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**2014 8.26 Health Matters  
About Toothpaste**

This is Health Matters, reporting on toothpaste and oral hygiene.

The oldest known toothpaste formula, called for rock salt, dried mint, dried iris root and pepper. The ancient Greeks and Romans used crushed animal bones and oyster shells. Indigenous cultures used brushes made of chewed root or stems to clean their teeth, without the aid of toothpaste as we know it.

In the 19th century, European countries used tooth powders made of charcoal. 18th century Americans had used burnt bread, but today's toothpastes are laboratory mixtures of chemicals that are difficult to pronounce -- names like sodium monofluorophosphate (mono-floro-FOSS-fate) and sodium lauryl sulfate. Many tooth pastes contain fluoride to help prevent cavities. Though there is an ongoing controversy about fluoride. The question is: does long-term use of fluoride have negative health impacts? Especially when it has been added to the water supply. Dentists generally weigh in on the benefits of fluoride toothpaste. Studies have documented a dramatic *decrease* in cavities in children who use fluoride toothpaste and/or drink fluoridated water.

Other chemicals in toothpaste, however, do not prevent cavities, and there is a growing body of information on internet health sites warning about toothpaste chemicals added for the purpose of whitening teeth, preventing bad breath and preventing gum disease. One chemical in one brand of toothpaste has been linked to negative health impacts in mice -- triclosan (TRICK-low-san), used by Colgate in their TOTAL brand, a toothpaste designed to ward off gum disease or gingivitis (ginge-i-VITE-iss). Triclosan prevents plaque as well. It is an antibacterial and antifungal chemical used in soaps, shampoos, deodorants and mouth washes. It is also used in detergents, cutting boards, toys and surgical cleaning treatments.

Triclosan is widely used in hospitals to eliminate skin-infection microbes that are resistant to antibiotics, but regulators are currently reviewing the safety of triclosan. The chemical has been linked to cancer-cell growth and disrupted development in animals. The state of Minnesota has banned its use in many products. Colgate insists that the amount of triclosan in Total toothpaste is safe, but Bloomberg News discovered, through a freedom-of-information lawsuit, that government relied on company-backed science when it approved the use of triclosan in toothpaste.

Scientists looking at the data published by Bloomberg News found that triclosan disrupted the endocrine system and hormonal functioning in mice, so there is a need for further study as to whether these disruptions occur in human. But, proving the claim that triclosan causes cancer is a question of another magnitude altogether. When the entire food and personal care supply is laced with so many chemicals, it's hard to isolate one as causing cancer.

Colgate reports that Total toothpaste has been on the market for almost twenty years and there has been no sign of a problem. Its safety and effectiveness in preventing gum disease is supported by more than 80 clinical studies involving 19,000 people. At the same time, Colgate removed triclosan from its Softsoap liquid handsoaps and from its Palmolive antibacterial dish liquid. Whether triclosan will eventually be removed from TOTAL toothpaste remains to be seen. Those wary of using a chemical that may disrupt the endocrine system have many other brands of toothpaste to choose from.

But, using a toothpaste that prevents gum disease is good oral hygiene. The condition of your mouth is closely tied to your overall physical health. In other words, gum disease, plaque and tooth decay can cause serious problems in the body. People with high levels of gum disease have double the risk of developing type 2 diabetes, compared to people with no gum disease, or very low levels of it. It's all in the molecules. When mouth infections get bad enough, infected molecules lead to low-grade inflammation throughout your body, which seriously interferes with its sugar processing abilities. There's a similar link between gum disease and heart disease. "Bad" bacteria from an infected mouth can lodge inside the blood vessels and cause dangerous blockage. At the same time, aggressive treatment of gum disease can reduce blocked arteries within six months.

What's the most important thing to know about toothpaste? To use it. Twice a day. If you've never been taught the correct way to brush your teeth, or how to floss them, ask your dentist.

## **Sources and Links**

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**<http://www.saveyoursmile.com/toothpaste/toothpaste-a.html>**

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**<http://www.everydayhealth.com/dental-health/101.aspx>**