

# Oral Health Fact Sheet for Medical Professionals

## Children with Epilepsy

*Epilepsy is a brain disorder characterized by excessive neuronal discharge that can produce seizures, unusual body movements, and loss or changes in consciousness. Transient episodes of motor, sensory, or psychic dysfunction, with or without unconsciousness or convulsive movements may be present.*

(ICD 9 code 345.9)

### Oral Manifestations and Considerations

#### Oral

- Increased risk for dental caries
- Increased risk for oral trauma
- Medication-induced gingival hyperplasia, bleeding gums, and delayed healing

#### Other Potential Disorders/Concerns

- ADHD
- Learning disabilities
- Anxiety
- Depression

### Oral Side Effects of Commonly Prescribed Medications

#### Management

#### Medication

SYMPTOM	MEDICATION	SIDE EFFECTS
Seizures	<i>Phenytoin</i> (Dilantin)	Xerostomia and Gingival hyperplasia
	<i>Carbamazepin</i> (Tegretol)	Bone marrow suppression and decreased platelet count possible
	<i>Valproic Acid</i>	increased bleeding and postoperative infection
	<i>Gabapentin</i> (Neurontin)	Xerostomia, fever, mood changes, Erythema Multiforme, Thrombocytopenia, kidney failure, viral infections, hyperkinesia and other neurologic symptoms
	<i>Levetiracetam</i> (Keppra)	Hostility, irritability, mood changes, depression, anorexia, infection

#### Surgery

- Temporal Resection or Sectioning of Corpus Callosum
- Implanted Vagal Nerve Stimulator (VNS) – Does not require antibiotic prophylaxis

# Children with Epilepsy continued

## Parent/Caregiver Support and Guidance

- Monitor child for anti-epileptic medication induced gingival hyperplasia. Encourage meticulous oral hygiene for the best prevention.
- Recommend a mouth guard if necessary for children with uncontrolled epilepsy.
- Discourage consumption of cariogenic foods and beverages .
- Prescribe sugar-free medications, if available.
- 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.
- Recommend rinsing with water thoroughly after taking each dose of sugar containing medication and frequent water intake for patients taking xerostomic medication.
- 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](#)

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## References

- Tan, H., Gurbuz, T., Dagsuyu, IM. (2004) Gingival enlargement in children treated with antiepileptics. *J Child Neurol*, 19(12): 958-63.
- Stoopler, ET, Sollecito, TP., Greenberg, MS. (2003) Seizure disorders: update of medical and dental considerations. *Gen Dent*, 51(4): 361-66.
- Kossoff EH, Zupec-Kania BA, Rho JM. (Jun 17, 2009) Ketogenic Diets: An Update for Child Neurologists. *J Child Neurol*. 4(8): 979-88. Epub. Review.
- Dymont, H.A., Casas, M.J. 1999 Dental care for children fed by tube: a critical review. *Spec Care Dentist*, 19(5):220-4. Review.

## Additional Resources

- [NIH Institute for Epilepsy](#)
- [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: 2008-09 Definitions, Oral Health Policies and Clinical Guidelines](#)
- [MCH Resource Center](#)
- [ASTDD-Special Needs](#)
- [Block Oral Disease, MA](#)
- [NOHIC-NIDCR publications](#)