
American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN™
Crown: The portion of the tooth visible above the gums.

Enamel: The outside layer on the tooth that covers the crown, enamel is a hard, thin, translucent layer of calcified substance that envelops and protects the dentin. Enamel is the hardest substance in the body. The enamel’s properties allow it to protect the softer underlying dentin during chewing, grinding, and crushing food. Decay typically starts at the enamel surface and then spreads to the other layers.

Pulp chamber: The softest part of the tooth, the pulp extends from the tooth root to the crown. The pulp contains the tooth connective tissue, blood vessels, and nerves. Its function is to provide the tooth with nutrients. If the pulp of a tooth becomes damaged beyond repair, the tooth dies. Damage to the pulp can be a result of a cracked tooth, a deep cavity, or trauma.

Root: The part of the tooth below the crown, the root is covered by cementum rather than enamel, and attached by the periodontal ligament to the alveolar bone. It is like an anchor because it helps hold our teeth within the alveolar bone.

Dentin: A hard, thick substance that is the main component of the tooth structure, dentin is found under the enamel in the crown and under the cementum in the root. The dentin provides the tooth with the ability to flex and absorb tremendous functional loads without fracturing. Normal dentin is composed of millions of tubules that change as you move from the periphery toward the pulp chamber. These tubules contain tiny projections of the nerve and are, thus, sensitive to exposure to air, acid, and touch.

Alveolar bone: The portion of bone in the maxilla or mandible that surrounds and supports the teeth.

Cementum: The thin layer of calcified (tough calcium deposits) tissue covering the dentin of the root, cementum is 1 of 4 tissues that support the tooth in the jaw. The principal inorganic components of cementum are hydroxyapatites, which are thin, platelike crystals similar to those in bone.

Periodontal ligament: Made up of bundles of connective tissue fibers that anchor the teeth within the jaws.
### Anticipatory Guidance

<table>
<thead>
<tr>
<th>AGE</th>
<th>RISK ASSESSMENT</th>
<th>ANTICIPATORY GUIDANCE</th>
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<tbody>
<tr>
<td>Birth to 4</td>
<td>Do mom or siblings have cavities, a toothache, or bleeding or sensitive gums, or</td>
<td>Encourage good oral hygiene of parent or caregiver.</td>
</tr>
<tr>
<td>Months</td>
<td>have they had cavities filled in the past year?</td>
<td>If there is not a family dentist, encourage and assist parents in identifying one to help facilitate a dental home.</td>
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<tr>
<td></td>
<td>Do mom or siblings have a dentist?</td>
<td>Review infectious nature of tooth decay.</td>
</tr>
<tr>
<td></td>
<td>Does tap water supply contain fluoride?</td>
<td>Encourage cleaning baby’s mouth with soft cloth after feeding.</td>
</tr>
<tr>
<td></td>
<td>Is fluoridated tap water used for drinking and cooking?</td>
<td>Instruct parents not to clean the baby’s pacifier by putting it in their mouth.</td>
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<tr>
<td></td>
<td>Is this a baby with special health care needs (eg, low birth weight, premature,</td>
<td>Advise no napping or sleeping with a bottle or sippy cup.</td>
</tr>
<tr>
<td></td>
<td>congenital anomalies)?</td>
<td>Provide information about teething.</td>
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</tr>
<tr>
<td>6 Months</td>
<td>Review previous questions.</td>
<td>Review information from prior visits.</td>
</tr>
<tr>
<td></td>
<td>Is fluoridated tap water used to prepare formula and baby’s food?</td>
<td>Start using fluoridated water to prepare formula.</td>
</tr>
<tr>
<td></td>
<td>Does the baby fall asleep with a bottle that has formula or a liquid other than</td>
<td>Consider fluoride drops if water supply does not contain fluoride and child is at high risk for caries.</td>
</tr>
<tr>
<td></td>
<td>water?</td>
<td>Do not put the baby to bed with a bottle that contains anything other than water.</td>
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<tr>
<td></td>
<td>Does the baby nurse on demand through the night?</td>
<td>Do not pre-chew baby’s food or share eating utensils.</td>
</tr>
<tr>
<td>9 to 12</td>
<td>Review previous questions.</td>
<td>Review information from prior visit.</td>
</tr>
<tr>
<td>Months</td>
<td>Is fluoridated tap water used for drinking and preparing formula and baby’s food?</td>
<td>Teach parents to check their baby’s teeth and mouth by “lifting the lips.”</td>
</tr>
<tr>
<td></td>
<td>Does the baby sip on a cup or bottle with milk, juice, or other sweet drinks</td>
<td>Recommend that adults use a smear of fluoridated toothpaste to brush the teeth of children at high risk for caries. Teeth should be brushed twice a day (morning and night) by 1 year of age.</td>
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<td>between meals?</td>
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<tr>
<td></td>
<td>Does the baby snack on candy, cookies, or other starchy foods between meals?</td>
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</tbody>
</table>
Does the baby fall asleep with a bottle that has formula or juice, or does the baby nurse on demand through the night? Has a parent or another adult started brushing the baby's teeth with a "smear" of fluoridated toothpaste?

Teach about mouth and tooth injury prevention. Review feeding habits, discuss healthy snacks, and discourage grazing. Discuss the dental home.

Review previous questions. Review information from prior visits. Stop use of the bottle. Prolonged exposure to milk or juices causes harm to teeth because bacteria in the mouth convert the sugars to acid. The acid attacks the enamel and can lead to dental caries.

Review previous questions. Does an adult brush the child's teeth twice a day with a "pea-sized" amount of fluoridated toothpaste?

Review information from prior visits. Evaluate change in fluoride needs. Reinforce brushing with small pea-sized amount of fluoride toothpaste. Reinforce injury prevention and response. Be sure the child has a dental home.

Record fluoride varnish application in the child's medical record. For handwritten charts, use stickers to document the examination and any oral health findings.

A printable version of this sticker chart is available online at www.aap.org/oralhealth/chart-sticker.doc.
**TOOTH ABSCESS**

A collection of purulent fluid caused by a bacterial infection. The most common cause is extension of the dental caries process into the pulp of the tooth. It can also be caused by trauma to the tooth that allows for mouth bacteria to enter the pulp of the tooth.

**INFORMATION FOR PARENTS**

- Anaerobic organisms are the most common causative agents in dental abscesses.
- An abscess may be associated with facial cellulitis.

**TREATMENT/REFERRAL OPTIONS**

- Treat with amoxicillin or penicillin if fever or infection extends to face and regional nodes. Clindamycin should be prescribed if child is allergic to penicillin.
- Pain may be managed with nonsteroidal anti-inflammatory drugs or an acetaminophen/narcotic combination.
- An infection can be life-threatening and must be addressed emergently. Refer immediately to a dentist for definitive care.

![Tooth Abscess](image)

**ORAL CANDIDIASIS/THRUSH**

An infection of the mouth caused by Candida fungus (yeast) that presents as adherent white plaques, usually on the tongue and inner cheeks. It may also be present on the roof of the mouth, the gums, the tonsils, or the throat.

**INFORMATION FOR PARENTS**

- Oral candidiasis may occur in newborns, immune-compromised patients, patients with diabetes, and individuals on long-term antibiotics, which can alter normal oral flora.
- Oral candidiasis is a fungal infection.

**TREATMENT/REFERRAL OPTIONS**

- Treat with topical antifungal agents, such as nystatin or clotrimazole.
- This is a common complication of inhaled steroid use, usually for the treatment of asthma. Counsel patients to use a spacer and always rinse the mouth after inhaled steroid use.
- If symptoms persist, consider reinfection from pacifiers, bottles, or breastfeeding, as well as antifungal medication resistance.

![Oral Candidiasis/Thrush](image)

**GINGIVITIS**

Bacteria from plaque buildup that cause the gums to become inflamed (red and swollen) and bleed easily during tooth brushing and flossing.

**INFORMATION FOR PARENTS**

- Regular dental visits will help to remove plaque buildup.
- Once a dentist removes the plaque, regular brushing and flossing will help to minimize plaque formation.

**TREATMENT/REFERRAL OPTIONS**

- Treat with vigorous rinsing 3 to 4 times a day using 6 oz of fluid and approximately ¼ tsp of salt, approximately ¼ tsp of baking soda, and approximately 1 oz of 3% hydrogen peroxide.

![Gingivitis](image)
**PRIMARY HERPETIC GINGIVOSTOMATITIS & HERPES LABIALIS**

The inflammation of mucosal lining of cheeks, gums, tongue, and floor and roof of mouth. Caused primarily by herpes simplex virus type 1.

**INFORMATION FOR PARENTS**
- Primary herpetic gingivostomatitis may be associated with fever (101°F–104°F), irritability, restlessness, poor appetite, and foul breath.
- It can appear as blisters in the mouth, often on the tongue, cheeks, or roof of the mouth, which then pop and form ulcers.
- The ulcers are painful and may cause children to refuse to drink, which can result in dehydration. While the child’s mouth is sore, provide a mostly liquid diet, consisting of cool to cold, nonacidic drinks.
- Infection is lifelong and recurrences occur as “cold sores” or herpes labialis, showing up as blisters on the lips or corners of the mouth, usually at times of stress or infection.

**TREATMENT/REFERRAL OPTIONS**
- The disease is self-limited, so treatment is mainly supportive with hydration maintenance and pain control.
- Primary herpetic gingivostomatitis can be treated with the acyclovir family of antiviral medications.
- Herpes labialis is generally treated with topical therapies.

**APHTHOUS ULCERS**

Round, yellowish-grey ulcers with surrounding erythema (halo). Aphthous ulcers are usually located on the mucous membrane.

**INFORMATION FOR PARENTS**
- This is the most common type of ulcer in the United States.
- Etiology is unknown, but may be infectious, autoimmune, allergic, nutritional, or traumatic in nature.
- Recurrence of aphthous ulcers is likely.

**TREATMENT/REFERRAL OPTIONS**
- May treat with topical anesthetic creams or mouth rinses, although the benefits of using these products is not well established. May also treat with a topical steroid ointment or rinse such as triamcinolone acetonide 0.5%.

**MUCOCELE & RANULA**

A mucocele is a bluish or translucent cyst resulting from accumulation of mucous from trauma to a minor salivary gland. A ranula is a large collection of mucous under the tongue that blocks the salivary duct.

**INFORMATION FOR PARENTS**
- Mucoceles and ranulas are generally painless.
- They can range from very small to several centimeters in size.

**TREATMENT/REFERRAL OPTIONS**
- No treatment is necessary for mucoceles unless the lesion is large or uncomfortable.
- Ranulas should be excised.
The most common injury site is the maxillary (upper) central incisors, which account for more than 50% of all dental injuries. Oral injuries typically result from falls (most common), bike and car accidents, sports-related injuries, and violence. The mouth is also a common site for non-accidental trauma, and child abuse should always be considered in children presenting with oral trauma.

Tooth injury can be divided into the following classifications, ranging from mild to severe injury:

### MILD INJURY/NONURGENT EVALUATION BY DENTIST

**Injury to the tooth and its supporting structures without causing abnormal loosening or displacement of the tooth. Tooth is tender to percussion.**

**INFORMATION FOR PARENTS**
- Stick to a soft diet for 2 weeks.
- Monitor for changes in tooth color.
- Advise parents about possible injury to developing permanent teeth from trauma if a primary tooth is injured.
- Remind parents about the importance of safety gates and furniture protectors, and mouth guards for sports.

**TREATMENT/REFERRAL OPTIONS**
- Administer acetaminophen for pain relief.
- Refer to dentist for nonurgent evaluation.

#### 1. Concussion

**Injury to the tooth and its supporting structures with abnormal loosening but no displacement. Tooth is tender to percussion, with bleeding at gingival margin.**

**INFORMATION FOR PARENTS**
- Rinse with cold water.
- Stick to a soft diet for 2 weeks.
- Monitor for changes in tooth color that may indicate pulp necrosis.

**TREATMENT/REFERRAL OPTIONS**
- Administer acetaminophen for pain relief.
- Requires dental follow-up, as it can result in pulpal necrosis. If trauma occurs to a permanent tooth, a splint may be required.

#### 2. Subluxation

### MODERATE INJURY/PROMPT REFERRAL TO A DENTIST

**Injury to the tooth and its supporting structures, resulting in tooth displacement. Injured tooth is at risk for pulpal necrosis and root resorption.**

**INFORMATION FOR PARENTS**
- Rinse with cold water.
- Keep an ice pack over the lip and mouth if swelling is present.
- Stick to a soft diet for 2 to 4 weeks, depending on type of injury.

**TREATMENT/REFERRAL OPTIONS**
- Administer acetaminophen for pain relief.
- Requires prompt referral to a dentist for repositioning of the injured tooth/teeth. A splint may be required to hold the injured tooth/teeth in place.
- Even primary teeth should be examined by a dentist, because the underlying permanent tooth may be injured.

#### 3. Lateral Luxation
Tooth is pushed into the socket and the alveolar bone. May appear shortened or barely visible. Offers poor prognosis and high risk for complications, including root resorption, pulp necrosis, and infection. May require a root canal.

**INFORMATION FOR PARENTS**
- This type of injury may damage underlying permanent teeth, especially if an infection develops.
- Teeth may re-erupt in 2 to 6 months. If a primary tooth does not re-erupt, it will require extraction to not interfere with permanent tooth eruption.

**TREATMENT/REFERRAL OPTIONS**
- Do not attempt to remove intruded tooth. Instead, focus on pain control.
- For a primary tooth, seek dental evaluation within 1 week (or earlier, for significant symptoms).
- For a permanent tooth, refer to a dentist immediately for repositioning and splinting.

Tooth is partially displaced from its socket. This type of injury will require repositioning and stabilization.

**TREATMENT/REFERRAL OPTIONS**
Refer to a dentist promptly to evaluate the extent of injury, as well as any associated injury.

Tooth is completely out of the socket. Management will depend on tooth type.

**SEVERE INJURY/REQUIRES IMMEDIATE REFERRAL TO A DENTIST**

**TREATMENT/REFERRAL OPTIONS**
- Do not reimplant a primary tooth, as this may damage the underlying tooth. Instead, refer to a dentist within 24 hours.
- For a permanent tooth, reimplant immediately, ensuring correct orientation. The tooth should be reimplanted within 20 minutes, with the best long-term prognosis if replaced within 5 minutes and worse after 2 hours from the time of trauma.
- Instruct patient to bite on gauze or a handkerchief to hold the tooth in place.
- Send to a dentist or maxillofacial surgeon immediately for radiographs, splinting, and antibiotic prophylaxis.
- If tooth cannot be reimplanted on scene, it should be transported in Hanks solution, cold low-fat milk, saline, or cold non-carbonated sports drink.
- Never suggest the child hold the damaged tooth in his or her mouth because of the risk of aspiration or bacterial contamination.
- If the tooth cannot be located, do not assume it was lost at the scene. It could be embedded in soft tissues, intruded into the alveolar bone or sinus cavity, aspirated, or swallowed. Radiographs should be used to look for missing teeth.
- Administer tetanus prophylaxis if dental socket is contaminated with debris.

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4. Intrusion

5. Extrusion

6. Avulsion
### Uncomplicated Fracture of Enamel

Fracture [crack] of the enamel without involving the dentin or the pulp. May have a sharp edge.

**Information for Parents**

This type of fracture is rarely painful.

**Treatment/Referral Options**

- Inspect injured lips, tongue, and gingiva to rule out presence of tooth fragments.
- Refer to a dentist for evaluation, where a radiograph to exclude underlying root fracture may be required.
- Recommend long-term follow-up to evaluate for complications, which are uncommon.

### Uncomplicated Fracture of Enamel and Dentin

An enamel-dentin fracture that does not involve the pulp and can be recognized by the yellow to pink color of the dentin. Potential complications include pulp death or infection.

**Information for Parents**

- Have child rinse with warm water.
- Provide a soft diet, avoiding temperature extremes.

**Treatment/Referral Options**

- Inspect injured lips, tongue, and gingiva to rule out presence of tooth fragments.
- Administer acetaminophen for pain relief.
- If a primary tooth is injured, refer to a dentist for further treatment.
- If a permanent tooth is injured, refer to a dentist within 12 to 24 hours to cover exposed dentin of permanent incisors. If fractured piece of tooth has been saved, it may be used to restore the tooth.
COMPLICATED CROWN FRACTURE
An enamel-dentin fracture with pulp exposure. The fracture site has a reddish tinge or will show some bleeding. This type of fracture can cause extreme pain and may lead to pulpal necrosis. It also presents a risk of root resorption and infection in exposed pulp.

INFORMATION FOR PARENTS
- Have child rinse with warm water.
- If facial swelling is present, use cold cloth or ice pack to reduce swelling.

TREATMENT/REFERRAL OPTIONS
- Administer acetaminophen for pain relief.
- Refer to dentist as soon as possible (within 12–24 hours) for evaluation.

ROOT FRACTURE
A fracture with pulp exposure. Potential complications for a root fracture include root resorption and pulp necrosis.

TREATMENT/REFERRAL OPTIONS
- Refer to dentist as soon as possible (within 12–24 hours) for evaluation, where diagnosis is made radiographically.
- Excessive mobility of the tooth should lead to suspicion of root fracture.
- Treatment consists of reduction and splinting for permanent teeth, or extraction, depending on the extent of the traumatic lesion.
Trauma: Oral Soft Tissue

INJURY TO LIP

INFORMATION FOR PARENTS
Swelling and bruising of the lips are common after oral trauma, even in the absence of laceration.

TREATMENT/REFERRAL OPTIONS
- Administer acetaminophen for pain relief.
- Use a cold cloth or ice pack to reduce swelling.
- Examine carefully for laceration. If present, determine whether a foreign body, such as a tooth fragment or gravel, has been introduced into the wound.
- Deep laceration of the lip may require suturing.

INJURY TO FRENUM

INFORMATION FOR PARENTS
- The frenum is likely to be torn as a result of a fall that causes trauma to the mouth or teeth.
- A torn frenum heals spontaneously without long-term consequences.
- Avoid citrus or acidic foods.

TREATMENT/REFERRAL OPTIONS
Administer acetaminophen for pain relief.

INJURY TO TONGUE

TREATMENT/REFERRAL OPTIONS
- Administer acetaminophen for pain relief.
- Examine carefully to determine extent of laceration.
- Refer promptly to a practitioner experienced at the procedure, including most oral surgeons, some pediatric dentists, and otolaryngologists.
- Suture only when laceration is severe and the tissue edges are not self-approximating.
The most effective intervention is prevention. Pediatricians are in a unique position to help families prevent accidental trauma, including oral trauma, by providing anticipatory guidance at routine visits.

### Risk Factors

Pediatricians should be aware of the following risk factors for oral trauma:

- Children with compromised protective reflexes or poor coordination
- Hyperactivity
- Child abuse or neglect
- Malocclusion, or an abnormality in the coming together of teeth
- Failure to use protective face and mouth gear

### Preventive Guidance for Parents

Following is a list of suggestions for accident prevention specifically related to oral trauma:

1. Advise parents about possible injury to developing permanent teeth from trauma if a primary tooth is injured.

2. Review and anticipate developmental milestones. For example, discuss falls from a bed or changing table before children are expected to roll, such as at the 2-month visit.

3. Counsel about the risks of walkers and trampolines. The American Academy of Pediatrics (AAP) recommends banning the use of all walkers because of safety and developmental concerns and recommends against the use of trampolines in all environments. Refer to the AAP Parenting Corner at www.aap.org/parents.html for more information.

4. Discuss childproofing the home. Concentrate on safety gates, window locks, and furniture corner protectors.

5. Review safety measures for outdoor activities and sports.
   - Mandatory bicycle helmets. Helmets should also be used with scooters, skateboards, and in-line skates.
   - Mouth guards and masks or helmets, when recommended.

6. Stress the importance of adequate supervision at all times, especially on furniture, on stairs, at the playground, and at athletic events or practices.
# Congenital Oral Anomalies

## Natal Teeth

**Present at birth or erupt during first month of life. Can lead to ulceration of ventral surface of tongue.**

**INFORMATION FOR PARENTS**

Natal teeth are typically the primary teeth, so if extracted, they will not be replaced until the permanent teeth erupt.

**TREATMENT/REFERRAL OPTIONS**

Extraction indicated if tooth is very loose, interferes with feedings, or causes significant damage to soft tissues.

![Natal Teeth](image)

## Ankyloglossia/Tongue-Tie

**Attachment of the lingual frenum to the floor of the mouth. May be present in newborns, but usually resolves over time with tongue use.**

**INFORMATION FOR PARENTS**

Ankyloglossia does not usually present a problem for speech or eating.

**TREATMENT/REFERRAL OPTIONS**

A frenectomy is indicated only if tongue movement is restricted and affects the child’s ability to breastfeed or bottle-feed or causes trauma to the periodontium.

![Ankyloglossia/Tongue-Tie](image)

## Bohn’s Nodules

**Remnants of salivary glands are located on the buccal or lingual mucosa, or on the hard palate, away from the raphe.**

**INFORMATION FOR PARENTS**

- Asymptomatic.
- Bohn’s nodules are usually shed within the first 3 months of life.

**TREATMENT/REFERRAL OPTIONS**

None

![Bohn’s Nodules](image)

## Epstein’s Pearls

**Found on the mid-palatal raphe of the hard palate**

**INFORMATION FOR PARENTS**

- Asymptomatic.
- Epstein’s pearls are usually shed within the first 3 months of life.

**TREATMENT/REFERRAL OPTIONS**

None

![Epstein’s Pearls](image)
ERUPTION CYST/HEMATOMA

Fluctuant, fluid cyst that appears 1 to 3 weeks prior to the eruption of a tooth

INFORMATION FOR PARENTS
Usually asymptomatic and resolves with eruption of the tooth.

TREATMENT/REFERRAL OPTIONS
None

Eruption Cyst/Hematoma

For more information about specific oral health conditions, such as geographic tongue, strawberry tongue, and hand-foot-and-mouth disease, or diseases that can affect a child’s oral health, such as diabetes and leukemia, refer to the Protecting All Children’s Teeth (PACT): A Pediatric Oral Health Training Program, available through the Oral Health Initiative Web site at www.aap.org/oralhealth/pact.cfm.
Children With Special Needs

All children with special health care needs fall into a risk category and should be referred to a dentist by 1 year of age. Any child with evidence of caries or tooth, gingival, or eruption anomalies should be immediately referred to a dentist who is comfortable caring for children with special needs.

**RISK FACTORS**

Children with special health care needs are at increased risk for developing caries for the following reasons:

- **Diet.** Many children require prolonged or frequent feedings or a special diet that is cariogenic. Medications containing sugar that cannot be timed with meals are additional sugar exposure to the teeth.
- **Abnormal dryness of the mouth.** Known as xerostomia, this condition is caused by insufficient saliva production, which increases the risk of caries.
- **Gastroesophageal reflux disease and vomiting.** Regular acid exposure to the teeth can cause enamel wear and increase the likelihood of decay.
- **Difficulty performing oral hygiene.** Uncoordinated chewing may leave food in the mouth, and a weak, uncoordinated tongue may not be able to adequately clean all oral surfaces. Gagging on the toothbrush, paste, or saliva may inhibit complete brushing of all surfaces, and an inability to spit may result in the swallowing of toothpaste.

**OTHER CONCERNS**

1. **Tooth eruption.** Tooth eruption may be delayed, normal, or advanced in children with special health care needs. Delayed eruption is more common in children with Down syndrome and hypothyroidism.

2. **Malocclusion and crowded teeth.** These problems occur more often in children with abnormal muscle tone (eg, cerebral palsy), mental retardation, and craniofacial abnormalities. Crowded teeth are more difficult to clean, thereby increasing the risk of dental caries and periodontal disease.

3. **Dental anomalies.** Teeth may vary in shape, size, or number. Many syndromes are accompanied by tooth anomalies, including anodontia (a congenital absence of teeth) and hypodontia (the lack of some tooth development). Tooth defects, including enamel hypoplasia and discoloration, may be the result of genetic conditions or fetal medication exposure. These dental anomalies may increase the risk for caries.

4. **Gingival overgrowth.** Gingival overgrowth puts children at risk for improper oral hygiene, impaired tooth eruption, difficulty chewing, and severe gingivitis.

5. **Trauma.** Trauma to the face and mouth occurs more frequently in children with seizures, developmental delays, poor muscle coordination, and abnormal protective reflexes. Some children with special needs exhibit self-injurious behavior, which may damage oral structures.
Children With Special Needs continued

6. Bruxism. The habit of unconsciously gritting or grinding the teeth in situations of stress or during sleep is more common and often more severe in children with cerebral palsy or severe mental retardation. Bruxism may lead to enamel loss and difficulty chewing or tooth sensitivity. Children with suspected bruxism should be referred to a pediatric dentist for evaluation.

7. Vitamin deficiencies. Not just a concern for children with special needs, deficiencies in vitamins C, D, and K can cause gingival swelling and discoloration, enamel defects, and bleeding of the gums.

PEDiATRIC Office SCREENING

Oral examination may be more difficult for a child with special health care needs. The primary care physician should make increased efforts to complete the examination checklist. Early referral to a dental professional comfortable with children with special health care needs (typically a pediatric dentist) will help to ensure the oral examination is complete and that all issues are addressed.

Oral examination of a child with special health care needs is similar to a routine child oral examination, but practitioners should take care to examine the following areas and document the presence of abnormalities:

1. Oral-facial anomalies. This includes a general examination for cleft palate, micrognathia, and oral injuries.
2. Teeth. Dental caries and its severity should be documented. Practitioners should also examine for enamel hypoplasia or demineralization, malocclusion, or missing or abnormally shaped teeth, and evaluate the pattern of tooth eruption.
3. Gingiva. Poor gingival health can be identified by examining for erythema, swelling, bleeding, and overgrowth.

Children with special health care needs may not be able to fully cooperate with oral hygiene practices. This may be the result of gagging, oral defensiveness, or behavioral issues. In addition, children with special health care needs may have difficulty tolerating fluoride liquid, toothpaste, varnish, sealants, or other caries prevention strategies. Daily home preventive dental care may have to be tailored to meet the specific needs of the child, and this is often best addressed by the dental health professionals involved in caring for the child.

Caregivers should be encouraged to discuss their concerns with the pediatric dentist and the occupational or speech therapist who work regularly with the child. They may be able to help the family with techniques to optimize oral care.

For more information about oral health concerns for children with special needs, please refer to the PACT module at www.aap.org/oralhealth/pact.cfm.