



A Caregiver's Guide To Good Oral Health For Special Olympics Athletes

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Special Olympics is a global inclusion movement using sport, health, education, and leadership programs every day around the world to end discrimination against and empower people with intellectual disabilities. Founded in 1968, and celebrating its 50th Anniversary this year, the Special Olympics movement has grown to more than 6 million athletes and Unified Sports partners in more than 190 countries. With the support of more than 1 million coaches and volunteers, Special Olympics delivers 32 Olympic-type sports and over 100,000 games and competitions throughout the year. Special Olympics is supported by individuals, foundations, and partners, including Bank of America, the Christmas Records Trust, The Coca-Cola Company, ESPN, Essilor Vision Foundation, the Golisano Foundation, the Law Enforcement Torch Run for Special Olympics, Lions Clubs International, Microsoft, Safilo Group, Stavros Niarchos Foundation, TOYOTA, United Airlines, and The Walt Disney Company.

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Smile Generation was not involved in the production of this Guide and is not responsible for the content therein.

Introduction

You're Not Healthy without Good Oral Health



For the millions of people worldwide with intellectual and developmental disabilities, dental care is often not a top priority and takes a back seat to more pressing medical issues. However, maintaining good oral health should be a priority for everyone. In the words of former United States Surgeon General C. Everett Koop, "You are not a healthy person unless you have good oral health. Oral health is part of general health and it can affect your overall health and your quality of life."

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It is well documented that oral disease — tooth decay, periodontal disease, tooth loss, and oral cancer — are amongst the most widespread of all chronic health conditions. Unlike the common cold, which left untreated will resolve itself, oral disease can lead to complications that can be difficult and expensive to treat. The good news is that dental disease is much easier to prevent than to treat. Dentistry has made great strides in the last decade and research proves that proper oral hygiene and regular visits to the dentist can prevent many dental diseases.

This guide is designed to help you develop and maintain a complete oral hygiene program. These pages are devoted to easy-to-follow instructions on proper brushing, rinsing, and flossing techniques, as well as suggestions for adaptive positions for these activities. You will also find important information about common dental problems, including oral health considerations during the growth and development of a child with intellectual disabilities. This guide does not take the place of routine visits to the dentist. With regular cleanings and check-ups, everyone can have a beautiful and healthy smile.

Note: This is an educational resource and does not serve as a means to replace regular doctor/dentist visits.

Good Oral Hygiene

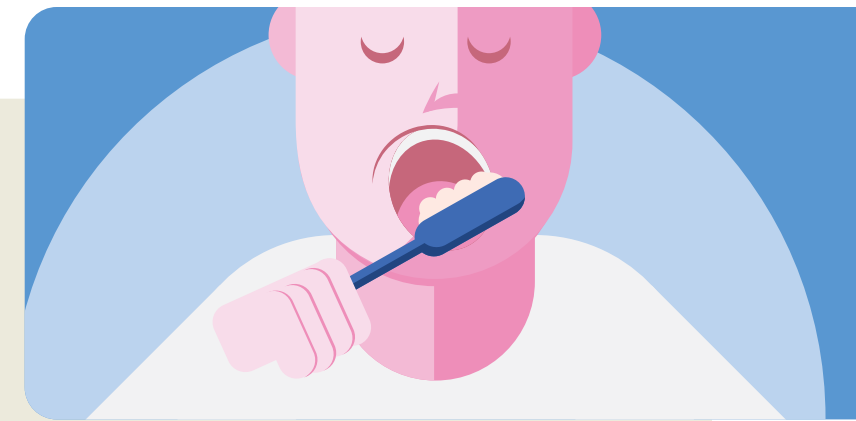
Step by Step



The most important part of maintaining good oral health is a person's daily oral hygiene and diet. Brushing, rinsing, a healthy diet and, if possible, flossing, will not only enhance a person's smile and self-esteem but also eliminate problems in the future. In addition, proper hydration is important for adequate saliva production. An acidic mouth will contribute to dental caries (decay). Acids can be from foods, beverages, lack of saliva, medication, or dehydration. Even rinsing the mouth with water or baking soda after an acid exposure can help dramatically.

Everyone, regardless of their ability, should brush or have their teeth brushed at least twice each day. Flossing and rinsing are equally important.

The following instructions will help to make oral hygiene easier. Topics that will be covered include techniques, ways to adapt a toothbrush, and positions to enhance brushing.



Step Two:

Start with upper teeth, brushing outside, inside, and chewing surfaces.

Do the same for lower teeth. Be sure to brush each tooth. This should take about two minutes.

Brushing...Step by Step



Step One:

Place toothbrush bristles at the gum line at a 45-degree angle to the gums. Press gently and use short strokes vibrating back and forth, or a light scrubbing motion in small circles from one side to the other.

Reposition brush vertically to clean inside upper and lower surfaces of front teeth.

**If you are assisting in brushing and visibility of the teeth is a challenge, you can use a spoon to help retract the cheek. Do NOT brush without proper visualization the teeth and gums or you can cause discomfort, resulting in compromised outcomes.*

Step Three:

To freshen breath, brush the tongue too, since it can harbor many bacteria.

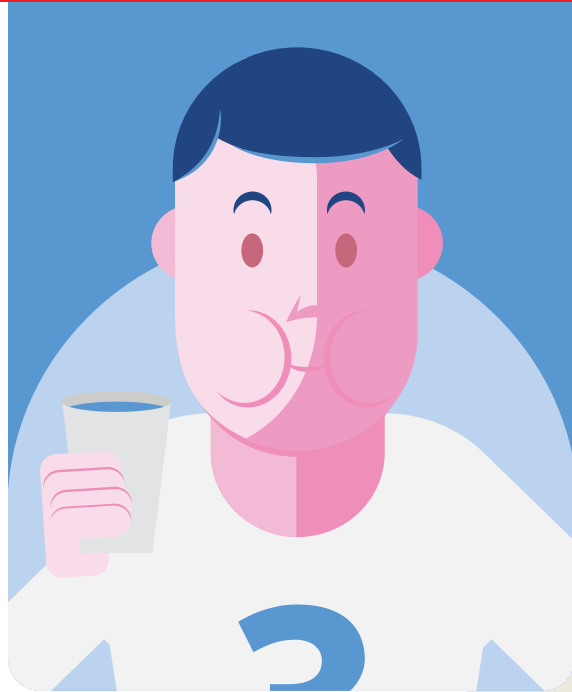
For persons with limited dexterity, there are alternate methods of brushing. Using the "roll" method, turn their wrist slightly with the bristles of the brush remaining flexed, following the contours of the teeth.

Another method is the "circular" method. With teeth closed, place the brush inside the cheek with tips lightly touching the teeth. Use a wide, circular motion with little pressure.

Have your dentist or hygienist recommend the best method for you and provide instruction on how to perform it.



o Rinsing...Step by Step



R I N S E

Step One:

01.
Take recommended dose of a fluoride rinse (usually a capful), swish it around mouth for 60 seconds, and expectorate (spit), taking care not to swallow the rinse. For full fluoride protection, do not eat or drink for 30 minutes after rinsing.

Step Two:

02.
If the patient is unable to rinse without swallowing, as in Step 1, use a cotton swab or toothbrush to place a little fluoride rinse on the teeth. Your dental professional may also recommend a prescription fluoride gel treatment.

If a person gags or cannot expectorate (spit), brush with a fluoride rinse instead of toothpaste. First, brush without the rinse. Then pour a little rinse into a cup, dip the toothbrush into it, and brush.

If a chlorhexidine gluconate product is prescribed, use a sponge applicator (available in many medical supply stores) or a toothbrush, dip into the chlorhexidine, and brush on the teeth and gums.



o Flossing...Step by Step



Flossing is an important activity, but takes a degree of manual dexterity. People with intellectual and physical disabilities may not have the ability to floss. This is a procedure that can be done for a person, if they are having challenges trying to floss.

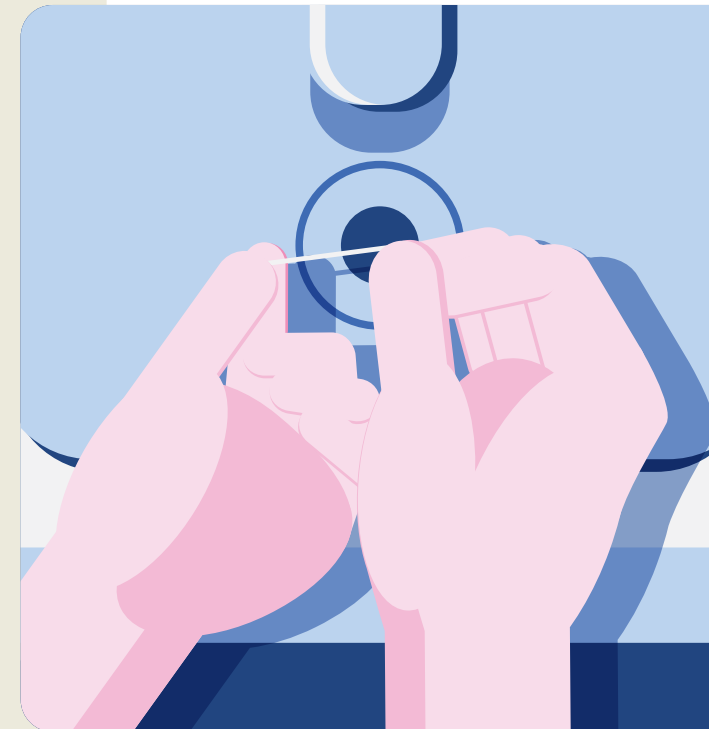


Step One:

01.
Take a piece of floss, approximately 18 inches long, and wrap it around the index finger of each hand. You can also tie the ends together in a circle.

Step Two:

02.
With the floss gripped firmly between the thumb and index finger of each hand (hold an approximately half-inch section taut for more control), work the floss gently between the teeth until it reaches the gum.



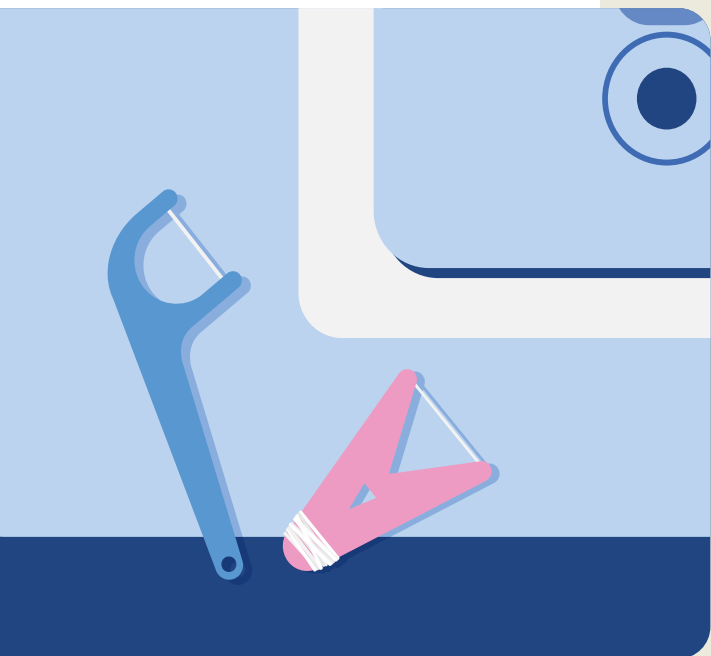
S S C L E



FLOSS

Step Three:

Curve the floss into a C-shape around the tooth. Slide it up and down the side of the tooth. Remove the floss carefully, and repeat the process for each tooth. While flossing, make certain not to injure the gums — keep your movements controlled and gentle whenever the floss is in contact with the gums.



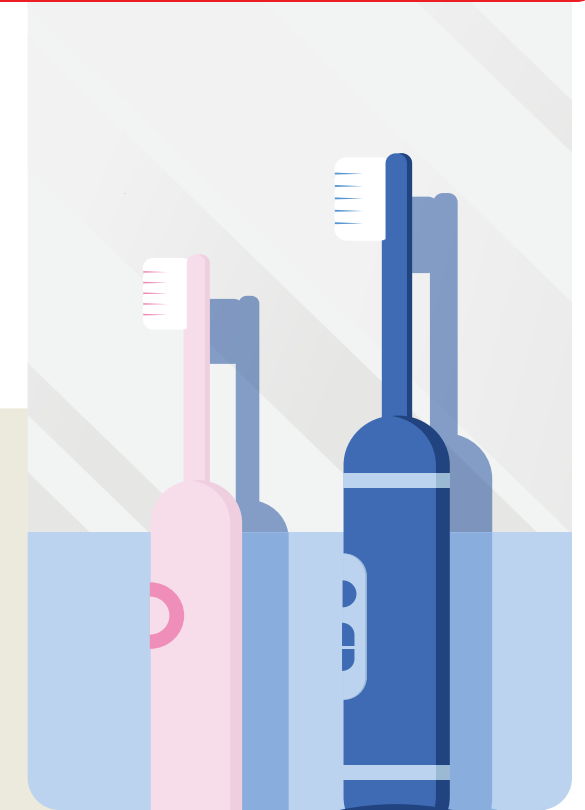
Step Four:

Floss holders are available to help with coordination and make it easier to use if the handles are long enough outside the mouth. If you are flossing for someone else, gently slide the floss between the teeth with pressure against the tooth and do not snap onto the gums.

Adapting a Toothbrush



Don't give up on brushing if the person is unable to hold a brush. Here are seven suggestions to modify a toothbrush.

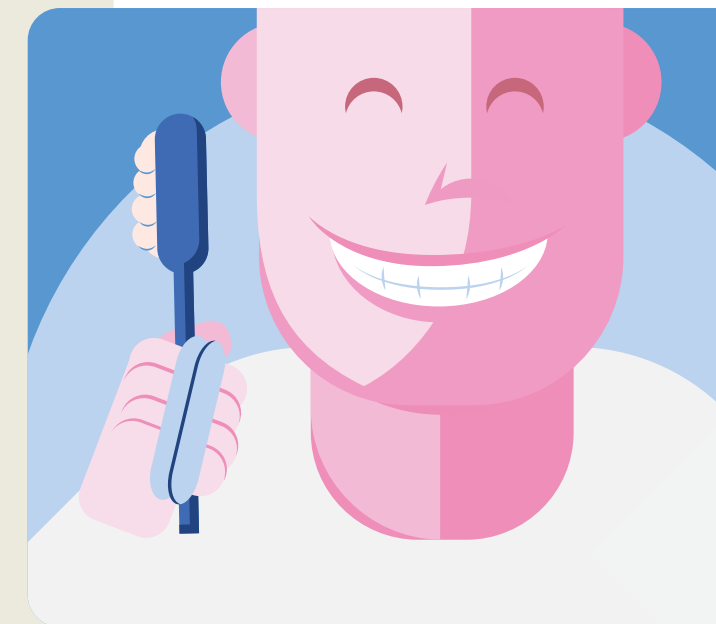


Electric Toothbrushes:

Note that even when an individual cannot manipulate a regular toothbrush, they may be able to brush their teeth on their own by using an electric or battery-operated toothbrush.

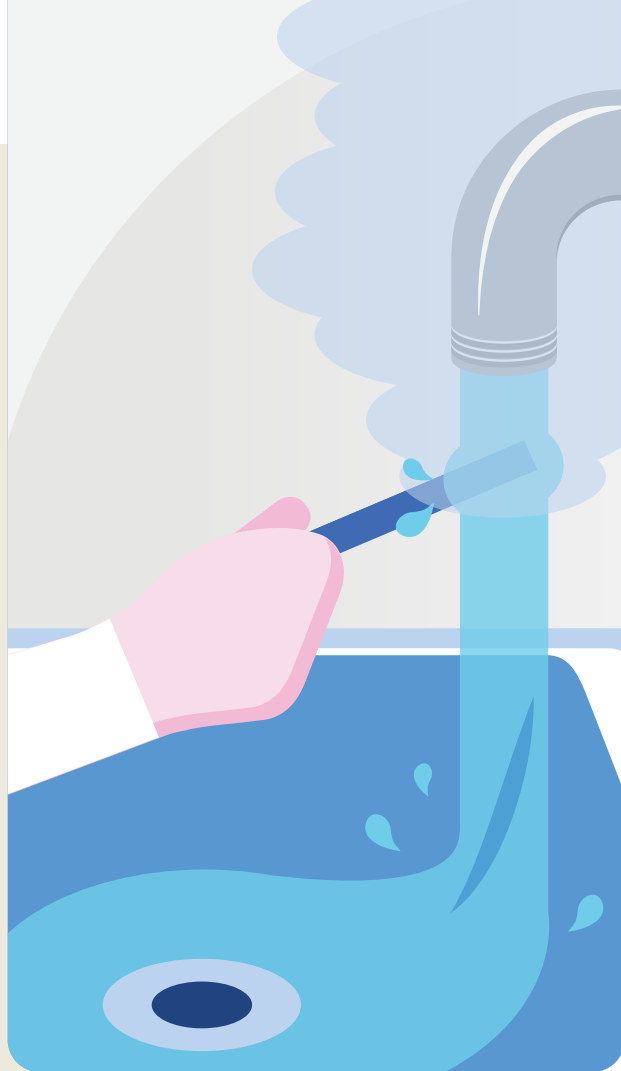
Attach Toothbrushes:

Consider attaching the toothbrush to an individual's hand by using a wide elastic band (taking care that the band is tight enough to secure the toothbrush but loose enough so that it does not constrict circulation).



03 Bend Brush Handle:

Depending on the composition of the toothbrush, bending a brush handle to create a more conducive angle is sometimes possible by running very hot water over the handle (not the brush head) of the toothbrush, to soften the plastic.



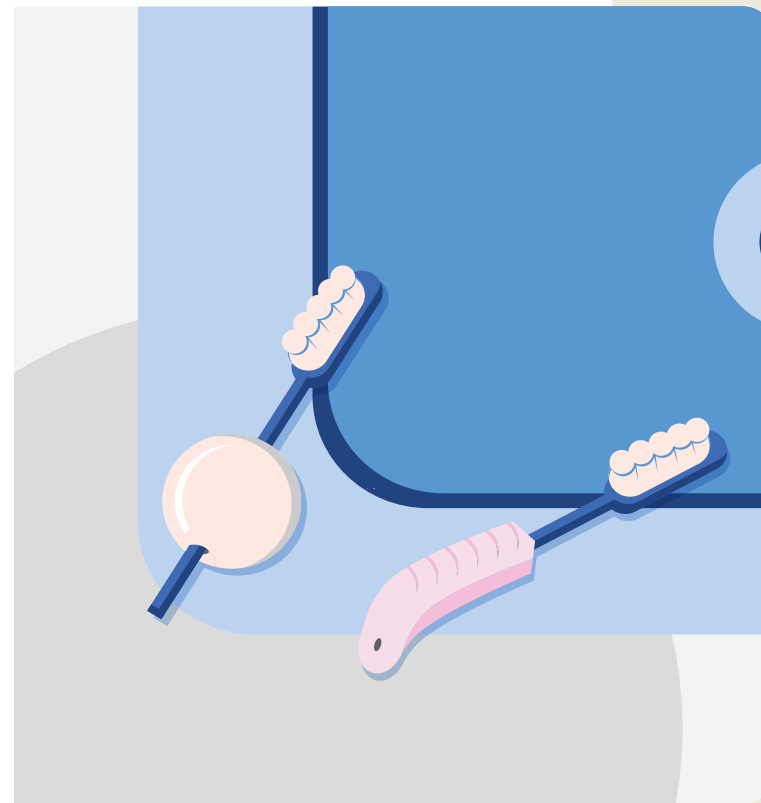
04 Attach Extenders:

If an individual cannot raise his or her hand or arm, attaching extenders such as a ruler, tongue depressor, or wooden spoon can lengthen the toothbrush handle.



05 Create a Grip:

If an individual possesses only limited grasping ability, enlarge the toothbrush handle by inserting it into a sponge, a rubber ball, or a bicycle handlebar grip. The thicker surface can enable them to hold it in their hand and brush on their own.



06 Mouth Props:

If an individual cannot hold his or her mouth open for the extended period of time to brush, consider trying a mouth prop. Examples of a mouth prop include three or four tongue depressors taped together, a rolled-up, moistened wash-cloth, or available online products.

07 Specialty Brushes:

There are two or three headed toothbrushes that line up the bristles and avoid discomfort on the gums. The proper size of the toothbrush head should be selected (small, medium, large).

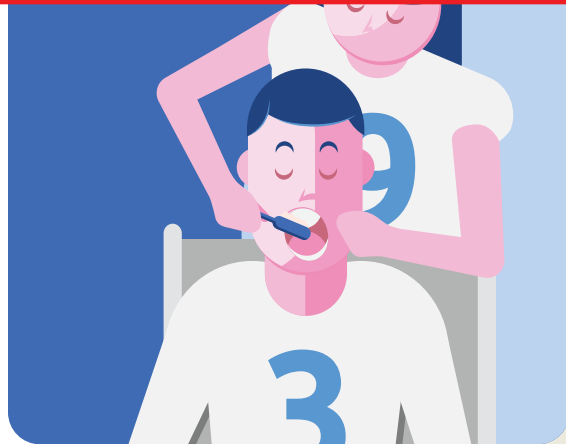
Different Positions for Brushing



There are a number of positions you can use to clean a person's teeth. Remember that supporting the head, being able to properly see inside the mouth, and ease of manipulation are important. Work with your dental professional to find the safest, most comfortable position for you and the person you are caring for.

**Special precaution for patients with Down syndrome: Atlantoaxial instability is a condition whereby the neck should not be hyper extended beyond the comfort of the patient. Otherwise, it can result in serious damage to the nervous system.*

◦ In a Wheelchair



Method One:

Stand behind the wheelchair. Use your arm to brace the individual's head against the wheelchair or against your body. Consider using a pillow so that the person is comfortable.

Method Two:

Sit behind the wheelchair, lock the wheels for safety, and tilt the wheelchair back into your lap.



◦ On a Bed or a Sofa - On the Floor

On a Bed or Sofa:

The individual lies on a bed or a sofa with his or her head in your lap. Support the person's head and shoulders with your arm.

Note: If the individual is uncooperative lying prone in this position, a second person can gently hold his or her hands and feet, as needed.



Sitting on the Floor:

Have the individual sit on the floor while you sit immediately behind them on a chair. Have the person lean his or her head against your knees. Note that if the individual has difficulty sitting in this position, you can gently place your legs over his or her arms to keep them still.



o Beanbag Chair & Lying on the Floor



In a Beanbag Chair:

If an individual has difficulty sitting up straight, using a beanbag chair often lets them relax without the fear of falling. Once the person is comfortable, use the same positions as noted above for the bed or the sofa.

Lying on the Floor:

Have the person lie on the floor with his or her head on a pillow. Kneel behind the individual's head, using your arm to help stabilize them.

Remember that in any position, it's important to support the person's neck and head.

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Common Dental Problems

A list of some common dental problems, what they mean and what to do about them.



Bad breath:

Most causes of bad breath are related to problems of the mouth. Poor oral hygiene, gum disease, dry mouth, medications, and the effects of smoking are the major contributors to this problem. If all these factors have been eliminated and bad breath still persists, certain medical conditions could be responsible for it, such as digestive problems, chronic sinusitis, diabetes, or side effects of medications.

minimize the potential for serious problems such as dental abscesses and tooth loss. New advances in oral care such as fluoride varnish, MI Paste, dental sealants, and rinsers may be included in an oral health care plan.

Bruxism:

Grinding or gnashing of teeth is common in persons with intellectual and/or physical disabilities. Bruxism usually occurs at night during sleep, but can take place throughout the day. This habit, continued consciously or unconsciously over a period of time, can result in tooth abrasion and loss of tooth structure. In permanent teeth, bruxism can lead to periodontal disease (bone loss) and/or jaw joint disorder (headaches, facial pain, etc.).

Dark front tooth:

This discoloration (blackish-bluish or yellowish) may indicate a change in vitality of the nerve in the tooth, usually because of a past history of trauma. Your dentist should be consulted.

Bruxism can be diagnosed at a routine dental visit. Treatment may include bite adjustments or an appliance. Most of the time no treatment is indicated. Often the habit is outgrown.

Drooling:

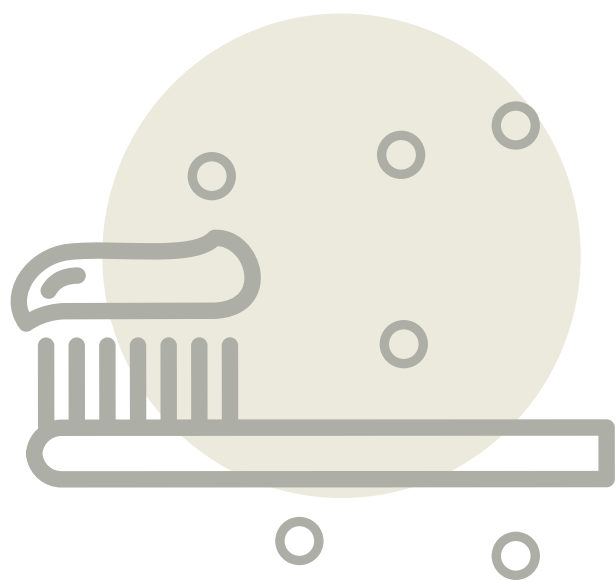
Some people with intellectual disabilities are often prone to excessive drooling. This problem can be irritating to the skin of the face, neck, and chest as well as being socially unacceptable. In particular, cleaning the corners of the mouth is important to avoid yeast (candidiasis) growth. This condition can be treated in several ways. Please consult with your health care provider as to treatment options and be sure the benefits outweigh the risks.

Cavities (dental caries):

Poor oral hygiene and a diet high in sugar can cause cavities. Decreased salivary function as a result of medication side effects, acid exposure, systemic problems, or diet contribute to caries development. This must be treated in primary teeth, as well as in permanent teeth. Regular dental care will allow a dentist to treat cavities in the early stages and

Dry mouth:

This is a common side effect of medications or a symptom of certain diseases. Dry mouth is regarded as a significant health problem because it can affect nutrition and psychological well-being, while also contributing to tooth decay (dental caries), gum disease (periodontal), or other mouth problems. Dry mouth is associated with extreme dental caries (cavity) risk. Professional advice should be sought because various treatments are available.



Facial or gum swelling:

Swelling often indicates an abscessed tooth or an infection of the gums and is usually caused by a deep cavity or by past history of trauma with subsequent nerve damage. In primary teeth, the usual treatment is an extraction; in permanent teeth, pulp therapy is recommended. Your dentist should be consulted immediately to help prevent the spread of infection.

Fractured teeth from trauma:

Seek professional care as soon as possible. The sooner the treatment, the better the chance for successful outcomes.

GERD (Gastro-Esophageal Reflux Disease):

This can be a common problem in patients with special needs. GERD leads to an acidic environment in the oral cavity and is very erosive to the teeth and throat. The patient should be seen by their physician/ Gastroenterologist for medication. Your dentist may prescribe MI Paste and fluoride varnish to help remineralize the teeth and suggest strategies to neutralize the oral cavity acid associated with this disorder. Baking soda mouth rinse is often an inexpensive and effective way to neutralize the oral cavity.

Medications:

Persons with intellectual disabilities are generally prescribed more medications, such as antibiotics, seizure, and behavioral medications that are often taken over a long period of time. Infants and children are often prescribed medication in a liquid form that may contain syrups and sweeteners to make them more palatable. A high concentration of sugars increases the potential for decay. Many medications, such as sedatives, barbiturates, and antihistamines, may reduce salivary flow, which is the natural cleansing action of the oral cavity. Some seizure medications may cause enlarged gums that frequently bleed.

Aspirin or other pills are sometimes inadvertently dissolved in the mouth before swallowing; creating an acidic environment that produces decay. Rinsing or spraying the mouth with water or possibly chewing xylitol gum after each dose of medication is a measure that can help minimize these associated dental problems. Your dentist may prescribe MI Paste (amorphous calcium phosphate-casein phosphopeptide) to your daily oral hygiene regimen to help reduce oral acidity.

Over-retained primary teeth:

A primary tooth still in position with a permanent tooth trying to come into the same space is over-retained, and should be removed immediately. The presence of primary teeth in teenagers and adults may indicate a potential problem, such as a congenitally missing or an impacted permanent tooth. Regular dental care will allow the dentist to monitor this situation.

Periodontal disease:

Also known as gum disease, periodontal disease is caused by bacteria and it advances in stages, destroying the gum tissue and ligaments that connect the teeth to the bone. Periodontal disease can also destroy the bone that anchors the tooth, leading to eventual tooth loss. Symptoms include bad breath or a funny taste in the mouth. Daily oral hygiene and regular professional care are the keys to preventing or minimizing periodontal disease.

Permanent tooth accidentally knocked out of the mouth:

Try to place the tooth back into the socket as soon as possible. Hold it firmly in position until help is obtained. If you are unable to replace the tooth in the socket, put the tooth in milk, water, or saliva in a cup. If primary or permanent teeth are moved out of position, seek professional care immediately.

Primary tooth accidentally knocked out of the mouth:

Leave the tooth out and seek care immediately. Bring the tooth to show the dentist. If the tooth is intruded (pushed up) because of injury, it can be left to re-erupt, but must be carefully monitored.

Sensitivity:

The root of a tooth may become exposed because of age, self-inflicted trauma, or improper tooth brushing technique. If discomfort is present, let your dental professional know because it can often be treated through the use of fluoride varnish or desensitizing agents.

Soft diet:

Many people with intellectual disabilities have difficulty in eating, including biting and chewing. Because of these factors, their diets are often limited to soft foods and liquids. This diet does not always provide the dentition, gums, and oral musculature with mechanical stimulation. Some with intellectual and/or physical disabilities tend to hold soft foods in the mouth longer (pouching, or pocketing), creating an environment for bacterial activity. Brushing and rinsing are therefore very important.

Tartar (calculus):

Plaque deposits that become calcified or hardened on the teeth and under the gums are called tartar. Tartar contains bacteria that can irritate gums causing gingivitis and bleeding. Regular brushing, rinsing, and flossing will reduce tartar build-ups. Individuals who are on Chlorhexidine rinses are at higher risk of calculus build up as well as patients that are gastric tube fed.



Vague pain in gums:

Check for canker sores. These are very common and can occur anywhere in the mouth. Medications can be given to relieve the pain and avoiding hot and spicy foods and drinks will diminish discomfort. If the pain does not go away within 48 hours, seek professional care.

Wisdom teeth:

Occasionally, wisdom teeth can also cause pain during their eruption. An infection may occur when the tooth is not fully erupted. If swelling occurs, immediate care is necessary to prevent the spread of infection.

Oral Health Considerations During the Growth & Development of a Child



- **Try to prevent thumb-sucking, finger-sucking, or pacifier habits**, which may cause future malocclusions (bite abnormalities), because the child may not be amenable to orthodontic therapy.
- **Keep an infant's gum pads clean** to help reduce teething discomfort. Use a dampened or wet gauze wipe.
- **An early initial dental exam.** The American Academy of Pediatric Dentistry recommends that every child with special needs should have a dental home and an initial visit with a dentist by age 1.
- **Be aware of "Early Childhood Caries";** do not put the child to bed for a nap or a night's sleep with a bottle of sweetened liquid in his or her mouth (e.g. milk, formula, or fruit juices). When the child is sleeping, a decrease in salivary flow allows the sugary liquid to remain in the child's mouth for a longer time, causing tooth decay. Demand breast-feeding over an extended period of time can cause a similar problem.
- **Some liquid medications contain from 30 percent to 50 percent sucrose**, such as those used for preventing heart disease, seizures, or recurrent infections. These sugar-laden oral medications are most often given at nap or bedtime, when salivary flow is diminished and will not wash away the liquids. Give the medication when the child is awake, and have the child rinse thoroughly after each dose. Be sure to inform your dentist of the medications the child is taking, and the frequency and time of the dosages prescribed. Request sugar-free medications from your pharmacist if possible.
- **There is a wide range of timetables for the eruption of primary and permanent teeth.** . Frequent dental care (at least semiannually) can help to ensure proper guidance of the developing dentition and, if possible, early interception of future malocclusions (bite abnormalities).

- **If the child's primary tooth has not fallen out** and the permanent tooth is erupting, seek care as soon as possible. Prompt removal of the primary tooth can prevent a bite problem or other orthodontic problems that may not be easily treatable.
- **If tooth crowding is present**, an early orthodontic consultation is advisable. There are certain procedures that may limit or possibly avoid extensive orthodontic treatment.

Dental Treatment Choices:

Advances in dental materials and dental therapies have come a long way in recent years.

Dental Materials: *Filling Materials Choices*

- 1) Amalgam (silver)
- 2) Composite (resin tooth colored)
- 3) Glass Ionomer tooth colored that releases Fluoride to reduce recurrent decay (caries). For high and extreme caries risk patient, Glass Ionomer or Amalgam restorations should be considered as the option of choice.

Sealants:

Resin based dental sealants have been used for several years but require a very dry field for placement. A newer variation of sealant that resists decay are Glass Ionomer dental sealants. They are an easier material to work with and effective in making teeth more resistant to dental caries (decay).

Arresting Dental Caries (Decay):

A new material has emerged in 2016 called Silver Diamine Fluoride (SDF) that arrests the progression of dental decay and hardens the tooth. The only side effect is that it can turn the cavity dark until a filling can be placed at a later date if the patient is not able to tolerate the procedure at the same appointment or may not even need a restoration.

Dental Treatment Options:

Patients with intellectual and developmental disabilities can present anxiety and behavioral issues in healthcare settings especially in the dental environment. There are over 20 behavioral techniques that a clinician can employ to allow for a positive patient experience. **Desensitization** is an option as well as a **weighted blanket** for apprehensive patients. Another option may be medical **immobilization/protective stabilization**, which is the safest alternative to sedation and general anesthesia. Each of these options requires a thorough evaluation of risks and benefits including a discussion between the clinician, the patient, the parents, and/or the legal guardian.

Creating a Personal Oral Hygiene Program

This personal oral hygiene evaluation and program checklist will help to evaluate the level of ability the Special Olympics athlete has in maintaining his or her oral hygiene. The following pages will help to develop a regular and realistic individualized oral care program. Take this form to your dentist or dental hygienist. He or she will talk with you about how best to help the person with intellectual disabilities take care of his or her oral health.

Patient Skills Evaluation Checklist

Date: Patient: Caregiver:

Classification of Cleaning Skills (please check one):

- Patient requires significant assistance
- Patient has some dexterity but poor cleaning technique
- Patient can effectively brush with little assistance
- Patient requires virtually no assistance

Current Patient Brushing Method (please check one):

- Manual Electric None

Does the patient use toothpaste?

- Yes No

Does the patient rinse (please check one):

- Patient rinses with chlorhexidine (Prescription)
- Patient rinses with over the counter mouth rinse (please specify):
- Patient unable to rinse; caregiver uses swab technique with chlorhexidine
- Patient is unable to rinse; caregiver uses swab technique with over the counter mouth rinse (please specify):

Does the patient floss (please check one):

- Patient is able to floss (manual or floss holder)
- Patient is unable to floss; caregiver assistance needed
- Patient is unable to floss; no flossing technique currently used

Does the patient use Fluoride (please check one):

- Liquid
- Rinse Gel
- Other: _____

Fluoride frequency (please check one)

- At the dental office 1 time a year
- At the dental office 2 times a year
- At the dental office more than 2 times a year
- At home once a day
- At home twice a day
- At home sometimes
- Never

Special toothpastes (Please check All that apply)

- High Fluoride Toothpaste (prescribed or dispensed by dentist)
- MI Paste (ACP-CPP) calcium/ phosphate
- Remin Pro (Hydroxyapatite/ Fluoride)
- Other: _____

Understanding Challenges (Risks) Questionnaire:

What is the Patient's Medical Diagnosis:

When was the last dental examination with Xrays? years

What was done at last dental examination?

A) Dental Risk: Medication Induced Xetostomia (Dry Mouth)

Please list ALL medications:

Screening Questions:

Does Patient mouth breathe? **Y** or **N**

Does Patient snore? **Y** or **N**

Snack more than 3 times daily in addition to meals? **Y** or **N**

Is the Patient's saliva thicker than water or absent? **Y** or **N**

Has the Patient had a filling or cavity in the last 3 years? **Y** or **N**

(If any of these answers are Yes, the Patient may be at greater risk for cavities)

B) Periodontal (Gum) Risk:

Do their gums bleed when brushing? **Y** or **N**

Is there visible plaque or tartar on teeth / dull appearance? **Y** or **N**

Are the gums red and puffy or do they bleed easily? **Y** or **N**

(If any of these answers are yes, the Patient may be at a greater risk for gum disease)

Oral Hygiene Checklist

Regimen	Patient	Caregiver
Tooth Brushing	<input type="checkbox"/>	<input type="checkbox"/>
Monitor Activity	<input type="checkbox"/>	<input type="checkbox"/>
Toothbrush Modification	<input type="checkbox"/>	<input type="checkbox"/>
Electric Toothbrush	<input type="checkbox"/>	<input type="checkbox"/>
Toothpaste	<input type="checkbox"/>	<input type="checkbox"/>
Water	<input type="checkbox"/>	<input type="checkbox"/>
Fluoride Rinse	<input type="checkbox"/>	<input type="checkbox"/>
Fluoride Gel/ Paste	<input type="checkbox"/>	<input type="checkbox"/>
Chlorhexidine Rinse	<input type="checkbox"/>	<input type="checkbox"/>
Chlorhexidine Brushing	<input type="checkbox"/>	<input type="checkbox"/>
Chlorhexidine Swab	<input type="checkbox"/>	<input type="checkbox"/>
Red Dye Program	<input type="checkbox"/>	<input type="checkbox"/>
Saliva Neutralization (Baking Soda)	<input type="checkbox"/>	<input type="checkbox"/>
Floss	<input type="checkbox"/>	<input type="checkbox"/>
Reinforcers (E.g., Food, Tv, Book)	<input type="checkbox"/>	<input type="checkbox"/>
Support	<input type="checkbox"/>	<input type="checkbox"/>
Arm	<input type="checkbox"/>	<input type="checkbox"/>
Head	<input type="checkbox"/>	<input type="checkbox"/>
Hand	<input type="checkbox"/>	<input type="checkbox"/>
Verbal Instructions	<input type="checkbox"/>	<input type="checkbox"/>
Position of Caregiver	<input type="checkbox"/>	<input type="checkbox"/>

Other: (Mi Paste, Xylitol Gum/ Mint/ Spray, Etc.)

Additional Comments/Instructions:

