



What's the Evidence?

Dentistry for children and young people with learning disabilities and challenging behaviour

Key findings

- Some children and young people can find it difficult to collaborate during dental assessments and x-rays.
- Current guidance recommends the use of conscious sedation or in some cases, general anaesthetic, for routine dental care for children and young people who find it difficult to cooperate during dental care.
- Special care dentistry is available for people who have additional needs. We have provided links to advice about dental care and preparing for visiting the dentist.

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What were we asked?

A parent asked us about dental imaging techniques for children and young people with learning disabilities and challenging behaviour. They had experienced difficulties with their own child attending the dentist, and wanted to know whether there were any special techniques that could be used when children could not sit still or found it difficult to cooperate.

What did we do?

We consulted parents in the PenCRU Family Faculty to find out their experiences with dentistry. We searched a range of academic databases and dentistry websites to look for:

- (1) Evidence about risk of dental problems in children with learning disabilities or challenging behaviour,
- (2) What dental imaging techniques are available,
- (3) What dental advice is recommended for disabled children.

What did we find?

What experiences have parents had with taking their child to the dentist?

Several parents who responded to our call for information said that their child had difficulties keeping still and cooperating with dental treatment. Most said that their child had been treated with anaesthesia or sedation for dental care.

There was variation between parents' experiences in accessing dental treatment for their child. Some were able to access appropriate care, and felt that the dental team treated with care and respect. Others had experienced difficulties in accessing the care they needed for their child, and felt that there was a lack of knowledge among professionals about dental treatment options for children with learning disabilities.

Parents reported mixed experiences with special equipment available at the dental clinic. Some parents were required to lift their child into the examination chair, whereas others had access to a hoist or accessible chair that was able to lift their child to the correct position. No parents had encountered special dental imaging equipment for their child, with most being sedated or anaesthetised in order to have an x-ray.

Several parents commented that there had been delays in their child receiving treatment such as extractions, because they had to wait for several appointments or attend a special clinic. They felt that these delays might not have been encountered with an extraction with a non-learning disabled child.

Is there an association between learning disability/challenging behaviour and oral health in children and young people?

- The Scottish Intercollegiate Guidelines Network (SIGN) guidance for preventing tooth decay (caries) in children at risk state that although learning disability is not a predictor of increased caries risk alone,¹ physical and mental disabilities can impact on children's oral hygiene, and their ability to perform oral self-care.²

- The SIGN guidance also states that tooth extraction rates are higher in children with learning disabilities.³
- Two studies have found that children with cerebral palsy and intellectual disability are at greater risk of developing caries.⁴
- In an article about sensory processing and dental visits, Kahuneck and Chrisholm state that some studies have found those with autistic spectrum disorder (ASD) to be at higher risk of caries, but results from other studies have not supported this conclusion.⁵
- The US National Institute of Dental and Craniofacial Research suggests that any increased risk of caries in those with ASD is due to self-injurious behaviour, poor oral hygiene and differences in diet.⁶
- Kahuneck and Chrisholm acknowledge that difficulties during dental examinations and procedures are also contributing factors.⁵
- One study found that only half of patients with ASD had a successful oral examination and bitewing radiograph (an x-ray of the posterior teeth that involves the patient biting a tab between these teeth).⁷
- Estimates of uncooperative behaviour during dental procedures in people with ASD vary from 55-65%.^{8,9}
- A number of other conditions have been associated with poorer oral health and increased risk of caries including ADHD.¹⁰⁻¹²
- Children with Down's Syndrome are typically at lower risk of caries than non-disabled children and present with fewer caries.¹³⁻¹⁵

How are dental images taken for children and young people with learning disabilities or challenging behaviour?

There are four types of dental imaging procedure; two of these require the patient to hold equipment between their teeth during the procedure and the other two involve an image being taken of the entire jaw or head.¹⁶ All dental x-rays require patients to keep still, and this can be a challenge for children and young people with learning disabilities or challenging behaviour.

We didn't find any information about dental imaging equipment specifically designed for children and young people with learning disability.

The Faculty of Dental Surgery at the Royal College of Surgeons updated their guidance on oral health care for people with learning disabilities in 2012.¹⁷

- The guidance suggests that conscious sedation or general anaesthetic may be used for those who cannot cooperate with clinical assessment or routine dental care.
- Conscious sedation is recommended for patients with conditions that affect their ability to accept routine dental treatment.
- General anaesthetic should only be considered when all other strategies have been explored.

A Cochrane review published in 2012 reviewed the evidence of the effectiveness and safety of conscious sedation techniques for children and young people with learning disability.¹⁸ The review did not find that any particular method was safer or more effective than others.

Another Cochrane review from 2012 aimed to compare the effectiveness of conscious sedation and general anaesthetic for dental treatment in children and young people.¹⁹ However, this review didn't find any well

designed studies that had compared the two treatment options.

What do we think?

We didn't find evidence for any adapted dental imaging equipment for children and young people with learning disability.

All dental imaging procedures need the patient to be still and some dental imaging techniques require the patient to hold equipment in their mouth.

In most cases, this is achieved with conscious sedation or general anaesthetic if patients find it difficult to cooperate.

Current guidance recommends the use of sedation, or in some cases general anaesthetic, for routine dental care for children and young people who find it difficult to cooperate during dental assessments.

Signposts to other information

- The National Autistic Society have a page about preparing for a visit to the dentist:
<http://www.autism.org.uk/living-with-autism/out-and-about/dentist-preparing-to-visit.aspx>
- Scope have a page about dental care for people with cerebral palsy:
<http://www.scope.org.uk/help-and-information/cerebral-palsy/dental-care>
- Torbay and Southern Devon special care dental service page:
<http://www.torbaycaretrust.nhs.uk/our-services/communitydentalservice/Pages/Special%20Care%20Dental%20Service.aspx>

- Northern Devon special care dental service page:

http://www.healthyteethdevon.nhs.uk/dental_treatment_patient.html

We would like to hear your feedback on this summary – please email us at pencru@exeter.ac.uk if you have any comments or questions.

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Note: This information is produced by PenCRU researchers and reviewed by external experts. The views expressed are those of PenCRU at the University of Exeter Medical School and do not represent the views of the Cerebra charity, or any other parties mentioned. We strongly recommend seeking medical advice before undertaking any treatments/therapies.