

Oral Health Fact Sheet for Medical Professionals

Children with Type 1 Diabetes

Diabetes type 1 is a disease in which the body does not produce insulin, resulting in a high level of sugar in the blood. (ICD 9 code 250.0)

Oral Manifestations and Considerations

Oral

- Increased risk of dental caries due to salivary hypofunction
- Accelerated tooth eruption with increasing age
- Gingivitis with high risk of periodontal disease (poor control increases risk)
- Salivary gland dysfunction leading to xerostomia
- Impaired or delayed wound healing
- Taste dysfunction
- Oral candidiasis

Other Potential Disorders/Concerns

- Ketoacidosis, kidney failure, gastroparesis, diabetic neuropathy and retinopathy
- Poor circulation, increased occurrence of infections, and coronary heart disease

Oral Side Effects of Commonly Prescribed Medications

Medication

- Insulin injections – none

Parent/Caregiver Support and Guidance

- 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.
- 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](#)

Children with Type 1 Diabetes continued

References

- Skamagas, M., Breen, T.L., LeRoith, D. (2008) Update on diabetes mellitus: prevention, treatment, and association with oral diseases. *Oral Dis*, 14(2):105-114.
- Lalla, E., Cheng, B., Lal, S., Tucker, S., Greenberg, E., Goland, R., Lamster, I. (2006) Periodontal changes in children and adolescents with diabetes: a case-control study. *Diabetes Care*, 29(@): 295-299.
- Vernillo, AT. (2003) Dental considerations for the treatment of patients with diabetes mellitus. *J Am Dent Assoc*, 134: 245-335.

Additional Resources

- NIH Institute for Diabetes
- 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