# What's Happening In Your Mouth? RISK FACTORS TO ORAL HEALTH



# 4 Bad Bugs To Be Aware Of



### Treponema denticola

A gram-negative, obligate anaerobic, motile, and highly proteolytic spirochete bacterium, Treponema denticola is primarily found in the gingival crevice of the oral cavity. Elevated T. denticola levels in the mouth are considered one of the main etiological agents of periodontitis.

## Porphyromonas gingivalis

A nonmotile, gram-negative, rod-shaped, anaerobic, pathogenic bacterium, Porphyromonas gingivalis is found in the oral cavity and the upper gastrointestinal tract, the respiratory tract, and the colon. Though it is found in low abundance in the oral cavity, P. gingivalis invades gingival epithelial cells and causes a microbial shift of the oral cavity. This allows for uncontrolled growth of the commensal microbial community, which plays an important role in the onset of chronic adult periodontitis.

## Streptococcus mutans

Streptococcus mutans is a facultative anaerobic, gram-positive coccus (round bacterium) commonly found in the human oral cavity. It is the primary causal agent and the pathogenic species responsible for dental caries (tooth decay or cavities), specifically in the initiation and development stages.

#### Candida albicans

An opportunistic pathogenic yeast, Candida albicans is a common member of the human gut flora and is detected in the gastrointestinal tract and mouth in 40 to 60 percent of healthy adults. It is usually a commensal organism, but it can become pathogenic in immunocompromised individuals under various conditions. Oral thrush, also called oral candidiasis, is a condition in which C. albicans accumulates on the lining of the

## **Whole-Body Effects**

Our oral cavity is filled with microorganisms. While most are harmless, some are associated with causing or contributing to disease, both in the mouth and throughout the body. Maintaining good oral health care habits, such as daily brushing, flossing, and rinsing keeps the oral microbiome under control.

Without proper oral hygiene, non-commensal bacteria can reach levels that may lead to oral infections, such as tooth decay and gum disease, while also being associated with many systemic diseases and conditions. Research has shown that more than 120 diseases originate in the mouth.



## Cognitive Decline

Poor oral health and periodontitis are associated with increased risk of dementia and Alzheimer's disease.



## **Oral Microbiome**

Inadequate oral hygiene can lead to dysbiosis in the oral cavity and contribute to tooth decay and gum disease, which is associated with poor health status. Plaques on the teeth are biofilms, communities of microorganisms embedded in an extracellular matrix that protects them and makes them difficult to remove.



## Cardiovascular Concerns

Research shows that oral bacteria have been found in arterial plaques and the inner lining of the heart chambers and valves. People with periodontal disease are 25% more likely to develop cardiovascular disease.



## Metabolic Health

Research shows that people with gum disease have more difficulty controlling their blood sugar levels, while gum disease appears to be more frequent and severe among people with diabetes.



## **Poor Respiration**

Bacteria in your mouth can be respired into your lungs, causing pneumonia and other respiratory diseases.



#### G.I. Discomfort

Dysbiosis (imbalance of microorganisms) in the mouth may translocate further down the G.I. tract and contribute to discomfort such as gas, bloating, belching, reflux, abdominal pain, and/or altered stool function. What grows in the mouth, will grow in the gut!



#### **Rheumatoid Arthritis**

Gum disease and rheumatoid arthritis (RA) share a pathogenic feature known as hypercitrillunation. Treating periodontal disease has been shown to reduce pain caused by RA.



## Weight Concerns

Research shows that people with higher body weight have subpar oral health, including oral inflammation, cavities, and periodontitis. Conversely, poor oral health can affect blood glucose control and may contribute to weight gain.



- Poor Hygiene
  Medication
- Hereditary Factors













