



## Beneficial Role of Oral Saliva Antioxidants in Mouth Ulcers

Hanadia Hally\*

Department of Chemistry, Jiangxi University of Science and Technology, Ganzhou, China

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### Description

The oral immune system is very complex, but its primary function is to protect the teeth, gums, and oral mucosa from infection. While the oral cavity is made up of hard and soft tissues that are constantly exposed to the internal and external environment and the application of foreign materials, there is a whole network of protection built into it. The saliva, periodontal tissue (tissues that surround and support the teeth), and tonsils are the host's protective net that helps maintain oral immunity. Saliva is one of the most important protective systems, consisting of natural antioxidants and natural antibacterial substances that help protect the oral cavity.

In particular, saliva is a body fluid that plays an important role in the physicochemical and immune defense of teeth and oral tissues. It aids digestion by using enzymes to break down food particles before swallowing the food. Saliva also keeps oral cavity moist, preventing dry mouth, and acts as a cleanser and protector of the oral cavity, protecting against bacteria and other pathogens that cause bleeding and inflammation. Another key function of saliva is its natural ability to neutralize acid production and promote the re-mineralization of tooth enamel with calcium and phosphate, while helping to prevent tooth decay. An amazing feature that most people are unaware of is its ability to also help heal several mucosal lesions, ulcers and wounds. It contains antibodies that fight germs, as well as substances that promote skin cell growth and blood clotting, so mouth sores usually stop bleeding and heal faster.

### Antioxidants used in mouth ulcers

- Phloretin is a powerful poly-phenolic antioxidant and a natural phenol in the flavonoid subgroup, which is mainly obtained from apple leaves. It has been shown to inhibit several types of destructive

enzymes and is easily absorbed.

- Ferulic acid is a very effective antioxidant found especially in the leaves and seeds of many plants such as wheat, rice and oats. It is an extremely effective poly-phenolic antioxidant with a chemical structure very similar to the herbal supplement curcumin.
- Xylitol is a common sugar-alcohol sweetener found in many fruit and plant fibers. It is used as a natural sugar substitute that inhibits specific and significant bacteria called Streptococci mutans that contributes to tooth decay, also known as cavities.
- Peppermint oil is an organic compound that has been shown to have excellent antibacterial and antifungal properties. It also has a soothing, cooling effect.
- Thyme is a natural phenol found in thyme oil in the form of thymol, which has demonstrated potent antioxidant properties including strong antimicrobial, antifungal, and anti-inflammatory effects. It has a strong aroma and is part of a naturally occurring class of compounds known as biocides.
- Sage oil has antimicrobial and antibacterial benefits. It has a long history of medicinal use. When used topically, it can stop bleeding in wounds, treat sore throats, coughs and swelling from inflammation, as well as tooth abscesses, infected gums, and many sores and irritations in the mouth. Sage oil also has antioxidant properties and is an ingredient in many dental hygiene products.
- Clove flower oil is extracted from cloves, naturally aromatic buds from trees in South America. This wonderfully aromatic ingredient has antibacterial and anaesthetic properties that, in low concentrations, help relieve symptoms of irritation of mouth and help with antibacterial defences.

**Antioxidant topical gel to increase oral immunity:**

AO ProVantage is a dental gel formulated for use in the mouth. Its water-based formula contains antioxidants, xylitol, and essential oils. These natural ingredients supplement the antioxidants in saliva, enhancing the body's natural defense system. When used regularly, AO ProVantage gently soothes the soft tissues of the mouth, im-

proving their appearance and quality. It can also reduce inflammation and redness caused by harmful bacteria. Overall, AO ProVantage works in synergy with the body to promote oral health and maintain a healthy mouth. With its unique blend of natural ingredients, AO ProVantage is a gentle and effective way to care for the oral health.