

Oral Health Fact Sheet for Medical Professionals

Children with Cerebral Palsy

Cerebral palsy is a disorder of movement and posture caused by nonprogressive abnormality of the immature brain that originates during the prenatal or perinatal period or first few years of life. This results in significant impairment of functional mobility. The four major subtypes are spastic, dyskinetic/athetoid (slow, writhing involuntary muscle movement), ataxic (low muscle tone and poor coordination), and mixed cerebral palsy, with spastic forms being the most common. (ICD 9 code 343.9)

Oral Manifestations and Considerations

Oral

- Increased risk for dental caries and periodontal disease
- Enamel hypoplasia
- Dental erosion due to gastroesophageal reflux that can increase thermal sensitivity and in significant cases cause pain
- Delayed eruption of permanent teeth
- Dilantin hyperplasia for those with epilepsy
- Increased incidence of Class II Div I malocclusion
- Increased risk for oral trauma and injury
- Others: Tongue thrust, mouth breathing, hyperactive or hypoactive gag reflex, dysphagia, oral hypersensitivity (overreaction to touch, taste, or smell), prolonged and exaggerated bite reflexes, bruxism, sialorrhea, poor oral hygiene, and food pouching.

Other Potential disorders/Concerns

- Speech/communication disorders
- Vision and hearing impairments

Oral Side Effects of Commonly Prescribed Medications

Medication:

- Local anesthetics can be used without adverse reactions unless specified not appropriate with a drug the child is taking.
- Some muscle relaxants and anticholinergics cause CNS depression and potentiate other CNS depressants used in dentistry; caution should be used with the use of Clonidine; conscious sedation is not recommended.

SYMPTOM	MEDICATION	SIDE EFFECTS
Control spasticity and rigidity	<i>Diazepam (Valium)</i>	Excessive drooling
	<i>Anticonvulsants</i>	Gingival hyperplasia, xerostomia , dysgeusia, stomatitis
	<i>Anticholinergics</i>	Xerostomia, bruxism
	<i>Muscle relaxants (antispasmodics)</i>	Xerostomia

Parent/Caregiver Support and Guidance

- Advise rinsing mouth with plain water four times a day to mitigate effects of gastric acid in children with GERD or those who take xerostomia causing medication.
- Advise parent/caregiver to inspect young child's mouth after eating or administering medication to prevent pouching. Rinse with water and sweep mouth with a finger wrapped in gauze to remove food/medicine.
- Discourage consumption of cariogenic foods and beverages.
- Prescribe sugar-free medications if available.
- Recommend rinsing with water thoroughly after taking each dose of sugar containing medication and frequent water intake for patients taking xerostomic medication.
- Recommend preventive measures, such as topical fluoride and sealants.
- Advise the use of fluoridated toothpaste twice daily and support the family in following dental care instructions.
- Instruct caregiver on appropriate protocol following dental trauma (locate/preserve missing tooth and put in cold milk; seek immediate professional care).
- Review safety issues appropriate to the age of the child, such as mouth guards to prevent oral-facial trauma.
- Discuss habits that may harm the child's teeth such as propping baby bottles, putting child to bed with bottle.
- Refer to dentist any oral developmental abnormalities.

Additional information: [Special Needs Fact Sheets for Providers and Caregivers](#)

References

- Goncalves, GK, Carmagnani, FG., Correa, M.S., Duarte, D.A., Santos, MTBR. (2008) Dental erosion in cerebral palsy patients. *J Dent Child*, 75(2): 117-120.
- Rodrigues dos Santos, M.T., Masiero, D., Novo, NF., Simionato, MR. (2003) Oral conditions in children with cerebral palsy. *J Dent Child*, 70(1): 40-46.

Additional Resources

- [NIH Institute for Cerebral Palsy](#)
- [Special Care: an Oral Health Professionals Guide to Serving Young Children with Special Health Care Needs](#)
- [Bright Futures Oral Health Pocket Guide](#)
- [American Academy of Pediatrics Oral Health Initiative](#)
- [American Academy of Pediatric Dentistry: 2011–2012 Definitions, Oral Health Policies and Clinical Guidelines](#)
- [MCH Resource Center](#)
- [ASTDD-Special Needs](#)
- [Block Oral Disease, MA](#)
- [NOHIC-NIDCR publications](#)