

**Consumer Decision Making Contest  
2001-2002 Study Guide  
Evaluating Toothpaste**



You can keep all of your teeth looking good by brushing and flossing and by having regular professional checkups!



You should brush your teeth with a **soft** toothbrush and pick toothpaste that meets your needs. But which toothpaste should you buy?

There are more than 110 toothpastes in this world for us to buy! Toothpaste companies try their hardest to sell their brand promising whiter teeth, less sensitive teeth or plaque free teeth! How do you choose?

You should choose a toothpaste to meet your teeth needs. For example, if your teeth accumulate tartar quickly, you should try a toothpaste that controls tartar. Here we will discuss some of the basic things toothpastes can do for us: cleaning vs. plaque fighting, giving us fluoride vs. fighting gingivitis and tarter and if cost should be a determining factor.

### **Cleaning**

A toothpaste's cleaning ability depends on how good it is at removing surface stains caused by different food and drinks. Your teeth get clean because of the abrasive ingredients in the toothpaste rubbing against your teeth.

One abrasive that can be found in toothpaste is baking soda. *Arm & Hammer* uses between 50-60% in some of their toothpastes while *Crest MultiCare* used as little as 1%. If you were to use regular baking soda from your kitchen cupboard, it is generally abrasive but it dissolves very quickly in your mouth and loses its abrasiveness, giving it no therapeutic value.

You should be careful when choosing a toothpaste that has a rough abrasiveness. Your tooth enamel is the hardest substance in your body but once any decay or cracks have formed your enamel will not heal on its own. Tooth enamel (see diagram) can usually take the harshness of a rough abrasive, but your dentin can be damaged by harsh abrasives. Dentin is the softer tissue below your gum line that's exposed as your gums become damaged by improper brushing.

### **Plaque**

Bacteria are always present in your mouth. When they are not removed by brushing and flossing, bacteria stick to your teeth and multiply into larger and larger colonies called plaque! Plaque forms as a soft, sticky film on your teeth. Plaque even begins growing minutes after you brushed!

This sticky plaque damages teeth in two ways. First, food particles, especially sugars, stick to it. The plaque uses that food to grow more bacteria and to produce acid. Second, the plaque holds the acid against the tooth surface. If it is not removed, the acid will eventually eat though the tooth enamel, causing a cavity.

**When you use a toothpaste that attacks plaque, it actually fights the germs that cause the cavities!**

### **What the heck is fluoride?**

But once cavities form in your mouth, it's important for you to brush with a toothpaste that contains fluoride! **Fluoride** is the ingredient found in toothpaste that actually **fights cavities (not the germs)**! When plaque acids start to dissolve tooth enamel and create the first trace of a cavity, fluoride can help minerals in your saliva reenter the tooth to repair the damage.

You are supposed to brush your teeth for two minutes twice a day but most people only brush for a minute-at best! It is very important to find a toothpaste that releases its fluoride within the first minute of brushing. A lucky thing is that most of them do.

So how do we know if a toothpaste meets the criteria for quick release of fluoride? Read the label! Look for the ADA (American Dentist's Association) seal. Read it to see what properties it covers (plaque, tarter, etc.).

### **Gingivitis**

When your gums begin to swell and the bones supporting your teeth get infected this causes tooth loss. This is something that can happen to you if you don't brush your teeth! The first sign of this disease is called Gingivitis. Gingivitis is marked by swollen, bleeding gums and bad breath. This stage is painless and, unfortunately, many people do not seek help from a dentist. As this disease gets worse, the bones supporting the tooth and ligaments become affected and the teeth eventually fall out.

Researchers recently found that stannous fluoride (an ingredient in some toothpastes) can reduce gingivitis by perhaps 10-20%. However, this chemical may leave a stain on your teeth that a dentist or hygienist must remove.

### **Tackling Tartar**

Tartar is plaque that has combined with food particles and minerals in saliva to form a hard, yellowish mass only a dentist or hygienist can remove. If you keep plaque away by brushing thoroughly and flossing daily, you may form less tartar between cleanings.

Some people do make tartar rapidly, either because of body chemistry or because they do not brush their teeth enough or they brush their teeth wrong. Tartar-control toothpastes can help. They contain a chemical that slows the buildup of new tarter above the gum-line. **Take note: No tartar-control toothpaste can reduce tartar that's already on your teeth or remove tartar that is below your gum line, this is where tartar causes gum disease!**

## Sensitive Teeth

As gums recede and expose dentin, the newly uncovered section of tooth may be very sensitive to heat, cold or pressure. Some toothpastes on the market can now block the nerve endings causing the pain. **Take note: toothpaste for sensitive teeth is generally appropriate for only a few weeks!**

## Cost (from Consumer Reports)

Toothpastes vary in price from 44 cents to \$10.28 per month, based on the national price average for brushing twice daily. Price does not always correlate to performance!

When weighing claims that a toothpaste makes, take the ADA seal seriously! It's a sign for consumers that says exactly what the toothpaste will do. If a toothpaste does not carry the ADA seal, the toothpaste may be making untrue promises or exaggerating.

Here is a list of Consumer Report's top picks:

- ! *Ultra brite Advanced Whitening* was one of the best all-around toothpastes, and it costs less than 50 cents per month.
- ! *Colgate Baking Soda & Peroxide Whitening With Tartar Control*, 75 cents per month
- ! *Crest Extra Whitening With Tartar Protection*, 97 cents per month
- ! *Colgate Total*, 98 cents per month has been shown to protect against cavities and mild gum disease and to help reduce plaque and tartar above the gum-line but only so-so at cleaning stains from teeth.
- ! *Crest Sensitivity Protection*, \$2.08 per month, was the best of the products for sensitive teeth.

All in all you have to see what kind of teeth you have sensitive, etc. and choose which toothpaste is right for you.

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## REFERENCES

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