

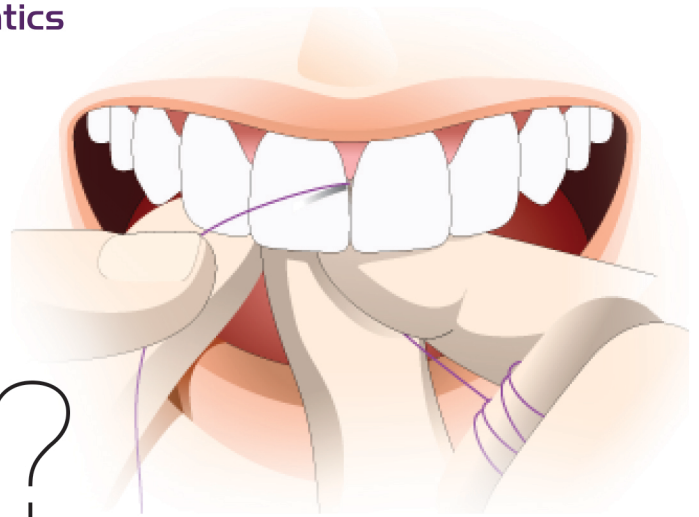


Fairfield County Implants & Periodontics

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Toss The Floss?

Who expected to wake up last week to the “news” that flossing doesn’t matter? In case you missed it – and you can be sure that your patients will enlighten you if you did – check the media reports... So, what is going on?

The answer lies in understanding the process and logic of medical / dental science, and also in deciphering what current research can and cannot tell us. This can be complicated, and the mass media has oversimplified the reasoning of the Department of Health and Human Services. Since we have experienced the thrill of reading the voluminous research literature, including systematic reviews and meta-analyses, on flossing for preventing decay or periodontal disease, we thought we would try to provide some clarity.

First, periodontitis. This is caused by bacteria. So no bacterial plaque, no periodontitis. However, periodontitis only occurs in people who are susceptible, which is governed by genetics. Approximately 50% of periodontitis risk is due to genetic factors. In addition, many fortunate people never acquire the complex pathogenic bacterial populations responsible for causing periodontitis, even if they have poor oral hygiene. By contrast, in the case of simple gingivitis, genetics and personal microbiota are much less determinative. Poor oral hygiene leads to gingivitis in essentially all people. But many of these people will never go on to develop periodontitis, with deepening pockets and bone loss. So the correlation between poor oral hygiene and gingivitis is strong, but the correlation between poor oral hygiene and periodontitis is weaker. Failure to floss does not inexorably lead to periodontitis. But it might. Currently we are not able to accurately predict who is at high or low risk for periodontitis. So people with poor oral hygiene are rolling the dice on periodontitis and leaving themselves at the mercy of their unknown genetic susceptibility and oral microflora.

Second, decay. Like periodontitis, caries is caused by bacteria. So no bacterial plaque, no decay. However, a significant proportion of caries risk is related to each individual’s historic and current fluoride exposure. Therefore oral hygiene is more likely to have an effect in people who have no past and/or present fluoride protection. The effect of differing bacterial species among different people is less significant for caries than for periodontitis, since most people carry the simple cariogenic flora responsible for decay. This means that poor oral hygiene will more predictably cause decay than periodontitis. But people with a life history of fluoridated water and toothpaste will be relatively immune, even if they do not floss. In addition, dietary sugar plays a significant role in decay risk, so patients with high or low sugar exposure will have higher or lower decay rates, regardless of their hygiene efforts.

Third, the research. Many studies on the relationship between flossing (or oral hygiene in general) and caries or periodontitis are outdated, or were short-term, or had small numbers of subjects. Periodontitis takes years or decades to develop, so prospective studies assessing the risks of poor oral hygiene are difficult to sustain and therefore rare. To a lesser extent this is also true for caries. And the literature groups high- and low-risk people together, which can obscure the effects of oral hygiene.

Nevertheless, there are reasonable conclusions we can make with the available data. First, clean teeth do not get disease. There is strong evidence that patients who have been treated for periodontitis have a much better prognosis if they maintain good oral hygiene and a regular preventive maintenance schedule. Second, the heterogeneity among patients means that oral hygiene will be more important for some people than for others. Since we can’t know each individual’s risk, we have to assume that everyone is at risk and therefore should practice effective oral hygiene. Many smokers will never develop lung cancer. Does this mean smoking is risk-free? The same logic holds for oral hygiene.

Decades of research and experience with decay and periodontal disease can be summarized in four words: no plaque, no disease.

Fourth, oral hygiene. Isolating flossing from hygiene is misleading. There are many ways to achieve clean teeth. Although flossing is ideal, most people do not floss regularly, and many of those who do floss perform it incorrectly. Reasonably effective interdental cleaning can be accomplished with WaterFlossers, electric toothbrushes such as Oral-B or Sonicare, and interdental aids such as Stimudents, proxabrushes, or rubber tip stimulators. Our favorites for many patients are proxabrushes and Oral-B electric toothbrushes. The lead investigator behind the current flossing controversy uses Stimudents. Even manual toothbrushing, performed meticulously, can remove the majority of interproximal plaque. Our challenge is to tailor oral hygiene regimens to individual patients that they will perform properly once daily for life. If you plan to toss the floss, replace it with something equivalent.

Most problems in life result from risk factors that do not cause the problem 100% of the time. This is true for driving too fast, or drunk, or without a seatbelt, or eating a diet high in saturated or trans fats, or smoking, or not exercising, among many examples. So if you plan to reduce or curtail oral hygiene procedures, why not also live on french fries, smoke, drink a six-pack and go out for a drive? Maybe you’ll get lucky. Decades of research and experience with decay and periodontal disease can be summarized in four words: no plaque, no disease.

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