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## Expanding the area of what is possible

In Track & Field Distance Running & Competent Self-Care in medicine and psychology

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# Teeth Cavity Reversal

**A major part of TheETG mission** is to expand the area of what is possible in competent self-care in medicine and psychology. TheETG's primary method of achieving that is to proliferate applied science based information by way of \$free packets containing plain language info for anyone seeking to move themselves or others forward in these areas. TheETG packets attempt to address the following;

"....takes an average of 17 years to translate 14% of original research into benefit....average of 9 years for interventions recommended as evidence-based practices to be fully adopted."

[M.Tinkle, et al -- Dissemination and Implementation -- Nursing Research and Practice -- Volume 2013]

".....the benefits that US health care currently deliver may not outweigh the aggregate health harm it imparts."  
[Journal Of The American Medical Association...Volume 302 #1..July 1, 2009...page 89 - 91]

".....1.5 million U.S. residents are harmed or killed each year because of medication errors, according to an Institute of Medicine report."  
[Nature Medicine -- Volume 12 #9 -- September 2006 -- page 984 - 985....News In Brief]

"It is estimated that more than 700,000 individuals are seen in hospital emergency departments for adverse drug events each year in the United States."  
[Centers For Disease Control -- 2015]

"Most drugs are only effective for a small percentage of people who take them."  
[Michael Leavitt -- U.S. Secretary of Health & Human Services 2005 - 2009]

"....A recent study for example, found that only half of all cardiac guidelines are based on scientific evidence."  
[President Barack Obama -- Speech to the American Medical Association -- June 15, 2009]

"All the good things....they don't teach us in medical school, because the drug companies pay for our education."  
[Dr. John Sessions M.D.]

"Not enough doctors adapt appropriately to new scientific findings....An insufficient number of medical faculty members are well prepared, effective educators, and too few medical schools prepare their students for a lifetime of learning and change."  
[J.Hilliard,et al. -- The Lancet -- Volume 385 #9969 -- February 21, 2015 -- page 672]

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# What Your Dentist Won't Tell You

## Reversing Teeth Cavities

Immune system cells in your saliva are responsible for destroying bacteria in your mouth that reside on your teeth in the form of a thin film ["plaque"]- If the function of your immune system is lower than necessary, or if the amount of bacteria is more than your immune system can cope with, the bacteria will be able to operate relatively unchecked [even though you brush your teeth].

The bacteria produce an acid that can wear away the enamel [outer surface] of your teeth, gradually working their way inside, and digging out a hole [cavity].

Teeth are basically bone. As we all know, bones have the ability to repair themselves when damaged. Thus, the idea of paying money to a dentist, to drill into a tooth, and insert a "filling" into a cavity, should seem somewhat counter to logic and reason. In short, drilling, filling, and capping, should be unnecessary. Teeth are comprised of minerals, such as calcium, phosphate, and fluoride. The acids produced by bacteria can 'demineralize' the inner portion of a tooth, resulting in a hole, called a "cavity".

### Filling-In A Cavity

There are thus, 2 mechanisms to address to heal a cavity

1 — neutralize the acid produced by the bacteria, and/or kill the bacteria

2--- provide the minerals necessary for the tooth to rebuild itself by filling-in the cavity [calcium, phosphate, and fluoride]

### The Role of Brushing Your Teeth

The 2 major purposes of brushing your teeth are

1 — remove bacteria in the form of "plaque" from your teeth

2--- remove food particles from your teeth and mouth, since bacteria feed on the carbohydrates

### Mechanisms Of Tooth Yellowing and Teeth Whitening

The main mechanisms of tooth stains involve the accumulation of plaque and food particles in microscopic pits and fissures on the front portion of your teeth growth of bacteria that bind to the teeth and are altered in color by interaction with carbohydrate foods and the progressive loss in enamel [exposes the yellow color the dentin layer under the enamel].

These are all reversible by reversing the mechanisms of causation. Reversing the mechanisms of causation can all be addressed by killing bacteria with the use of baking soda and salt, removal of food particles with brushing, and supplying calcium [preferably in liquid form] to rebuild the tooth enamel, and remove pits and fissures. Obviously, since we have an immune system that kills bacteria, it would be wise to do things that boost the immune system, and avoid living in ways that cause immune system suppression.

# TheETG Cavity reversal

kill bacteria, neutralize acids, present minerals

## The cavity reversal protocol

Do for 3 months.....on all Mondays, Tuesdays --&-- Thursdays, Fridays

### 1 ----- mouthguards

Once on Mondays, Tuesdays --&-- Thursdays, Fridays

- put **3 teaspoons** baking soda into a small glass measuring cup, add water and stir to make a thick paste.
- place the thick paste onto mouthguards, one for upper teeth and one for lower teeth.
- insert mouthguards for **5 minutes**
- rinse with water [avoid swallowing the mixture]

### 2 ----- mouth rinse

Before each of the 3 brushings on Mondays, Tuesdays --&-- Thursdays, Fridays

- put **1/2-teaspoon sea salt** and **1/2-teaspoon baking soda** into a glass measuring cup.
- add water to the **1 to 2 ounce line**, stir with your rotary toothbrush turned on.
- swish around in your mouth for at least **30 seconds**, and making sure to expose the rear upper teeth.
- rinse with water [avoid swallowing the mixture]

### 3 ----- baking soda brushing

Before each of the 3 brushings on Mondays, Tuesdays --&-- Thursdays, Fridays

Before applying toothpaste to your toothbrush, dip your tooth brush in water, then dip your toothbrush in baking soda. Brush your teeth briefly near the gum line, then brush normally with toothpaste.

## The basics, permanent long term habit.....

- brush your teeth with an electric rotary toothbrush, and a toothpaste that has liquid calcium
- several days each week, 1 – 3 times per day....use the mouth rinse
- several days each week, 1 – 3 times per day....use the baking soda brushing
- the first Mon, Tues -& Thurs, Fri of every month, all year around, do the cavity reversal protocol

Original Article

### Gingiva, teeth and sea salt

SAVERIO G. CONDÒ, PhD, WILLIAM DEVIZIO, DMD & ANTHONY R. VOLPE, DDS, MS

**ABSTRACT:** This article presents a review of the effects of sea salt on gingival tissues. The beneficial effects of sea salt are described. (*Am J Dent* 1999; 12: 4-8).

**CLINICAL SIGNIFICANCE:** Sea salt has a long history of beneficial healing effects that have not been capitalized upon. With the current popularity of "natural" products, dental products with sea salt may become more available.

**CORRESPONDENCE:** Dr. Saverio G. Condò, Department of Experimental Medicine and Biochemical Sciences, Dental School, University of Rome Tor Vergata, via di Tor Vergata 135, 00133 Rome, Italy. Fax: (39) 0672596378.

#### Introduction

Sea water is a complex saline solution, 3.5% of which is composed of dissolved salts. The quantity of salt can vary from sea to sea, but the proportion of the different chemical elements found therein is virtually always the same. Sodium chloride accounts for three-fourths of the dissolved substances, followed in concentration by magnesium, calcium and potassium salts. Chemical analysis has revealed the presence of a total of 44 different elements in sea water, all of which are found in its dry residue, salt.

Sea salt can be obtained naturally when the sun evaporates sea water channelled in salines, which are great flat extensions upon which large quantities of salt crystals are deposited. Alternatively, it can be extracted from salt mines. For therapeutic and food purposes, it is washed, refined, dried and divided into *fine* and *coarse* salt, according to the size of the crystals.<sup>1</sup>

Table 1. Concentration of some elements present in sea water.

Element	mg/l	Element	mg/l
Magnesium	1300	Zinc	0.01
Calcium	400	Selenium	0.004
Strontium	8	Lead	0.003
Lithium	0.2	Copper	0.003
Iron	0.01	Manganese	0.002
Molybdenum	0.01	Cobalt	0.0005

Table 2. Concentration percentage of sea salt or sodium chloride (NaCl) found in several tooth pastes and powders (X, data unavailable).

Toothpastes	Salt	%
AZ Gengidentifico (Procter&Gamble)	NaCl	15
Bistal-Dentix (Aristal)	sea	X
Dentargle (Carter)	sea	1.4
Emoform Antiplaca (BYK)	NaCl	5.0
Merfuan Salt Dentali (Colgate)	sea	7.8

International Journal of Dental and Health Sciences

Volume 02, Issue 01

### Review Article

## SEA SALT MOUTHRINSE: A NOVEL THERAPEUTIC APPROACH FOR ORAL HEALTH

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1. Associate Professor, Department of Periodontology, Pravra Institute of Medical Sciences-Loni, Ahmednagar, Maharashtra, India.

#### ABSTRACT:

Microbial driven dental plaque is key component factor in gingivitis and periodontal disease and a prerequisite for the development of systemic diseases, these interpretations opened a new field of investigation on prevention of dental disease. A range of antibiotics and antiseptics have been engaged as adjuncts to conventional therapies to restrain bacterial pathogens, chemical plaque control could prevent or reverse gingival diseases. However there are lot of side effects associated with long term use of alcohol based mouthrinse; this article explores the possibility and potentials of sea salt based mouthrinse in oral health.

**Keywords:** Sea Salt, Mouthrinse, Plaque.

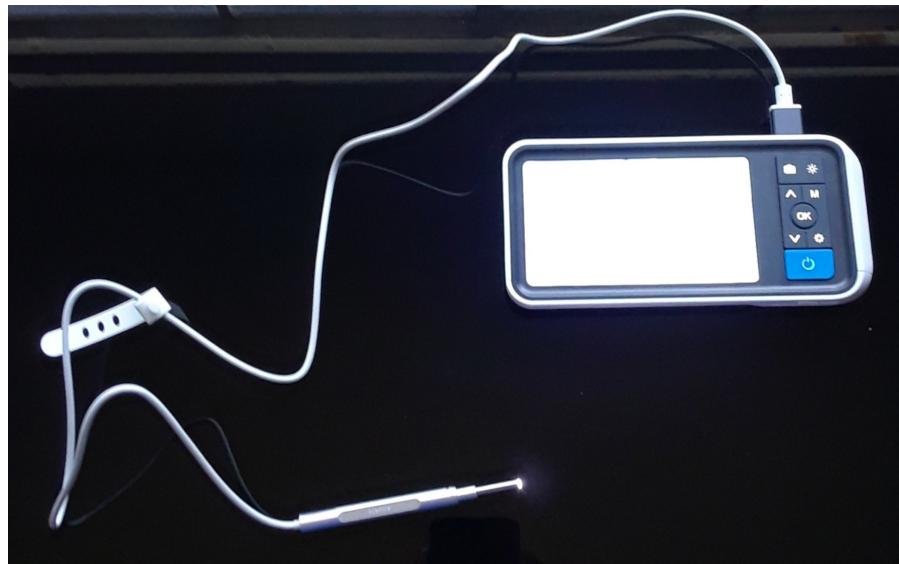


Helpful tool you can buy online.

Otoscope, a lighted camera attached to a video screen.

You can take pictures or video. Can also save them to your computer.

They cost is less than \$80.



Helpful tool you can buy online.

Electric tartar remover. Can use a flat head or needle head.

They cost is less than \$30.



**[ABCNews, August 2, 2016---Feds: No evidence flossing fights gum disease]**

"....there's little proof that flossing works."

"....Associated Press asked the departments of Health and Human Services and Agriculture for their evidence, and followed up with written requests under the Freedom of Information Act. When the federal government issued its latest dietary guidelines this year, the flossing recommendation had been removed, without notice. In a letter to the AP, the government acknowledged the effectiveness of flossing had never been researched, as required."

"One study review in 2011 did credit floss with a slight reduction in gum inflammation - which can sometimes develop over time into full-fledged gum disease. However, the reviewers ranked the evidence as "very unreliable."

"The two leading professional groups - the American Dental Association and the American Academy of Periodontology, for specialists in gum disease and implants - cited other studies as proof of their claims that flossing prevents buildup of gunk known as plaque, early gum inflammation called gingivitis, and tooth decay. However, most of these studies used outdated methods or tested few people. Some lasted only two weeks, far too brief for a cavity or dental disease to develop. One tested 25 people after only a single use of floss."

"Even companies with a big market share of the flossing business - by next year, the global market is predicted to reach almost \$2 billion, with half in the United States, according to publisher MarketSizeInfo.com - struggled to provide convincing evidence of their claims that floss reduces plaque or gingivitis. Yet the industry has paid for most studies and sometimes designed and conducted the research."

“The effect of twice-daily brushing with one of three different dentifrices (Arm & Hammer Dental Care, Arm & Hammer Dental Care Extra Whitening, Crest) on stain removal and tooth whitening was examined 115 volunteers over a period of 12 weeks.”

“The difference between Arm & Hammer Dental Care Extra Whitening and Crest became significant after two weeks of use.....”

“The study also found that Arm & Hammer Dental Care produced a significant increase in tooth whiteness by week 12, whereas Crest showed no such increase at any time during the study.”

“These results suggest that the two Arm & Hammer Baking Soda products are more effective in reducing stain and increasing whiteness than the standard silica-based dentifrice. Their effectiveness is not related to abrasivity.....”

T.E. Koertge, et.al  
A Longitudinal Comparison Of Tooth Whitening Resulting From Dentifrice Use

Journal of Clinical Dentistry....Volume 9 #3....1998...page 67 - 71

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“This laboratory study investigated the whitening effect of toothbrushing with sodium bicarbonate-based dentifrices compared with standard dentifrices that do not contain sodium bicarbonate.”

“Six dentifrices and a distilled water control were tested for their ability to whiten teeth with intrinsic stain. The dentifrices contained different abrasive systems:....(Arm and Hammer Dental Care);.....(Crest Regul Toothpaste);.....dicalcium phosphate (Colgate Regular Toothpaste).....”

“Compared to baseline tooth color, all four sodium bicarbonate-based dentifrices were significantly effective in removing the yellow intrinsic tooth stain, while the water control, silica dentifrice, and dicalcium phosphate dentifrice demonstrated no significant change.”

“The commercial dentifrice containing 65% sodium bicarbonate was also more effective than the commercial silica dentifrice.”

“..... most of the tooth whitening by the sodium bicarbonate-based dentifrices occurred in the first 30 minutes of brushing. In the studies conducted, dentifrices containing high concentrations of sodium bicarbonate were more effective at removing intrinsic tooth stain than dentifrices that do not contain sodium bicarbonate.”

C.J.Kleber, et. Al  
Laboratory Assessment Of Tooth Whitening By Sodium Bicarbonate Dentifrices

Journal of Clinical Dentistry....Volume 9 #3....1998...page 72 - 75

The antibacterial activity of baking soda (sodium bicarbonate) was assessed using three different experimental approaches. Standard minimum inhibitory concentration analyses revealed substantial inhibitory activity against *Streptococcus mutans* that was not due to ionic strength or high osmolarity. Short-term exposure assays showed significant killing of bacterial suspensions when baking soda was combined with the detergent sodium dodecylsulfate. Multiple, brief exposures of sucrose-colonized *S. mutans* to baking soda and sodium dodecylsulfate caused statistically significant decreases in numbers of viable cells. Use of oral health care products with high concentrations of baking soda could conceivably result in decreased levels of cariogenic *S. mutans* in saliva and plaque.

Drake D.

Dows Institute for Dental Research, College of Dentistry, University of Iowa, Iowa City, Iowa, USA.

Antibacterial activity of baking soda.

Compendium of Continuing Education in Dentistry. Supplement. 17(19):S17-21, 1996.

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Dentifrices available on the market today contain sodium bicarbonate in a wide range of concentrations. Anticaries efficacy has been demonstrated for these dentifrices in a variety of tests. New insights were gained in the present study in which the effect of a high-bicarbonate dentifrice on the sucrose-induced demineralization of tooth enamel *in situ* was examined. With the intraoral Delta Ip system it is possible to follow the minute changes in tooth enamel that essentially model the daily episodes of demineralization accompanying the ingestion of various foods. The results revealed a pronounced effect on the pH of the test plaque and a considerable reduction in mineral loss from the enamel. The effect persisted from more than 1 hour and, during that time, appeared to predominate over the effect of fluoride. These findings suggest that bicarbonate may provide additional protection against the loss of tooth enamel. Such effects may be significant for the design of new high-bicarbonate products.

Kashket S. Yaskell T.

Forsyth Dental Center, Boston, Massachusetts, USA.

Effects of a high-bicarbonate dentifrice on intraoral demineralization.

Compendium of Continuing Education in Dentistry. Supplement. 17(19):S11-6, 1996.

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This investigation evaluated the efficacy of two bicarbonate-containing dentifrices (one with fluoride and one without) against one placebo dentifrice (containing neither fluoride nor bicarbonate) *in vivo* in a panel of human volunteers to determine whether or not sodium bicarbonate would affect salivary mutans streptococci and lactobacilli. Ten caries-inactive adults were divided randomly into three groups, each of which was exposed to all three dentifrices, in a crossover manner, during three 4-week test periods. Saliva samples were taken at 1-week intervals. Samples were stored on ice, and microbiological analyses were conducted. The statistical analyses showed that, over a 4-week period, there was a statistically significant ( $p < 0.05$ ) reduction in numbers of mutans streptococci with the two bicarbonate dentifrices as compared with the placebo dentifrice. Although not statistically significant, a similar trend was observed with lactobacilli. Longer-term, large-scale studies need to be conducted to investigate the possible mechanisms of action of sodium bicarbonate on these organisms and to relate the results to possible cariostatic effects in humans.

Legier-Vargas K. Mundorff-Shrestha SA. Featherstone JD. Gwinne LM.

Department of Oral Sciences, Eastman Dental Center, Rochester, N.Y., USA.

Effects of sodium bicarbonate dentifrices on the levels of cariogenic bacteria in human saliva.

Caries Research. 29(2):143-7, 1995.

## Ozonated olive oil

"This study evaluates the effect of subgingival application of ozonated olive oil gel as an adjunct to scaling and root planing in aggressive periodontitis."

"30 patients were randomly selected and equally divided into: Group I received scaling and root planing only, group II received scaling and root planing and ozonated olive oil gel."

"Subgingival application of ozone gel was performed following initial scaling and root planing and at 7, 14 and 21 days."

"The results showed improvement in all clinical parameters in (group II) which was maintained up to six months."

"The study concluded that gel could be a promising adjunct to scaling and root planing in the treatment of aggressive periodontitis."

M.Y.M.Shoukheba, et al

The effects of subgingival application of ozonated olive oil gel in patient with localized aggressive periodontitis. A clinical and bacteriological study

Tanta Dental Journal -- Volume 11 #1 -- April 2014, page 63

## Oral probiotics

"The objective of this trial was to evaluate whether the regular consumption of probiotics may improve the known deterioration of periodontal health in navy sailors during deployments at sea."

"72 healthy sailors of a naval ship on a practicing mission at sea were recruited and randomly provided with a blinded supply of lozenges to be consumed twice daily for the following 42 days containing either the probiotic strains Lactobacillus reuteri (test n = 36) or no probiotics (placebo n =36)."

"At day 14 and day 42 test group scores of all assessed parameters were significantly improved compared to baseline and to the placebo group which by contrast showed a significant deterioration of all parameters at the end of the study."

"The consumption of probiotic L. reuteri-lozenges is an efficacious measure to improve and maintain periodontal health in situations with waning efficacy of personal oral hygiene."

U.Schlagenhauf, et al

Consumption of Lactobacillus reuteri-containing lozenges improves periodontal health in navy sailors at sea: A

randomized controlled trial

Journal Of Periodontology -- Volume 91 #10 -- October 2020 -- page 1328

Excerpts from.....

**HOW THE LEGAL SYSTEM LEGALIZES DENTAL MALPRACTICE, AND IS DESIGNED TO PROTECT DENTISTS, NOT PATIENTS.**

Herb Denenberg Column for week of March 29, 2004

We're always hearing about those frivolous malpractice lawsuits, but we rarely hear about a legal system that makes malpractice perfectly legal and that transforms uninformed consent into informed consent.

These unpublicized pathologies of the legal system were recently described in an important article published by the state bar of California. The article is entitled "20th Century Dental (Mal) Practice in the 21st Century." The author is Dr. Jay W. Friedman, one of the nation's leading authorities on dental quality of care.

He says the **unnecessary extraction of wisdom teeth** may be the prevailing practice, and that the removal of wisdom teeth (necessarily and unnecessarily) accounts for 75 percent of the income of oral surgeons.

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BBC News.....Monday, 27 March, 2000

## **Leave wisdom teeth in, dentists told**

Dentists have been told not to remove healthy wisdom teeth on the NHS even if their patients want the operation.

The advice comes from the National Institute for Clinical Excellence (NICE) which argues that the removal of healthy teeth is pointless and exposes patients to the risk of nerve damage, infection, bleeding and in extreme cases death.

It suggests only diseased teeth should be removed and says that patients currently waiting for the operation should have their cases reviewed.

The institute estimates that following its guidance could release up to £5m.

But the British Dental Association (BDA) says it has been following similar professional guidance for some time and very few teeth are now removed unnecessarily.

### **Pain and discomfort**

The routine removal of wisdom teeth, the "third" set of molars that begin to emerge during teenage years, has always been a controversial area.

If the jaw is not big enough to fully accommodate the teeth, they may become misaligned and start causing pain and discomfort.

When this happens, they may require removal, but sometimes dentists recommend that the teeth are taken out even when they are not causing problems - simply on the strength that they may cause problems in the future.

Although many doctors and dentists believe this is an entirely unnecessary procedure it is still regularly carried out on the NHS.

NICE assesses treatments and tells the NHS whether it is cost effective to use them.

Chief executive of NICE Andrew Dillon said: "If they are not causing a specific problem then they should not be removed. Until it is clearly a problem, there is no reason to do the surgery.

"Sometimes the teeth can right themselves and sometimes, even though they impact, they somehow sort themselves out and there is still no problem.

"It's the idea that we do the surgery on the off-chance that we are addressing."

### Your dentist is full of bunk: surgery to remove wisdom teeth is worthless, says British Medical Journal

In a groundbreaking report from the British Medical Journal, researchers who poured over thousands of studies detailing the efficacy of medical and dental procedures have concluded that many popular surgical procedures are completely worthless. Among those is one of the most common procedures performed by your dentist: the removal of so-called "impacted" wisdom teeth. According to the BMJ, this procedure may actually do more harm than good.

I don't trust dentists. I've long suspected dentists of scaring patients into undergoing unnecessary procedures in order to generate more business. My suspicions were confirmed when I visited a dentist in 2001 for a basic checkup. After taking dental x-rays (another health hazard, as new research is showing), my dentist fed me a scare story about how I still had all my wisdom teeth, and that all those teeth needed to be surgically removed. I was absolutely stunned. My wisdom teeth were working just fine: no cavities, no pain, no problems. I had made an appointment for a routine checkup, not to undergo expensive surgery for my wisdom teeth. But my dentist insisted, relying on a variety of scare tactics to try to convince me to undergo this expensive -- and completely unnecessary -- procedure. His behavior was highly unethical. He was using his authority and position as "the dentist" to try to scare me into accepting a surgical procedure that I quite obviously didn't need. In fact, even he couldn't give me a good reason for justifying the surgery other than to say, "We usually remove the wisdom teeth quite early." Which means, of course, that they just order the surgery for every child or teenager who walks into the clinic, regardless of whether they actually need it.

Now, it turns out, the removal of wisdom teeth has been found to be an utterly worthless procedure to begin with. It "may do more harm than good" says the British Medical Journal, after reviewing literally thousands of case studies. So the typical dentist is really just hyping a useless procedure, and if your dentist is anything like the dentist I encountered, they're also using all sorts of highly unethical scare tactics to try to force people into undergoing the procedure. That's downright evil, and yet it's a common practice among dentists in the United States.

Folks, you need to start questioning your dentist. Don't believe everything they tell you. Most of the time, they're full of bunk, or they're just trying to sell you on whatever procedure they get paid for performing. They're not all evil -- many actually believe these procedures will help you, which is why they seem so sincere -- but they are misinformed. Their beliefs are based on medical dogma, not scientific fact. Their beliefs in these procedures are nothing more than a sort of medical pathology, where certain things are just considered "true" and never questioned even though the original basis for accepting them as truth has been proven entirely false.

In the vast majority of cases, you will be healthier and wiser by ignoring the advice of your doctor or dentist and seeking out a naturopathic doctor or other healer. In fact, it's very important to avoid allowing a doctor or dentist to even hit you with a scare story or other manipulation tactic, because most people will just go right along with their advice even when it makes no sense. People don't question medical authorities as much as they should. And dentists know it. They know that most patients will just go ahead and agree to practically anything they recommend. That makes a situation where fraud and exploitation of patients is frighteningly easy to accomplish. Any dentist that wants to generate more revenues for their office can simply start recommending an expensive surgical procedure as "standard practice" and claim, "we always take those teeth out." It might be complete hogwash, but most people -- absurdly -- will buy into it. Don't let that person be you. Keep your dentist honest. Better yet, seek out a "natural" dentist who won't use mercury fillings or highly toxic fluoride, and who will turn to surgery as a last resort rather than a "standard procedure." Don't be tricked into unnecessary (and medically dangerous) surgical procedures that can only cause you harm.

With this attitude, I'm happy to say that I now have eight more teeth than most other people -- those are eight wisdom teeth that many dentists try to remove from the mouths of everyone else. Yes, I feel wiser for keeping them. And no, they don't cause me any problems at all. Go figure.

By the way, I found another dentist who agreed to remove my mercury fillings, but only after calling me a fool for my "outrageous" belief that mercury was somehow dangerous. (Are these dentists for real?) That's what it takes to be a modern dentist: you have to be a complete idiot who has no concept of neurotoxicity, no ethics, and no hesitation twisting the arms of patients into undergoing dangerous procedures. I know this doesn't characterize all dentists, but it sure does describe the vast majority of them.

## **Xylitol [a sugar in fruit] blocks the ability of viruses to adhere themselves to cells in the nose. Also prevents adherence of bacteria to teeth. One can now buy Xylitol nose sprays for prevention of common cold, and Xylitol mouth rinses for prevention of teeth cavities.**

"...the exposure of both cells and bacteria to xylitol reduced the adherence significantly."

"The antiadhesive mechanism remains a matter for speculation, but blocking of bacterial lectins is possible.

**T.Kontiokaria, et al**

**Antiadhesive effects of xylitol on otopathogenic bacteria... See More**

**Journal of Antimicrobial Chemotherapy....Volume 41...1998...page 563-565**

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"Xylitol-containing gummy bear snacks given to young children may prevent plaque, say researchers in an article published July 25 in BMC Oral Health."

"Researchers at the University of Washington, Seattle, examined the effectiveness of xylitol received via a different delivery method: gummy bear snacks."

"They randomly assigned 154 children in first through fifth grade at two elementary schools in rural Washington state to three groups. Children received gummy bears with xylitol concentrations of 15.6 grams per day or 11.7 g per day or maltitol concentrations of 44.7 g per day. The children were given four gummy bears three times a day during school hours."

"Researchers found reductions in plaque levels for the higher-dose xylitol group...."

"For xylitol to be successfully used in oral health promotion programs among primary-school children, an effective means of delivering xylitol must be identified," said Dr. Ly. "Gummy bears would seem to be more ideal than chewing gum."

**Compiled by Amy E. Lund, senior editor.**

[jada.ada.org/cgi/content/full/139/10/1312](http://jada.ada.org/cgi/content/full/139/10/1312)

**Xylitol Gummy Bears Reduce Plaque In Young Children**

**Journal of The American Dental Association....Volume 139 #10....page 1312**

"To evaluate the effectiveness of xylitol candies on plaque and gingival index scores...."

"Altogether 145 school pupils (105 in the xylitol group and 40 in the control group), with ages ranging from 10 to 27 years (mean age = 14.7 +/- 3.1 years), participated in this 18-month intervention program."

"The school health nurses distributed xylitol candies to the pupils three times during the school day."... See More

"Significant differences were found between the xylitol and the control groups in the reduction of Plaque and Gingival Index."

"Consuming xylitol candies three times during school days seemed to reduce both the Plaque and Gingival Index scores. This school-based delivery system offered a practical way to distribute and use xylitol candies...."

"The regular use of xylitol candies may, therefore, support oral hygiene routines...."

**S.Maddi, et al**

**Effect of xylitol candies on plaque and gingival indices in physically disabled school pupils.**

**The Journal of Clinical Dentistry.....Volume 17 #1....2006.... page 17 - 21**

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"Xylitol...sugar....that occurs naturally in certain fruits and that has been widely used as a sweetener...."

"We have previously shown that xylitol at concentrations of 1 and 5% in the growth medium inhibits the growth of pneumococci (*Streptococcus pneumoniae*) and that it also reduces the level of adherence of the otopathogens *S. pneumoniae* and *Haemophilus influenzae* to nasopharyngeal epithelial cells [cells in the nose]."

"The mechanism of action of xylitol on the inhibition of growth of pneumococci may resemble that previously demonstrated for the xylitol-induced inhibition of growth of mutans group streptococci (*Streptococcus mutans*)."

"The addition of 5% xylitol to the growth medium resulted in marked growth inhibition...."

"...it seems that xylitol is the only commercially used sugar substitute proven to have an antimicrobial effect...."

"In media containing xylitol the bacteria never achieved the highest point of logarithmic growth...."

"We were able to confirm our earlier finding that xylitol causes marked inhibition of pneumococcal growth."

"Xylitol is then metabolized to xylitol-5-phosphate, which mutans group streptococci cannot utilize further and which may even be toxic to bacteria. It must therefore be expelled from the cell. This futile xylitol cycle consumes energy and results in growth inhibition."

**T. Tapiainen, et al**

**Effect of Xylitol on Growth of Streptococcus pneumoniae in the Presence of Fructose and Sorbitol**

**Antimicrobial Agents and Chemotherapy.....Volume 45 #1....January 2001....page 166-169**

## So called "performance enhancing drugs" are prescription drugs.

### Some examples of the effectiveness of prescription drugs in sport.....

"The drug erythropoietin, often called EPO.....a new systemic review of existing research reveals that there is no scientific evidence that it does enhance performance, but there is evidence that using it in sport could place a user's health and life at risk."  
EPO [erythropoietin] doping in elite cycling: No evidence of benefit, but risk of harm  
Science Daily.....December 5, 2012.

"....there is no scientific basis from which to conclude that rHuEPO has performance-enhancing properties in elite cyclists. ""The use of rHuEPO in cycling is rife but scientifically unsupported by evidence, and its use in sports is medical malpractice."  
J.A.Heuberger, et al  
Erythropoietin doping in cycling: lack of evidence for efficacy and a negative risk-benefit.  
British Journal Of Clinical Pharmacology.....Volume 75 #6....June 2013...page 1406

"The over-exaggeration of the effects of growth hormone in muscle building is effectively promoting its abuse...."  
"....there is the question of disinformation on rhGH....Part of this problem may, paradoxically, derive from the anti-doping authorities themselves. By ignoring the evidence the rhGH does not work in normal healthy subjects, the athletic establishment could be accused of effectively promoting its use."  
"We must tell athletes the truth: growth hormone does not 'work' or at least not as they think it does and that its is associated with all kinds of immediate and long term hazards----everything from decreased performance to cancer."  
"....none of us scientists, doctors, coaches, or sports bodies should continue to suggest that this dangerous doping practice works."  
M.J. Rennie  
British Journal Of Sports Medicine.....Volume 37 #2....April 2003...pages 100-103

"**Testosterone prohormones** such as androstenedione, androstanediol, and dehydroepiandrosterone (DHEA) have been heavily marketed as testosterone-enhancing and muscle-building nutritional supplements for the past decade."  
"Contrary to marketing claims, research to date indicates that the use of prohormone nutritional supplements (DHEA, androstenedione, androstanediol, and other steroid hormone supplements) does not produce either anabolic or ergogenic effects in men. Moreover, the use of prohormone nutritional supplements may raise the risk for negative health consequences."  
G.A.Brown, et al  
Testosterone Prohormone Supplements.  
Medicine & Science in Sports & Exercise.....Volume 38 #8....August 2006.....pg 1367-1537

## So called "performance enhancing drugs" are prescription drugs.

### Some examples of the effectiveness of prescription drugs in American medicine & health care.....

"Most drugs are only effective for a small percentage of people who take them."  
Michael Leavitt [U.S. Secretary of Health & Human Services 2005 - 2009]

".....the benefits that US health care currently deliver may not outweigh the aggregate health harm it imparts."  
Journal Of The American Medical Association.....Volume 302 #1..July 1, 2009...page 89 - 91

"It is estimated that more than 700,000 individuals are seen in hospital emergency departments for adverse drug events each year in the United States."  
[Centers For Disease Control....2015]

"106,000 deaths/year from non-error, adverse effects of medications"  
B. Starfield  
Is US Health Really the Best in the World  
Journal of The American Medical Association.....Volume 284 #4....July 26, 2000....page 483 - 485

".....1.5 million U.S. residents are harmed or killed each year because of medication errors, according to an Institute of Medicine report."  
Nature Medicine.....Volume 12 #9....September 2006.....pg 984 - 985....News In Brief

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