

Information and tips for maintaining oral health in children with autism



Introduction

As parents and carers of children with autism are aware, maintaining oral hygiene and dental health can be challenging.

Every individual with autism varies in terms of their sensory issues, abilities and needs.

Literature suggests that many children with autism may be more at risk of suffering from certain dental conditions as a result of such characteristics.

These may include tooth decay, gum disease, oral trauma, tooth wear, acid erosion and dry mouth conditions.

Prevention of these dental conditions is better than cure and may prevent unnecessary pain and anxiety in the future.

This booklet contains information and tips on how to maintain oral health to help reduce the risk of dental disease in the future.

Visiting the dentist can also be a very stressful, traumatic experience due to the unfamiliar sounds, smells, tastes and appearance.

This booklet contains tips and suggestions that may help to prepare for a visit.

Tooth Brushing

It is important to brush our teeth every day to:

- Remove plaque, bacteria and food debris
- Keep teeth and gums healthy
- Protect against bleeding gums, gum disease and tooth decay

Types

Manual Toothbrushes: Use a small headed manual tooth brush with soft bristles to minimise irritation. Modifications can be made to the toothbrush handle to improve comfort/handling. For example, tennis balls, bicycle handles, velcro hand straps, pencil grips.

Modified toothbrushes with double heads can also be bought at specialised shops/websites. These can make brushing easier as they brush 2 surfaces at once.

Electric oscillating tooth brushes: These remove more plaque than a manual toothbrush. They have a chunky handle for comfort and many have timers. They are easy to use and do all the work for you.

Technique and Tips

Brushing should start as soon as the first baby tooth erupts.

Teeth should be brushed twice daily.

If you are brushing your child's teeth: Stand behind your child or sit them on your knee in front of the mirror. Head support against a chair/headrest may help reduce resistance.

Use small **circular strokes** to brush all the teeth and **gumline** ensuring that **all surfaces** are brushed (the outside, inside and biting surface).

Ideally, brushing the whole mouth should take **2 minutes**.

The use of an egg timer may help your child gauge how long the 'activity' takes.

After brushing, allow your child to **spit out** the excess toothpaste. **DO NOT RINSE OUT** after brushing as this washes away the protective fluoride paste.

If a mouthwash is being used, ensure it is used at a different time to brushing for maximum effect.

If your child is unable to 'rinse', use a cloth around your finger to wipe the mouthwash onto the teeth and gums.

Children should be supervised and should never be allowed to eat toothpaste.

Toothpastes

Toothpaste containing 1350-1500ppm (parts per million) fluoride should be used to help protect against tooth decay.

Examples of toothpastes available

For children under 3 years: a smear (a thin film covering less than $\frac{1}{4}$ of the brush) of paste should be used.

For children aged 3-6 years: a small pea-sized amount of paste should be used.

Toothpastes are available in a range of flavours, so take the time to experiment with various brands until a tolerable flavour is accepted.

Introducing tooth brushing into the routine

- Carry out tooth brushing at the same time each day using the **same technique** so that it becomes part of the routine
- Carry out tooth brushing in the most comfortable/familiar room to minimise anxiety.
- Make it a **fun activity**, play some favourite music or sing a song and get the family involved.
- If you are encouraging your child to brush their own teeth, brush yours at the same time and go through each brushing stage together.
- Encourage them to copy you. · '**Tell-Show-Do**' approach: tell them what you are going to do, show them how to do it and then brush the teeth. It may help to demonstrate and brush 'teddy's teeth' first.
- Mount a tooth **brushing picture chart** on a wall where brushing takes place and follow each stage to aid brushing. Research shows that picture /visual aids help to improve oral hygiene in autistic children.
- Ensure continuous praise and encouragement throughout. Try to avoid showing your frustration as this may increase anxiety. Try to create a fun atmosphere instead.
- Introduce a reward system/chart. For example, a tick/colouring chart after each brushing session and a reward may be given for a week of successful brushing.

To minimise anxiety, introduce the toothbrush gradually:

Introduce the toothbrush over a period of time, allow them to touch it and play with it until they are comfortable.

Allow them to lick it and encourage them to put it in their mouth.

If this is not successful, try to familiarise them with the sensation by massaging their gums with your finger and allow them to do the same. Then perhaps use a flannel or sponge over your finger to introduce different textures and sensations.

Once familiar with the brush, place in the mouth with little or no brushing at first to reduce anxiety.

Firstly, carry out very slow, gentle movements a little at a time. Perhaps start by brushing only a few teeth at first to desensitize them to the feeling.

Gradually increase the brushing over time until it is possible to brush the whole mouth.

If your child clamps down on the brush, use it as a prop and use a second brush to clean the teeth.

Whilst some may not tolerate the use of an electric toothbrush due to the sound and vibrations, others may enjoy the sensation, allowing successful brushing.

Acid Erosion

Acid erosion is the loss of tooth surface, caused by the dissolving action of acids over time. This results in the gradual thinning and loss of enamel and can progress to the underlying dentine layer causing sensitivity, increasing the risk of tooth decay and possibly death of the tooth nerve.

Common causes of erosion:

1) Diet: Acids such as phosphoric, citric, malic and ascorbic found in fruit, fruit juices, sweets, fizzy drinks, sports drinks, aspirin and fruit teas.

2) Stomach acid: Hydrochloric acid from the stomach during gastric reflux, vomiting, regurgitation.

Ways to reduce acid erosion:

Limit the frequency of acidic drinks/foods and consume them at meal times.

Drink milk and water as a substitute.

Use a straw when drinking acidic drinks and discourage swishing round the mouth before swallowing.

Milk and cheese can help neutralise the acid.

Avoid brushing the teeth for at least an hour after consuming any acidic drinks/food or vomiting.

The use of **fluoride** mouthwash can help strengthen enamel and reduce sensitivity.

Visit the dentist, as they can provide topical fluoride treatments/high fluoride toothpaste to help reduce the **sensitivity** and strengthen enamel.

Consult your GP if your child is suffering from **gastric reflux** or if medications are causing vomiting.

Trauma

Oral trauma caused by self injurious behaviour and accidents can be common.

Be vigilant when carrying out oral hygiene and inspect the teeth, gums, lips, tongue and palate, as well as the face for signs of trauma such as:

- Ulcers
- Damaged/torn gums
- Damaged/missing teeth
- Trauma to lips

Visit the doctor/dentist if you notice any unusual trauma as it may require urgent attention.

Antibacterial/antiseptic mouthwashes containing 0.2% chlorhexidine provide 12 hour antibacterial action so are beneficial for acute gum problems, such as ulcers/sores.

It should be used at a different time to brushing to maximise its effect.

Tooth Decay

When we consume food and drinks that contain sugar, the bacteria in our plaque turn the sugar into acids. If sugar is consumed too frequently, these acids can damage our teeth and cause decay.

TIPS TO HELP REDUCE THE RISK OF TOOTH DECAY

Reduce the amount and frequency of food/drinks that contain sugar.

Restrict sugar containing food/drink to meal times to allow adequate time in between meals for the damage caused to be repaired by minerals contained in saliva.

Restrict sugar consumption to a maximum of **4 times a day**.

Avoid sugars **before bed** as the reduced saliva flow during sleep cannot help repair the damage caused by the acids.

Brushing **2 x daily** with 1350-1500ppm toothpaste. High fluoride pastes and mouthwashes may be prescribed by your dentist.

Give **dietary supplements** containing sugar/glucose at meal times and not last thing at night.

Do not add sugar to weaning foods.

Avoid thickening agents that contain maltodextrin as this contains sugar. Your GP/dietician can recommend a sugar free alternative.

Read the food/drink labels as many contain 'hidden sugars'. For example: sucrose, glucose, maltose, dextrose, syrup, honey, treacle, invert sugar, dextrin, maltodextrin.

Juices that say 'no added sugar' still contain natural sugars that can help to cause decay. Substitute these drinks with water or cows milk as milk and water are 'safe' drinks.

The majority of medications contain sugar, especially in oral suspension form. If a sugar-free version is not available from your doctor, try to take these medications at meal times and avoid taking before bed.

Foods & drinks containing sugar:

Chocolate, sweets, cakes & biscuits
Pastries, fruit pies, puddings
Table sugar & sugared breakfast cereals
Jams & honey
Ice cream
Fruit in syrup & dried fruits
Fresh fruit juices & sugared soft/fizzy drinks
Sugared milk-based drinks
Syrups & sweet sauces

'Safe' healthy snacks:

Milk & water
Pitta bread & bread sticks
Wholemeal toast
Cheese & cheese spread
Cheese on toast
Rice cakes
Bagels & crumpets
Unsalted nuts
Lean meats, tuna, egg
Plain yoghurt & chopped fruit
Carrot, celery, cucumber sticks
Apples, grapes, bananas

Grinding and toothwear

Excessive grinding and clenching of the teeth during the day and night can cause gradual wear of tooth surface, pain, tooth loss and jaw problems.

Grinding/wear can be caused by stress, irregular biting position, medication side effects, epilepsy, seizures, developmental tooth defects and missing teeth.

Consult the dentist

The dentist may produce a custom made mouth guard to help reduce wear.

The dentist may also be able to modify the way in which the teeth bite together if appropriate.

The dentist may repair the teeth to reduce pain and restore function.

The dentist may provide topical fluoride treatments/high fluoride toothpaste to help reduce the sensitivity.

Relaxation/stretching techniques may help

The dentist/doctor may be able to recommend some techniques, such as:

Stretching and **massaging** the jaw muscles may help relax them. With a slightly open mouth, place your knuckles under the cheek bones and slowly drag them down the face towards the bottom of your jaw. This can be repeated numerous times throughout the day if required.

Dry Mouth

Dry mouth (xerostomia) due to a reduction in saliva flow can often be a side effect of certain antidepressant, antipsychotic and anticonvulsant medication.

Dry mouth can result in discomfort, reduced taste, increased risk of tooth decay, gum disease and oral infections. It can affect speech, chewing and swallowing.

Consult the doctor and if there is no alternative medication, there are tips to help reduce the effects of dry mouth.

Saliva substitutes: Sprays, gels, pastilles, tablets and mouthwashes, such as Luborant, Salivix, SST, Biotene etc. Many are available in chemists or consult your doctor for advice.

Frequent sipping of plain water (avoid drinks containing sugar)

Rinsing mouth with plain water after meals to help cleansing and removal of food debris

Bathing the mouth with moist gauze

Lubricate dry lips with petroleum

Avoid spicy food as this dehydrates tissues

Prescription fluoride toothpastes, mouthwashes and fluoride treatments from dentist to help fight tooth decay.

Visiting the dentist

Here are some tips to help prepare for a visit to the dentist:

Arrange a trial visit to meet the staff and become familiar with the environment, smells, noises and equipment.

Request the first appointment to avoid waiting and a busy waiting room. Keep appointments short.

Spread the treatment out across multiple short appointments to avoid prolonged stress/discomfort and to develop familiarity and trust with the dental environment and staff.

Inform your child of the appointment in advance to avoid a last minute struggle. It may seem easier to leave it til the last minute or take your child to the dentist unaware, but in the long run it may cause increased anxiety and resistance/refusal.

The use of picture story books eg, 'My First Trip To The Dentist' and 'autism social stories' can help explain what will happen, what to expect and why we need to go to the dentist.

Purchase a disposable mouth mirror from a pharmacy to practice before the visit. Take a favourite toy/blanket along for comfort and to help occupy.

Hold hands throughout the appointment to provide support and to avoid flapping/rocking during treatment.

Take a personal stereo along to the appointment for your child to listen to during treatment to reduce the noise of the equipment.

Provide plenty of praise and encouragement during and after the appointment.

Provide a reward after the appointment for positive reinforcement.

Provide the dentist with as much information as possible about your child's medical history, needs, behaviour and sensitivities so they are fully aware and prepared.

Information and images contained in this leaflet has been reproduced from a leaflet by Lisa Williams in association with The University Of Sheffield for the National Autistic Society.



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