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| **Name:** |
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| **Group:** |
| 9B-2 |
| **Basic Science Question:** |
| How does Periodontal disease progress in patients with Down syndrome, leading to bone loss? |
| **Report:** |
| What is periodontal disease? It is swelling and infection of the tissues around your teeth, affecting the gums or alveolar bone, or both. The accumulation of bacteria overtime forms plaque that is detrimental to the tooth’s structure and the tissues around teeth.  There are impliciations of patients with that can attribute to the progression of Periodontal disease, and eventually lead to bone loss. Patients with Down syndrome are often observed with other medical problems, including heart defects, being overweight, and an overall reduced immunity. Reduced immunity is a huge contributer to the progression of Periodontal disease, since there would be less of a host response present to target periodontal bacterial infections. Less immunity allows bacteria to colonize tissues faster.  Other factors that may contribute to the progression of Periodontal disease in this patient category include poor oral hygiene and reduced cooperation with self care (like teeth brushing/flossing). Proper oral care is crucial in the management of periodontal disease, and that may be more of a challenge to achieve with a patient with Down syndrome, who are commonly intellectually impaired and have decreased manual dexterity.  These factors, or combinations of them, are possible ways Periodontal disease in patients with Down syndrome lead to bone loss. |
| **References:** |
| [Lexicomp®](http://www.wolterskluwercdi.com/lexicomp-online/)  Pilcher, E. (1998). Dental care for the patient with Down syndrome. *Down syndrome research and practice*, *5*(3), 111-116.  van de Wiel, B., van Loon, M., Reuland, W., & Bruers, J. (2018). Periodontal disease in Down’s syndrome patients. A retrospective study. *Special Care in Dentistry*, *38*(5), 299–306. https://0-doi-org.libus.csd.mu.edu/10.1111/scd.12314 |