

# DENTAL CARE

Good dental hygiene is extremely important for children with single ventricle heart conditions. The reason it is even more important for these children is that they are at an increased risk of something called Endocarditis (a very serious infection of the inner lining of the heart), which is explained below. Always tell your dentist about your child's heart condition and any medications he or she takes, especially anti-coagulants such as Warfarin or Aspirin.

## What is Endocarditis?

We all have small bugs that live in our mouths and on our skin; they cause us no harm at all until we get a bad or broken tooth, or a skin injury which becomes infected. For most of us, this would mean a course of antibiotics and we would then be fine, but if you have congenital heart disease it can be more serious.

The bugs that infect our mouths can get into the blood stream and attach to the areas in the heart where surgery has been performed. The bugs then grow and cause the heart to become infected; this is called infective Endocarditis. If this should happen the only way to cure the infection is a four to six-week course of intravenous antibiotics. If it goes untreated your child would become sicker and sicker. Skin infections would need to be treated equally swiftly.

## How Should I Look After My Child's Teeth?

Ask your dentist if you would like any extra advice about looking after your child's teeth. The ideas below should help, as the best approach is to try to prevent any infection from happening.

## Dental Hygiene

- All heart patients should visit the dentist as often as is suggested by them. These routine check-ups should continue even when another specialist such as an orthodontist is involved.
- From the first signs of tooth growth, children should brush their teeth twice a day, using an age-appropriate toothbrush. Children up to the age of eight may need adult help with brushing.

- Use a small smear of a fluoride toothpaste. Ask your dentist whether fluoride supplements (e.g. drops) or a high fluoride toothpaste would be beneficial for your child in the area where you live.
- Special sealants called fissure sealants can sometimes be applied to the biting surfaces of the back adult teeth (six-year molars onwards). Your dentist will advise whether this is suitable for your child. It can help keep them clean and free from decay, but it is not a substitute for following good dental hygiene advice.

## **Diet**

- Snacks should be healthy: cheese, milk and raw vegetables. Children with single ventricle hearts often need extra calories in their diet, so nutritious snacks should be planned as part of your child's day e.g. three meals plus two or three snacks, instead of constant 'grazing' which is bad for teeth.
- Sweet drinks including squash and fruit juices, sweets and fruit should be limited to immediately after meals just before the children clean their teeth.
- Water and plain milk are the best drinks for teeth, however many children with single ventricle hearts will have calorie supplements in milk or juice (or high-calorie milk) at some point as babies or children, which means that extra care will be needed with teeth cleaning.
- Request sugar-free medicines on your child's repeat prescriptions - this is sometimes abbreviated to 'SF'. If your child can manage tablets instead of liquid medicines, this may be helpful from a dental point of view.

## **Antibiotic Cover During Dental Treatment**

- For some children with single ventricle heart conditions, antibiotics may need to be prescribed if any dental treatment is necessary (see note). There is no need to give antibiotics when baby teeth fall out, as this is a natural process with no risk to the child.
- Oral piercing should be avoided at all cost. It is very likely to cause nasty infections even in otherwise healthy people.

## **Antibiotics and Endocarditis**

In 2008, new guidelines were published on the prescribing of antibiotics for dental treatment.

NICE, the government organisation who rationalise medical treatments, have researched the use of antibiotics during dental treatment. Their recommendations are that no one needs antibiotics as a preventative measure (sometimes referred to as 'antibiotic prophylaxis' by doctors and dentists) during dental and skin treatment.

These new guidelines are very different from the previous guidance. Dentists have to follow these recommendations so are unable to prescribe antibiotics themselves, but there are still a few cardiologists who would prefer their patients to have antibiotics when they have dental treatment or piercings. Next time you have an outpatient's appointment ask your cardiologist what they would like for your child.

## **Do Cardiac Medications Have Any Impact On Dental Care?**

Most children with single ventricle heart conditions take anti-coagulants such as Warfarin or Aspirin. As these medications make it more difficult for blood to clot, some dental procedures, such as having a tooth removed, could cause more bleeding than in another child.

Remind your dentist about these medications before any dental treatment begins. He or she might ask for your child to have an extra blood test a few days before the procedure. If you have a home testing kit (CoaguChek machine), it would be really helpful to your dentist if you can take an INR reading on the morning of the procedure.

Planning dental procedures early in the morning is sensible, so that you can easily get help if any complications such as unexpected bleeding happen later in the day.

The NHS National Patient Safety Agency states that an INR of four or less can be safely managed in a standard dental setting. Your dentist will know

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what extra precautions are needed (e.g. special packing or extra stitches if a tooth is taken out).

Your dentist will advise you how to care for your child's mouth after any treatment. The advice will cover areas such as resting, being very careful as the blood clot forms, and what to do if bleeding starts again. Regular Paracetamol may be advised as a form of pain relief. Unless you are told otherwise, avoid taking medicines like Ibuprofen or Aspirin at the same time as Warfarin.

### **Further Information**

Please talk to your dentist, cardiologist or cardiac liaison nurse if you have any queries at all about caring for your child's teeth.

Little Hearts Matter (telephone **0121 455 8982** or email **info@lhm.org.uk**) can also help with queries, and can get advice from a dental specialist.