

**Name:**

Austin Lingle

**Group:**

1A-2

**Pathology Question:**

What are the risks of smoking that are related to dental care and treatment?

**Report:**

Smoking is a significant risk that has many different negative health effects on oral health. Smoking causes discoloration and staining of the teeth, loss of smell and taste, halitosis, and decreases the amount and quality of saliva produced. This can lead to an increase in supragingival calculi. Also, heat and nicotine can injure mucous membranes in the oral cavity leading to disorders such as melanosis, nicotine stomatitis, hyper-keratinization. There is a decreased inflammatory response and an impaired response of immune cells such as neutrophils and antibodies. This means that wound healing is slower in smokers compared to non-smokers.

Those who smoke have a higher prevalence of periodontitis and there is a dose-response for number of cigarettes smoked and the amount of clinical attachment loss (CAL) and pocket depths (PD). Smokers have 50-70% improvement for CAL and PD compared to non-smokers. Regarding implants, smokers are 2x more likely to have implants fail and have an increased risk of periimplantitis. Bone loss is greater in those who smoke and there is less success with grafting procedures. However, it has been shown that smoking cessation 8 weeks before treatment can produce similar outcomes to non-smokers. When treating patients that smoke these factors must be considered and encouraging the patient to join smoking cessation programs is important.

**References:**

- Heitz-Mayfield, L.J.A. (2005), Disease progression: identification of high-risk groups and individuals for periodontitis. *Journal of Clinical Periodontology*, 32: 196-209.  
doi:[10.1111/j.1600-051X.2005.00803.x](https://doi.org/10.1111/j.1600-051X.2005.00803.x)
- Kaldahl, W. B., Johnson, G. K., Patil, K. D., & Kalkwarf, K. L. (1996). Levels of cigarette consumption and response to periodontal therapy. *Journal of periodontology*, 67(7), 675–681. <https://doi.org/10.1902/jop.1996.67.7.675>
- Preshaw PM, Heasman L, Stacey F, Steen N, McCracken GI, Heasman PA. The effect of quitting smoking on chronic periodontitis. *J Clin Periodontol*. 2005 Aug;32(8):869-79. doi: 10.1111/j.1600-051X.2005.00779.x. PMID: 15998271.