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Oil Pulling: Ancient Practice Meets Modern Dentistry

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Abstract

Oral health is increasingly recognized as a gateway to systemic health, with growing emphasis on preventive and holistic approaches. Oil pulling, an ancient Ayurvedic practice described as Kavala or Gandusha in classical texts, has resurfaced as a natural adjunct in oral hygiene. Traditionally believed to balance the body's doshas and eliminate toxins, this practice involves swishing oils such as coconut, sesame, or sunflower in the mouth for 15–20 minutes. Advocates claim wide-ranging benefits—from plaque control and fresher breath to systemic detoxification—prompting renewed scientific interest.

This article explores the historical origins, cultural relevance, and traditional uses of oil pulling, alongside its proposed mechanisms of action. A review of contemporary evidence suggests potential benefits in reducing plaque, gingivitis, oral bacterial counts, and halitosis, with preliminary comparisons to chlorhexidine showing promising outcomes. However, claims of tooth whitening and systemic detoxification remain largely anecdotal or unsupported by rigorous trials. While generally safe, potential risks such as lipid pneumonia and misuse as a substitute for conventional care warrant caution.

In modern dentistry, oil pulling should be viewed as a complementary practice rather than a replacement for established oral hygiene methods. Its role may lie in supplementing brushing, flossing, and professional care, especially among individuals seeking natural remedies. More robust clinical trials are essential to validate efficacy, establish safety guidelines, and determine its long-term contribution to preventive dentistry. By bridging traditional wisdom and modern science, oil pulling highlights the evolving landscape of integrative oral healthcare.

Keywords: Oil pulling, Ayurveda, oral hygiene, plaque, gingivitis, complementary dentistry

Introduction

A health of mind, body and spirits starts with a healthy mouth, which in turn facilitates good Digestion. (1) It is a common belief that oral health serves as a gateway to general health. This implies that oral health significantly impacts the general health and wellbeing of an individual.

In recent years, various studies have provided unequivocal evidence on the strong relationship between systemic and oral diseases. It is believed that this relationship is due to common risk factors shared between various diseases. It highlights the necessity of maintaining an optimal oral hygiene to significantly modify the risk factors for serious systemic diseases.(2) Oil pulling is an ancient oral kriya or practice recommended in Ayurvedic scriptures as an essential part of daily health rituals or Dinacharya.(1)

Oil pulling or oil swishing is an ancient natural healing activity originating in India, identified in Charaka Samhita and Sushruta Samhita's ayurvedic texts as Kavalagraha or Gandhoosha. The oil pulling of was first introduced in the 90's by Tummala Kotesware Rao, of Bangalore India.(1)

Oil pulling is an ancient oral hygiene practice with roots in Ayurvedic medicine. The process involves swishing a tablespoon of oil—commonly coconut, sesame, or sunflower oil—in the mouth for about 15 to 20 minutes before spitting it out. Advocates of oil pulling claim it can draw out toxins and bacteria from the mouth, leading to improved oral health. Among the touted benefits are the reduction of plaque, teeth whitening, fresher breath, and even full-body detoxification. In recent years, this practice has garnered attention in the West, prompting a closer examination of its potential role in modern dental care.(3),(4)

While oil pulling has gained popularity as a natural remedy, modern dentistry relies on evidence-based practices. The rise of oil pulling in contemporary oral health discussions highlights the need for scientific evaluation to validate—or refute—its purported benefits. Understanding its effectiveness and safety is crucial for determining its place in current dental care routines.(5)

Historical Background

Oil pulling has its origins in Ayurveda, a holistic healing system from India that dates back over 3,000 years. In Ayurveda, oral health is deeply connected to overall well-being, with the mouth considered a reflection of the body's internal balance. Oil pulling, known as "Kavala" or "Gandusha," was traditionally used not only to maintain oral hygiene but also to support systemic health. The practice was believed to balance the doshas (bodily humors) and prevent diseases.(6)

Traditional Uses: Historically, oil pulling was utilized for more than just dental care. Ayurvedic practitioners prescribed it as a remedy for a wide range of health issues, including headaches, migraines, asthma, diabetes, and skin conditions. It was thought that swishing oil in the mouth could remove toxins from the body, thereby preventing and treating these ailments.(1)

Cultural Significance: Despite its ancient origins, oil pulling has remained a part of Indian cultural practices, passed down through generations. In recent years, this practice has spread beyond India, finding a place in global health and wellness circles, particularly as interest in natural and alternative remedies has surged in the West.(2)

The Process of Oil Pulling

Step-by-Step Procedure: Oil pulling is a simple practice, yet it requires consistency and patience. Here's how it's done:

1. Take a tablespoon of oil, such as coconut, sesame, or sunflower oil.
2. Swish the oil gently in your mouth for 15 to 20 minutes. During this time, ensure the oil moves through your teeth and across your gums, but avoid swallowing it.
3. After swishing, spit the oil into a trash can (not the sink, as it can solidify and cause blockages).
4. Rinse your mouth thoroughly with warm water, and for additional benefits, you can use saltwater.
5. Brush your teeth as usual after rinsing.(3)

Types of Oils Used:

- **Coconut Oil:** Coconut oil is favored for oil pulling due to its pleasant taste and high content of lauric acid, known for its antimicrobial properties.
- **Sesame Oil:** Traditionally used in Ayurveda, sesame oil is praised for its antioxidant qualities and its ability to reduce plaque.
- **Sunflower Oil:** Another traditional option, sunflower oil is mild in flavor and offers anti-inflammatory benefits.(7)

Frequency and Timing: For optimal results, oil pulling should be done daily, preferably in the morning on an empty stomach. Regular practice is key to experiencing the potential benefits of this ancient technique.

Proposed Benefits of Oil Pulling

Reduction of Plaque and Gingivitis: One of the most frequently cited benefits of oil pulling is its ability to reduce plaque formation and prevent gingivitis. The swishing action is believed to help remove bacteria and debris from the mouth, thereby reducing the risk of gum inflammation.

Whitening of Teeth: Oil pulling is often touted as a natural way to whiten teeth. Proponents claim that the oil can help lift surface stains from the teeth, leading to a brighter smile over time.

Freshening of Breath: Another common claim is that oil pulling can help freshen breath. By reducing the bacteria responsible for bad breath, oil pulling may be an effective remedy for halitosis.

Detoxification: In traditional Ayurvedic practice, oil pulling is believed to detoxify the body by drawing out toxins through the oral mucosa. While this concept is central to Ayurveda, it is not supported by modern medical science.

Prevention of Dental Caries: Oil pulling may also play a role in preventing dental caries (cavities) by reducing the presence of harmful bacteria, such as *Streptococcus mutans*, in the mouth.(8)

Scientific Evidence and Research

Reduction of Plaque and Gingivitis: Several studies have investigated the impact of oil pulling on oral health, particularly in reducing plaque and gingivitis. Some research suggests that oil pulling can be as effective as traditional mouthwashes, like chlorhexidine, in decreasing plaque buildup and improving gum health.

Teeth Whitening: While many people report whiter teeth after regular oil pulling, scientific evidence supporting this claim is limited. The whitening effect, if any, may be due to the removal of surface stains rather than any inherent bleaching property of the oil.

Freshening of Breath: Studies have shown that oil pulling can reduce volatile sulfur compounds (VSCs), which are a major cause of bad breath. However, more research is needed to fully understand its effectiveness compared to conventional methods.

Prevention of Dental Caries: Research on the effect of oil pulling on bacteria like *Streptococcus mutans*, which is responsible for tooth decay, has shown promising results. Regular oil pulling may reduce the levels of these bacteria, potentially lowering the risk of cavities.

Detoxification: The concept of detoxification through oil pulling remains largely unsupported by modern science.

While oil pulling may help reduce the bacterial load in the mouth, the broader claims of detoxifying the body are not substantiated by current medical understanding.

Oil pulling is often highlighted for its various potential benefits in dentistry, many of which stem from its purported ability to reduce harmful bacteria in the mouth and improve oral hygiene. Below is an explanation of the key medical benefits that have been associated with oil pulling in the context of dental health(9)

1. Reduction of Plaque and Gingivitis

- **Mechanism:** Plaque is a sticky film of bacteria that forms on teeth, leading to gum inflammation (gingivitis) if not removed regularly. Oil pulling is thought to help reduce plaque by "pulling" bacteria and debris away from the teeth and gums as the oil is swished around in the mouth. The oil's viscosity and ability to mix with the lipophilic (fat-loving) membranes of bacterial cells may help dislodge and remove these microbes.
- **Evidence:** Some studies have shown that oil pulling can reduce the formation of plaque and improve symptoms of gingivitis, with results comparable to traditional mouthwashes like chlorhexidine. However, these studies are limited and often small-scale, so more extensive research is needed to confirm these benefits.(4)

2. Whitening of Teeth

- **Mechanism:** Oil pulling is claimed to whiten teeth by removing surface stains. The oil may help lift and dissolve the particles that cause discoloration on the enamel of the teeth. While oil pulling does not bleach the teeth, its cleaning action could result in a brighter appearance.
- **Evidence:** The whitening effect of oil pulling is primarily anecdotal, with limited scientific evidence to support it. People who practice oil pulling regularly may notice a slight improvement in the color of their teeth, but this is likely due to the removal of surface stains rather than any significant bleaching effect.(10)

3. Freshening of Breath

- **Mechanism:** Bad breath, or halitosis, is often caused by bacteria that produce volatile sulfur compounds (VSCs) in the mouth. Oil pulling may reduce these bacteria, thereby decreasing the production of VSCs and resulting in fresher breath.
- **Evidence:** Studies have found that oil pulling can be effective in reducing the levels of bacteria that contribute to bad breath, including those that produce VSCs. While oil pulling may not be as effective as some conventional mouthwashes, it can serve as a natural alternative for those seeking to improve their breath.(11)

4. Prevention of Dental Caries (Cavities)

- **Mechanism:** Dental caries, or cavities, are caused by the breakdown of tooth enamel due to acids produced by bacteria such as *Streptococcus mutans*. Oil pulling is believed to help reduce the number of these harmful bacteria in the mouth, thereby lowering the risk of cavities.
- **Evidence:** Some research indicates that oil pulling can decrease the levels of *Streptococcus mutans* and other cariogenic bacteria in the mouth. This reduction could potentially help in preventing the formation of cavities, especially when combined with other oral hygiene practices like brushing and flossing.(12),13

5. Overall Oral Health Improvement

- **Mechanism:** By reducing the bacterial load in the mouth, oil pulling may contribute to overall oral health. A decrease in harmful bacteria could lead to fewer oral infections, less gum inflammation, and better oral hygiene in general.
- **Evidence:** The holistic benefits of oil pulling are supported by the general reduction of bacterial counts in the mouth, which is linked to improved oral health. While oil pulling alone is unlikely to replace traditional dental care, it may offer supplementary benefits when used in conjunction with brushing, flossing, and regular dental check-ups.(13)

6. Detoxification (Traditional Belief)

- **Mechanism:** In Ayurvedic practice, oil pulling is believed to detoxify the body by drawing out toxins through the oral mucosa. The theory is that by swishing oil in the mouth, toxins and pathogens are "pulled" from the bloodstream and expelled from the body.
- **Evidence:** The detoxification claims of oil pulling are largely unsupported by modern science. While the practice may reduce bacteria in the mouth, there is no scientific evidence to suggest that it has any significant detoxifying effect on the body as a whole.(14)

Potential Risks and Considerations

Lipid Pneumonia: A potential risk of oil pulling is lipid pneumonia, a rare but serious condition that can occur if oil is accidentally inhaled into the lungs during the process. This highlights the importance of proper technique and caution, especially in individuals with swallowing difficulties.(15)

Lipid Granulomatosis: Prolonged exposure to oils in the mouth can lead to the development of lipoid granulomas, small areas of inflammation caused by the deposition of oil in the tissues.

Delayed Treatment: Relying solely on oil pulling for oral health care can lead to delays in seeking appropriate treatment for serious dental issues. It is important to use

oil pulling as a complementary practice, not a replacement for professional dental care.

General Safety Considerations: Overall, oil pulling is considered safe for most people when done correctly. However, individuals with certain health conditions, such as swallowing disorders or allergies to specific oils, should consult with a healthcare provider before starting this practice.(5)

Integration with Modern Dentistry

Complementary Practice: Oil pulling can be integrated into a modern oral hygiene routine as a complementary practice. It should be used alongside traditional methods, such as brushing, flossing, and regular dental check-ups, rather than as a replacement.

Professional Opinions: Many dental professionals remain cautious about recommending oil pulling due to the lack of robust clinical evidence. The American Dental Association (ADA) does not endorse oil pulling as a substitute for standard dental care but acknowledges that more research is needed to determine its potential benefits.

Guidelines for Use: For those interested in incorporating oil pulling into their oral hygiene routine, it is important to continue regular dental practices. Consulting with a dentist before starting oil pulling can ensure that it is used safely and effectively.(16)

Conclusion

Summary of Benefits and Limitations: Oil pulling offers several potential benefits, including plaque reduction and fresher breath, but its limitations should not be overlooked. The lack of strong scientific evidence means that it should be approached with caution and used as an adjunct to conventional dental care.(17)

Recommendations for Use: While oil pulling can be a useful addition to an oral hygiene routine, it should not replace proven methods such as brushing, flossing, and professional dental care. Those who practice oil pulling should do so in conjunction with regular dental visits and a comprehensive oral care regimen.(18)

Future Research Directions: There is a need for more comprehensive clinical trials to better understand the effects of oil pulling and its potential role in dental health. Future research should focus on establishing the efficacy, safety, and mechanisms of oil pulling to determine its place in modern dentistry.

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