

# The Ideal Oral Health Routine

---

The definitive guide to maintaining excellent  
oral fitness in healthy adults.

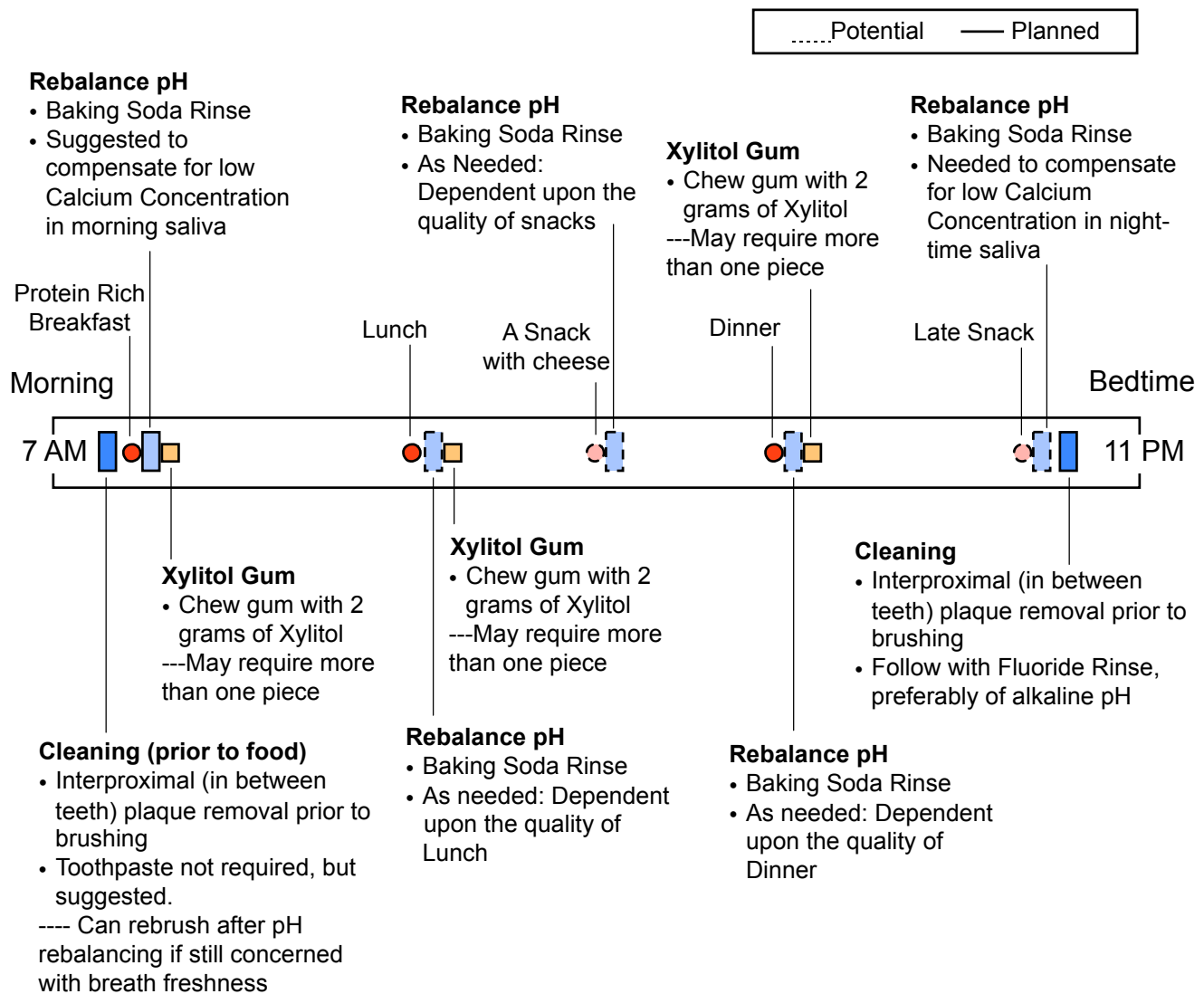


the **FreySmiles**  
Oral Health Network



This work is licensed under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc-sa/3.0/> or send a letter to Creative Commons, 171 Second Street, Suite 300, San Francisco, California, 94105, USA.

## A Timeline of an Optimally Hygienic Day for a Typical Adult



! The above timeline is an example of an idealized daily routine for maintaining excellent oral health in a normal adult. The following sections will walk you through all the keys to a sustainable smile and the science behind them.

# Table of Contents

## Obtain Completely Clean Teeth & Gums

---

- Perform a Comprehensive Cleaning Twice Daily page 4
- Use a Waterpik at Least Once Daily page 4
- Clean Between Your Teeth Before You Brush page 5
- Clean Your Teeth Before Breakfast and Before Going to Bed page 6
- Never Brush Immediately Following Meals page 7
- Use an Electric Toothbrush page 8
- Replace your Toothbrush When it Shows Signs of Matting page 8
- Use a Low Abrasive Fluoride Toothpaste page 9

## Keep Your Diet Tooth Friendly

---

- Limit the Frequency of Dietary Acids and Sugars page 10
- Change How You Drink Acidic Beverages page 10
- Eat a Protein Rich Breakfast page 11
- Eat Cheese with Snacks page 12
- Avoid Late Night Snacks (~after 11pm) page 12

## Re-balance Your Oral pH

---

- Use a Baking Soda Rinse After Any Highly Acidic Drinks, Meals, or Snacks page 13
- Use a Baking Soda Rinse During Periods of Compromised Salivary Flow page 14

## Supplement Your Routine

---

- Chew Xylitol Gum page 15
- Use a Low Fluoride Mouthwash Nightly Before Bed page 15

## Whiten Teeth Smarter

---

- Do Not Whiten Teeth Too Frequently page 17

## See Your Dentist

---

- Regular Check Ups are Essential page 19

# Obtain Completely Clean Teeth & Gums

---

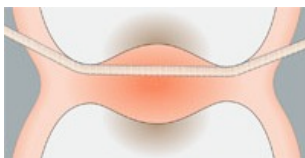


## Perform a Comprehensive Cleaning Twice Daily

It is only necessary to completely remove plaque once every 48 hours, so actually cleaning once a day would be adequate; however, nobody is that good. Even dentists can't remove all their plaque in one cleaning, and doing things twice in a day dramatically increases your odds of removing it all. Limiting yourself to twice a day will help you avoid toothbrush abrasion from brushing and flossing excessively (more often excessive force is the problem). As a general rule you should spend around 2 minutes brushing, but quality is more important than quantity.

## Use a Waterpik at Least Once Daily

The first place plaque forms is around the gum-line and between teeth. Additionally, the areas between teeth aren't self-cleansing (your cheeks and tongue rub a little the on exposed smooth surfaces of teeth brushing off plaque to a certain extent). Therefore, the most important place to clean is between your teeth.

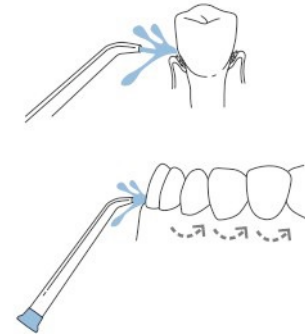


Flossing a concave surface

Floss has long been the standard for cleaning the surfaces between your teeth. It is relatively cheap, and it works well when used. However, even though floss glides extremely well along smooth, convex surfaces to remove plaque, it actually does a poor job at removing food between teeth. Additionally, not every surface of your teeth is convex, and floss may not be able to reach all the way to the bottom of the pockets between your

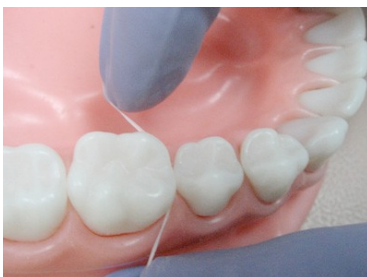
gums and teeth where bacteria collect. This means there are often areas between teeth where floss can't do its job.

Since a waterflosser like Waterpik uses a pressurized stream of water to wash away plaque, you can clean wherever you can point it. Its cleaning ability is not limited by concavities that may be present on tooth surfaces between teeth, and it is also able to flush out completely the pockets between your teeth and gums. Refreshing these "gingival pockets" has the added benefit of helping to raise the pockets' redox potential (chemistry term), which in turn will inhibit growth of bacteria that cause gum disease.



Another interesting benefit of using a waterpik is that you will not cross contaminate one pocket with bacteria from another, which can happen with floss (its why you wind it around your fingers to a fresh piece after flossing one area). Not every pocket has the same bacteria, and some strains of bacteria are nastier than others. The potential for cross contamination becomes much more relevant in cases of serious gum disease, but its still nice to know.

Although using a waterpik everytime you clean between your teeth would be tremendous, it often is not practical. For best results use the waterpik at least every night as part of your cleaning routine to flush out the plaque you might have missed with flossing during your morning cleaning. I really like the classic waterpik attachment on high pressure, which when used as instructed really gets the job done.



## Clean Between Your Teeth *Before* You Brush

The major benefit of toothpaste is its fluoride content. Topical exposure of your enamel to fluoride will embed fluoride ions in its crystal

structure making your enamel harder to dissolve in acids. Fluoride also helps provide an additional buffer against acids through the formation of calcium fluoride crystals along the surface of your enamel. They act as a reservoir of calcium and fluoride to inhibit the demineralization of your tooth enamel when your teeth are exposed to acid. To maximize the surface area of your teeth that is exposed to fluoride, it is best to remove all debris between the teeth before brushing.

To enhance the topical effects of fluoride further, do not rinse with water after brushing so the toothpaste and fluoride will continue to coat your teeth. This is not essential if you use a fluoride rinse daily, and it can make your mouth feel a bit soapy which is undesirable.



## **Clean Your Teeth Before Breakfast and Before Going to Bed**

Bacteria in the oral cavity is the major cause of cavities. Bacteria cause decay by releasing acids that will demineralize your enamel and deeper parts of the tooth. These acids are the byproducts of bacterial metabolism of carbohydrates.

Brushing before breakfast will eliminate as many bacteria as possible before giving them their source of nutrition. Reducing the total number of bacteria that can produce acid in your mouth before eating will limit the potential drop in your oral pH and the total damage done by bacteria to your teeth. Obviously how much acid the remaining bacteria will produce also depends on what you eat for breakfast.

If you don't like the way toothpaste makes your food taste, brush without toothpaste by just wetting your toothbrush (you need the toothpaste for the fluoride not its cleaning ability). Brushing without toothpaste will still remove bacteria. If you are concerned about fresh breath, you can use a mouthwash or even quickly re-brush your teeth and tongue with toothpaste following breakfast if you re-balance your pH first (covered below).

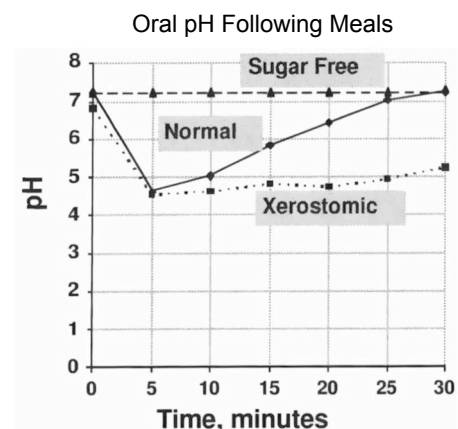
This work is licensed under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc-sa/3.0/> or send a letter to Creative Commons, 171 Second Street, Suite 300, San Francisco, California, 94105, USA.

Brushing before bedtime is also essential, and likely even more important than brushing in the morning. Your salivary flow is lowest while you are sleeping, and if you sleep with your mouth open this will dry your mouth further. Your saliva buffers against acids produced by bacteria and contains proteins that inhibit bacterial growth (in addition to the many other beneficial things that it does). Therefore, sleep is an extremely vulnerable time for your teeth. Brushing before bed will reduce the number of bacteria in your mouth before an extended period of reduced salivary flow.

In addition to the above reasons, brushing before breakfast and before bedtime is also important because of circadian variations in the calcium and phosphate concentration of your saliva. Both minerals have an impact on the solubility of your enamel, and drops in their concentration make your enamel easier to dissolve. Salivary calcium concentrations are lowest in the morning before lunch time, and inorganic phosphate concentrations are latest late at night.

## Never Brush Immediately Following Meals

The pH of your oral cavity is usually lower after eating, which makes your tooth enamel “softer” and more susceptible to abrasion. If you brush right after eating, you might think you are doing your teeth a favor, but you will end up removing a great deal of your enamel by scrubbing them with a toothbrush. If you absolutely must brush following a meal, wait about 30 minutes for your saliva to return your oral pH to normal or use an alkaline rinse to re-balance your oral pH quickly (covered below).





## Use an Electric Toothbrush

Electric toothbrushes have been proven to be more effective at cleaning than manual toothbrushes and they help you to avoid toothbrush abrasion from brushing too hard since they take care of the brushing action for you. There are also many beneficial features that electric toothbrushes offer so select one with the features you like, some even time how long you brush each area and monitor brushing pressure. Currently, Sonicare has the most supporting research for its cleaning ability.



## Replace Your Toothbrush When it Shows Signs of Matting

The traditional recommendation for toothbrush replacement is at least every 3 months, and some brush-heads have colored bristles to approximate this timeframe. However, a better indicator for replacement is when a brush-head shows signs of matting. Matting of the bristles reduces the brush's ability to remove plaque.

Additionally, the frayed, matted bristles can retain bacteria and you want your cleaning tools to be relatively clean. If you saw that [Mythbuster's episode about toothbrushes and fecal particles](#), you know exactly what I am talking about.





## Use a Low Abrasive Fluoride Toothpaste

Different toothpastes have varying grits of abrasives. While heavier grits make your teeth "feel" cleaner they do more harm than good. Heavy abrasives can wear at the root surface and cause stripping of the gums in the same manner as brushing with too much force would. Additionally, heavy abrasives remove some of the protein/enamel pellicle (like a skin for your teeth), which helps make your teeth more acid resistant. Obviously, your toothpaste should also contain fluoride otherwise you might as well be dipping your toothpaste in water.

Pronamel Toothpaste is a very effective low abrasive toothpaste with fluoride. If you want to use something else, consult [our guide to toothpaste abrasiveness](#), or try rubbing your toothpaste between your fingers or chewing some between your teeth to get a sense of its abrasiveness (don't do this in the store). Whitening and Tartar control toothpastes traditionally have the highest levels of abrasiveness and are best to avoid.

# Keep Your Diet Tooth Friendly

---



## Limit the Frequency of Dietary Acids and Sugars

Most studies suggest that the frequency and not necessarily the size of sugary snacks is the biggest factor in determining the acidic challenge presented to your teeth. Obviously limiting your exposure to sugary or acidic snacks to no more than once daily makes the most sense, but this is no fun

whatsoever. There are ways to re-balance your pH and limit the impact of acids that we will discuss.

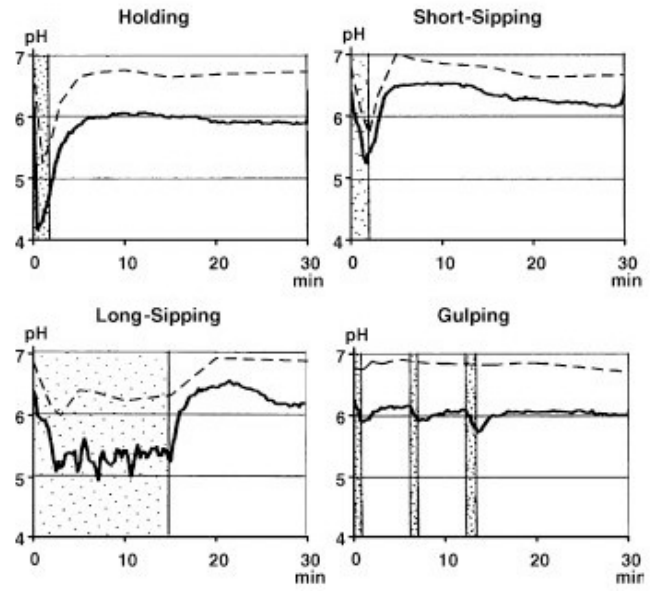
Re-Balancing your oral pH and limiting the frequency of acidic challenges is important for reasons other than their direct impact on your teeth. Frequent acidic events can acid sensitize dental plaque, creating shifts in the bacterial population toward more acid-producing bacteria. Limiting drops in pH and even raising oral pH more frequently can encourage the growth of more helpful bacteria which do not produce acids.

## Change How You Drink Acidic Beverages

Sodas and sports drinks have pH levels of around 3, Kombucha (the healthy organic drink) has a pH level that can be well below 3, and the pH of wines can range from around 3-4. The lower the pH value the more acidic the drink. To put those numbers in context, non-fluoridated enamel will typically start dissolving at pH levels below 5.5, so you want to limit the exposure of your teeth to acidic drinks as much as possible.

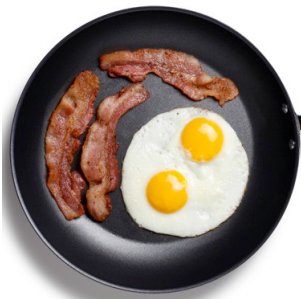
Obviously, avoiding any and all highly acidic drinks is an option, but you can change how you drink them to reduce the amount of time the acids spend in contact with your teeth.

The absolute best way to consume an acidic drink is to gulp it down quickly instead of sipping on it. If you are going to be continuously drinking an acidic beverage over an extended time period, using a straw positioned toward the back of your tongue will help limit the amount of acid that reaches your teeth. Re-balancing your oral pH (covered below) immediately after drinking will prevent acidic beverages from continuing to do damage after intake.



Shaded Areas Depict Intake of Acid Drinks

Try to avoid, at all costs, “holding” or swishing acidic drinks in your mouth. If you going to be tasting wine definitely do it with cheese (covered below).



## Eat a Protein Rich Breakfast

Starting your day off with a breakfast high in protein is good for many reasons (energy, etc.), but it is also great for your teeth. As we mentioned, the composition of your saliva changes throughout the day. Since salivary calcium levels are particularly low prior to lunchtime, your enamel is more susceptible to acids during this time. Eating proteins like eggs in the morning instead of toast and OJ will give less food to acid producing bacteria and your enamel will be safer.

## Eat Cheese with Snacks

Cheese has been shown to reduce the drop in pH if eaten prior to sugary meals, and also enhances the remineralization process of teeth. Additionally, cheese is beneficial to the health of your gums because of proteins and nutrients that help control inflammation.



## Avoid Late Night Snacks (~after 11pm)

Aside from the fact that late night snacks are typically unhealthy ones, the level of total phosphates and the level of inorganic phosphates in your saliva is lower late at night than throughout the day. Phosphates

have a role as a minor buffer in your saliva, and inorganic phosphates in particular help to determine the solubility of your enamel. When the two are at low levels not only is the buffering capacity of your saliva reduced, but your enamel will tend to dissolve more readily in the face of acids.

# Re-balance Your Oral pH

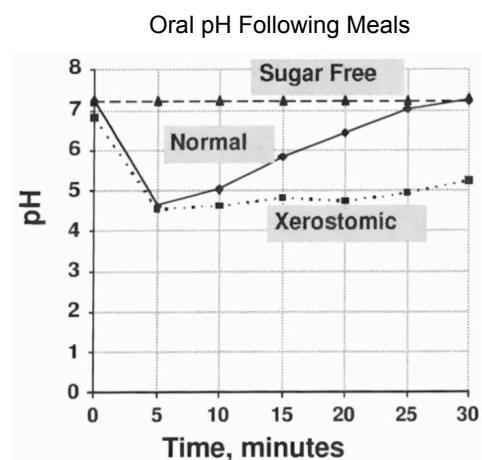
---

## Use a Baking Soda Rinse After Any Highly Acidic Drinks, Meals, or Snacks

Your teeth are constantly undergoing cycles of demineralization and remineralization naturally. Cavities result as an imbalance in these cycles toward more mineral loss from your enamel.

When consuming highly acidic drinks or eating a sugary meal or snack that will result in significant acid production and demineralization, you should not rely on your saliva alone to correct imbalances in pH. The process of bringing your oral pH back to normal is far from immediate and typically it takes about 30 minutes.

Additionally, studies have shown that in locations where plaque is a few days old, the pH in that area can remain acidic for several hours (one more reason why adequately cleaning your teeth is important).



Since your saliva's major buffer is bicarbonate (just like the baking soda in your cupboard), using a bicarbonate rinse with an alkaline pH can correct a drop in oral pH quickly and predictably. [Consult our recipe to make your own](#). Anytime there is a concern about the acidic nature of a meal or snack, be safe and swish with a baking soda rinse afterwards.

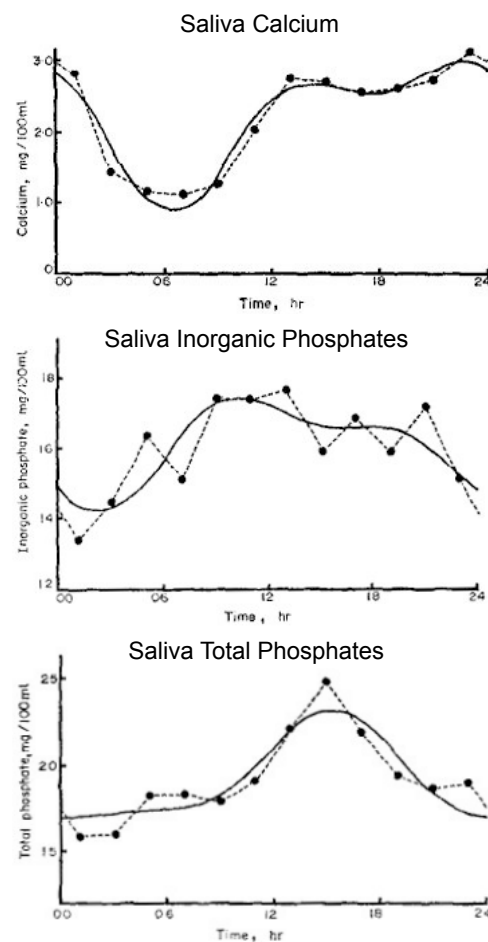
An additional benefit of maintaining a non-acidic oral pH, is that you will create environmental pressures favoring the growth of beneficial oral bacteria over the long term. Acid producing bacteria are more suited for growth at low pH's, and they cannot grow as well as their non-acid producing cohabitants at normal and alkaline pH.

## Use a Baking Soda Rinse During Periods of Compromised Salivary Flow

Typically, demineralization of enamel is favored when your oral pH dips below 5.5, and remineralization is favored when your oral pH above this level. However, the exact level is affected by the calcium and phosphate concentration of your saliva. Put simply, if there is a lot of calcium and phosphate ions in your saliva calcium and phosphate are more likely to stay in your enamel since your saliva is “crowded.”

The opposite is also true. When calcium levels in your saliva are low in the morning (about 1/3 of normal), and phosphate levels in your saliva are low late at night your enamel is at a greater risk of demineralizing. Therefore, after breakfast and after a late night snack if you choose to have one, you want to quickly return your oral pH to neutral with a baking soda rinse. [Consult our recipe to make your own.](#)

If you have been diagnosed with xerostomia, your salivary flow is compromised (or non-existent) at all times and you will need special management of your diet and hygiene. We'll be covering efficient management of dry mouth in another guide.





# Supplement Your Routine

---

## Chew Xylitol Gum

Chewing sugarfree gum increases the production of saliva by 10x the normal rate. This can be especially helpful after meals.



Xylitol gum has the added benefit of inhibiting the growth of acid producing bacteria. Make sure that however much gum you chew adds up to 6-10g of xylitol chewed each day. This is easiest if you do it right after meals; it is also most effective then. Chew enough gum so that you have about 2 grams of xylitol after all three meals (you often have to chew more than one piece). Xylitol has only been proven effective against cavities in chewing gum. Also if you have too much (>14g) it can give you diarrhea, so stick to the formula. Keep in mind children will get diarrhea with less because they weigh less, so don't let them have too much.

Epic Gum has about 1 gram of xylitol per piece so keeping track of how much you have chewed is easy.

NOTE: Xylitol is not recommended by Nutritional Balancing.org (see attached article, "Xylitol: Not as Sweet As Cracked Up to Be")



## Use a Low Fluoride Mouthwash Nightly Before Bed

Daily use of a fluoride mouthwash creates sustained low levels of fluoride in your saliva, likely from coating soft tissues and incorporating into bacterial plaque (it usually takes two weeks to reach an equilibrium concentration). Not only is this essential to maintain the strength of your enamel, fluoride does have mild antimicrobial effects on acid producing bacteria.

This work is licensed under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc-sa/3.0/> or send a letter to Creative Commons, 171 Second Street, Suite 300, San Francisco, California, 94105, USA.



Although the end goal of fluoride products is to form fluoridated enamel, the initial product under most conditions is a coating of calcium fluoride (as well as some calcium hydroxide) on the surface of your enamel, and it serves as an intermediate in the fluoridation process. Low levels of fluoride in your saliva from daily use of a fluoride mouthwash are essential to make calcium fluoride, and naturally fluoride, available on the surface of your enamel. The calcium fluoride coating acts as a reservoir of calcium and fluoride and will allow the natural conversion of non-fluoridated enamel to fluoridated enamel during typical daily variations in oral pH. This also means that the negative effects of acids on your teeth throughout the day will be reduced.

Your best bet is to use ACT Restoring Mouthwash. Although it has a slightly acid pH (6.6), which is not completely ideal, it isn't terribly acidic and most mouthwashes are much more acidic since it helps with shelf-life. You won't be creating the same favorable environmental pressures on oral bacteria that your alkaline rinses will produce (pH ~8.0), but the benefits of sustained fluoride release are significant.

Rinse with before bed when salivary calcium is high and salivary phosphate is low. These conditions are most favorable to formation of calcium fluoride on the surface of your teeth, and create a "loading dose" of calcium fluoride for your teeth.

# Whiten Teeth Smarter

---

## Do Not Whiten Teeth Too Frequently

While white teeth are often associated with healthy smiles and will increase your self-confidence, frequent whitening/bleaching is not necessary to maintain your sparkly whites.

Studies have shown that color stability from at-home tray bleaching and Crest White Strips typically lasts between 6-12 months.

It is important to keep in mind that 'whitening' and 'bleaching' products do fundamentally different things, and that whitening/bleaching when it is not necessary does more harm than good.

- True bleaching agents penetrate the tooth's enamel to alter the tooth's color in the dentin layer beyond its natural shade and usually contain either carbamide peroxide or hydrogen peroxide. They can cause alterations in the outer enamel surface when overused (this is more evident if using concentrations above 10% carbamide peroxide). Although this may actually enhance the whitening effect, it is probably not all that good for your teeth (it hasn't been evaluated long term, which is why the **ADA recommends only 10% carbamide peroxide solutions**). Bleaching agents can also cause sensitivity, and this is related to dose.

- Whitening agents are not the same as true bleaching agents. They only affect stains embedded in the enamel pellicle (the protein skin of your teeth) and do nothing to alter a tooth's base color. They typically depend on abrasives and acids to removing stains, and although they will make your teeth appear whiter the acids and abrasives will wear away at your enamel if frequently used.

- Additionally, both whitening and bleaching agents alter the enamel pellicle and will temporarily decrease the acid resistance of your teeth. Ironically, polyphenols, the molecules in coffee, tea, etc. that are responsible for stains on the outside of your teeth modify your enamel pellicle to make your

teeth more acid resistant and also have antimicrobial properties (ever wonder why people on national geographic with really stained teeth don't have cavities).

To responsibly whiten your teeth, take at least 2 months off between treatments (ideally 6-12 months off), **avoid Whitening Toothpastes**, and opt for whitening products provided by your dentist whenever possible.

# See Your Dentist

---

## Regular Check Ups are Essential

The health of any fillings and sealants should definitely be monitored and maintained, Your dentist also has special tools to remove any tartar/ calculus with minimal collateral damage to the teeth, medicaments to manage other special conditions, and is equipped to thoroughly cleanse any tricky tooth morphology which may require occasional maintenance.

Even if you are completely filling-free, your dentist is still the best person to monitor and maintain your overall oral health. They also are needed to provide you with the most effective upkeep of tooth whiteness and enamel fluoridation.

- A carefully controlled, slightly acidic environment with significant available fluoride concentrations, is needed to favor replacement of existing layers of non-fluoridated enamel with harder fluoridated enamel. This controlled reaction is most effectively achieved at your dentist's office after an extremely thorough cleaning (to avoid acid-sensitization of existing bacteria). Additionally, acidic fluoridation is not needed frequently. Maintenance of low levels of fluoride in the saliva by using a fairly neutral (or better still alkaline) low fluoride mouthwash once a day will avoid acid-sensitization of bacteria, and allow formation of calcium fluoride on the surface of your teeth. The calcium fluoride reservoir will then promote a natural conversion to fluoridated enamel during daily variations in oral pH, and maintain the fluoridation of enamel that you receive at the dentist's office.
- In-office dental bleachings, and bleaching products available in at-home kits from your dentist, provide the greatest long-term color stability. Better color stability reduces the frequency with which you need to refresh the whiteness of your smile. Less frequent whitening is healthier for your enamel and it allows you to retain the acid resistant benefits of your enamel pellicle.

**For More Amazing Guides &  
Oral Health Answers Visit Us  
@ [www.freysmiles.com/blog](http://www.freysmiles.com/blog)**



the **FreySmiles**  
Oral Health Network

# Xylitol: Not as Sweet As It's Cracked Up to Be

 [thehealthyhomeeconomist.com/xylitol-not-as-sweet-as-its-cracked-up-to-be](http://thehealthyhomeeconomist.com/xylitol-not-as-sweet-as-its-cracked-up-to-be)

Updated: March 04, 2018



Xylitol is truly the darling of sugar substitutes today. The American Dietetic Association touts its use, with this sugar alcohol sold alone and as a sweetener in a variety of processed foods. Health benefits include a reduced glycemic response compared with sucrose, increased absorption of B vitamins and calcium, and even a reduction in dental caries risk.

Consequently, people with blood sugar issues are flocking to processed foods containing this alternative sweetener as a way to satisfy that sweet tooth without the downside of exacerbating the risk factors for Metabolic Syndrome. This condition is known for the markedly increased likelihood of developing heart disease, stroke, and type 2 diabetes.

Even the healthfood community almost universally considers this sugar alcohol to be a healthy substitute for sugar. A primary reason is because it doesn't directly contribute toward the growth of intestinal yeasts aka Candida.

Have you noticed that the check out aisles at healthfood stores are typically loaded with chocolates and other sweets containing at least some xylitol? The truth is that I have yet to talk with any healthy conscious person who suggests to me any downside other than the potential for intestinal cramps if you get too much.



## Xylitol is Naturally Found in Nature

---

Xylitol is, after all, a naturally occurring substance. Manufacturers of xylitol market it as derived from xylan. The fibers of many plants contain it, including berries, oats, beets, sugar cane and birch. Sounds pretty harmless at first glance.

The FDA has even granted xylitol GRAS (Generally Recognized As Safe) status. You can't get any safer than that, right?



## How Xylitol is Manufactured

---

It is true that xylitol is a naturally occurring substance. However, manufactured xylitol is another matter entirely. Food manufacturers produce it using the industrialized process of sugar hydrogenation. In order to hydrogenate anything, a catalyst is needed. In this case, Raney nickel is used which is a powdered nickel-aluminum alloy.

This poses the risk of heavy metal residue and contamination. Nickel, by the way, is a recognized carcinogen and aluminum is associated with development of dementia. Heavy metals in the body are notoriously difficult to eliminate with frequent use of infrared sauna probably a good idea.

This alternative sweetener doesn't seem quite so warm and fuzzy anymore, does it?



There is currently no literature on any detrimental health effects of consuming hydrogenated sugar. However, food manufactures widely used hydrogenated fats for decades before the very damaging effects to cardiovascular health became widely known!

Given the violent industrialized process that is required to produce a hydrogenated sugar like xylitol, it would seem wise to avoid it based on the very poor track record of hydrogenated foods in general.

## Most Xylitol Sourced from GMO Corn

---

While it is true that xylitol can be derived from the xylan of birch trees, xylan is also found in corn cobs. It is much cheaper to use corn instead of birch bark to derive xylitol and so what do you think manufacturers prefer? Corn of course.

Therefore, unless the label of a xylitol containing product specifically notes that it is from birch or another nonGMO source, xylitol is very likely from genetically modified corn or possibly GMO sugar beets. This is the same problem as high fructose corn syrup (HFCS) and white sugar from beets, which food manufacturers widely use in sodas and sports drinks.

You get a dose of GMOs with every sip! More on GMO dangers including sterility and stomach holes at the provided link.

## Xylitol Contributes to Gut Imbalance

---

The digestive process does not break down sugar alcohols like food. Rather, xylitol arrives intact into the intestines.

At that point, a process called “passive diffusion” takes place. This means that the xylitol draws water *into* the bowels. Only partial breakdown is the end result. The unmetabolized portion ferments providing the perfect environment for undesirable bacteria to thrive and grow.

It is true that xylitol itself does not feed candida directly like sugar does. As a result, this artificial sweetener is even promoted as a useful part of the Candida Diet.

Unfortunately, the fermentation of undigested xylitol in the gut most definitely can exacerbate yeast problems. Don't be fooled by this argument!

This is exactly why consuming xylitol can make some folks so gassy and even trigger cramping and diarrhea. Gut pathogens having a heyday in your intestines give off a lot of smelly toxins!

## Other Little Known Problems with Xylitol

---

Xylitol can contribute to acid reflux problems. As a result, those who have issues in this area should avoid it for that reason alone. Chronic acid reflux is a serious problem that

can lead to cancer of the esophagus and larynx.

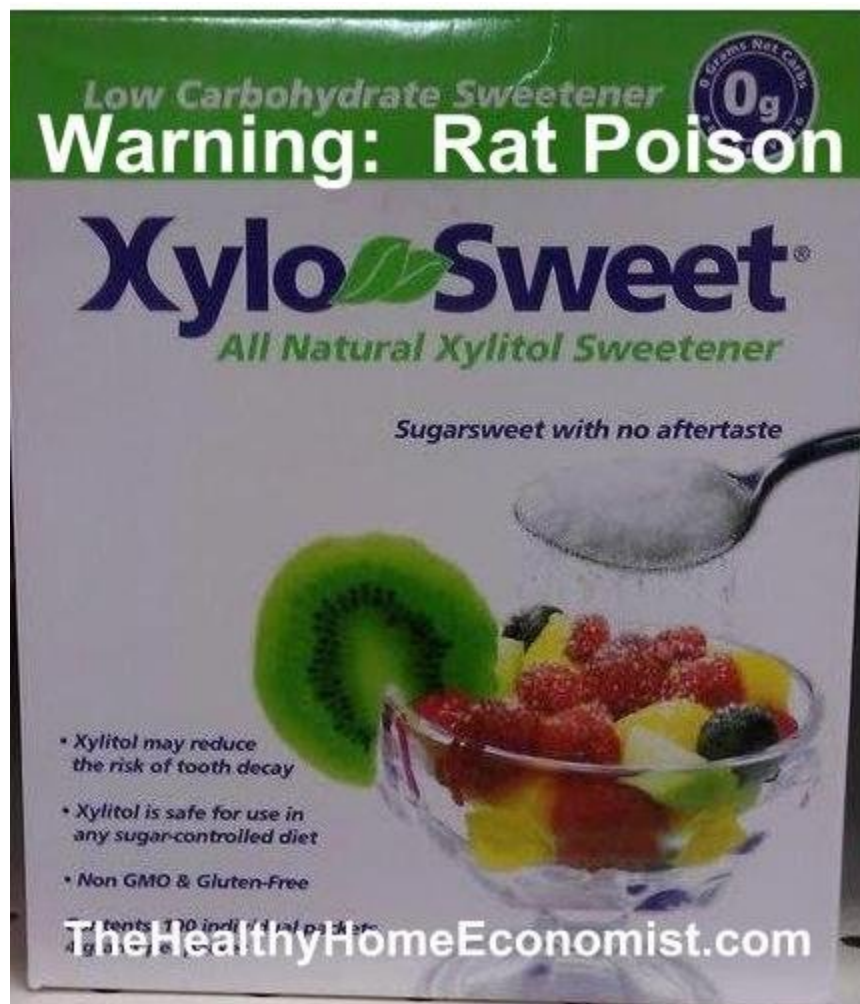
In addition, those who suffer from seizures of any kind should stay away from this alternative sweetener as it can increase the frequency of epileptic attacks.

## Xylitol in Two Pieces of Gum Can Kill a Rat

---

According to lab tests, approximately 1.65 grams of xylitol kills a 100 gram rat half the time.

Two little pieces of xylitol gum contain about .7 – 1 gram. This is probably enough to meet the definition of rat poison.



## Xylitol for Preventing Cavities

---

Many people are chewing xylitol gum due to compelling scientific evidence for cavity prevention. What about for children, however?

Rami Nagel, author of Cure Tooth Decay, doesn't even recommend xylitol gum for this purpose. His research for any long term safety data turned up the following:

- Epidemiology: No information found

- Teratogenicity: No information found
- Reproductive Effects: No information found
- Mutagenicity: No information found
- Neurotoxicity: No information found

In summary, using this modern substance officially renders you a guinea pig my friend! It seems that any benefits of cavity prevention are outweighed by the fact that there is no actual safety data backing up its use.

## Xylitol Benefits?

---

Given all the problems that consumption of xylitol can trigger, it seems best to bypass use of this sugar substitute on a regular basis.

Can it ever be helpful? Does it have any benefits whatsoever?

Potentially so. The only time I personally would ever consider using xylitol is to help resolve a childhood ear or sinus infection in order to prevent the use of drug based antibiotics.

There is evidence that this popular sugar alcohol can indeed help encourage a healthy balance of beneficial bacteria found in the ear canal and sinus cavities. A therapeutic dose can help resolve an infection in these areas quickly with no medication required.

Thus, if you choose to use it, make sure it is sparingly and therapeutically (not as a food). Also make sure it does not come from a GMO source like corn!

### Sarah

The Healthy Home Economist holds a Master's degree from the University of Pennsylvania. Mother to 3 healthy children, blogger, and best-selling author, she writes about the practical application of Traditional Diet and evidence-based wellness within the modern household. Her work has been featured by USA Today, The New York Times, ABC, NBC, and many others.

