King's College Hospital
NHS Foundation Trust

Caring for my child's teeth with liver disease

Information for parents/carers

This leaflet is aimed at parent/carers of children with liver disease. It explains how your child's liver disease can affect their teeth and why looking after them is so important. It explains how they can do this and what treatment the dentist might do and signposts for further information.

How might my child's liver disease affect their teeth?

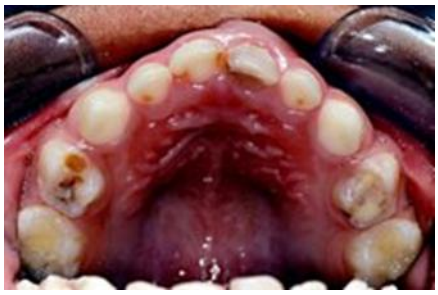
Whilst good oral health is a priority for any parent, for children with liver disease it is a particular concern. Children may be at increased risk of tooth decay if on a high calorie diet. In addition, children may suffer from dental problems related to their liver disease.

When do teeth develop?

Tooth development begins in the womb and continues through adolescence, as teeth form within the jaw and erupt through the gums in a specific sequence, starting with primary (baby) teeth and followed by a permanent (adult) set. For about the first three years of life, the front adult teeth and some back adult molars are growing. If a child has liver disease and jaundice during this critical window, the parts of the teeth that are developing may be affected.

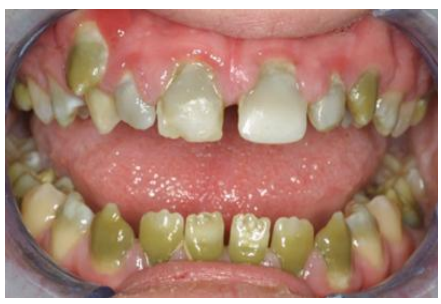
Some examples of how your child's teeth may be affected by their liver disease include:

Dental decay



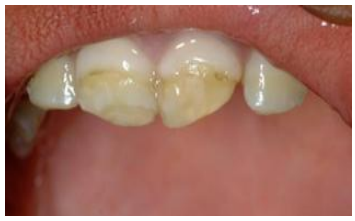
- Dental decay occurs when bacteria in your mouth mix with sugary foods to create **acid**. This acid attacks and dissolves your tooth's protective enamel, eventually forming tiny holes called **cavities**. If left untreated, decay can cause pain, infection, and tooth loss
- Children with liver disease may be at increased risk of tooth
- decay, especially if on a high calorie diet.

Discolouration of the teeth



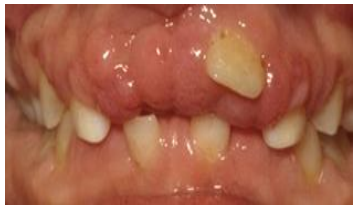
- Sometimes children's teeth can be discoloured, possibly grey-green staining or white/yellow patches
- The permanent grey-green discoloration you may see on teeth is a result of increased levels of biliverdin, a green substance created when red blood cells break down (a process that leads to jaundice). This pigment becomes trapped inside the tooth during its formation.
- After the liver condition is resolved, future tooth development will proceed normally, and no further staining will occur.
- Please note that these stains are internal and cannot be brushed away.

Enamel hypoplasia or hypomineralisation



- The enamel (the outside white layer of a tooth) can be poorly formed
- This means the teeth may be slightly weaker, have an abnormal shape, be crumblier or discoloured.
- This is caused by illness disrupting the tooth formation process.
- These defects are permanent.

Drug induced gum overgrowth



- The gums may appear more swollen and cover more of the teeth.
- Some medicines given post-transplant can cause this to occur.
- This occurs less now as newer medicines such as Tacrolimus are less likely to cause gingival overgrowth.

Changes in tooth position or timing

- Children's teeth may take longer to come through (up to 22 months). This could be due to illness but no one really knows the true cause. Teeth may also come through in an unusual position.

Infections can be more serious

- When the immune system is low, infections in the mouth can spread more easily or take longer to clear.

Why is looking after my child's teeth so important?

Good mouth care

- **Prevents pain and infection**
  Keeping teeth and gums healthy reduces the risk of toothache, abscesses and swollen gums, and can mean less need for fillings or extractions under general anaesthetic.

- **Helps eating, drinking and growth**
  Sore or broken teeth can make it hard to eat, which is particularly important when your child already needs a special diet or high-calorie special feeds.

- **Protects their general health**
  Dental infections can make children more unwell, and in children who are very ill or immunosuppressed an untreated tooth can occasionally lead to serious infection elsewhere in the body.

- **Supports confidence and wellbeing**
  Children may be self□conscious about stained teeth. Looking after their mouth, and offering cosmetic treatment when the time is right, can help them feel more confident about their smile.

What should I do to look after my child's teeth?

Toothbrushing

- Brush teeth **twice a day**: last thing at night and one other time.
- Use a **toothbrush and age-appropriate fluoride toothpaste** (containing 1,450ppm F-, or higher if prescribed by a dentist)
- Children usually need **adult help up to at least 7-8 years** to brush properly.
- Gently brush all tooth surfaces and along the gum line for **two minutes**.
- After brushing, **spit out** the toothpaste but do not rinse with water, this leaves fluoride on the teeth to keep protecting them.

Diet and drinks

- **Fizzy drinks, fruit juice and sports drinks** are very acidic and can damage enamel, even when sugar free; keep them for occasional treats with meals or avoid them.
- Between meals, stick to **water or plain milk** and try to avoid sipping sugary drinks or grazing on snacks, as this bathes teeth in sugar.
- Many children with liver disease need **high calorie**- **drinks, nighttime feeds**- **or frequent snacks** to grow well. Do not stop or change these without medical advice, but you can ask the doctor, pharmacist or dietitian about sugar free or -lower sugar- options and ask if they can be given at set times rather than sipped all day.
- If your child is often **sick or refluxy**, don't brush straight after vomiting: rinse with water, wait at least 30 minutes, then brush.

Always agree **changes to diet or feeding** with your liver team or dietitian.

Dental visits

You should make sure your child is registered and visits a dentist regularly from when the first teeth erupt.

All children who are planned for a liver transplant should be seen by a specialist paediatric dentist prior to this. Your local dentist or GP can refer you via local pathways.

What might the dentist do to look after my child's teeth??

Checking and preventing problems

At routine visits the dentist will:

- Check the teeth and gums
- Give advice about brushing, diet and medicines
- Apply fluoride varnish to strengthen teeth, and may prescribe high-fluoride toothpaste or mouthrinse if your child is at higher risk of decay
- Place fissure sealants (thin protective coatings) on the biting surfaces of new adult back teeth.

These treatments are safe for children with liver disease and help to protect the enamel.

Treating tooth decay and weak teeth

If your child develops holes or has weak enamel, the dentist may:

- Place small white fillings or protective coatings on affected teeth
- Use stainless steel crowns (strong silver-coloured caps) on baby or adult back teeth that are badly worn or decayed, to keep them comfortable and working well
- Remove teeth that are too damaged or infected to be saved.

The type of treatment will depend on which teeth are affected, how worn they are, and what your child can manage.

Improving the appearance of stained or patchy teeth

For older children and teenagers (who are 12 and have most of their adult teeth) who are worried about the appearance of their front teeth, a paediatric dentist may offer:

- Tooth whitening (dental bleaching) using a specially made mouthguard and bleaching gel
- Composite masking – placing tooth-coloured filling material over stained or patchy areas
- A combination of both.

These treatments aim to make the teeth look more even and natural. With more severe staining, it may only be possible to improve this but not remove completely.

More invasive options such as porcelain veneers or crowns are usually kept for adulthood and only used if simpler treatments are not enough.

Looking after the gums and helping teeth come through
The dentist will also:

- Monitor and treat any gums that are bigger (overgrown) with advice on brushing, cleaning, and, rarely if needed, referral for gum surgery or a review of medicines
- Keep an eye on the timing and position of new teeth and may arrange X-rays or refer to an orthodontist or oral surgeon if teeth are slow to come through or are stuck or older.

Any treatment that might cause bleeding or infection should be planned with the liver team, and may sometimes be done in hospital or under a general anaesthetic.

Further information
If you have questions or worries about your child's teeth or mouth:

- Speak to your paediatric dentist or your own general dentist
- Contact your child's liver clinical nurse specialist (CNS) or consultant if you are unsure how dental advice fits with their medical care.

Ask your dietitian for help balancing dental advice with your child's nutritional needs.

MyChart
Our MyChart app and website lets you securely access parts of your health record with us, giving you more control over your care. To sign up or for help, call us on 020 3299 4618 or email **kings.mychart@nhs.net**. Visit **www.kch.nhs.uk/mychart** to find out more.

PALS
The Patient Advice and Liaison Service (PALS) is a service that offers support, information and assistance to patients, relatives and visitors. They can also provide help and advice if you have a concern or complaint that staff have not been able to resolve for you. They can also pass on praise or thanks to our teams.

Tel: **020 3299 4618**
Email: **kings.pals@nhs.net**

If you would like the information in this leaflet in a different language or format, please contact our Interpreting and Accessible Communication Support on 020 3299 4618 or email kings.access@nhs.net

www.kch.nhs.uk

PL1377.1 August 2026
Review date August 2029 Comms no: 4772