

# Paediatric Periodontal Disease: Foundational Articles and Consensus Recommendations, 2020

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## IAPD Consensus Recommendations

- 1.** At each dental examination, the health of the gingiva, periodontium and tooth mobility should be assessed and documented. Once the permanent dentition is established one should probe to confirm healthy alveolar bone levels. Appropriate radiographs should be obtained to document the health of the alveolus. Clinical photographs are helpful in documenting and monitoring the periodontal condition.
- 2.** Generalized gingivitis should be considered of viral origin initially. If the generalized gingivitis persists beyond two weeks, a non-viral systemic cause should be considered. Close follow-up is recommended. Most common differentials include cyclic neutropenia, chronic idiopathic neutropenia and leukemias. Appropriate medical referral is indicated for any periodontal conditions where a systemic cause is suspected.
- 3.** To assist in triaging a child with the presentation of pediatric periodontal disease, one can use the Keels-Quinonez Pediatric Periodontal Matrix (see attached) to aid in identifying the diagnosis.
- 4.** A child with non-trauma related loss of a primary incisor with only localized gingivitis before the age of 4 should be evaluated for hypophosphatasia. The tooth should be evaluated by oral pathology for the health of the cementum on the prematurely exfoliated primary incisor.
- 5.** A child with premature eruption of primary molars in the neonatal period should be evaluated for Langerhans Cell Histiocytosis X. A gingival biopsy of the tissue near the molar should be evaluated for presence of Birbeck granules.
- 6.** A child with persistent gingival inflammation beyond two weeks, may require periodontal culturing to help eliminate any anaerobic strains of bacteria that may be triggering an aggressive immune response as in Papillon-Lefèvre Syndrome or contributing to the inflammation and bone loss as in the neutropenias.
- 7.** Monitoring the gingival and periodontal health of patients with a diagnosis of a systemic disease is a critical marker for compliance as well as effectiveness of any medication used to enhance the immune response. An example would be documenting the effectiveness of granulocyte colony stimulating factor (GCSF) in treating Cyclic Neutropenia or compliance with insulin in the treatment of insulin-dependent diabetes.
- 8.** In rare cases, a child may require a stem cell transplant to restore an intact immune system which will result in improved periodontal health. Examples where a stem cell transplant may be used is in children with Chronic Granulomatous Disease and Leukocyte Adhesion Deficiency Disorder.

## Pediatric Periodontal Disease Matrix

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	HEALTHY BONE (no alveolar bone loss)	DISEASED BONE (alveolar bone loss)
Healthy Gingiva (pink, firm, stippled)	<b>Healthy gingiva and no bone loss</b>	<b>Healthy gingiva and bone loss</b> <ul style="list-style-type: none"> <li>• Hypophosphatasia **</li> <li>• Inconclusive Pediatric Periodontal Disease (LJP) *</li> <li>• Dentin Dysplasia Type I</li> <li>• Post Avulsion / Extraction</li> </ul>
Diseased Gingiva (erythematous, hemorrhagic)	<b>Unhealthy gingiva and no bone loss</b> <ul style="list-style-type: none"> <li>• Gingivitis</li> <li>• Mouthbreathing Gingivitis</li> <li>• Gingival Fibromatosis</li> <li>• ANUG</li> <li>• Leukemia (AML / ALL)</li> <li>• HIV</li> <li>• Vitamin C deficiency</li> <li>• Eruption related gingivitis</li> <li>• Minimally attached gingival</li> <li>• Herpetic Gingivostomatitis</li> <li>• Thrombocytopenia</li> <li>• Aplastic anemia</li> <li>• Acrodynia</li> <li>• Vitamin K deficiency</li> <li>• Factical Injury</li> </ul>	<b>Unhealthy gingival and bone loss</b> <ul style="list-style-type: none"> <li>• Neutrophil quantitative defect: (agranulocytosis, cyclic neutropenia, chronic idiopathic neutropenia)*</li> <li>• Neutrophil qualitative defect: (Leukocyte adhesion deficiency)*</li> <li>• Inconclusive Pediatric Periodontal Disease (LJP) *</li> <li>• Langerhan Cell Histiocytosis X ***</li> <li>• Papillon-Lefèvre Syndrome *</li> <li>• Diabetes Mellitus *</li> <li>• Down Syndrome *</li> <li>• Chédiak-Higashi Syndrome *</li> <li>• Chronic Granulomatous Disease *</li> <li>• Tuberculosis *</li> <li>• Ehlers-Danlos (Type VIII)</li> <li>• Osteomyelitis *</li> </ul>

\* bacteriological culture and sensitivity needed

\*\* tooth biopsy needed

\*\*\* gingival biopsy needed