

SPOTLIGHT ON: ORAL HEALTH & ALZHEIMER'S DISEASE

The mouth is the gateway to our body but **did you know oral health can act as a window to brain health and cognitive function?**

Alzheimer's Disease and dementia affects over **35.6 million individuals worldwide**, with the number predicted to **double every 20 years to reach over 115 million people by 2050**¹.

Due to its high prevalence, it is highly likely that many know someone with the disease and are familiar with some of the common signs: forgetfulness, memory loss and confusion. **However, what you may be surprised to learn is that there is a link between oral health / periodontitis and cognitive brain loss associated with Alzheimer's Disease**²

Let's take a look at how and why the two are linked:



A healthy mouth has a low level of plaque build-up. Without plaque build-up in the mouth, bacteria cannot multiply, cause cavities, gum deterioration or spread beyond the mouth.



When plaque bacteria build up and the plaque becomes thick and dense, it can provide the perfect environment for bacteria that can cause gum disease to thrive.



Anaerobic plaque bacteria in your mouth create toxins and can lead to inflammation. What's more, these bacteria are known to spread into your body!



Brain scans have shown that the build-up of toxic amyloid plaques are linked to the build-up of periodontal bacteria³ - within the brain is a central feature of Alzheimer's disease.



These amyloid plaques are hard, insoluble accumulations of beta amyloid proteins that clump together between the nerve cells (neurons) and infect the brains of Alzheimer's patients.



Over time this amyloid plaque build up leads to loss of cognitive function (dementia).

Research has shown that periodontal pathogens have demonstrated the ability to cross the brain-blood barrier⁴ with, enzymes related to gingivitis found in OVER 90% of brain tissue biopsies from Alzheimer's patients⁵.



DID YOU KNOW?

Patients with Alzheimer's Disease and cognitive function loss are at a higher risk for developing poor oral hygiene and periodontal disease⁶.

A clinical study which looked at the oral health status of 180 patients with dementia and 229 without dementia, **found that patients with dementia had significantly worse oral hygiene**⁷.

The same clinical study found that **patients with dementia had significantly worse periodontal disease**, measured by tooth attachment loss⁷.

This may be due to Alzheimer's patients forgetting to regularly brush their teeth or day-to-day routines sliding when relying on others to help.

This means that individuals with Alzheimer's Disease and those involved in their care should be extra mindful of maintaining stringent oral health habits to help keep periodontal disease at bay.

What are the warning signs of gum infections?⁸



- Red, swollen or tender gums
- Bleeding gums
- Receding gums
- Loose teeth
- Sensitive teeth
- Persistent bad breath
- Pain when chewing

Oral-B is leading the way in innovation, technology and research to help protect your oral health and educate you about the connections between oral health and overall health.

Electric Toothbrush with a Round-Head

Oral-B is the category leader in oscillating-rotating electric toothbrushes. The Oral-B iO's revolutionary technology removes 100% more plaque than a manual brush to give you that professional clean feeling every single day.

Stannous Fluoride Toothpaste

Oral-B Stannous Fluoride (SnF₂) toothpaste helps to protect your gums against bacterial plaque.

Mouth Rinse

Mouth rinses containing bioavailable Cetylpyridinium Chloride (CPC) formulated at 0.07% helps to reduce plaque.

Interdental Cleaning

Plaque easily accumulates and hides between teeth where toothbrushing can't reach. Regular cleaning between teeth helps to remove plaque and helps to protect gums.

Regular Oral-Health Check-Ups

Partner with your dental professional regularly to prevent and detect signs of gum infection at its earliest stages.

Follow a holistic Oral-B regimen for a happy healthy mouth and body!

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 3. Savitt ED, et al. Distribution of certain subgingival microbial species in selected periodontal conditions. *J Periodontol Res* 1984, 19 (2): 111-123
 4. Poole S, et al. Active invasion of Porphyromonas gingivalis and infection-induced complement activation in ApoE(-/-) mice brains. *J Alzheimers Dis* 2015; 43:67-80.
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