

# **Molar incisor hypomineralisation (MIH) in children**

## **Information for patients, parents and carers**

This leaflet explains more about molar incisor hypomineralisation (MIH). If you have any questions, please speak to the dentist looking after your child.

### **Confirming your child's identity**

Before your child has a treatment or procedure, our staff will ask you to confirm their name and date of birth and check their ID band. If your child does not have an ID band, we will also ask you to confirm their address. If we do not ask these questions, then please ask us to check.

## What is molar incisor hypomineralisation (MIH)?

MIH is a tooth condition where the enamel is softer than normal. This can lead to dental decay or a crumbly tooth.

MIH is usually noticed when the adult incisors (front teeth) or molars (back teeth) come into the mouth around age 6 to 7 years. It can sometimes affect the back baby molar teeth and in these cases can be seen in the mouth from 2 to 3 years of age onwards.

MIH can affect one, some, or all of the first adult molars and adult incisors. Sometimes, the adult canines can be affected. There are different levels of severity.



### Consent

We must by law obtain your written consent to any operation and some other procedures beforehand. Staff will explain the risks, benefits and alternatives before they ask you to sign a consent form. If you are unsure about any aspect of the treatment proposed, please do not hesitate to ask to speak with a senior member of staff again.

## Who is affected and why does my child have it?

MIH is a worldwide problem. Around 1 in 8 children in the UK have MIH, around 1 million children<sup>1</sup>.

The cause is not fully known. It may be due to a disturbance in tooth development around the time of birth or in the first few years of life. Severe childhood illnesses, high fevers, or a traumatic birth period have all been suggested as possible causes.

## What are the signs and symptoms of MIH?

The front and/or back teeth may be discoloured and may appear cream, yellow or brown. The teeth may be painful, sensitive, and even crumbly. Because the enamel is softer, these teeth are more at risk of decay. Sometimes, it can be more difficult to numb the tooth with local anaesthetic.

## Are any tests needed to confirm the diagnosis?

A full dental examination and X-rays will be carried out. The dentist will also ask about your child's medical and family history to attempt to identify the possible causes and rule out any other causes of enamel problems.

## What happens if I do not get treatment?

If the molar teeth are crumbling, the breakdown may get worse. This could lead to more pain, sensitivity or development of infection. Removal of the tooth may be required.

## How is MIH managed?

There are different ways to manage MIH. Your dentist will discuss these options with you.

### Front teeth

The front teeth may need treatment to reduce sensitivity, improve appearance and reduce surface roughness. The options for treatment include:

**Fluoride varnish** This can help decrease sensitivity.

**Microabrasion** The dentist uses acid and a polishing powder to remove the outer layer of tooth enamel to improve the appearance. This can damage the teeth a little.

**Resin infiltrant** This improves the appearance of teeth by altering how light reflects off the teeth.

**Tooth whitening** This aims to improve the colour of the teeth. This can cause temporary sensitivity. Tooth whitening is not routinely used in under 18-year-olds but may be provided in certain circumstances.

**White filling** The dentist may place a thin layer of white filling over the front of the tooth (usually with no drilling). This may make the tooth thicker. This filling will need to be maintained over time by your dentist.

### Back teeth

The treatment options for back teeth depend on the level of severity:

**Fluoride varnish** This can help decrease sensitivity.

**Fissure sealant** This is a protective coating which covers and protects the natural grooves in a mildly affected tooth.

**Filling** The tooth may need to be repaired with a filling. This filling may be temporary. This may require numbing of the tooth with local anaesthetic.

**Preformed metal crown** Sometimes a metal crown is used to protect a more decayed or broken-down tooth.

**Tooth removal** In severe cases, the dentist may recommend extraction of the tooth. If this is done at the right time, the second adult molars (which are usually unaffected by MIH) can grow into their place. If orthodontics might be required in the future, a decision about the best timing of the extractions can be made in conjunction with an orthodontist<sup>2</sup>.

## Is there anything I can do to help?

It is important that you continue to bring your child to your dentist for regular check-ups. Your dentist can place fluoride varnish on the teeth every 3 months. If your child is 8 years old, they can use a non-alcohol containing fluoride mouthwash. If your child is over 10 years old, your dentist can prescribe a higher strength fluoride toothpaste.

## References

<sup>1</sup>BSPD [Jan 2020] *Molar Incisor Hypomineralisation (MIH) A BSPD position paper on the dental condition affecting 1m UK children*  
<https://www.bspd.co.uk/Professionals/Resources/Position-Statements>

<sup>2</sup>Noar J, Taylor G, Ashley P, Williams A, Harrison M, Cobourne MT. *Guidance for the extraction of permanent molars in children*. London: Royal College of Surgeons of England; 2023. <https://www.rcsend.ac.uk/dental-faculties/fds/publications-guidelines/clinical-guidelines/>

**The contents of this leaflet have been adapted for use with permission from the Department of Paediatric Dentistry in Guy's and St Thomas' NHS Foundation Trust.**

## Contact us

If you have any questions or concerns about the information in this leaflet, please contact the Department of Paediatric Dentistry team.

<b>Central Referral Office</b>	020 3299 4988
<b>Clinic Appointments</b>	020 3299 3055
<b>Secretary</b>	020 3299 1681

For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit [www.kch.nhs.uk/patientsvisitors/patients/leaflets](http://www.kch.nhs.uk/patientsvisitors/patients/leaflets)

## 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](mailto:kings.mychart@nhs.net). Visit [www.kch.nhs.uk/mychart](http://www.kch.nhs.uk/mychart) to find out more.

## Sharing your information

King's College Hospital NHS Foundation Trust has partnered with Guy's and St Thomas' NHS Foundation Trust through the King's Health Partners Academic Health Sciences Centre. We are working together to give our patients the best possible care, so you might find we invite you for appointments at Guy's or St Thomas' hospitals. King's College Hospital and Guy's and St Thomas' NHS Foundation Trusts share an electronic patient record system, which means

information about your health record can be accessed safely and securely by health and care staff at both Trusts. For more information visit [www.kch.nhs.uk](http://www.kch.nhs.uk).

## **Care provided by students**

We provide clinical training where our students get practical experience by treating patients. Please tell your dentist if you do not want students to be involved in your care. Your treatment will not be affected by your decision.

## **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. The PALS office is located on the ground floor of the Hambleden Wing, near the main entrance on Bessemer Road - staff will be happy to direct you.

PALS at King's College Hospital, Denmark Hill, London SE5 9RS

Tel: **020 3299 4618**

Email: [\*\*kings.pals@nhs.net\*\*](mailto: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\*\*](mailto:kings.access@nhs.net)**