

## Dental Problems in Children and Adults with Prader-Willi Syndrome

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Persons with Prader-Willi syndrome (PWS) of all ages face lifelong challenges in dental health. A few of the more common dental problems include enamel erosion, tooth sensitivity and severe tooth wear. The following information provides information on causes, signs, prevention and treatment options that may be helpful.

### Enamel Erosion and Tooth Sensitivity

#### What is it?

*Enamel erosion* is the wearing down of the protective coating (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 may or may not experience and report this sensation.

#### Common Causes:

- Abnormal salivation (low production of saliva)
- Grinding of the surfaces of teeth
- Health conditions including gastric reflux
- Medications (aspirin, antihistamines and some vitamins)
- Diet high in sugars and acid

#### Examples of foods and beverages with high acidity:

Soft drinks, sport drinks, fruit juices, lemonade, coffee, tomatoes, strawberries. (Citric acid, phosphoric acid, and ascorbic

acid are a few ingredients to watch for in foods.)

#### Signs of this Problem:

- Translucency of the enamel (you can almost see through the tooth)
- Darkening or discoloration of the teeth
- Pain or cold sensitivity (may not always be reported in persons with PWS)

#### Preventing this Problem:

- Drink water. Limit soft drinks, sport drinks, juices and coffee in moderation. Dilute juices with water.
- Swish mouth out with water or brush teeth after drinking or eating items high in acid.
- Don't sip on beverages for extended periods of time.
- Do not drink or eat high acid beverages/food in the evening after supper.
- Use a straw to keep acids away from teeth.
- Brush with fluoride toothpaste. Minimize swallowing. (This condition can occur in children and causes defects in the enamel of the teeth. Ingesting large

amounts of fluoride can cause nausea, stomach pain and/or vomiting. It may not be quickly detected in persons with PWS.)

- Get regular dental checkups and cleanings every 6 months.
- Talk to a dentist about daily non-alcohol fluoride mouthwash. (Use as a rinse; do not swallow.) If needed, apply with Q-tip.
- Consult dentist on use of sealants in preventing enamel erosion and tooth decay – even in adults.
- Use toothpaste that helps tooth sensitivity and protects enamel.

#### Treatment:

- Once lost, enamel cannot be replaced.
- If a person with PWS is found to have a sudden loss of tooth enamel, testing should be done to determine if a medical condition is present. Treatment should focus on identifying and correcting underlying problem. (May require special diet and medications.)
- A soft diet and avoidance of very hot and/or very cold foods often helps with tooth sensitivity.

### Severe Tooth Wear / Grinding / Bruxism

#### What is it?

*Teeth grinding* or recurrent rubbing of the surfaces of teeth can cause damage to the teeth and result in severe wear and other oral complications. This is often seen in both children and adults with PWS. It occurs most commonly at night or while sleeping.

#### Treatment:

- Mouth bite guard – best if individually fitted by a dentist. Used while the person sleeps. May require incentive program for compliance.
- If bite abnormality is identified, referral to an orthodontist is strongly recommended.
- Avoid or cut back on foods and drinks that contain caffeine, such as colas, chocolate, and coffee.
- Discourage chewing on pencils or pens or anything that is not food. Minimize chewing gum. It allows jaw muscles to get used to clenching and makes it more likely to grind teeth.
- Work with person with PWS to learn not to clench or grind his/her teeth. Have him/her practice relaxing jaw muscles. (Try holding a warm washcloth against cheek in front of earlobe.)
- Include plenty of water; dehydration has been linked to teeth grinding.



#### Causes:

- Exact cause is unknown
- Bite abnormalities
- Anxiety and/or stress