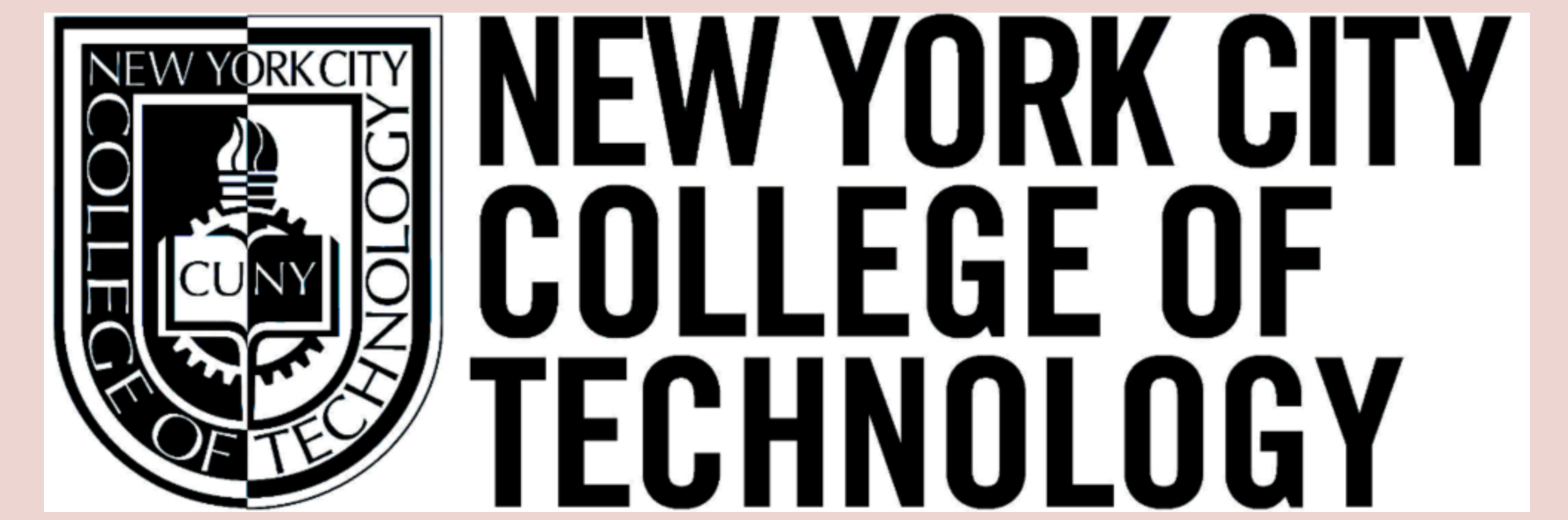




The Association between Coffee Consumption and Periodontal Health

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What is in your cup of coffee?

Coffee has many antioxidants:

- Caffeine
- Trigonelline
- Chlorogenic Acid
- Quinine
- Melanoidins
- Phenols

Oral and Periodontal Benefits of Coffee

- Has **antibacterial properties** against cariogenic bacteria, *Streptococcus mutans* and *Streptococcus mitis*.
- Has **antimicrobial properties** against biofilm microorganisms, *P. gingivalis* and *P. intermedia*, as well as *Candida albicans*.
- According to a longitudinal study published in *Journal of Periodontology*, coffee consumption results in a small but significant reduction in the number of teeth with periodontal bone loss in adult males.

Introduction

- Coffee is one of the most consumed beverages in the United States. According to the National Coffee Association, 64% of the U.S. consumers drink coffee daily and 79% of consumers prepare coffee at home daily.
- Some research have suggested that coffee polyphenols have chemo-preventive agents.
- Epidemiological studies suggested that a higher intake of coffee is associated with a lower prevalence of oral, pharyngeal, and esophageal cancers.
- Since research have shown that coffee has many nutritional benefits, it is very likely that coffee is also beneficial towards periodontal health. Therefore, the main objective of this project is to investigate the association between coffee consumption and periodontal health and discuss the antimicrobial effects of coffee.

Potential Use of Coffee Extract in Dentistry

- Coffee is a natural product - flavorful and relatively safe for consumption in moderate doses.
- Coffee's active antimicrobial components may be extracted and be implemented into toothpastes and mouthwashes.
- In the future, coffee may become an effective alternative to chemical antimicrobial mouthwashes.

Role of the Dental Hygienist

- Educate patients about the antimicrobial benefits of coffee extract.
- Recommend moderate coffee consumption to achieve the therapeutic benefits, but also educate patients that heavy consumption can lead to the formation of stains and teeth erosion.

Relating Coffee Consumption with Periodontal Health

Periodontal disease is defined as an inflammatory disease that affects the soft and hard tissues that support the teeth. Examples include gingivitis and periodontitis.



<https://periospecialist.com/wp-content/uploads/2014/10/Healthy-gums.jpg>

Healthy Gingiva

- Pink or pigmented color
- Fits snugly around tooth
- Flat, pointed papilla
- Firm, resilient



<http://www.tagliadentistry.com/blog/gingivitis-causes-treatment>

Gingivitis

- Change in color: red margin
- Enlarged tissue
- Thickened edge
- Not resilient
- No connective tissue attachment loss
- Reversible



<https://pocketdentistry.com/5-treatment-of-advanced-periodontitis-2>

Periodontitis

- Diseased gingiva
- Connective tissue attachment loss
- Bone loss
- Need professional treatment

Three Risk Factors of Periodontal Disease:

- Diabetes
- Tobacco Use & Smoking
- Biofilm Microorganisms: *Porphyromonas gingivalis*, *Tannerella forsythia*, *Aggregatibacter actinomycetemcomitans*

According to a study published in the *Advances in Human Biology*, coffee at a concentration of 15% and 20% are revealed to have **antimicrobial effects** against periodontal pathogens.



<http://groomandstyle.com/get-rid-coffee-stains-teeth-home>

Conclusion

- Coffee can inhibit the growth of gram-negative and gram-positive bacteria that cause dental caries and periodontal diseases.
- To attain the oral benefits of coffee, moderate doses of black coffee is recommended because additives (milk and sugar) can lead to caries.

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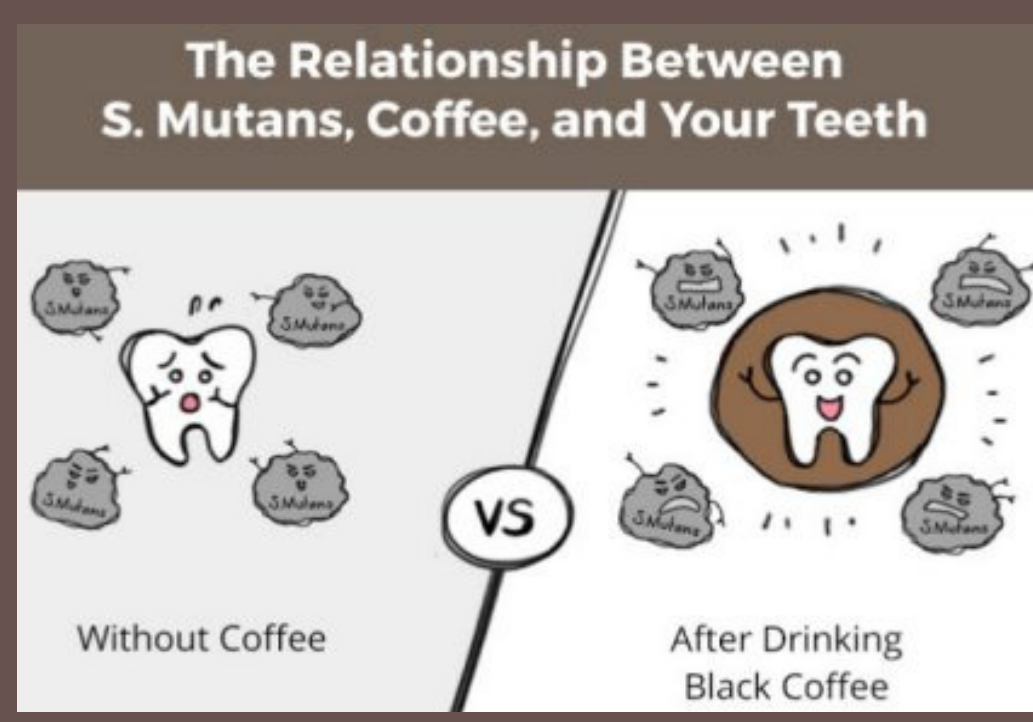
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<https://www.homegrounds.co/15-research-backed-health-benefits-of-coffee/>