

### 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**'

DUE TO ITS HIGH PREVELENCE, 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 AN ASSOCIATION BETWEEN PERIODONTITIS AND COGNITIVE BRAIN LOSS ASSOCIATED WITH ALZHEIMER'S DISEASE?<sup>2</sup>

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



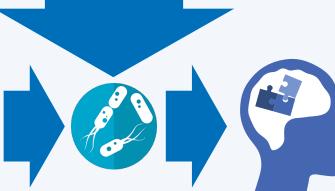
A healthy mouth has minimal plaque build-up. Without plaque build-up in the mouth, bad bacteria cannot multiply, cause cavities, gum inflammation, or periodontal disease.

When plaque bacteria builds-up and the plaque becomes thick and dense, it then becomes more toxic and can lead to inflammation of the gums called gingivitis.

If gingivitis is left untreated it can progress to periodontal disease.



Toxic amyloid plaques within the brain are a central feature of Alzheimer's disease.<sup>3</sup>



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

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.

Research has shown that periodontal pathogens have demonstrated the ability to cross the brain-blood barrier<sup>4</sup> with, enzymes related to periodontal disease found in **OVER 90%** of brain tissue biopsies from Alzheimer's patients<sup>5</sup>

## DID YOU KNOW?

Patients with Alzheimer's Disease and cognitive function loss are at a higher risk for developing poor oral hygiene and periodontal disease<sup>6</sup>.

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<sup>7</sup>.

The same clinical study found that **patients with** dementia had significantly worse periodontal disease, measured by tooth attachment loss<sup>7</sup>.

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

#### What are the warning signs of periodontal disease which individuals with Alzheimer's should look out for?"

# Gingivitis

- Red, swollen or tender gums Receding gums
- Bleeding gums
- Persistent bad breath

#### Periodontitis

- - Loose teeth
  - Sensitive teeth
  - Pain when chewing

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.



#### ARE LEADING THE WAY IN INNOVATION, TECHNOLOGY AND RESEARCH TO FIGHT FACTORS CONTRIBUTING TO BAD ORAL HEALTH AND SUPPORT YOUR ORAL HEALTH.

#### Oral-B<sup>®</sup> Electric Toothbrush with a Round-Head

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

#### **Crest® Stannous Fluoride Toothpaste**

Stannous Fluoride (SnF2) can decrease the toxicity/harmful effects of bad plaque bacteria. Crest® SnF2 dentifrice has shown to **reduce gingival bleeding sites by 51%** versus sodium fluoride control dentifrices.

#### **Crest® Mouth Rinse**

Mouth rinses containing bioavailable Cetylpyridinium Chloride (CPC) formulated at 0.07% helps to reduce plaque and kill germs that cause gingivitis and bad breath.

#### **Oral-B® Interdental Cleaning**

Plaque easily accumulates and hides between teeth where toothbrushing can't reach. **Flossing once each** day with Oral-B<sup>®</sup> Glide floss removes plaque from between teeth and can prevent the bleeding and inflammation associated with gingivitis.

#### **Regular Oral-Health Check-Ups**

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

#### References

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