Episode 99 – Interview with Ker-Yung Hong: Oral Inflammation & Cardiovascular Link   December 22, 2023

Ker-Yung Hong, BSc
Ker-Yung Hong is a first-year dental student at Western University, Ontario. He completed his bachelors in kinesiology at McMaster University. Throughout his undergraduate education, Ker developed a strong interest in cardiovascular disease where he later combined with his new interest of dentistry in efforts to understand the connection between the two. Recently, Ker, along with cardiovascular disease and health expert Dr. Trevor King, and scientist and periodontist Dr Michael Glogauer, published a study in *Frontiers of Oral Health* investigating how oral inflammation effects cardiovascular health. The study received much publicity and global attention.

Research
'Oral inflammatory load predicts vascular function in a young adult population: A pilot study'

Overview
A pilot study by Hong et al. (2023) investigated the effects of objectively measured whole mouth oral inflammatory load (OIL) on vascular function in healthy participants aged 18-30 years. Oral neutrophil count from saliva samples, a validated measure of OIL, were used to quantify levels of gingival inflammation. Blood pressure, arterial stiffness, and endothelial function were also measured. The researchers found higher oral inflammation, reflected by higher levels of neutrophils in saliva, was linked to less healthy arteries and a potentially higher risk of cardiovascular disease[1] in young, apparently healthy adults. [1]

Research team

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[1] Refer to Episodes 37, 79, 80, and 81 for additional information on cardiovascular disease and oral health.

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Reference

[1] K. Hong, A. Ghafair, Y. Mei and etal., "Oral inflammatory load predicts vascular function in a young adult population: A pilot study," *Frontiers in Oral Health,* vol. 4, pp. 1-8, 18 August 2023.

Additional Resources

Oral inflammatory load predicts vascular function in a young adult population: A pilot study, Hong, K; Ghafair, A; Mei, Y; et al. *Frontiers in Oral Health*, Volume 4, August 18, 2023, p 1-8 https://www.frontiersin.org/articles/10.3389/froh.2023.1233881/full

Quantifying oral inflammatory load: Oral neutrophil counts in periodontal health and disease, Landzberg, M; Doering, H; Aboodi, G; Tenenbaum, H; Glogauer, M. *Journal of Periodontal Research*, Volume 50, Issue 3, June 2015, p 330–336 https://onlinelibrary.wiley.com/doi/10.1111/jre.12211

Oral inflammatory load: Neutrophils as oral health biomarkers, Khoury, W; Glogauer, J; Tenenbaum, H; Glogauer, M. *Journal of Periodontology*, Volume 55, Issue 5, October 2020, p 594–601 https://onlinelibrary.wiley.com/doi/10.1111/jre.12758