

Oral Health Is Important, but How Important?

Alexander G. Dengel

Many of us grow up with our parents and dentists badgering us to brush and floss and to avoid sugary foods and soda so that our teeth don't rot. Brushing and flossing may seem like burdensome chores, but these actions are crucial to a long-term, healthy oral routine and smile. At-home care has become increasingly important, given that around 74 million Americans (23% of the U.S. population) do not have dental coverage, and only 58% of Americans visit a dentist at least once per year.¹ Lack of insurance coverage, lack of transportation to get to the dentist's office, and inability to take time off from work or find childcare are all barriers to regularly seeing a dentist.² These factors make at-home care routines essential for maintaining oral health in between visits.

Dental health is generally overlooked as a priority because many do not understand its impact on overall health. Individuals can develop chronic diseases that are easily preventable by better at-home care. As a result, oral health has become a major public health issue. Poor oral care may initially result in irritated gums and yellowing teeth. Over time, gums can become inflamed and painful. Irregular white spots begin to develop on tooth enamel, indicating the onset of cavities.³ This decay can cause discolored or missing teeth, bad breath, and gum disease. Prolonged neglect may lead to more dire health consequences, including cardiovascular disease, diabetes, and cancer. It is crucial to consider what our teeth tell us about our overall physical and mental health to prevent these outcomes.

What Do Our Teeth Tell Us About Our Short-Term Health?

Many people associate healthy teeth with white teeth, but oral health is so much more than just a shiny, white smile. This misunderstanding can cause people to cut corners with their oral hygiene by using whitening strips to achieve a "healthy" smile. However, whitening strips do nothing to clean the teeth and are not a substitute for brushing. Whitening our teeth ignores the biological root of a healthy smile: gum health.⁴ Teeth begin to yellow because of plaque, which develops and hides around the gum line and between teeth. In addition to tooth discoloration, inflamed gums indicate that your dental care needs attention. If you truly want long-lasting white teeth, it is crucial to take care of your gum health.⁵

Although it feels like a tedious addition to your daily routine, the importance of flossing cannot be overstated. Floss reaches the bacteria between teeth that the toothbrush cannot, preventing gum inflammation, teeth discoloration, and most noticeably, bad breath. Most dentists tell their patients to floss to keep their teeth and gums healthy. However, they rarely explain how flossing will impact their health in the short-term. Dr. Lupfer, a General Dentist completing his residency in San Diego, California notes:

"Every time you eat, drink, or ingest something it increases the acidity of your mouth, [creating] a more favorable environment [for] bacteria . . . that form plaque, breakdown to calculus, form cavities, and begin gum and bone destruction. In the short-term, brushing and flossing rids the mouth of . . . substrates that provide energy to the bacteria in your mouth . . . Maintaining adequate oral hygiene over days, weeks, months, [and] years will help long term to prevent cavities from forming, periodontal disease from setting in, and potential oral infections from manifesting in your mouth."

What Do Our Teeth Tell Us About Our Long-Term Health?

One of the biggest threats to dental and long-term physical health is periodontitis—gum disease. This disease attacks the gum line, which recedes as a result of inflammation and infection. Inflammation is the innate immune response to the bacteria hiding in between teeth and the gum line. This stage of gum inflammation is known as gingivitis, a moderate form of periodontitis. But as the inflammation persists, the disease progresses. Soon, our immune system invades the tissues, altering the balance of bone metabolism. This marks the transition from gingivitis to periodontitis.⁶ The bone that surrounds the tooth begins to degrade and ultimately weakens the tooth. Eventually, the tooth will become so brittle it falls out. Along with tooth loss, periodontal disease weakens the immune system and has been linked to cardiovascular disease, diabetes, and cancer.⁷

Bacteria present in gum disease can travel throughout the body, causing inflammation to the heart's vessels, resulting in infection, heart attack, and stroke.⁸

Inflammation also increases insulin resistance and makes it difficult to control

glucose levels, directly impacting diabetes, specifically type 2 diabetes. In the advanced stages of periodontitis, periodontal pockets develop and deepen (see Figure 1). These pockets create reservoirs for agents with suspected links to oral cancer. The agents release inflammatory cytokines, chemokines, growth factors, and enzymes associated with cancer development.⁹ Roughly half of adults over the age of 30 and seventy percent of adults over the age of 65 suffer from some degree of periodontal disease, increasing their risk for these chronic diseases.¹¹ Fortunately, these risks can be managed by at-home preventative care and regular visits to the dentists.

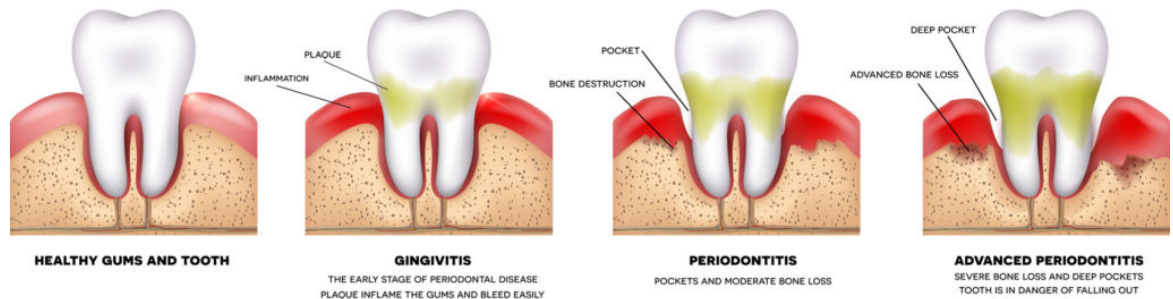


Figure 1. Periodontitis Timeline

Source: Glaser Dental, Periodontal Services in the Wausau Area, 2018.¹⁰

Oral Health Also Affects our Mental Health?

An indirect benefit of a healthy smile is a boost in mental health. Positive feelings about our smiles and oral health build self-confidence and self-esteem, having ripple effects upon social and workplace interactions. While it may seem like a stretch, a healthy smile can create many opportunities in personal and professional life.

In sum, oral health is an overlooked public health issue that can be avoided. There are many ways in which your mouth communicates with the rest of your body and it is crucial to keep such an important area of your body clean.

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