





At Home Oral Care: New and Emerging Technologies in Oral Health

How at-home oral care products can help maintain periodontal health

Periodontal disease is the inflammation and destruction of structures that support the teeth

Periodontitis is associated with multiple systemic diseases and conditions such as:

- Diabetes 
- Cardiovascular disease 
- Cognitive decline 
- Adverse pregnancy outcomes 



It is primarily caused by the accumulation of plaque (a bacterial deposit) near the gingival margin

If ignored, periodontal disease could result in difficulties in eating, speech problems, loss of teeth, and a lower quality of life

Signs and symptoms of periodontitis



Red, swollen, tender, and bleeding gums



Persistent foul taste and bad breath



Increasing spaces between teeth



Pain on chewing



Teeth that appear elongated



Loose or mobile teeth

Effective and regular plaque control ensures the maintenance of healthy gums



The plaque that accumulates on our teeth can be mechanically removed at home as well, using oral hygiene maintenance aids



Powered toothbrushes for mechanical biofilm removal

Effective toothbrushing mechanically removes biofilms from the teeth, gums, and tongue
Powered toothbrushes can further improve plaque control



Powered toothbrushes vs. manual brushes

Powered brushes are more effective in:

Plaque removal



Mechanical removal of the biofilm from the teeth

Reduction of:



Gingival inflammation



Clinical attachment loss



Tooth loss



Probing depth

Plaque control, especially in:



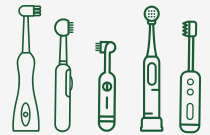
Patients with reduced muscle control



Patients on periodontal maintenance therapy



Are all types of powered toothbrushes equally effective?



Ultrasonic toothbrushes



Ionic toothbrushes



Powered toothbrushes with side-to-side motion



Powered toothbrushes with circular motion

Oscillating-rotating toothbrushes



Among powered toothbrushes, only oscillating-rotating toothbrushes have consistently outperformed manual brushes

Recommendations

✔ Brush twice a day—in the morning and at night before sleeping—for two minutes each

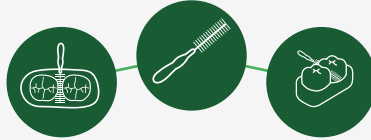


Interdental cleaning using an interdental brush and floss

Interdental cleaning (cleaning between the teeth) helps maintain gingival health in areas not reachable with a toothbrush, especially for patients on a periodontal maintenance regime

Interdental brush

A narrow, bristled, interdental cleaning aid



To access wide or open spaces between teeth

Between the teeth and receding gums

Floss

A smooth string used to clean interdentally and remove impacted food particles



To clean in narrow spaces between teeth where brushes cannot reach

When to use

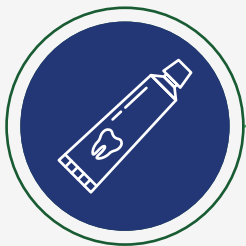
Disadvantages

Improper use may cause wearing of teeth, resulting in hypersensitivity, and soft tissue damage to the gums

Technically demanding and difficult to use, time-consuming, risk of trauma to the gums

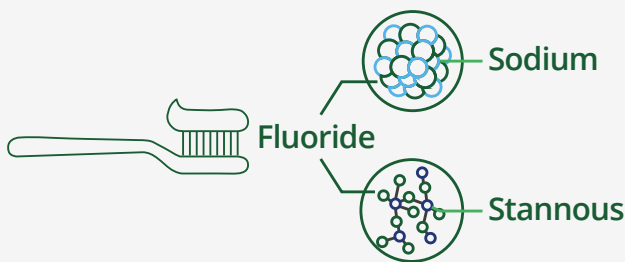
Recommendations

- ✓ Daily interdental cleaning, preferably with interdental brushes, is recommended to reduce plaque and gingival inflammation



Dentifrices as chemical anti-plaque agents

Fluoride toothpastes reduce and prevent caries formation due to their multidimensional mode of action



Stannous fluoride toothpaste:



Is more effective at controlling inflammation than other fluoride compounds in toothpaste



Has anti-bacterial properties

Stannous fluoride toothpaste has been found to reduce:



Dental plaque



Bad breath



Tooth sensitivity



Gingivitis



Tooth erosion

Recommendations

- ✓ Brush twice daily with an anti-bacterial fluoridated toothpaste (like one containing stannous fluoride)



Anti-plaque mouth rinses

Chemical anti-plaque agents are generally more effective when delivered as mouth rinses

Mouth rinses exhibit:



Better distribution in tough-to-reach areas



Positive impact on oral health by reducing bacteraemia from oral micro-organisms

Mouth rinses can contain anti-bacterial ingredients that aid in plaque control, like:

- Chlorhexidine
- Cetylpyridinium chloride
- Essential oils



Recommendations

- ✓ Mouth rinses with chlorhexidine, cetylpyridinium chloride, and essential oils are the most effective for periodontal therapy

What can I do to ensure healthy gums?



1. Visit your dental practitioner twice a year; inform them about any health updates from your doctor, including oral hygiene problems and ongoing treatment
2. Brush your teeth twice a day
3. Clean in between your teeth every day using an interdental cleaning aid
4. Use specific toothpastes and/or mouth rinses to maintain healthy gums
5. Live a healthy life; eat healthy food and refrain from smoking

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