



**Crest** + **Oral-B**

# COMPENDIUM



*"While restorative treatments or periodontal therapies do repair the damage that biofilm initiated diseases cause, **the best TREATMENT is PREVENTION--including good oral hygiene.***

*As professionals we generally talk about oral hygiene like patients should know how to optimally provide oral hygiene, but in many cases coaching is required. We know that patients can improve the outcomes for all of the work that we do in dental healthcare and can help our patients prevent disease or maintain health once established."*

**Mia L. Geisinger, DDS, MS**

*Professor, Director, Advanced Education Program  
in Periodontology  
Department of Periodontology  
University of Alabama at Birmingham*



# Oral-B® iO™ provides superior plaque, gingivitis, and transition to gingival health outcomes compared to manual, sonic and traditional oscillating-rotating (OR) toothbrushes.

Since its 1991 debut, Oral-B® oscillating-rotating technology with its round brush head has been validated by numerous studies demonstrating its efficacy, gentleness, and patient compliance. Clinical evaluations across diverse patient groups—including those with periodontal disease, pediatrics, orthodontics, and post-surgical care—support its effectiveness. Systematic reviews and meta-analyses, including by the Cochrane Collaboration, confirm the safety and superior plaque control and gingivitis reversal of this technology compared to manual brushes.<sup>1-6</sup> Additionally, interactive features like brushing guidance, pressure sensors, and timers enhance brushing behavior and plaque removal<sup>7</sup>.

## Oral-B iO® provides superior reduction in number of gingival bleeding sites and plaque scores compared to other toothbrushes.

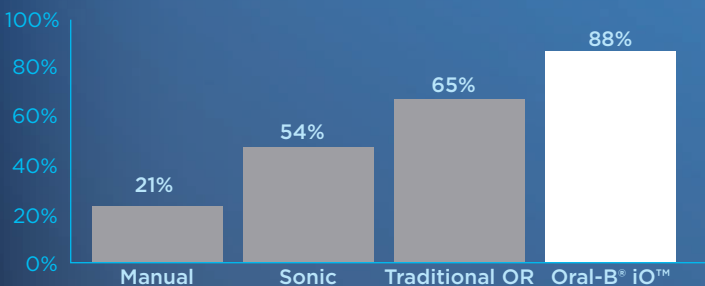
Results from Meta-Analysis evaluating clinical trials supported by a single manufacturer (Procter & Gamble) which provided access to the raw subject level data.<sup>4</sup>

	- VS. MANUAL -	- VS. SONIC -	- VS. TRADITIONAL OR -
<b>BETTER ODDS</b> to reach gingival health	<b>27.8X</b>	<b>6.3X</b>	<b>4.1X</b>
<b>GREATER REDUCTION</b> in bleeding sites	<b>62%</b>	<b>46%</b>	<b>27%</b>
<b>GREATER PLAQUE REDUCTION</b>	<b>25%</b>	<b>11%</b>	<b>8%</b>

### Transition to Gingival Health Results

Significantly more subjects with baseline gingivitis transitioned to gingival health<sup>8</sup> with Oral-B® iO™ versus other toothbrushes (P<0.001) by end of treatment.

SUBJECTS TRANSITIONING TO HEALTH POST-BASELINE



### Time to Transition to Health Results

OR brushes (iO™ and Traditional OR combined) transitioned user to a healthy gingival state FASTER than other toothbrushes.



**50+%**  
FASTER than  
a manual  
toothbrush



**33%**  
FASTER  
than a sonic  
toothbrush

<sup>1</sup>Grender JM, et al. Am J Dent 2020; 33(1): 3-11

<sup>2</sup>Yaacob M, et al. Cochrane Database Syst Rev 2014;(6):CD002281.

<sup>3</sup>Deacon SA, et al. Cochrane Database Syst Rev 2010;12:CD004971.

<sup>4</sup>Zou Y, et al. Int Dent J. 2024 Feb;74(1):146-156.

<sup>5</sup>Elkerbout TA, et al. Int J Dent Hyg 2020;18:17-26.

<sup>6</sup>Thomassen TMJA, et al. Int J Dent Hyg 2022;20:3-17.

<sup>7</sup>Adam R. Int Dent J. 2020;70 Suppl 1:S1-S6.

<sup>8</sup>Trombelli L, et al. J Periodontol 2018;89 Suppl: S46-S73.





# Transform Patients' Gum Health, Starting Day 1



## TRANSFORMATIONAL GUM HEALTH SYSTEM

### - 12 WEEK REGIMEN STUDY VS MANUAL CONTROL REGIMEN -

Clinical Relevance: As a dental professional you see patients every day with gingivitis. Bleeding and inflamed sites have important long-term clinical implications. These data show that using a regimen of effective oral care products combines the best of mechanical and chemical plaque control to provide meaningful gingival bleeding reductions, which may lead to positive long-term oral health implications for patients.



Adam R, et al. Compend Contin Educ Dent. 2021 ;42(9):e1-e4.

**100%**  
PERIODONTALLY  
HEALTHY STATE

100% of patients in the Crest® Oral-B® regimen group moved from “gingivitis” (≥10% bleeding sites) to a clinically periodontally healthy state (<10% bleeding sites) after 12 weeks of use compared to only 7% of the manual group.

**91.9%**  
REDUCTION

After 12 weeks, the experimental group demonstrated a 91.9% reduction in adjusted mean number of bleeding sites from baseline compared to a 21.7% reduction for the manual brush group, which used a regular anti-cavity dentifrice and soft manual toothbrush.

### - LONG-TERM GUM PROTECTION STUDIES -

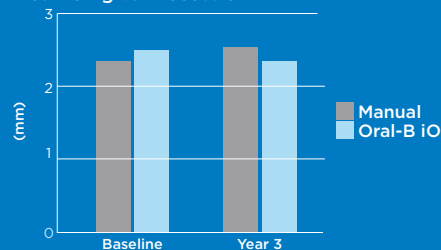
**3**  
YEAR  
STUDY

3 year clinical study confirms Oral-B® iO provides long-term gum protection

- iO™ shown to promote gingival stability over 3 year period
- No statistically significant differences between Oral-B® iO™ and manual toothbrush for mean gingival recession at Baseline or Year 3.

Sutor S, et al. Int J Dent Hyg. Published online June 11, 2024. doi:10.1111/ihd.12834

Mean Gingival Recession



87 participants completed study with pre-existing recession. P>0.150 between groups at both time points.



**20%**  
LESS  
TOOTH  
LOSS

for electric brush users vs manual in 11-year study

Pitchika V, et al. J Clin Periodontol, 2019. DOI: 10.1111/jcpe.13126.





Crest's unique formulation of stannous fluoride dentifrice provides clinically significant improvements in gingival health, by reducing plaque quantity, toxicity, and virulence.

**3.7X  
MORE**

likely to transition to a state of healthy gums with P&G formulated Stannous Fluoride



**51%  
REDUCTION**

in bleeding sites in 3 months vs. regular fluoride

Biesbrock A et al. J Clin Periodontol, 2019 Dec; 46(12):1205-1216.

**3 OUT OF 4  
VS  
NONE**

using Crest® Stannous Fluoride transitioned to health vs zero for Colgate Total - Stannous Fluoride (Stannous Fluoride vs Stannous Fluoride)



**3X  
FASTER  
DECREASE**

in bleeding vs Colgate Total - Stannous Fluoride\*

He T, et al. Am J Dent. 2020 Aug;33(4):218-224.

**UP TO  
4MM**

Crest® (Oral-B®) formulated Stannous Fluoride reaches up to 4mm below the gumline



**12  
HOURS**

Substantive for 12 hours

Klukowska MA et al. Am J Dent 2018;31(4):184-188.

\*Colgate® TotalSF is a registered trademark of the Colgate-Palmolive Company.

**TREATS &  
PREVENTS  
PERI-IMPLANT  
MUCOSITIS**

SnF2 treatment favorably shifted oral microbiomes in peri-implant mucositis subjects toward the no-mucositis state†

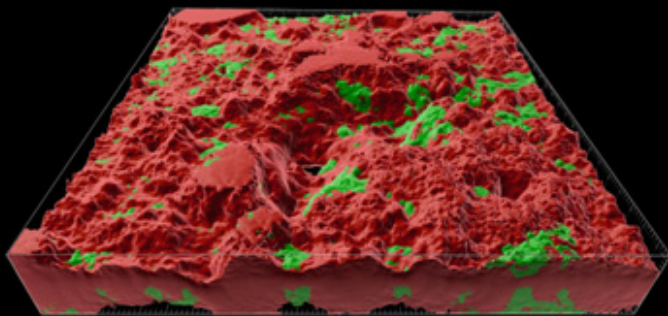


**REDUCE  
PLAQUE  
TOXICITY**

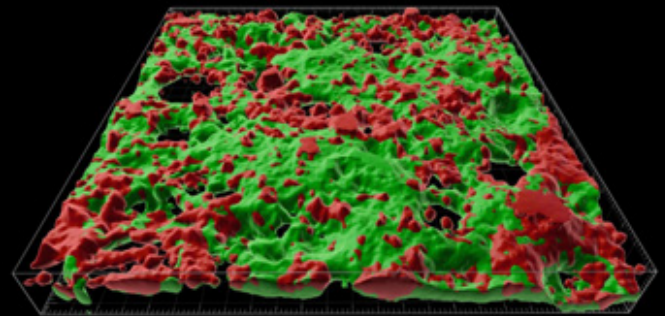
Benefits in reducing plaque toxicity are seen in both diseased sites, as well as sites not yet exhibiting symptoms of inflammation, supporting the activity of SnF2 not just in treating diseased sites, but in preventing disease development.

† Ramji et al. J Dent Res (Spec Iss A) 2024; 103: Abstract 2509  
Klukowska M., J Clin Dent. 2017 Jun;28(2):16-26.

## Crest® Stannous Rebalances the Oral Microbiome<sup>1-3</sup>



Before Crest Stannous



After Crest Stannous

■ Red Complex Bacteria    ■ Health Associated Bacteria

<sup>1</sup>Chen et al. (2024) Front Microbiol 15;15:1327913

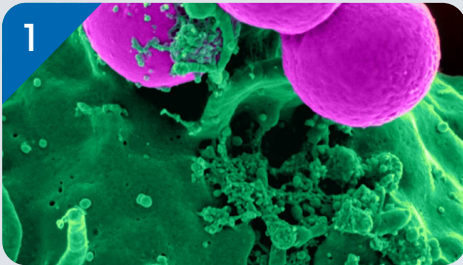
<sup>2</sup>He et al. (2021) Am J Dent 34: 222-227

<sup>3</sup>Kruse et al. (2021) Antibiotics 10, 481



Crest's unique Stannous Fluoride formulations have anti-microbial action and surround the tooth with a protective layer, in addition to remineralization benefits.

### 3 KEYS TO MINERAL LOSS REDUCTION:



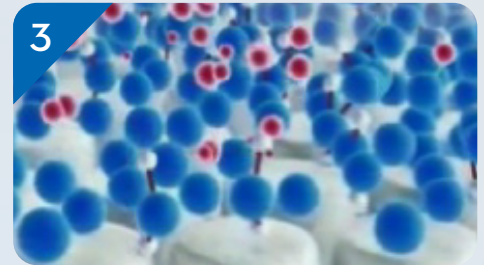
#### 1 BACTERIOSTATIC ACTION

Reduce the amount of acidic biofilm to prevent subsurface mineral loss



#### 2 REMINERALIZATION

Provide a pro mineral formation environment to reinforce HAP (hydroxyapatite) crystals to reverse subsurface mineral loss



#### 3 SURFACE PROTECTION

Stannous Fluoride forms a protective layer on the surface that is highly resistant to acids.

#### PROTECTS AGAINST CARIES

Stannous Fluoride is an antibacterial fluoride that protects against caries by reducing plaque acid production and biofilm mass and architecture



#### SNF<sub>2</sub> OCCLUDES TUBULES

Stannous Fluoride starts working immediately to occlude tubules, reducing fluid movement and nerve stimulation to treat and prevent sensitivity to provide relief within days



West NX, et al. J Dent. 2021 Feb;105:103566.

Crest® is the only ADA seal accepted toothpaste for prevention of erosive tooth wear.

#### 83% LESS

Relative to other fluorides, the stabilized Stannous Fluoride technology provides 83% less enamel surface loss



West NX, et al. J Dent. 2021 Feb;105:103566.

#### SUPERIOR PROTECTION

Stabilized Stannous Fluoride provides significantly greater protection against erosive acid attack compared to some of the most popular prescription level (5000ppm Sodium Fluoride) fluoride treatments available.



Eversole SL, et al. J Clin Dent. 2015;26(2):44-9.



THE #1 TOOTHPASTE BRAND IN AMERICA\*



\*P&G calculation based on U.S. reported sales data for yr ending w/o 3/28/20



## HELP STOP THE CYCLE OF PLAQUE TO PROMOTE WHOLE BODY HEALTH WITH BETTER ORAL CARE CHOICES



Simple changes for most patients can prevent gingivitis from progressing to periodontitis—which may have systemic health implications



**Left untreated, harmful plaque bacteria** can lead to periodontitis—which is associated with conditions like **cardiovascular disease, diabetes, pregnancy complications, and Alzheimer's disease.**



**Crest® + Oral-B®'s Transformational Gum Health Electric Rechargeable System** can transform patient gum health starting day one. In a clinical study, 100% of gingivitis patients moved to a state of healthy gums after just 12 weeks of use.\*



In partnership with **Scientific American**, we are committed to further exploring the link between oral disease and systemic health.

\*vs a regular manual brush

**Learn more and find patient resources on [dentalcare.com](http://dentalcare.com)**



Procter & Gamble has a long history of innovation in Oral Health prevention. It started in 1955 when Crest was launched as the first clinically proven anticaries dentifrice and our researchers have continued to develop advanced technologies to provide patients with therapeutic and cosmetic benefits. Crest introduced the first tartar control dentifrice in 1985, which was also the first tartar control product to receive the ADA Seal, and the first whitening dentifrice to receive the ADA Seal in 1999.

With the acquisition of Gillette in 2005, P&G now shares the history of brushing innovation with both Braun and Oral-B. Starting in the 1950s, with the invention of a nylon bristled, end rounded manual toothbrush by a periodontist, Dr. Robert Hutson, to Braun's introduction of electric toothbrushes in the 1960's which evolved into the oscillating-rotating electric toothbrushes of today with meaningful advantages for plaque removal and gingival health improvements.

At Crest and Oral-B we are proud of our contribution to patient care and the scientific evidence behind both stabilized stannous fluoride dentifrice and oscillating-rotating electric toothbrushes which play important roles in both mechanical and chemical plaque management. We are excited to provide you with details behind several new key publications which demonstrate the culmination of research on these core preventive technologies, including understanding how these technologies impact gingival bleeding with the lens of the classification of gingival health coming from the 2017 World Workshop on Classification of Periodontal Diseases.

**At the center of our innovation continues to be our commitment to the dental profession and the important role it plays in educating the world's consumers on the importance of oral health. Prevention of oral disease is still the most scientifically supported approach to achieving oral health and by far the most cost effective. We hope this compilation assists you in making evidence-based oral hygiene recommendations for your patients.**

*Svetlana Farrell*

Svetlana Farrell, DDS, PhD

Senior Director, Oral Health Sciences & Professional Scientific Relations

