Which toothpaste should I use?

A review of ingredients and benefits

I’m frequently asked by patients, “Which toothpaste should I use?” That depends on what you are looking for. There are many types of toothpaste out there, and almost all of them claim to have a particular benefit. Some are ‘anti-gingivitis,’ some are ‘anti-plaque,’ some whiten, and some are good for sensitive teeth. Given the wide variety of ingredients, it is important to have some idea about what these ingredients are doing to serve your particular need. Here is a brief review of some of the active ingredients that are used in toothpaste to fight cavities, plaque, tartar, bad breath, sensitive teeth, and stained teeth.

Ingredients That Fight Cavities

Fluoride was the first major active ingredient added to toothpaste and remains the most important substance we have to help fight cavities. If the crystalline structure of the tooth becomes weakened due to acid, fluoride ions promote the re-mineralization of the tooth structure. Children’s toothpaste may have a smaller concentration of fluoride in order to reduce the risk of fluorosis if a young child swallows the toothpaste. For this reason, it is also recommended to use a very small “pea-sized” amount of toothpaste for children under 6. Xylitol is also a cavity fighter. Xylitol is a sugar, but the bacteria are unable to ferment xylitol due to it’s structure; so as a result, minimal acid is produced by the bacteria, and additionally, the bacteria starve.

Ingredients for Anti-Plaque and Anti-Gingivitis

Triclosan/copolymer is an anti-bacterial agent. The triclosan attacks the periphery of the bacterial cell and causes cell death, so as a result, we get lower plaque levels and a reduction in gingivitis. Colgate Total contains Triclosan/copolymer. Stannous fluoride also kills bacteria, and as a result, reduces levels of plaque and gingivitis. Crest Pro-Health and Colgate Gel-Kam are two toothpastes that contain stannous fluoride.

Ingredients for Anti-Tartar

Pyrophosphate, Hexametaphosphate, and Zinc are ingredients that work to reduce tartar formation (but do not reduce the amount of tartar already present). Tartar forms when the calcium in your saliva causes plaque to solidify. Pyrophosphates, then, stabilize the calcium level in saliva and interfere with tartar crystal growth. Zinc inhibits crystal growth and controls tartar formation. Crest Tartar Protection is a toothpaste that contains pyrophosphate.

Ingredients to Fight Bad Breath

Chlorine Dioxide, Essential Oils, and Zinc Chloride are all ingredients used to reduce bad breath by inhibiting production of sulfur compounds. However, regardless of these ingredients, the surfactants present in all toothpaste as well as the mechanical motion of regular tooth brushing reduce the amount of bacteria in your mouth and improve bad breath that way too!

Ingredients for Sensitive Teeth

Potassium Nitrate, Potassium Citrate, Potassium Chloride, Stannous Fluoride, and Strontium
**Chloride** work to desensitize teeth. Tooth sensitivity is the result of fluid flow through the naturally present microscopic pores around the tooth. The nerve in the middle of the tooth senses this fluid flow. Potassium nitrate, potassium citrate, and potassium chloride all work through preventing the transmission of the nerve signals by flooding the area with potassium ions. Stannous fluoride, on the other hand, physically blocks the pores. Crest Pro-Health, Gel-Kam, Sensodyne, Colgate Sensitive, and Crest Sensitivity contain these ingredients.

**Ingredients that Whiten Teeth**

Abrasive ingredients such as **calcium carbonate, silicas, magnesium carbonate, aluminum oxide and argonite** polish the enamel and increase its luster and white appearance. Whitening strips, whitening trays, and in-office bleaching all use the oxidizing power of peroxide to whiten teeth. Low levels of hydrogen peroxide have been incorporated into some whitening toothpastes, but since the contact time is so small, little whitening ability can be attributed to the work of the peroxide. So the polishing accomplished by the abrasives in the toothpaste is the main ‘whitening’ mechanism in whitening toothpastes (ex. Crest Vivid White, Colgate Visible White, Aquafresh Extreme Clean).

I hope this summery helps you decide on which toothpaste will benefit your needs. Check out the label of your toothpaste and see what’s in it. Just keep in mind, what is most important for healthy gums and healthy teeth is the habit of brushing and flossing effectively for a full 2 minutes, twice a day! If you find this information useful, pass it on and share with friends.

We welcome any comments and will respond to any questions: Facebook fan page: Children’s Dental Office.