



# Floss Alternatives

PROVIDING PATIENTS WITH ADDITIONAL  
OPTIONS FOR INTERDENTAL CLEANING  
CAN HELP THEM MAINTAIN ORAL HEALTH.

By Gwen Essex, RDH, MS, EdD

**Some patients can wield floss like a professional and use it daily without fail. The majority of patients, however, do not fall into this category.** Many people understand how important flossing is to oral health. While they may intend to floss daily, a large percentage of patients present at their dental hygiene appointments without having completed much interproximal cleaning over the past 6 months.

While the dental hygiene mantra remains that flossing is critical to optimal oral health and oral disease prevention, a more accurate statement may be that cleaning between the teeth is critical to optimal oral health and oral disease prevention. Consistent, mechanical disorganization of bacterial plaque biofilm is associated with good oral health. There are many safe, effective, and easy-to-use floss alternatives for patients who cite difficulty with interdental cleaning. Providing patients with an appropriate alternative to floss is an important part of preventive education that meets the specific needs of individual patients.

## EFFECTIVE RECOMMENDATIONS

A good means of identifying an appropriate interproximal cleaning device is to determine specific obstacles that have prevented patients from adopting handheld dental floss. Asking for a list of challenges related to floss is a great place to begin this conversation. The reasons why patients do not practice regular interproximal cleaning provide excellent clues as to the type of alternative interproximal hygiene aid that may be most successful. Some common reasons for noncompliance include awkward hand positioning, an aversion to placing fingers in the mouth, discomfort due to improper adaptation, and the opinion that flossing is too time-consuming. These personal and lifestyle factors help clinicians determine the best course of action to improve compliance with interproximal cleaning.

In addition to personality-based variables, oral factors also help clinicians determine an appropriate interdental cleaning alternative. The classification of embrasure space—I, II, or III—that corresponds to the degree of interproximal space occupied by interdental tissues may contraindicate particular choices due to the available space. It is important to ensure that the chosen device fits interproximally without damaging the interdental tissues. The presence of restorations or appliances may also indicate specific needs, such as the ability to effectively clean under orthodontic brackets. Furcation involvements, oral sensitivity, and gingival condition are also important considerations when selecting an alternative floss option that meets individual patient needs. After listening to the patient and performing an oral exam, the clinician is ready to determine a new plan for interproximal care.

## AVAILABLE OPTIONS

Research demonstrates that interproximal brushes, floss holders, and mechanical aids are effective adjuncts to oral hygiene.<sup>1</sup> Clinicians, however, need to emphasize to patients that oral hygiene aids are only effective when they are consistently used—regardless of type.

As many people are unable to use traditional dental floss without damaging oral tissues or risking ischemia of their fingertips,

suggesting an aid that doesn't require finger positioning may be prudent. A number of options comprise this category, including durable floss holders that use regular floss, prestrung floss holders, and disposable floss sections attached to handles of varying designs. The floss-and-handle design should enable patients to achieve the correct

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adaptation of the floss to interproximal spaces throughout the mouth. To accomplish this, the handle needs to be perpendicular to the floss, allowing it to remain anterior while extending the handle to posterior interproximal spaces. For this reason, single-use floss swords can be very difficult to adapt correctly in the posterior, as the floss and handle are in the same plane. This type of design is best utilized in the anterior for quick cosmetic use, rather than for bacterial plaque biofilm disruption throughout the mouth.

Some patients find setting up the traditional durable holder to be challenging. The additional convenience of a disposable floss cartridge, or head, paired with a durable handle eliminates the hand winding required by traditional holders. Products are available that provide a single-use, premeasured amount of dental floss supported by a durable handle that is engineered to maintain the correct orientation between the floss segment and the teeth. This allows for creation of the "c-shape" that disturbs bacterial plaque biofilm without damaging gingival tissues—particularly for those with type I embrasures.

For patients with type II or type III embrasures, interproximal brushes may be more effective than traditional flossing.<sup>2</sup> Many people find interdental brushes to be easy to maneuver in the mouth. Given the evidence that interproximal brushes are effective plaque control aids,<sup>3</sup> the only cases where they should be avoided are patients who have type I embrasures that cannot accommodate them. Interproximal brushes are also a good choice for patients who experience gingival discomfort or dental sensitivity. Brushes come in a variety of shapes, sizes, and materials, allowing for the selection of a brush tip that meets patients' specific oral anatomy and comfort needs. Interdental brushes made of a rubberized, latex-free material will not trigger galvanic shock in sensitive mouths and may provide a pain-free means of debridement.

### ORTHODONTIC CHALLENGES

Orthodontic treatment presents a tremendous hurdle to successful interproximal hygiene. Specially designed floss threaders, floss with threading segments attached, and products that pair specially designed guides that lead the floss under orthodontic wires are all possibilities. Assisting a patient undergoing orthodontic treatment in identifying a suitable interproximal hygiene strategy is easier than it once was, yet it is important that dental hygienists provide support and alternatives for patients for whom the time necessary to thread floss is a barrier to consistent self-care.

### POWERED OPTIONS

Patients may be intrigued by powered flossing devices that combine a disposable, prestrung floss head with a powered handle that produces a vibration. Powered flossing devices have been shown to be as effective as handheld floss in reducing gingival bleeding and plaque.<sup>4</sup> Other choices that combine finger-free interproximal debridement with technology include water floss and air floss devices. These flossing options have evidence to support their claims of bacterial plaque biofilm disruption.<sup>5,6</sup>

Compared to traditional handheld floss, water floss devices have demonstrated a greater reduction of interproximal plaque in single-use studies.<sup>5</sup> *In vitro* studies show that air floss devices are able to disrupt interproximal plaque.<sup>6</sup>

### CONCLUSION

When treating patients who find flossing difficult, consider the following. First, the efficacy of dental floss is completely dependent on the individual using it with adequate skill.<sup>5</sup> Second, if patients do not use floss regularly due to other obstacles, another option should be suggested. By remembering that it is the regular debridement of plaque bacterial biofilm that improves and maintains oral health, dental hygienists can provide the best professional care by selecting an option that meets individual patient needs more precisely.



**GWEN ESSEX, RDH, MS, EdD**, is a clinical professor in the Division of General Dentistry, Department of Preventive and Restorative Dental Sciences at the University of California, San Francisco, School of Dentistry. Her research interests include evidence-based teaching practices and the use of technology in professional education.

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