist?

Less than 10% of parents think they need to take their child to the dentist around the age of one year (*Survey results at Pregnancy, Babies and Children's Expo – PBC Expo Brisbane 2014*). In fact, around baby's first birthday is the right time to have the primary teeth checked. Early tooth decay is very common and can spread through the primary teeth quickly because primary or baby teeth are much softer than adult or permanent teeth.

Early decay is a problem....

Some children develop tooth decay quite soon after the teeth first erupt. These children need to have their teeth checked much earlier, around 6 months of age. Any signs of dark patches or the appearance of stains on the chewing surface of the back teeth should alert parents to the possibility of such early childhood decay. In that case they should take their child for a check up without delay.

Untreated childhood tooth decay....

Untreated tooth decay in the primary teeth can cause the child dental abscesses, severe pain, difficulty eating, and the premature loss of these teeth will adversely affect the child's speech development and may even impede their natural jaw growth and facial development.

Is tooth decay in children normal?

50% of Australians surveyed (PBC Expo 2014) thought that childhood tooth decay just happens as routine in children. This should be of concern to the dental profession as it indicates that the facts about childhood decay and dental disease are not being clearly transmitted to the general population. Children do not routinely suffer decay. It only occurs if the teeth are exposed to plaque and sugar residues for sufficient time.

Who is responsible for removing plaque?

Removal of plaque remains the responsibility of parents until a child is old enough to understand the need for detailed tooth cleaning and can take full responsibility for their dental care at home. This indicates there is a need for parents to be taught how to clean the teeth of their child.

Fluoride toothpaste is important....



The use of child fluoride toothpaste (*500 parts per million concentration*) can help reinforce the outer enamel of the teeth and make the teeth more resistant to decay. Plaque is sticky and does not come off the teeth easily so brushing must be thorough. It is best done at least twice a day after breakfast and after their evening meal when they are not going to eat any more food.

Fluoride toothpaste protects the teeth from decay, but it can only do this if it is left on the teeth so that over night the fluoride can be adsorbed onto the tooth enamel and thereby strengthen the teeth and repair any minor acid attack that has take place during the day. After tooth brushing with fluoride toothpaste the child should only spit out the excess toothpaste and NOT wash out the mouth with water. Leaving the fluoride on the teeth is most important for everyone but especially for children.

High risk children for tooth decay....

Children who have suffered from tooth decay early on (before 12 months of age) should have their teeth brushed using adult toothpaste (*1000 parts per million concentration*) to provide additional protection. The higher concentration does offer some additional protection but parents should try to make sure that young children do not swallow tooth paste from the tube as many children do. This habit may expose them to excessive fluoride with the possibility of white or brown flecks appearing in the developing permanent teeth that are forming in the jaws.

Sugar and tooth decay....

Diet plays a major role in tooth decay. The modern diet sadly consists of significant quantities of refined carbohydrate. These can be considered fermentable sugars and suitable food for the near 700 species of bacteria that live in the human mouth. A lot of these refined carbohydrates are hidden in foods as preservatives, especially in pre-packaged foods and tinned foods. Beware of this and read the labels for these hidden sugars. We work closely with a Nutritionist here in Townsville, to whom we may suggest a referral so that the family can be provided with additional professional support and advice on suitable and easy alternatives to those nutritional choices that have been made in the past. The idea is to help families reduce caries risk and improve health but not make their life more difficult and create a series of food choice obstacles. Many families have found this a very useful additional service that makes their life easier and helps reduce the level of decay in their children.

Bacteria cause tooth decay....

A particular group of bacteria are especially closely linked with tooth decay. These bacteria ferment the sugars in the mouth producing acids that can then remain against the enamel surface of the tooth beneath the plaque. The acids then cause demineralisation of the enamel. This can be thought of simply as “softening” the enamel and leads to the development of a cavity in the tooth just below the surface. The longer acids remain undisturbed against the enamel surface of the tooth, the more damage occurs to that enamel and the more quickly the decay becomes established. This is another reason why regular effective plaque removal by tooth brushing must be carried out.

Dietary sugar control is a must....

Refined carbohydrate means sugar. This is used in many constituents of our diet and is the most important contributing factor in dental decay. Sadly sugar is used as a preservative in just about all the foods we buy. Look at the labels and you will see this is a fact.

The most fundamental measure that can be taken to control tooth decay is to avoid “drip-feeding” sugar into the mouth throughout the day. Constant sugar intake by snacking leads to constant acid attack on the teeth. It is best to try to limit the sugar supply to the bacteria in the plaque to no more than three mealtimes each day. Once a meal is over, it is best to neutralise the acid in the mouth before brushing. This can be



done by chewing a little cheese, which is alkaline and neutralises the acid. Chewing sugar-free chewing gum is also effective. In addition cheese stimulates the flow of saliva and this helps to wash away the sugar residues from the mouth. The saliva also delivers minerals that start to repair the demineralised areas of the teeth that have suffered the acid attack during the day.

After having allowed time for neutralisation and clearance of the acid by salivary flow, then is the best time to brush the teeth with a fluoride-containing toothpaste. Brushing too soon after consuming sugars means you are brushing tooth surface that has been microscopically softened on the surface allowing the mechanical abrasion of the brush to remove a very small (microscopic) quantity of enamel from the tooth. This act of brushing softened enamel, repeated many hundreds of times can damage the teeth leading to enamel wear, and sensitivity of the tooth to cold foods and drinks can develop.

The “demon” fizzy drinks....

One of the most damaging constituents of our diets is the carbonated or fizzy drink. It has two problems; first they are full of sugar and secondly they are highly acidic. There is no doubt that the best drink for all of us, and certainly for children, is water! Fizzy drinks should be a treat and not a regular dietary component. They not only contribute to decay but the acidity causes severe destruction to the teeth by dissolving the enamel.

Practical advice on preventing dental decay....

So what can be done to keep the mouth healthy?

1. Be effective in brushing your children’s teeth. Learn the right way to achieve plaque control in all areas of the mouth. Spend some time with your dental hygienist and then make effective cleaning part of your daily routine to remove as much plaque as you can. It takes time to clean well; so don’t cut corners.
2. Be aware of where the hidden sugars are in your diet. Consider changing the foods you choose to serve your children and read labels when shopping.
3. Try to reduce the number of times each day when you put sugars into your mouth. Reducing the number of times you consume sugar will reduce the time your teeth spend in an acid environment.
4. Reduce the number of times you drink fizzy drinks. This reduces the number of times the bacteria are fed and produce acid to demineralise your teeth causing tooth decay. It also reduces the direct acid attack of the acid drink itself leading to dissolution of the teeth and subsequent painful teeth from sensitivity.
5. Drink water more often and try to make sure you drink 2-3 litres a day; more if you sweat or work in a hot environment. If you go to the gym or play sport you will sweat even more. Remember to increase the intake of water significantly.
6. We should also try to minimise the amount of caffeine we ingest in tea and coffee and of course drink a minimal amount of alcohol. All these lead to greater fluid loss through the kidneys. Reducing the intake of these diuretic drinks will help to ensure you produce an adequate quantity of good quality saliva to protect your mouth keeping the tissues healthy and the teeth intact.



7. Use a fluoride-containing tooth paste to brush your teeth with and don't wash out the mouth when you finish brushing. Just spit out the excess toothpaste mixed with your saliva. Leaving the fluoride on the teeth will help the teeth to repair after acid attack.
8. Make sure you have dental checks with a dentist or dental therapist. Make sure they check for decay and gum disease if you are an adult. A gum check requires a gentle gum probing of all areas of the mouth.