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NHS Foundation Trust

Patient information service
Bristol Royal Hospital for Children

Healthy teeth make a safer heart



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What have teeth got to do with the heart?

Children who have congenital heart disease, for example a hole in the heart or a valve or vessel abnormality, are at risk of getting infective endocarditis. This is an infective disease of the inner lining of the heart. It can occur in anyone who has a structural heart defect (however small) and can result in permanent heart damage or death. Having decayed teeth and inflamed gums puts people at a far greater risk of contracting this disease.

How does the infection happen?

We all have bacteria (germs) in our mouths. They are usually harmless but can cause infection in certain circumstances. If bacteria enter the bloodstreams of people with congenital heart disease, the bacteria may travel to the heart and settle in the region of the heart defect – even if the defect has been operated on.

A fragile, bacteria-containing clot may then develop, which can stick to the inner lining of the heart or blood vessels in the region of the defect. Fragments of this clot can break away and travel to other organs in the body, possibly blocking their blood supply.

A decayed tooth contains large numbers of bacteria which can enter the bloodstream. Inflamed gums are also a source of infection. Poor brushing of teeth results in the build-up of plaque, which causes the gums to become puffy and prone to bleeding. The bacteria in the plaque can enter the bloodstream.

Bacteria can also enter the blood stream during some types of dental treatment that cause the gums to bleed, for example extractions and deep scaling.

Prevention of tooth decay

Limit your child's sugary foods and drinks to three items a day, preferably at mealtimes

When we eat something containing sugar, the bacteria on our teeth convert it to acid, which is what causes tooth decay. Given time, and with the help of some of the constituents of saliva, our teeth can recover from this. If we consume sugary foods and drinks too frequently, our teeth do not have time to recover and the decay will progress.

Children should drink only milk or water between meals. Even 'no added sugar' squash and fruit juices contain natural sugars and acids that can harm teeth. Children should avoid all fizzy drinks, as even the sugar-free ones contain harmful acids. If your child is bottle-fed, give only unsweetened milk or water in the bottle. Squash, fruit juice and any sweetened drinks have been found to cause more damage to teeth when given in a bottle. If children are thirsty after having brushed their teeth at night, they should drink water.

Replace sugary snacks with fresh fruit or savoury alternatives, for example breadsticks, crackers, raw vegetables, sandwiches or toast. Be aware of 'hidden sugars'. Some medicines contain sugar, but most have a sugar-free alternative, so ask your doctor or pharmacist about these options. There is some evidence that dried fruits such as raisins can cause decay, so it is best to limit these, particularly between meals.

Some foods contain more sugar than you might think, for example yogurts or tomato ketchup. Check the label; if the 'carbohydrate of which sugars' is 15g or more per 100g, that food is high in sugar.

Brush twice a day with fluoride toothpaste. Children under seven do not have the ability to brush their own teeth

effectively and so they will need help from an adult. The concentration of fluoride in toothpaste is important because it is the ingredient in toothpaste that strengthens teeth. For children of all ages, the toothpaste should contain no less than 1000ppm (parts per million) fluoride. Children under three years need only a smear on the toothbrush, and those aged three to six a pea-sized amount. From seven, children should be using adult strength (1350-1500ppm) toothpaste.

Brushing effectively will also prevent inflammation of the gums. Inflamed gums bleed easily, allowing bacteria into the bloodstream.

Spit, don't rinse. After spitting out the toothpaste, don't rinse out with water or mouthwash as this will wash away much of the fluoride.

Visit the dentist regularly. Regular check-ups will ensure that any decay can be spotted and treated early to prevent the development of infections. Your dentist will also be able to give help and advice with diet and toothbrushing and provide treatments such as fissure sealants (protective coatings) and application of fluoride varnish to prevent decay.

Remember...

- always tell your dentist about your heart problem
- brush your teeth twice a day with fluoride toothpaste
- visit your dentist regularly
- don't eat or drink sugary food.

Notes:

Please note that if for any reason you would value a second opinion concerning your diagnosis or treatment, you are entirely within your rights to request this.

The first step would usually be to discuss this with the doctor or other lead clinician who is responsible for your care.

Smoking is the primary cause of preventable illness and premature death. For support in stopping smoking contact **Smokefree Bristol** on **0117 922 2255**.

As well as providing clinical care, our Trust has an important role in research. This allows us to discover new and improved ways of treating patients.

While your child is under our care, you may be approached about them taking part in research. To find out more please visit: **www.uhbristol.nhs.uk/research-innovation** or call the research and innovation team on **0117 342 0233**.

For access to other patient leaflets and information please go to the following address:

www.uhbristol.nhs.uk/patients-and-visitors/information-for-patients/

Hospital switchboard: 0117 923 0000



Minicom: 0117 934 9869



www.uhbristol.nhs.uk



For an interpreter or signer please contact the telephone number on your appointment letter.



For this leaflet in large print, audio or PDF format, please email patientleaflets@uhbristol.nhs.uk.

