

Poor Oral Health Wreaks Havoc on Your Heart and Brain

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STORY AT-A-GLANCE

- › Poor oral health significantly increases the risk of cardiovascular disease, diabetes, and osteoporosis. According to one study, people with fewer than 10 natural teeth are 1.66 times more likely to die from heart-related issues
- › Gum disease allows harmful bacteria to enter the bloodstream through inflamed gums, causing inflammation and disease in various organs, including your brain and heart
- › Research links gum disease to brain health issues, including Alzheimer's disease. Each lost tooth due to severe periodontitis is associated with 1.3 years of brain aging
- › Good oral hygiene practices, including regular brushing, flossing and dental check-ups with a mercury-free dentist, are crucial for preventing gum disease and its associated systemic health risks
- › Oil pulling with coconut oil will reduce bacteria in your mouth, while choosing nontoxic dental products can prevent exposure to harmful chemicals

Keeping your teeth clean and gums healthy isn't just a cosmetic concern. Apart from giving you a bright and pleasant smile, proper oral hygiene also influences your overall well-being. Think of your mouth as a window to your physical and mental health – it can give you a peek of what's happening in the rest of your body.

A recently published study¹ gives additional insight into how your oral health can have a profound effect on your well-being, particularly your heart health. According to the

researchers, the fewer natural teeth you have, the higher your chances of developing cardiovascular disease.

Gaps in Your Smile Can Also Indicate Gaps in Your Heart

A systematic review published in the *Journal of Endodontics*² sheds light on how the state of your oral health can influence your risk of dying from cardiovascular disease.

The researchers analyzed data from 12 research papers and found that people who have already lost all their natural teeth or only have fewer than 10 natural teeth remaining were 1.66 times more likely to die from heart-related issues compared to those with more teeth. Even when other factors were taken into consideration, such as the participants' age, habits (such as smoking) and gender, there were no significant changes to the results.

In a *TIME* article,³ Anita Aminoshariae, a professor of endodontics at the Case Western Reserve University School of Dental Medicine and one of the study authors, likens the teeth to sand dunes – just like how they protect inland areas from the sea, your teeth shield your body from foreign substances. Once gone, your body's primary defense weakens.

*"The mouth is not disconnected from the rest of the body. Quite the opposite – studies suggest that oral health is associated with everything from heart health to lifespan, even if many people don't realize it," she explains.*⁴

People with 'Poor' or 'Fair' Oral Health Have a Higher Risk of Mortality

However, this isn't an entirely new discovery, as there have been various studies that explored this phenomenon, called the "oral-systemic link." According to the *TIME* article, the first findings on this topic were related to diabetes; when diabetic patients were treated for gum disease, their blood sugar levels improved. Conversely, when their diabetes worsened, their gum disease also worsened.⁵

A separate study, published in The Journal of the American Dental Association in March 2024,⁶ gives more insight into the link between oral health and overall mortality. The researchers studied two independent data sets, one from the Women's Health Study and another from the National Health and Nutrition Examination Survey (NHANES). They found that people who rate their oral health as "fair" or "poor" have a higher risk of developing severe health problems.

"Self-rated fair or poor oral health was independently associated with increased risk of cardiovascular disease (odds ratio, 1.39; 95% CI, 1.14 to 1.69; P < .001), diabetes (odds ratio, 1.21; 95% CI, 1.02 to 1.43; P = .028), and osteoporosis (odds ratio, 1.60; 95% CI, 1.38 to 1.84; P < .001)," the researchers reported.⁷

Yau-Hua Yu, an associate professor of periodontology at the Tufts University School of Dental Medicine and one of the study authors, reiterates the value of proper oral hygiene to prevent these conditions from arising, saying:

*"When you don't clean your teeth properly, allowing food and other debris to sit on and in between the teeth, the bacterial communities in your mouth can change, potentially contributing to gingivitis and gum disease over time."*⁸

But how do harmful organisms on your gums find their way to your organs, like your brain and heart? It turns out they sneak into your system via your blood vessels, which are actually "leaky."

Pathogenic Organisms Can Spread Infections via Your Bloodstream

According to Yvonne Kapila, a professor and associate dean of research at the University of California, Los Angeles School of Dentistry, when you have gum disease and your gums are inflamed, the leaky nature of the blood vessels paves the way for viruses, bacteria and other pathogenic organisms to enter your body.⁹

Once inside, they can spread to various areas via the bloodstream. When these harmful microbes reach your organs, they can lead to inflammation and trigger disease. As TIME reports, "Bacterial matter from the mouth has been found in cancerous tumors, diseased heart valves and livers, and brain tissue of people who died from Alzheimer's disease, to name a few notable examples."

Kapila, along with a team of researchers, conducted a study on how gum disease is related to brain health.¹⁰ They found that the bad bacteria that cause gum disease travels to your brain where they increase the amount of harmful proteins associated with Alzheimer's disease.

However, when the researchers used an antioxidant peptide called nisin to treat the infection, they were able to reverse some of the issues, mitigating the harmful effects of gum disease.

Gum Disease Can Also Shrink Your Brain

A 2023 Japanese study¹¹ echoed the findings of Kapila's team. Published in the Neurology journal as part of the Ohasama study (a prospective cohort study about hypertension and cardiovascular disease), the authors found that periodontitis (gum infection) can cause hippocampal atrophy – meaning it can cause your hippocampus to shrink, which is a marker of Alzheimer's disease.

The study involved 172 participants aged 55 years old and above who did not have any cognitive decline. The researchers conducted dental exams and memory tests. They also measured the participants' hippocampus at the start of the study and four years later.¹²

They discovered that in participants with mild gum disease and fewer teeth, their left hippocampus shrunk faster. Having one less tooth increased brain shrinkage at a rate equivalent to nearly one year of brain aging. Meanwhile, participants who had more severe periodontitis also had a faster rate of brain shrinkage – every tooth lost was

equivalent to 1.3 years of brain aging. According to study author Satoshi Yamaguchi, Ph.D., DDS, of Tohoku University:

"These results highlight the importance of preserving the health of the teeth and not just retaining the teeth. The findings suggest that retaining teeth with severe gum disease is associated with brain atrophy.

*Controlling the progression of gum disease through regular dental visits is crucial, and teeth with severe gum disease may need to be extracted and replaced with appropriate prosthetic devices."*¹³

Good Oral Hygiene Can Protect Your Heart and Brain Health

Gum disease is preventable, but you need to take the necessary precautions and practice good dental hygiene. According to the U.S. Centers for Disease Control and Prevention (CDC),¹⁴ gingivitis can be reversed, while severe periodontitis can be managed and slowed down with professional help. Hence, it's never too late to make significant changes to your oral hygiene routine.

Regular brushing (using a nonfluoridated toothpaste), flossing and tongue scraping, along with getting regular cleanings with a mercury-free biological dentist, can all go a long way toward keeping your teeth and gums healthy. It's also essential to follow a healthy lifestyle that includes a diet composed of fresh, whole foods to help keep your mouth naturally clean.

The American Dental Association (ADA)¹⁵ advises brushing twice a day using a soft bristle brush. Instead of doing so immediately after finishing a meal, however, they recommend waiting 30 minutes before brushing.

Store your toothbrush properly to prevent bacterial growth — ideally, position it upright and open to air, so it can dry completely. Make sure to replace it every three to four months. For toothbrushing tips, follow this guide:¹⁶

1. *"Place your toothbrush at a 45-degree angle to the gums.*

2. *Gently move the brush back and forth in short (tooth-wide) strokes.*
3. *Brush the outer surfaces, the inner surfaces and the chewing surfaces of the teeth.*
4. *To clean the inside surfaces of the front teeth, tilt the brush vertically and make several up-and-down strokes."*

What's Your 'Flossophy'?

Keep in mind that there are some places that your toothbrush may not reach, particularly the spaces in between your teeth, which is why it's best to include flossing as part of your oral hygiene routine. The ADA advises flossing at least once a day. You can do it before or after brushing, whether in the morning or at night – the choice is yours.¹⁷

In the video above, Heather Brown, the director of oral health and professional relations with Delta Dental of Idaho, shares her "flossophy" – her ideal flossing philosophy, saying:

"When you are just brushing the tooth surfaces with your toothbrush, you're brushing about 60% of your teeth. Flossing covers the other 40%. So, don't fool yourself in thinking that you have done a great job in cleaning your mouth if you haven't flossed.

I've seen people that start to floss and they become habitual about it they actually feel better about themselves. Their next check-up is much easier. And so, people are motivated by that, and they basically want to be healthy."

Brown advises flossing in an up-and-down direction, on each side of the tooth. She also cautions against doing the "see-saw" technique, which can cause pain and may harm your tissue.

When buying dental floss, make sure to look for those that do not contain toxic chemicals like per- and polyfluoroalkyl substances (PFAS), which are usually added so

the floss can glide smoothly in between your teeth. Instead, look for products that use vegan vegetable waxes, which give a smoother glide between your teeth.

And just as with your toothpaste, choose dental floss that does not have any added fluoride; ideally, choose nylon instead of chemically treated silk dental floss. You may also consider using a water flosser, which sprays a powerful jet of water into your mouth. While many choose a water flosser over floss, your best option may be to learn how to use both.

Wrap Up Your Oral Hygiene Routine with Oil Pulling

As its name implies, oil pulling refers to the practice where you use swish oil around your mouth to "pull" and eliminate bacteria from your teeth and gums. Oil pulling is an ancient technique, and in traditional Indian folk medicine, it's a valuable strategy to help reduce the risk of tooth decay, bad breath and bleeding gums, and to strengthen your teeth and gums.

Oil pulling is not rocket science — just measure a tablespoon of coconut oil and place it in your mouth. Swish it around using your cheeks and tongue, "pulling" it through your teeth so it can break down bacteria.

Relax your jaw muscles to avoid muscle fatigue and make sure not to swallow the oil or use it as a gargle. Instead, spit it out. The coconut oil will be thick and milky white, because of the bacteria it has accumulated. If you feel the urge to swallow, just spit out the oil and start again.

After 20 minutes, spit out the oil into the garbage bin or in your yard (but not on your plants). Don't spit it in your sink, as it may coat your plumbing and lead to problems.

Increasing the pH in your mouth after oil pulling may reduce bacterial growth even further. Simply mix 1 teaspoon of baking soda in 6 ounces of water and gargle. This will alkalize the pH of your mouth, and since bacteria thrive in an acidic environment, the increased pH will discourage growth.

Opt for Biological Dentistry

Biological dentists have undergone training that equips them to view and treat your oral health as an integral part of your overall health. They're also trained in how to safely remove mercury fillings. Ideally, find a biological dentist to care for all your dental needs, as they're far less likely to perform procedures that will cause problems later on. You can find a mercury-free dentist among the resources below:

[Consumers for Dental Choice](#)

[Dental Amalgam Mercury Solutions](#)

[\(DAMS\)](#). Email them [here](#) or call 651-644-4572 for an information packet

[Holistic Dental Association](#)

[Huggins Applied Healing](#)

[International Academy of Biological Dentistry and Medicine \(IABDM\)](#)

[International Academy of Oral Medicine and Toxicology \(IAOMT\)](#)

[International Association of Mercury Safe Dentists](#)

[Talk International](#)

Sources and References

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