

## Natural and Alternative Medicine Approaches to the Oral Bacteria Associated with Increased Risks for Strokes

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In a recent study published this month in Scientific Reports, researchers at the University of Louisville School of Medicine have gained new insight into the association between different types of stroke and the presence of the oral bacteria, *Streptococcus mutans*. *S. mutans* is a major pathogen of dental caries (also known as tooth decay, cavities) and causes bacteremia by dental procedures.

Oral infectious diseases have previously been associated with strokes, which are defined as either ischemic (a blockage of one or more blood vessels supplying the brain) or hemorrhagic (blood vessels in the brain rupture) Small vessel diseases are important biomarkers of vascular injury and brain dysfunction.

In this new study, researchers observed 100 acute stroke patients to better understand the relationship between hemorrhagic stroke and oral bacteria. In the patients who experiences intracerebral hemorrhage (ICH), 26% were found to have *cnm*-positive *S. mutans* in the saliva. Among patients with other types of stroke, only 6% tested positive. Researchers found that the *cnm*-positive *S. mutans* contributes to the development of ICH by expressing a collagen-binding protein that the *cnm* gene encodes on the bacterial surface, which disrupts the blood-brain barrier.

The researchers also evaluated MRI's of the participants for the presence of cerebral microbleeds (CMB), which are small brain hemorrhages that may cause dementia and also often underlie, ICG. They found that the number of CMBs were significantly higher in subjects with *cnm*-positive *S. mutans* than in those without.

They believe the *S. mutans* bacteria may bind to blood vessels that have been weakened by age and high blood pressure, and cause arterial ruptures in the brain leading to hemorrhages. This may explain the cause of the inflammation and endothelial damage. This study demonstrates a possible mechanism by which *cnm*-positive *S. mutans* induces hemorrhagic changes in perforating arterioles, and the importance of oral health and its role in brain health.

The dental caries-causing cnm-negative *S. mutans* bacteria is found in approximately 10% of the population. Various research studies have shown a close association between gum disease and both heart disease and rheumatoid arthritis. Researchers are exploring the role of oral bacteria in other neurodegenerative disorders such as Alzheimer's and Parkinson's disease. With all of this information, we see that it is essential to have good oral hygiene because it impacts the rest of the body.

Two therapies to consider for overall oral health are silver and Dental-Lac. Silver is a highly effective broad-spectrum antimicrobial that can be used before, during and after dental procedures. It supports the immune system, has no side effects, and does not interfere with antibiotics. Dental-Lac is a patent pending and clinically tested specific *Lactobacillus paracasei* strain that has been shown to kill off harmful strains of harmful bacteria, including *S. mutans*.

We use the safest and most absorbable form of (Ag): Silver to help promote good health and destroy bad oral bacteria which can be the cause(s) of many diseases effecting Americans today. The American consumer must be aware of the best forms of Silver to treat abnormal health challenges and not harm themselves with Silver inferior silver products.

**Dr. Badanek has been and currently is 37 years into active/private practice in the Ocala/Marion County, Florida region. Dr. Badanek practices Natural/Holistic Medicine through the use of Functional/Integrative Models for diagnostic and treatment protocols for the health challenged. Find him online at [Dr.Badanek.com](http://Dr.Badanek.com) and [www.alternativewholistic.com](http://www.alternativewholistic.com), and see what the facility has to offer the sick and health challenged. To schedule an appointment call 352-622-1151**