

The Normalization of Risky Behaviors

As a subscriber, you're undoubtedly aware that, in addition to searching the planet for the latest natural cures, I'm also analyzing various changes in the world that impact our health and longevity. Whenever possible, I'd much rather help you



Dr. David Williams

(and myself) prevent a disease or problem in the first place rather than figure out a way to cure it later, after the damage has been done. As such, I often get asked the question, "What is the biggest threat to our health right now?"

Off the cuff, you might think the answer would be renegade pathogens like Ebola, antibiotic-resistant

bacteria, widespread pollution, the controversial issue of global warming, or whatever happens to be front-page news or highlighted by the Centers for Disease Control. Although these may be legitimate risks, they are areas over which we have very little personal control. As individuals, it's hard for us to prevent these threats—we can only react to them.

For that reason, right now I think that one of the biggest overall perils to you and your loved ones' health is accepting the normalization of unhealthy behavior. Below are a couple of areas where society has now normalized harmful behavior and will pay the price for decades to come.

Explosion of Drug Use

The United States has the highest level of illegal drug use in the world. Strangely, when you look at the research, this isn't simply related to federal or state policies and/or the strictness of the laws.

For example, a 2008 study looked at both legal and illegal drug usage in 17 major countries. It found that Americans were four times more likely to use cocaine in their lifetime than the next closest country, New Zealand (16 percent vs. 4 percent). The US also had the highest rate of marijuana use

at 42.4 percent, compared to 41.9 percent in New Zealand.

And we're not at the top of the list because our laws aren't strict enough. We have higher minimum drinking ages and punitive policies for illegal drugs than most other countries. In the Netherlands, which has some of the most liberal drug laws in the world, only 1.9 and 19.8 percent of the population reportedly uses cocaine and marijuana, respectively.

Even with legal drugs like tobacco, we were at the top with 74 percent having used it during their lifetime, followed by Lebanon (67 percent) and Mexico (66 percent).

In 2012, it was estimated that almost 10 percent of the population had used an illicit drug or abused a psychotherapeutic medication in the past month. Our society utilizes more prescription and over-the-counter drugs than any other society. We consume 80 percent of the world's opioid pain medications and 99 percent of the world's hydrocodone. Prescription medication abuse is second to marijuana in terms of frequency of use.

As you can see, we've normalized the use of drugs, and it's not going to change anytime soon since they're getting

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You will observe with concern how long a useful truth may be known, and exist, before it is generally received and practiced on.

— BENJAMIN FRANKLIN

easier to obtain in this country. Pharmaceutical companies spend billions in advertising, which has sped up the process. What was once taboo and even illegal is now becoming acceptable. Tolerance leads to normalization, which eventually leads to legalization.

Technology is also playing a key role. For instance, the use of e-cigarettes (vaping) has become an acceptable way to discreetly boost nicotine levels in private or public without offending anyone. Vaping apparatus can also deliver the active components of marijuana in public without the telltale smell.

It's only a matter of time before extracts of harder, more addictive drugs are marketed for vaping... potentially dangerous substances that can be consumed openly and undetected in public.

The only distinction between legal and illegal drugs is the premise (or guise) that a legal drug is meant to treat disease. But drugs are drugs. And while some can definitely be lifesaving and necessary, all drugs come with side effects due to the simple fact that they work by altering body chemistry.

Regardless of what the public has been led to believe, the distinction of being legal or approved doesn't make them any less dangerous. In

fact, some of the riskiest and deadliest drugs are legal.

Prescription pain meds actually kill more people than the top two illegal drugs—cocaine and heroin—combined. In 2012, there were over 40,000 reported cases of drug overdoses from either over-the-counter or prescription drugs, and 80 percent of those were unintentional. Legal drugs were the leading cause of injury-related mortalities and caused more deaths in 2012 than motor vehicle crashes.

In 2011, there were approximately 5 million visits to emergency rooms related to drugs, and roughly half involved adverse reactions to properly taken prescription, over-the-counter, or other types of pharmaceuticals.

Our kids now ask for cold, flu, headache, pain, and other medicinal remedies by name. Our society has falsely been lured into believing that, from cradle to grave, drugs are the answer to everything that ails us. Our actions have gradually normalized drug use and, over time, behavior becomes habit.

Rampant Obesity

More than 70 percent of our population is overweight, with at least one-third of those people considered obese.

The problem is so ubiquitous that Humanetics, a company that

specializes in developing crash test dummies, is updating their models to reflect the growth in obesity rates in the US. For the last several decades, they have been producing dummies modeled in the 1980s that weighed 170 pounds. While the new dummies are only slightly taller, one of the new prototypes weighs in at 273 pounds with a body mass index of 35. (Anyone with a body mass index of 30 or more is considered obese.)

The extra weight definitely isn't muscle. Humanetics stated, "The dummy is a little taller because the population is now taller—but to be frank, it's all in the butt, thighs, and midsection because that's where the weight gain has occurred."

Statistics, by the way, show that obese individuals are 78 percent more likely to die in a car crash compared to those within their ideal weight range. Current airbags and seatbelts are not designed to safely protect obese people.

We've seen similar changes taking place in the airline industry and with display mannequins, clothes sizing, etc. Rather than seriously addressing obesity by changing our diet and exercising more, we've just accepted the problem.

In the process, we've also normalized the rise in heart disease, high blood pressure, heart attack, stroke, diabetes, cancer, bone fractures,

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dementia, Alzheimer's, hip and knee replacements, back surgeries, and several other health concerns.

The Bigger Picture

These are just two examples... I could give dozens more. This normalization of risky habits and behaviors happens every day. Although it's blatantly obvious (to me at least), as a society we're failing to correct it.

If you were anything like the general public, this would all go

unnoticed. You would view these diseases as part of life and place your full faith and confidence in the medical system.

You'd also be oblivious to the fact that prevention is no longer stressed and that no one even talks about curing a disease anymore unless it's an immediate threat to your life.

Our concept of health has changed. Disease has become an expected consequence of life. The

new paradigm has shifted from curing disease to "managing" it.

That's not the way I want to live. And the very fact that you subscribe to *Alternatives* tells me you're a kindred spirit in this regard. I ask you to continue to step back every once in a while and look at the bigger picture. See what the rest of society considers normal. Most of the time, it will be clear that embracing the norm can be a serious hazard to your health and well-being. ■

The Terrain Is Everything

The "germ theory" of disease is one of the most basic foundations of modern medicine. Based on the work of Louis Pasteur, who linked the presence of pathogens to disease, this theory has predominated the profession since the early/mid 1800s. Others such as John Snow, William Ostler, Robert Koch, and Joseph Lister championed the use of sanitation in food and water supplies, hospital settings, and waste disposal. Their observations and discoveries and the implementation of those concepts were truly monumental and instrumental in saving millions of lives by stopping the spread of infectious diseases.

The discovery of penicillin and other antimicrobials have been a godsend to mankind as well. The link between pathogens and disease is undisputed on a microscopic level. No one questions the fact that disease and destruction can result when pathogens overwhelm the body's natural defenses.

The germ theory was hard to accept in Pasteur's day. Without the widespread use of microscopes,

it was hard to comprehend that "invisible bugs" in the air, water, and food somehow invaded the body and could cause disease and death. It's still difficult for many in mainstream medicine to accept that the body's terrain often needs to be addressed instead of just the pathogen.

It has been reported that, on his deathbed, Pasteur stated: "Bernard is right. The pathogen is nothing. The terrain is everything."

He was referring to the work of Claude Bernard, the French physiologist who believed that the focus of conquering disease should be not on pathogens themselves, but instead on the body's internal environment, which allows these harmful bugs to flourish. Bernard felt that bacteria and viruses could only thrive in an acidic environment; by keeping the body in an alkaline state, infectious diseases could be prevented.

Both of these concepts are valid. If you have an open, infected wound or massive bacterial infection, penicillin can save your life. If, on the other hand, you suffer from

chronic inflammation due to an imbalance in bacterial flora, wiping out all the bacteria in your system with antibiotics isn't the solution.

The idea that the body's internal environment is one of the most (if not the most) important factors in the prevention of disease is still not widely accepted among mainstream medicine. In fact, for the most part it is still regarded as unscientific and immaterial. But the idea that the only good microbe is a dead one is no longer valid, either.

Although it's an area that I (and others in the field of natural health) have studied and promoted for decades, mainstream medicine and the pharmaceutical industry continue to try to discredit the idea. Finally, as more research on the microflora of the body becomes available, it's a truth that no one will be able to overlook or disparage.

Obesity, Cancer, and Other Health Concerns

In the previous article, I talked about rampant drug use and the obesity epidemic in this country.

They are not independent of each other. In past issues, I've explained how the use of antibiotics can increase body fat and weight. Those who raise livestock have known this for years and have been adding antibiotics to animal feed to fatten up their animals. Now we have antibiotic residue in our milk, meat, and water supplies, and the average child in this country goes through three courses of antibiotics by age 2. By age 10, they average 11 courses.

Obesity is just the tip of the iceberg. The most dreaded disease on the planet, cancer, is linked to an imbalance of intestinal microflora. Colorectal cancer, the third most common form and the second leading cause of cancer deaths in the US, provides the strongest evidence so far.

When compared to those without the disease, individuals with colorectal cancer have a higher number of the bacterial groups *Enterococcus*, *Fusobacterium nucleatum* and *Streptococcus*, and less *Lachnospiraceae*.

Surprisingly, *none* of these microbes are infectious pathogens that invade the body and cause disease. So the germ theory doesn't

apply here, but the internal environment of the body still plays a major role.

The bacteria in our body are living organisms. Each species produces different amounts and varieties of compounds, which can be anything from metabolites, vitamins, hormones, and neurotransmitters to noxious gases, toxins, and free radicals.

For example, the beneficial species of bacteria such as *Lachnospiraceae* create as much as 10 percent of our energy through the fermentation of carbohydrates into fatty acids. These fatty acids fuel the cells of the intestines and protect them from harm. The other types of bacteria mentioned above, through a cascade of events, trigger DNA breakage, instability in the cells forming intestinal walls, inflammation, and tumor growth.

Administering antibiotics to “nuke” the intestinal tract clear of bacteria isn't the answer. In fact, it can actually make problems worse.

Antibiotics are commonly given during chemotherapy and radiation to prevent bacterial infections. New studies, however, have shown that when these antibiotics

indiscriminately destroy bacteria in the gut, certain chemotherapy drugs become less effective at fighting cancer. In simple terms, antibiotics can negatively impact the success of chemotherapy.

It appears that certain drugs rely on the formation of the free radicals by our intestinal bacteria to work effectively. When the free radicals aren't produced, efficacy decreases. (*Science* 13 Nov 22;342(6161):967–70) (*Science* 2013 Nov 22;342(6161):971–6)

An interesting statement made by one of the study's coauthors, Giorgio Trinchieri, should be prominently displayed on each and every antibiotic container: “It has been demonstrated, and our present study has confirmed, that after antibiotic treatment, the bacterial composition in the gut never returns to its initial composition. Thus, our findings raise the possibility that the frequent use of antibiotics during a patient's lifetime—or to treat infections related to cancer and its effects—may affect the success of anticancer therapy.”

Again, it's important to keep in mind that, under normal circumstances where these various microbes live together in the right ratios, they don't cause problems.

By now I'm sure you understand how to keep the proper balance of bacterial flora in your gut: by consuming naturally fermented, live food on a regular basis and taking a high-quality probiotic every single day of your life. Remember, as Pasteur said, “The terrain is everything.” Maintaining a proper and balanced internal environment is the key to health. ■

Lister's Claim to Modern-Day Fame

The mouthwash Listerine was named after Joseph Lister, the “father of modern antiseptics.” In 1865, he performed the first ever antiseptic surgery.

Advertisers for Listerine initially introduced the term halitosis around 1920 to describe bad breath. Until that time, bad breath wasn't a recognized problem, but advertising agents began to focus their efforts on either identifying or inventing personal anxieties that could be remedied by purchasing a specific product.

This is one advertising concept that has been refined almost to perfection by the pharmaceutical industry, which has become the undisputed master at identifying, relabeling, and commercializing practically every health condition.

The Truth About Nitrates and Nitrites

Not only do I strongly encourage the daily use of a gastrointestinal probiotic, I also believe that maintaining the proper flora in the mouth and upper respiratory tract is critical to good health.

Personally, I have experienced a dramatic improvement in my gum health since balancing my oral flora. Additionally, colds and flu seem to be a thing of the past.

Research has confirmed that numerous conditions such as dental caries (cavities), periodontal disease, *Candida*, halitosis (bad breath), and chronic sinus infections can often be resolved or significantly improved by maintaining bacterial balance in the oral cavity. (*Eur J Dent* 10 Jul;4(3):348–55) (*Natl J Maxillofac Surg* 11 Jan;2(1):6–9) (*Curr Pharm Des* 12;18(34):5522–31)

The bacteria in your oral cavity do far more than protect your teeth, gums, throat, and sinuses from pathogenic bacteria. And I'm sure it's probably pretty evident how all of the conditions I mentioned above could benefit from an oral probiotic. But some of the additional advantages aren't so obvious.

For several years, we have been advised to cut the consumption of “cancer-causing” nitrates and nitrites used to preserve and cure various foods. Most people (and doctors) still feel these warnings are valid. They aren't. Just like the erroneous warnings we had in the past about eggs, cholesterol, and saturated fat, words of caution

about nitrates and nitrites are totally unfounded.

Nitrates, Nitrites, and Oral Bacteria

Before going any further, let me explain what nitrates and nitrites have to do with oral bacteria.

Food is loaded with nitrates. And I'm not talking about processed meats (hotdogs, bacon, etc.), which have always received the brunt of the criticism. I'm talking about raw, healthy vegetables. To give you a quick comparison, to get the same amount of nitrates found in one serving of arugula or four servings of celery or beets, you'd have to eat 467 hotdogs. Arugula contains 4,677 parts per million (ppm) of nitrates, celery 1,103 ppm, beets 1,279 ppm—and hotdogs and processed meats 10 ppm. (*EFSA doi:10.2903/j.efsa.2008.689*)

As soon as nitrate-rich vegetables enter your mouth, beneficial bacteria that reside on the surface of your tongue reduce them to nitrites. These nitrites are swallowed and then either reduced to nitric oxide (NO) in the acidic environment of the stomach, or absorbed via the gastrointestinal tract and placed into the circulatory system as nitrites. This describes the nitrate-nitrite-nitric oxide pathway, one of the ways the body produces NO.

The other way the body generates NO involves the oxidation of L-arginine by endothelial cells, which line the interior surface of blood and lymphatic vessels. This process requires oxygen and numerous cofactors, but still follows the nitrate-nitrite-NO pathway.

I've been talking about and taking L-arginine (and the amino acid citrulline, which is converted to L-arginine) for more than 20 years.

NO has many health benefits. It works as a natural method of treating erectile dysfunction, infertility, Raynaud's, pain, hypertension, burns, and cancer, to name a few conditions. Most notably, NO triggers a vasodilatory action. In other words, it opens up blood vessels, increasing blood flow and improving circulation. This vasodilatory effect is one of the primary reasons why diets that emphasize higher vegetable consumption typically result in a decrease in blood pressure levels and better overall health. (*Nitric Oxide* 08 Dec;19(4):333–7) (*Hypertension* 14 Oct;64(4):897–903) (*Free Radic Biol Med* 13 Feb;55:93–100)

You Can't Beat Beets

You may have heard or read about the hoopla surrounding beetroot juice. NFL and college football teams, bodybuilders, endurance athletes, runners, and cyclists are excited about it because it has one of the highest nitrate concentrations of any vegetable. And studies have shown that by enhancing vasodilation, beetroot juice can have some profound performance-enhancing effects.

Beetroot juice has repeatedly been shown to improve “exercise economy.” In simple terms, after ingesting beetroot juice, muscles use less oxygen for the same amount of work that is used without the juice. This means athletes can exercise longer without reaching exhaustion. Some

studies indicate as much as 17 percent longer, which is nothing short of amazing. (*Am J Physiol Regul Integr Comp Physiol* 10 Oct;299(4):R1121–31) (*Acta Physiol (Oxf)* 07 Sep;191(1):59–66) (*J Appl Physiol* 11 Mar;110(3):591–600)

Not Just for Athletes

You don't have to be an athlete to benefit from beetroot juice.

In one study, researchers had subjects consume either 1/2 liter (about 17 ounces) of beetroot juice or a placebo drink for six days. After three days, not only were plasma nitrite levels significantly higher among those drinking the beetroot juice, their systolic blood pressure (the top number) was dramatically lower (8 mmHg). (*J Appl Physiol* 09 Oct;107(4):1144–55)

Even better results were observed in an earlier study. Just three hours after participants drank 1/2 liter of beetroot juice, their systolic blood pressure dropped 10.4 mmHg and diastolic pressure fell 8 mmHg. Plasma nitrite levels doubled and reached a peak at three hours, which correlated with the drops in blood pressure.

This same study showed that beetroot juice can prevent the normal cascading damage that typically occurs when blood supply is totally shut off to an area. The ramifications of this could be huge in preventing the injuries caused by stroke or heart attack. (*Hypertension* 08 Mar;51(3):784–90)

In yet another study, 1/2 liter of beetroot juice was given to patients suffering from peripheral artery disease—a form of cardiovascular disease where arterial

plaques block blood flow to the lower extremities and cause intermittent claudication (severe pain during walking due to poor circulation). Three hours after ingesting the juice, the participants were able to walk 17 percent longer compared to those who did not drink it. Moreover, exercise tolerance increased by 20 percent. (*J Appl Physiol* 11;110(6):1582–91)

Beetroot juice could be extremely valuable to people who suffer from this problem. I would suspect if you combined the juice with the ancient Tibetan monastery formula Padma Basic, the results would be even more phenomenal. (You can buy Padma Basic by calling 800-308-5518 or visiting econugenics.com; refer to *Alternatives* issue Vol. 9 No. 6 for complete details.)

Nitrate Consumption Has Suffered

As I read all the recent research and excitement (although justified) about beetroot juice, I can't help but wonder if, over the last several decades, changes in our diet and habits have actually lowered our levels of nitrates and NO.

Several factors come into question. For one, we've had countless warnings about the potential dangers of nitrates and nitrites. Though totally bogus, lots of people still believe them and intentionally avoid those natural preservatives. Even food manufacturers have changed their formulas to comply with demand.

Remember that our primary source of nitrates is vegetables. On average, 87 percent of the total nitrites we get every day come from

the conversion of nitrates in the vegetables we eat.

But for the general population, vegetable consumption is down (except for French fries, the number-one "vegetable" in the US). More than 51 percent of the vegetables we eat consist of potatoes (French fries and potato chips) and tomatoes (on pizza). French fries contain only 23 percent of the nitrates and 2.49 percent of the nitrites of those found in the raw vegetable. Potato chips aren't any better, with 24 percent of the nitrates and 0.59 percent of the nitrites found in the raw potato. (*Int J Pharm Sci Rev Res* 13;19(1):136–40)

Nitrate and nitrite amounts in tomatoes are also low, sometimes undetectable, in both raw form and in processed products.

It's reasonable to conclude that some of today's most common health complaints (cardiovascular disease, poor circulation, dementia, erectile dysfunction, etc.) are a direct result of the reduction of nitrates in our diet. At the very least, it's a major contributing factor.

Another benefit of nitrites might help explain the widespread problem with digestion. Keep in mind that NO is formed in the stomach acid *after* nitrates are converted to nitrites in the mouth. These nitrite compounds are necessary in raising the pH levels in the stomach to a point that the environment becomes bactericidal against food-borne pathogens. Without adequate nitrites, you can suffer from poor digestion, stomach infections, and food poisoning.

Even if you are getting adequate amounts of nitrates, they have

to be converted to nitrites by the bacteria in your mouth, which are essential to the production of NO in the body.

One study evaluated the effect of spitting out saliva during and after beetroot juice consumption on blood pressure and plasma nitrite concentration. The spitting disrupted the entire pathway and prevented nitrite-rich saliva from reaching the stomach. This resulted in no reduction in platelet stickiness (aggregation), no rise in plasma nitrite levels, and no decrease in blood pressure. (*Hypertension* 08 Mar;51(3):784–90)

Get the Most Benefit from Beets

If you have a juicer, making beetroot juice is easy and far less expensive than the prepackaged products starting to hit the market.

Most of the studies I've cited used 1/2 liter of fresh beetroot juice a day. There are commercial concentrated products like Beet It, which had also been used in numerous studies. However, the cost of drinking a commercial concentrate jumps considerably when compared to juicing your own beets, using beetroot powder, or simply including more vegetables in your diet.

There's no perfect formula for determining the exact dosage required to improve athletic performance, lower blood pressure, and achieve the other health benefits. In the studies I mentioned, however, the beetroot juice or concentrates contained 300–500 mg of nitrates. Those levels should be fairly easy to obtain through a variety of methods. Interestingly, no evidence exists that doses higher

than that would provide any extra value. In other words, ingesting more isn't necessarily better.

Below you'll see some estimates of the nitrate content of various vegetables and foods. Amounts can vary depending on the soil conditions in which they grew, storage, transport, and other factors:

- **Two cups of fresh beetroot juice contain around 400 mg of nitrates. This amount has been shown to lower blood pressure by about 10 points, which is more efficacious than many prescription drugs. In one study, blood pressure dropped one hour following consumption, reached its lowest point two-and-a-half to three hours after ingestion, and continued to be effective for 24 hours.** (*Hypertension* 08 Mar;51(3):617–9)
- **One teaspoon (about 1/3 of an ounce or 10 grams) of beetroot powder normally equates to one beet. Two teaspoons provide 300–500 mg of nitrates.**
- **1 cup of raw spinach contains about 900 mg of nitrates; 1/2 cup of cooked collard greens approximately 200 mg; and 1/2 cup of vegetable juice about 40 mg.**

Don't make the mistake of sidestepping vegetables altogether and taking a nitrite supplement. Nitrite salts are available online and athletes have used them to enhance performance, but the results can be dangerous and life threatening. (*J Appl Physiol* 11 Aug;111(2):616–7)

Consuming beetroot juice, powder, and/or other vegetables rich in nitrates, on the other hand, is totally safe. The only "side effect" you might experience is pink or slightly colored stools. When you consume nitrates, for example from vegetables, only a minor part of the nitrate is converted to nitrite. And,

thanks to essential bacteria in the mouth, the conversion occurs in a slow, controlled manner.

I've been experimenting on myself (which seems to be a never-ending theme) with various products to see how they affect my health and performance. I'll share my personal experiences in future issues, and I would definitely be interested in hearing yours as well.

The Best Environment for NO Production

While researchers are finally becoming more open-minded about the need for nourishing beneficial bacteria in gut, the oral cavity seems to be a totally different matter and is often overlooked.

Still operating under the premise that "the only good bacterium is a dead bacterium," toothpastes, mouthwashes, breath sprays, and even some mints contain antibacterial compounds. If you read the labels on these products, some of the antibacterials you'll find include triclosan, chlorhexidine, and zinc chloride. Although they wipe out odor-causing bacteria and provide "24-hour protection" from halitosis, they may also be reducing your ability to produce lifesaving NO. (*Dent Res J* 11 Spring;8(2):85–94)

Guess what happens when a disruption or decrease in the number of beneficial bacteria occurs in your mouth?

This past October, researchers found that gargling with a mouthwash that destroys the bacteria in your mouth also happens to increase blood pressure. Fifteen men and women (average age 65) undergoing treatment for high

blood pressure were recruited for this study.

During three days of using the antibacterial mouthwash, their nitrate to nitrite conversion, nitrite and nitrate plasma levels, and blood pressure were compared to a separate period of time when they used a water wash. After just three days, the conversion of nitrates to nitrites dropped considerably and their systolic blood pressure rose 2.3 mmHg. (Diastolic remained unchanged.) If you have hypertension, it might be time to ditch the antimicrobial mouthwash. (*Am J Hypertens* 14 Oct 30. pii: hpu192. [Epub ahead of print])

Not surprisingly, several other studies have found that people with high blood pressure tend to have lower levels of nitrates and nitrites.

NO's ability to safely boost blood flow is so profound that some doctors now recommend infusing critical patients with nitrite. Nitrite infusions can safely and effectively increase blood flow by 175 percent. This practice could be a lifesaver for many by quickly getting blood to regions of the body with low oxygen, such as the kidneys, heart, brain, and muscles.

Don't Believe the Negative Hype

Despite what you've been led to believe, no studies indicate that nitrites or nitrates cause cancer.

The original scare started in the 1970s and was based on a since-discredited report involving 13 rats with lymphatic cancer. Since then, dozens of studies have found

no association between nitrates, cancer, and human mortality.

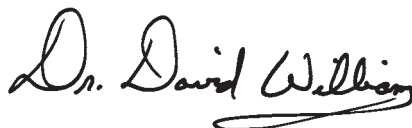
If anything, scientific data has confirmed that nitrates and nitrites benefit rather than endanger health. If they were harmful, we would have to stop eating vegetables and swallowing our own spit, which accounts for 70–97 percent of our total nitrite and nitrate exposure.

Nitrates and nitrites from any dietary source don't accumulate in the body. We need to replenish them. Furthermore, don't be afraid of the nitrate or nitrite content of processed meats. The amount is trivial and actually beneficial. The sodium nitrite or nitrate in cured meat is exactly the same compound naturally found in sea salt, celery, beets, and other vegetables.

Circling back to oral probiotics, I consider them essential for practically everyone. Research indicates that cavity-causing bacteria can't live in a high-nitrite environment. The widespread use of oral probiotics, especially among children, would probably put a lot of pediatric dentists out of business.

And for adults, along with providing all of the benefits I've just covered, oral probiotics routinely improve gum health, reduce the buildup of plaque and tartar, and help extend the time between cleanings. They are not a substitute for brushing, flossing, and other dental hygiene, but do provide another layer of protection for optimum oral (and overall) health.

I hope you had a wonderful holiday. Here's to a healthy New Year!



This Month Online



Visit my website at drdavidwilliams.com, where you'll find information and recommendations for many of your top health conditions, including:

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