

Tongue studies have
shown that when
combining



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TONGUE HYGIENE3Tongue Cleaning and Oral HygieneIt is said that diet is an important factor when it comes to oral health. This is especially true when it comes to the development of bad breath. “ Between 10% -30% of all Americans suffer from bad breath on a regular basis (Duwaji, 2009).” Despite efforts to resolve bad breath, also coined as Halitosis in 1874, many seem to fail regardless of how much they brush their teeth (Duwaji, 2009). Halitosis can be considered a kind of social disability when it is experienced for prolonged periods of time (Duwaji, 2009).” Although halitosis is sometimes difficult to get rid of, there is a method that has been proven to work. Studies have shown that when combining the use of tooth brushing incorporated with tongue scraping to physically remove bacterial flora and dental plaque from the dorsum of the tongue, one can significantly reduce bad breath (Matsui, et al.

, 2014). Tongue cleaning is an essential part of oral hygiene, by using the combined method of tongue cleaning and tooth brushing one can reduce bacteria on the teeth and tongue, halt bad breath, and promote a healthy oral environment for teeth to flourish in (Matsui, et al., 2014). The purpose of this paper is to explore the research conducted by professionals and examine their literature peer-reviews regarding the effectiveness of reducing or curing halitosis in healthy and unhealthy oral cavities. Review of Literature Bacteria adhere to places in the oral cavity where food can be retained (Dentech, inc., 2013). These places include the gum line, tongue, tooth spacing, pits, and fissures. As the bacteria decompose the retained food toxic substances, plaque and tartar (advanced formation of plaque) cause bad breath, gum inflammation, and dental caries (Dentech, inc.

, 2013). Dental plaque is a biofilm that is formed by colonizing bacteria that try to attach themselves to the smooth superficial portion of the oral cavity they are considered a highly complex organization of bacteria consisting of dense loads of microorganisms embedded in an intermicrobial matrix (Winnier, Rupesh, Nayak, Reddy, & Prasad Rao, 2013). More than 500 bacterial species colonize the superficial part of the oral cavity with the tongue having the highest load of bacterial in relations to other oral tissue and contributes to the largest number of bacteria found in the oral cavity (Winnier, et al.

, 2013). More than 100 microorganisms can be attached to a single epithelial cell of the tongue and when shredded the debris can contribute to the plaque formation on the teeth producing cavities when undisturbed for prolonged periods of time (Winnier, et al., 2013). Therefore, if bacteria formation on the dorsum of the tongue can be reduced it can subsequently, help reduce the formation of plaque on the teeth, as well as, reduce halitosis (Winnier, et al., 2013). A study was conducted on eighteen adult patients with untreated moderate to severe periodontitis who also had some degree of tongue coating (Laleman, Koop, Teughels, Dekeyser, Quirynen, 2017). Patients were divided and randomly instructed to use either a toothbrush or a tongue scraper to clean the tongue (Laleman, et al., 2017).

The amount of coating, the microbial load of saliva, and the tongue's dorsum were observed at a baseline for two weeks (Laleman, et al., 2017). The results after two weeks showed that the use of either a toothbrush or tongue scraper, did not influence the amount of coating, or the microbiological sum, nor the saliva (Laleman, et al., 2017).

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Furthermore, patients experienced no noticeable changes to in breathodor nor taste sensation following the two weeks of tongue cleaning (Laleman, et al., 2017). However, there was significantly less coating on the surface of the tongue and patients felt their tongues seemed much cleaner at the end of the study (Laleman, et al.

, 2017). The study deduced that tongue cleaning does not have any influence on bacteria present in saliva or on the dorsum of the tongue in regard to a patient that has periodontitis (Laleman, et al., 2017).

TONGUE HYGIENE 5In contrast, a different study was conducted using 45 male students. The selection criteria were based on several factors, one condition included students must be within the age range of 9-12 years old where dental caries are most common (Winnier, et al., 2013). Subjects must also be able to adhere to twice a day brushing routine and have at least four restored, decayed and/or missing teeth (Winnier, et al.

, 2013). The subjects were then blindly separated into three groups of 15 (Winnier, et al., 2013). A baseline reading was taken at the start and compared with results from day 10 and 21 (Winnier, et al., 2013). The first group was given a manual tongue scraper to use in conjunction with tooth brushing (Winnier, et al., 2013).

Instructions for the first group included scraping the dorsum of tongue twice a day (morning and night), spitting out the additional saliva, rinsing the scraper and repeating the steps five additional times (Winnier, et al., 2013).

The second group was constituted the tongue-brushing group and were given a soft multi-tufted nylon toothbrush with a mini-head (Winnier, et al.,

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2013). They were instructed to brush the dorsum of the tongue twice daily as well as, to firmly rub the toothbrush onto the deepest posterior part of the dorsum of the tongue to the apex of the tongue, rinse, and repeat the step three additional times.

The final group continued with their normal routine of brushing their teeth twice a day (Winnier, et al., 2013). The findings from the study proved that tongue cleaning was effective at reducing both the risks of caries and bad breath when unitizing the combined method of either tongue brushing or tongue scraping with regular tooth brushing twice a day (Winnier, et al., 2013).

In addition, it was noted that tongue scraping produced a higher statistical reduction of plaque on the dorsum of the tongue in comparison to tongue brushing at the end of day 10 and 21 (Winnier, et al., 2013). Another study, compared clinical trials conducted on people that were generally in good health (Sleen Slot, Trijffel, Winkle, and Weijden, 2010). The study examined the effectiveness of TONGUE HYGIENE 6 reducing halitosis using mechanical tongue cleaning versus non-mechanical tongue cleaning on subjects older than seventeen years old (Sleen, et al., 2010).

The aim was to assess if tongue cleaning along with tooth brushing could cure halitosis (Sleen, et al., 2010). The principles for the trials selected included randomized controlled clinical trials and controlled clinical trials (Sleen, et al., 2010). Subjects observed in the trials were then divided into two groups; an intervention group using toothbrushes or tongue scrapers to clean the dorsum of the tongue versus a control group that only brushed

their teeth (Sleen, et al., 2010). The results from the five trials (three randomized and two controlled) noted that mechanical tongue cleaning was definitely effective against halitosis; however, it only reduced, but did not eliminate, volatile sulfur-containing compounds (which are anaerobic bacteria that cause a rotten egg smell when expelling sulfur compounds) in people with chronic halitosis (Sleen, et al.

, 2010). The results of the three studies may conflict somewhat, however, each study gives a comprehensive understanding of the effectiveness of tongue cleaning on various degrees of oral health. The sum of the information provided supports that tongue cleaning can reduce plaque, bad breath, and create a healthier oral cavity. Although for patients with periodontist did not experience a reduction in bad breath, they did experience the feeling of a cleaner tongue. This suggests that people are better off incorporating tongue cleaning into their daily regime than not incorporating it. TONGUE HYGIENE Reference Dentech, inc.; (2013). "oral hygiene products and method" in patent application approval process.

Pediatrics Week Retrieved from <https://search.proquest.com/docview/1321143130?accountid=89121>Duwaji, O.

S. (2014). The bacterial metabolic processes that produce volatile sulfur compounds in the oral cavity (Order No.

1569178). Available from Health & Medical Collection.(1625666282).

Retrieved from <https://search.proquest.com/docview/1625666282?accountid=89121>Laleman I, Koop R, Teughels W, Dekeyser C, Quirynen M.

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(2017). Influence of tongue brushing and scraping on the oral microflora of periodontitis patients.

J Periodontal Res.; 53: 73–79. <https://doi.org/10.1111/jre.12489> Matsui, M.

, Chosa, N., Shimoyama, Y., Minami, K., Kimura, S.

, & Kishi, M. (2014). Effects of tongue cleaning on bacterial flora in tongue coating and dental plaque: a crossover study. BMC Oral Health, 14, 4. <http://doi.org/10.1186/1472-6831-14-4>

Van der Sleen, M., Slot, D., Van Trijffel, E.

, Winkel, E. and Van der Weijden, G. (2010), Effectiveness of mechanical tongue cleaning on breath odour and tongue coating: a systematic review. International Journal of Dental Hygiene, 8: 258–268. doi: 10.1111/j.1601-5037.2010.00479.x

Winnier, J. J.

, Rupesh, S., Nayak, U. A.

, Reddy, V., & Prasad Rao, A. (2013). The Comparative Evaluation of the Effects of Tongue Cleaning on Existing Plaque Levels in Children. International Journal of Clinical Pediatric Dentistry, 6(3), 188–192. <http://doi.org/10.5005/jp-journals-10005-1216>