



Dental Health in Children and Adults with Prader-Willi Syndrome

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Individuals of all ages who have Prader-Willi syndrome (PWS) will eventually experience challenges with dental health. Research has identified a number of issues commonly experienced by individuals with PWS, including dental caries (cavities), gingivitis (inflammation of the gums tissue surrounding the teeth), reduced salivary flow, enamel erosion, and severe tooth wear.

It is critically important to address dental health at an early age to avoid lifelong complications. Further, proper dental habits and care, especially in adults with PWS, can help maintain overall health and prevent infections and tooth loss. Read on for additional tips.

DENTAL CARIES/CAVITIES, AND GINGIVITIS

The most common cause of dental caries and gingivitis is poor oral care. Mouth breathing is also a contributing factor in individuals who have PWS. Parents and caregivers should begin teaching and modeling good oral hygiene early to develop lifelong good habits. As time goes on, continue to monitor, and reinforce these skills.

Cleaning teeth should be done on regular basis 2-4 times a day.

- From birth to 6 months, or when the first tooth erupts, wipe the gums with a clean moist gauze pad or washcloth.
- Advance to using a very soft toothbrush or finger brush pad. This will help to establish good dental habits and assist with oral motor stimulation and strengthening.
- Wide brush handles often help to make brushing easier. A bicycle handle grip, rubber pencil grip or other special grip device (available from an occupational therapist) might be helpful.
- Always use a **soft** brush to minimize trauma to the gums.
- Typically, the parent or caregiver should assist in brushing teeth even up until early middle school if needed. Encourage and teach the child to do it, but the parent should finish it up with a “once over” to make sure all areas are reached. This is especially important if a person has braces and at bedtime, to make sure they don’t leave food along the gum lines.
- Solicit help from a dental hygienist to help teach and motivate the person receiving dental care. They might be more successful in achieving cooperation and successful mastery of the skill.
- Make tooth brushing fun.
 - Use fun tooth brushes; let the child or adult choose.
 - Use music or “tooth timers” to help with timing of how long to brush. Some toothbrushes light up and change colors to indicate proper brushing time.
 - Use battery operated or electric tooth brushes.
 - Use incentive charts.
 - Provide rewards – new toothbrush or sugar free gum

- Use good tasting toothpaste with fluoride. Always provide supervision with toothpaste to prevent the person from overeating it. Toothpaste in small amounts will not hurt you.
- White crusting around the mouth is often seen. Toothpaste and/or mouthwash designed for persons with dry mouth has been very effective. (for example, Biotene)
- Teach and encourage flossing. There are several flossing instruments available at most pharmacies and other stores.
- Limit sugar and use sugar-free products. When sugar combines with bacteria in the mouth there is increase acid production which can cause cavities and damage tooth enamel.
- Chewing sugar-free gum after eating can help increase salivation which could help prevent tooth decay. Limit to one piece and this does not substitute for brushing and flossing.
- Avoid food that is soft, sugary, and sticky like raisins, fruit snacks, or anything “gummy” that can contribute to creating cavities.

Dental examinations and cleanings should be done at least every 6 months.

- Do not be afraid to shop around. Get referrals from other parents in your community.
- Choose a dental team who is educated and experienced with patients with special needs or cognitive impairments.
- Consult an orthodontist between ages 6-9 to assess the palate and structure of the mouth. This can make it easier to keep teeth clean, preventing tooth decay, and periodontal disease.
- Finding dental professionals that accept Medicaid or other financial assistance can be very challenging, and reimbursement for dental services in these programs is often inadequate. Contact your state dental association for a list of providers.
- Some dental care providers have opted to donate their services in lieu of utilizing financial assistance.
- Community health clinics often have free or reduced-fee dental clinics. Special Olympics in some areas provide dental services. Watch for regional FREE dental clinics.
- Consider utilizing a Dental school for care.

REDUCED SALIVARY FLOW AND ENAMEL EROSION

Thick, sticky saliva is caused by reduced production of saliva and is commonly found in individuals who have PWS. Reduced salivary flow contributes to enamel problems, such as enamel erosion (the wearing down of the protective covering (enamel) of the teeth). When enamel wears down, microscopic channels in the tooth open up and become exposed. Most people with this problem complain of discomfort and pain. However, since persons with PWS have an altered pain response, they might not complain about this. Health conditions including gastric reflux, medications (aspirin, antihistamines, and some vitamins), as well as a diet high in sugars and acid contribute to enamel erosion.

In addition to good dental hygiene and care, there are additional steps that can manage and prevent these issues.

- Consult your dentist on use of sealants in preventing enamel erosion and tooth decay, even in adults.
- Drink water in moderation. Dehydration is often a contributing factor.
- Avoid beverages high in acid, such as soft drinks, sport drinks, juice, tea, and coffee.
- Swish mouth out with water or brush teeth after drinking beverages high in acid.
- Use a straw to keep acids away from teeth.

- Use fluoride toothpaste and an alcohol-free fluoride mouthwash. Use as a rinse and do not swallow. If needed, apply with a Q-tip.
- Report symptoms of Gastroesophageal Reflux Disease (GERD) such as a sudden loss of tooth enamel, excessive belching and/or burping to your health care professional to identify if gastric reflux is present. This disorder has been identified in persons with PWS and can result in enamel destruction.

SEVERE TOOTH WEAR/GRINDING/BRUXISM

Teeth grinding or recurrent rubbing of the surfaces of the teeth can result in damage and severe tooth wear and other complications. This is often seen in children and adults with PWS. It occurs most often while sleeping.

- If a bite abnormality is identified a referral to an orthodontist is highly recommended.
- Mouth bite guard is recommended. It is best if it is individually fitted by dentist. It might require an incentive program for compliance.
- Discourage chewing on pencils, pens, or anything that is not food. Minimize chewing gum if present. The jaw muscles may become conditioned to clenching and increase likelihood of grinding teeth.