Dr. David Williams

For the Health Conscious Individual

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Alternatives

The Digestive Magic of Food Combining

f you're in your 60s or beyond, it may not come as any big surprise to you that the incidence of digestive problems increases dramatically with age. While the causes for this are numerous, it's not a new problem that all of a sudden cropped



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up in the last few decades. However, it has gotten worse over the years—and the drug companies are capitalizing on it.

The market

for prescription and over-thecounter digestive medicines is skyrocketing worldwide. But it's not because new miracle cures are being discovered. People are just desperate for relief, even if

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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

it's only temporary. If this is all too familiar to you, read on... because once you understand a little more about how your digestive system is supposed to work, you'll see (and experience) how to effectively eliminate problems by dealing with the cause instead of treating symptoms.

## **Lifestyle-Based Causes**

Tooth loss is one of the primary problems leading to upper digestive issues. Misalignment, infection, and missing teeth all affect proper chewing and the initial breakdown of food, which is the beginning of the digestive process.

If you've ever had a toothache, you know how difficult it can be to eat properly. I've discussed dental health many times so I won't belabor that aspect here, and, really, it is only the tip of the iceberg. Additional factors include a reduction in gut motility, a decrease in taste sensation, changes in the cardiovascular and neurological systems, enzyme deficiencies, changes in our food supply (more gluten-containing and processed items than ever before), and a disruption in beneficial gut flora.

I'm continually stressing the importance of reestablishing beneficial bacteria in the gut through the consumption of fermented foods and probiotic supplements. Additionally, many people need stomach acid and digestive enzymes, especially since, by age 70, most individuals only produce 15 percent of the hydrochloric acid and 50 percent of the digestive enzymes that they did at age 20.

Another often overlooked cause is the taste-altering effects of certain medications. Numerous drugs alter taste, smell, and salivation and lead patients to change their cooking and eating habits and fluid intake. Altered taste/ smell can cause you to consume fewer calories or increase your sugar and/or salt intake, resulting in nutritional deficiencies, high blood pressure, incontinence, and weight gain or loss. Antibiotics, antihistamines, antifungals, antiinflammatories, antivirals, muscle relaxants, and medications used to treat hypertension, migraines, thyroid, depression, and neurological diseases are just a short list of drugs that alter taste and smell. (Can Fam Physician 2010 Nov;56(11):1142-7)

Most of the above factors are things we have some discretion and/or control over. However, we

don't have as much control over how aging can affect our digestion.

## **Age-Related Causes**

As we age, most of our senses begin to dull. (I never thought this would include "common sense," but with what's happening in the world today, I no longer believe that to be true.)

Our sensory receptors require a certain amount of stimulation for us to be aware of a sensation. The minimum amount of stimulation required is called the threshold. Aging raises this threshold.

Hearing and vision are usually the most affected, and we can compensate with glasses and hearing aids. Compensating for other sensory loss isn't always so easy.

Poor circulation plays a role with cardiovascular disease, the leading cause of death. Most people over the age of 40 have some degree of impaired circulation. Decreased blood flow to the nerve endings, spinal cord, and brain affect sensations such as taste and smell. It also impairs gut mobility and the production of digestive enzymes and insulin.

In addition, the number of taste buds decreases with age. By age 60, most people have lost approximately half of their taste buds. Taste buds also begin to shrink and flatten. Moreover, the mouth produces less protective saliva, and oral bacteria often become imbalanced. Exposure to pollutants and toxins also take a toll. It should come as no surprise that this has been demonstrated extensively in smokers, as smoking can kill taste buds indefinitely. (*Chemosens Percept 2014 Jun;7(2):47–55*)

While we might not be able to stop the aging process and the gradual deterioration that accompanies it, there are some very effective methods to help compensate for these changes.

When you have a better understanding of what's happening in the digestive process, you'll see why these techniques work. And if you're lucky enough to not yet suffer from digestive problems, I suggest you hold on to this issue in the event that changes in the future.

## **Food Combining**

Most medical training these days focuses on the proper use of drugs. While this couldn't make the pharmaceutical companies any happier, there are more than a few health pioneers and early researchers probably turning over in their graves out of frustration. Natural solutions for many of the most common digestive issues today were discovered many decades ago but have largely been ignored by modern medicine.

In the 1930s, very astute researchers were able to show that the *combinations* of our meal selections had a stronger influence on our digestion than what we eat.

In this early study, researchers tested stomach acid levels after participants ate a protein meal, a starch meal, and a combination meal of protein and starch. Not surprisingly, stomach acid levels were highest with the protein meal and lowest with the starch meal. However, with the combination protein/starch meal, stomach acid levels were reduced by 1/3 and alkaline secretions coming from the pancreas doubled. In a nutshell, combining starches and proteins caused the digestion of both to suffer. (Am J Dig Dis 1936;3(4):235-8)

In younger people, who typically produce larger quantities of digestive acids and enzymes, combining proteins and starches isn't always problematic. It can be quite different, however, for people in their 60s or 70s who produce significantly less stomach acid and alkaline digestive enzymes than they were making in their younger years.

Teenagers and 20-somethings seem to have cast iron stomachs and the digestive capabilities of a wild animal. In Ayurvedic

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Dr. Williams works with Healthy Directions, LLC to develop his unique formulations that supply many of the hard-to-find nutrients he recommends. Dr. Williams is compensated on the sales of these nutritional supplements and health products, which allows him to continue devoting his life to worldwide research and the development of innovative, effective health solutions.

medicine, this is referred to as a strong "digestive fire," and it can be one of the most powerful tools to deal with bad food combinations. Unfortunately, as many of us get older, that fire in the belly begins to fade and what's left of that fire seems to work its way out either end of the digestive tract, creating all kinds of havoc.

The concept of food combinations affecting digestive and overall health isn't a new one. The ancient Ayurvedic healing system from India, as well as Eastern forms of medicine, have understood its importance for thousands of years. Obviously, they didn't describe the idea in terms we commonly use today. For that reason, it is often looked upon as simplistic and invalid.

Food combining has been criticized for being unscientific and popularized at a time when we had only a limited understanding of the digestive system. It's true that an overwhelming amount of research has not been done on food combining. It's also not surprising. Who's going to pay for such research? No one has any financial incentive to spend the money on this area of study. However, most of the initial research that I've been able to find (from the early- to mid-1900s) was done well.

As far as our knowledge of the digestive system, we still don't fully understand it. Just in the last few years have we learned how extremely complex and essential the gut microbiome is to our health. And later I'll talk about some new studies on food combining that have just been released.

It's important to remember that people have experienced major

health changes for centuries thanks to food combining diets. Is that something we ignore simply because we don't understand how it works or because ancient healers described it in unscientific terms?

Until just recently, we saw the exact same dismissal of fermented foods. The people who praised live fermented foods were considered flaky health nuts. Conventional medicine countered that fermented foods had no influence on our health and were only necessary because our ancestors weren't technologically advanced enough to have refrigeration. But now, restoring the natural microflora of the body is being heralded as one of the greatest medical discoveries of the 21st century.

Food combining is not a cure-all, it's not the answer to all disease, and oftentimes, the explanation of how it works hasn't been totally in line with known physiological principles. But it still has a place and can be a godsend for those suffering from serious digestive concerns.

### **How It Works**

Some of today's top researchers in digestion have just discovered (actually, rediscovered) how food combining can make a huge impact on blood sugar levels and other aspects of our health. (They wouldn't dare call it food combining, though. They refer to it as "food order" or "food timing.")

To really understand the basis and underlying benefits that many people experience from proper food combining, it's necessary to look at the extreme dichotomy of the acid and alkaline processes involved with digestion.

For discussion purposes, digestion can be broken down into two primary areas that have to do with pH—a scale that measures the acidity or alkalinity of a solution. The scale goes from 0 to 14. A neutral substance has a pH of 7. Water is considered neutral. Anything below 7 is acidic and anything above 7 is alkaline.

The corrosiveness of acid is universally understood, but highly alkaline substances can be just as corrosive. Common acidic corrosive products include toilet bowl cleaners, automotive batteries, gun-cleaning fluids, and swimming pool cleaning agents. Common alkaline corrosive compounds include drain cleaners, dishwasher detergents, swimming pool algaecides (shock agents), ammonia, oven cleaner, and chlorine bleach.

Part of our digestive system, starting in our stomach, is acidic. The next part, beginning in our small intestine, is just the opposite—alkaline. It's amazing that the two areas can coexist, but both are essential for the breakdown and digestion of various types of food and nutrients.

Acid is required to break down meats, bone, and cartilage, and in the assimilation of minerals. Alkaline compounds are needed to break down fats and buffer the acidic contents coming from the stomach so that the pH environment is ideal for processing starches and sugars.

In short, the digestion of protein (meat, fish, poultry, cheese, eggs, etc.) and assimilation of minerals requires acid. The stomach

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contents are always acidic, with a pH of 1.5 to 3.5. It has to be this way to properly do its job. Proteins are principally digested in the stomach by hydrochloric acid and pepsin. The digestion of carbohydrates (sugars and starches) requires alkaline compounds.

Carbohydrates are not digested in the stomach but primarily in the small intestine by pancreatic secretions, which are alkaline. Pancreatic solutions range in pH from about 8 to 9, which is close to that of baking soda.

Fats pass through the stomach pretty much intact. The digestion of fat takes place completely in the small intestine. When fats enter the small intestine from the stomach, they trigger the release of bile from the gallbladder. Bile does a couple of things. First, since it is slightly alkaline, it helps neutralize

# Can't "Beet" the Importance of Bile

I can't overstress the importance of bile. The gallbladder is basically a little sack that stores and concentrates excess bile coming from the liver. It releases it at a later time when needed. Thanks to advancing age, many people these days suffer from a sluggish gallbladder. With age, we often see decreased gallbladder contraction. Gallstones impede the flow of bile. A shortage of omega-3 fatty acids also affects bile flow.

Beets and/or beetroot juice will get bile moving again. If you have a juicer, start drinking about half a cup of beetroot juice every day. If you don't have a juicer, add shredded beetroot to your salad every day. If you like pickled beets (I don't), include those in your diet. You can also improve bile flow with lentils (nuts, peas, beans, etc.). Other things that help include cutting sugar from the diet, increasing fiber, taking vitamin C, and drinking a glass of wine and/or a cup of coffee daily (both have been shown to improve bile flow and reduce the risk of gallstones).

Problems can develop when a patient has their gallbladder removed but doesn't start supplementing with bile salts. This can lead to poor fat digestion, flatulence, abdominal pain, metabolic toxicity, fat-soluble vitamin deficiencies, cardiovascular disease, and many other issues.

Doctors routinely tell patients they can live without their gallbladder. That's true, but it's important to keep in mind that, without a gallbladder, you don't have a reserve of bile. There's not always extra bile to digest fatsoluble vitamins and essential fatty acids. That's why supplementing with bile salts is so important if you don't have a gallbladder.

Most doctors also seem to have forgotten that bile salts can actually dissolve cholesterol-based gallstones. The process isn't quick if the stones are large, but it works. It should be a no-brainer that if gallstones can be removed nonsurgically by taking bile salts, they can be prevented the same way.

Standard Process Laboratories makes a beet-based product called A-F Betafood that can also be used to help thin bile and get it moving again. Typically, three tablets should be taken with each meal for about a month. They also make an excellent bile salt product called Cholacol. I recommend taking two tablets immediately *before* each meal. Standard Process usually sells their products through doctors, but you can find them for sale online. the acids that have passed through from the stomach. Second, it works much like soap in that it breaks down or emulsifies fat globules into smaller particles so they can be more easily absorbed.

## **Making the Case**

A lot of people may disagree with the concept of food combining since 1) they've eaten carbs and proteins together for their entire lives and they consider themselves to be in generally good health; 2) all foods naturally have a combination of carbohydrates and protein, and our bodies were designed to handle them; and/or 3) they haven't seen much current research to support this idea.

For younger people, or for those who have a strong "digestive fire," eating high protein/high carb meals might not be a problem. However, for many individuals to achieve optimal digestion, it's best not to consume carbs and proteins at the same meal. In fact, a recent nationwide survey shows that 72 percent of the population is living with gastrointestinal discomfort—making it apparent that few of us truly have that strong digestive fire.

As for the second point, obviously, most foods contain a mix of protein, carbohydrates, and fats. And when we eat, the stomach churns these nutrients into the equivalent of a food smoothie. Under ideal situations, our digestive system is designed to handle this mix. But, for a variety of reasons I've mentioned, sometimes it can't.

As far as science that supports food combining, not only do we have the research from our early health pioneers, but some of the latest studies illustrate that the

way we combine our food can have a huge impact on our health.

In a recent study involving six women and five men (average age 54) who were obese and under treatment for type 2 diabetes, researchers aimed to see if the order in which food was consumed had any impact on blood sugar levels. The participants consumed a meal of the same composition on two separate days, one week apart.

With the first meal, the food order was carbohydrate (ciabatta bread and orange juice), followed 15 minutes later by protein (skinless grilled chicken breast) and vegetables (lettuce and tomato salad with low-fat Italian vinaigrette and steamed broccoli with butter). A week later, the food order was reversed. Blood glucose samples were taken just before eating and then 30, 60, and 120 minutes after the start of the meals.

In every single case, when the participants ate their protein, fat, and vegetables first, they experienced up to 37 percent lower blood sugar levels after the meal, compared to when they consumed the carbohydrates first.

When the bread and orange juice were consumed last, blood sugar levels only peaked at 140, which is close to normal following a meal. However, when they consumed the bread and orange juice first, their blood sugar levels spiked at 200 within an hour. This dramatic difference was seen in every single participant. (*Diabetes Care 2015 Jul;38(7):e98–9*) (*Diabet Med 2013 Mar;30(3):370–2*)

Tightly controlling blood sugar levels, which minimizes insulin response, is one of the keys to remaining healthy. One of the primary functions of insulin is to inhibit the breakdown of fat for energy. Insulin's job is to promote the storage of fat. And what makes it worse is that insulin promotes the storage of *visceral* fat (also called belly or abdominal fat, the "spare tire," or "beer belly").

Visceral fat accumulates in the liver, pancreas, kidneys, and intestines. It is distinctly different from other fat in that it actually triggers the release of numerous inflammatory factors that create chronic inflammation.

It also increases the release of estrogen, which stimulates the growth of breast tissue in both women and men. It's no coincidence that women with abdominal fat have a fourfold greater risk of developing breast cancer than those with little to no belly fat. Carrying around a spare tire is akin to having an IV of female hormones and inflammatory substances dripping into your bloodstream 24/7. ("Man boobs" have created a whole new market for breast reduction surgery.)

When you consume pure carbohydrates, they quickly enter the bloodstream as glucose. This triggers a flood of insulin to be released, causing blood glucose levels to plummet. This begins the downward ride on the "blood sugar roller coaster," with symptoms like mood swings, headaches, fatigue, shakiness, and the craving for more sweets. Consuming additional carbohydrates will often stop these symptoms, but it also straps you in for another ride up and down on the roller coaster.

Conversely, when your insulin levels remain lower, you feel less

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hungry and you're better able to control your diet and weight. You lose the cravings for sweets. Glucose is burned as fuel instead of being shuttled out of the bloodstream and transported as triglycerides to be stored as fat. Controlling blood sugar and reducing insulin release not only helps you lose weight, but lets you keep it off as well. That's one of the reasons high-protein/low-carb diets aid in weight loss, and it's one of the reasons more judicious food combinations can help as well.

Other ways to reduce the need for insulin include:

- Green, black, or oolong teas. The compound EGCG (epigallocatechin), found in tea, improves the effectiveness of insulin. In fact, drinking a cup of tea has been shown to enhance the activity of available insulin by 15-fold. Keep in mind, though, if you add milk, cream, soy milk, or even the nondairy creamers (which are garbage anyway), the positive insulin benefits are totally negated.
- Exercise, which helps insulin work more efficiently.
- Vinegar (apple cider, wine, or rice; balsamic won't work). One the most definitive studies done at Arizona State University used Bragg apple cider vinegar, but I've found that practically any apple cider vinegar works. Mixing two tablespoons of apple cider vinegar with water and drinking it before a meal and at bedtime was shown to lower postprandial blood glucose levels as much 25 percent. Vinegar had an effect comparable to that of the popular diabetes medication metformin. Vinegar delays gastric emptying, lowers glucose levels and insulin response, increases satiety, and improves insulin sensitivity. (Eur J Clin Nutr 2005 Sep;59(9):983-8) (Diabetes Care 2004 Jan;27(1):281-2)

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I'm flabbergasted, as they say in this part of the world, that everyone with diabetes doesn't use apple cider vinegar. It has to be one of the least expensive, most effective tools for dealing with the condition.

## **Examples of Menus**

Food combination diets can be fairly strict and require some changes most of us are not accustomed to. For example, eating pure fats such as butter, cream, and bacon with rich starches like potatoes, bread, cereal, and sweets wouldn't be allowed in the same meal. Fats and proteins can be eaten together, but then only carbohydrates can be eaten at the next meal.

It's important to keep in mind that when many of these diets were promoted in the past, there wasn't an abundance of refined carbohydrates and sugar-laden foods and drinks available, like there is today. Those should *not* be part of your carbohydrate meal. Instead, you should include foods such as vegetables, beans, peas, brown rice, yams, 100-percent whole grain breads, and other low-glycemic foods. (Many lists of low-glycemic foods can be found online.)

If you have chronic digestive difficulties, eating primarily proteins and fats at one meal and then strictly carbohydrates at the next can be a very effective way to see results fairly rapidly. Additionally, eating this way doesn't require you to restrict any one particular food group.

Dr. George Goodheart, the "Father of Applied Kinesiology," was a strong proponent and practitioner of proper food combining. I have notes from many of his

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seminars that I attended where he talked about the same 1930s research I discussed earlier. In my notes, I have a few examples to illustrate what these meals might include. It would be impossible to list all the combinations here, but these will give you a general idea:

#### Protein/fat breakfast:

- Coffee or tea with cream, but no sugar
- Eggs (over easy, soft or hard boiled, or omelet)
- Bacon, ham, sausage, smoked salmon, or any other type of meat or fish
- A protein shake, such as the one I recommend and personally drink each morning, would qualify here. Visit drwilliams.com for the recipe.

#### Carbohydrate breakfast:

- Coffee or tea without cream
- Whole fruit (not juices, which are far too concentrated and elicit spikes in blood sugar)
- Whole grain cereals with milk, but not cream
- Toast, bread, crackers (whole grain is better), but without butter
- Adding cinnamon powder to your fruit, cereal, or other carbs can help increase insulin sensitivity and reduce postprandial blood sugar. And don't forget that taking vinegar prior to any meal helps normalize blood sugar levels.

#### Protein/fat lunch or dinner:

- Coffee or tea with cream, but no sugar (I personally recommend no cream since it negates tea's ability to enhance the activity of insulin.)
- Soup, stew (without potatoes), or broth (meat or bone broth would be excellent here)
- All types of meat, poultry, or fish
- Leafy vegetables and greens (spinach, collard or beet greens, cabbage, asparagus, Brussels sprouts)

- Raw salads with vegetables (these work because they are not concentrated or high in carbohydrates)
- Oil and vinegar or mayonnaisebased dressing (Ranch, Blue Cheese, Russian, French)
- Cheese

#### Carbohydrate lunch or dinner:

- Coffee or tea with sweetener, but no cream
- Potato or vegetable soup (meat or bone broth also works as long as it is just the broth and not the meat)
- Beans or legumes (chickpeas, red kidney beans, split peas, lentils, black-eyed peas, pinto beans, lima beans, black beans)
- Any vegetables, particularly root vegetables such as potatoes, but no butter
- Pasta such as macaroni or spaghetti with tomato-based sauces
- Wild rice
- Raw salads
- Low-fat ice cream, shaved ice

If diving headfirst into food combining seems too drastic of a change for you, then you can try eating the fat and protein portions of your meal first and eating carbohydrates second, as was done in the study I mentioned earlier. It's an easier, less disruptive routine that alleviates digestive problems for many people.

If you don't experience any, or just marginal relief, then you can always go on the stricter regimen. But either way, I recommend giving it a try. You'll quickly realize you may no longer need to rely on your Tums as much.

your runns as much.

# **Get After GERD Naturally**

hile I'm on the topic of digestive disorders... one of the most common and costliest digestive complaints these days is gastroesophageal reflux disease (GERD). It is estimated that at least 20 percent of the population experiences weekly symptoms as a result of this condition. Tens of billions of dollars are spent each year on acidsuppressing medications, and the market for these drugs continues to skyrocket.

Billions are spent on over-thecounter antacids such as Maalox, Mylanta, Rolaids, Tums, and acidreducing H2 blocker drugs such as cimetidine (Tagamet), famotidine (Pepcid), nizatidine (Axid), and ranitidine (Zantac).Then you have another class of prescription drugs called proton pump inhibitors (PPIs). Some of the more common ones include Prilosec, Prevacid, Zegerid, and Protonix.

The top-selling PPI is Nexium, which earned *\$6 billion* in 2012 alone. You wouldn't know it by listening to the members of Rascal Flatts, who promote Pfizer's new over-the-counter Nexium, or Larry the Cable Guy pushing Prilosec, but PPIs have a long list of side effects that should make anyone think twice before starting them. These are very dangerous drugs. Side effects include increased risk of pneumonia, thinning of bone (osteoporosis), and serious *Clostridium difficile* infections in the intestines.

PPIs have been shown to increase hip fractures by as much as 44 percent. And a new study from Stanford shows that taking PPIs raises your risk of heart attack by

16–21 percent. (*PLoS One. 2015* Jun;10(6):e0124653)

PPIs tend to stop the symptoms of GERD, but you also build up a tolerance and can become dependent on them. As such, you cannot just suddenly quit taking them. The rebound effect can be worse than the original problem. The weaning process can take weeks, gradually working down the dosage and switching to H2 blockers, gradually reducing H2 blocker dosages, and then adding hydrochloric acid supplements (HCL) to your regimen. It's best to find and work with a doctor who is knowledgeable in this area and can help monitor the process.

## **Little-Known Causes**

Two little-known causes of GERD are hiatal hernia and the lack of hydrochloric acid in the stomach.

A hiatal hernia occurs when the rubber band-like muscle or esophageal sphincter, at the bottom of the esophagus and/or the diaphragm muscles that surround the esophagus, are weak and allow acidic stomach contents to move up into the esophagus, causing heartburn or regurgitation.

And, as strange as it might seem, oftentimes GERD is the result of the stomach producing *too little* acid, instead of too much. Insufficient hydrochloric acid production allows overgrowth of the bacterium *H. pylori* in the stomach. As I mentioned in the previous article, by the age of 70, most people produce only about 15 percent of the hydrochloric acid they produced in their 20s.

Remedies like bitters, apple cider vinegar, wine, and fermented foods can help stimulate the secretion of hydrochloric acid in some people and help alleviate the symptoms of GERD. However, it may not be enough to improve overall digestion of protein and other nutrients that require higher amounts of acid. In most cases, a good digestive enzyme containing HCL, or HCL tablets, are required. Knowing that our production of hydrochloric acid and digestive enzymes begin to decline with age is why I've always included these in my multivitamin/mineral formula.

And it should go without saying that, with GERD, probiotics are essential in restoring the proper bacterial flora throughout the intestinal tract. This is just one of a hundred reasons I think everyone should take probiotics daily.

## **Mighty Melatonin**

On another front, researchers have recently discovered that, for some people, melatonin can effectively treat GERD. (*BMC Gastroenterol 2010 Jan;10:7*) (*Curr Pharm Des 2014;20(30):4807–15*) (*World J Gastrointest Pharmacol Ther 2010 Oct;1(5):102-6*)

Levels of melatonin have been found to be lower in patients with both GERD and recurrent intestinal ulcers than in those without those problems. While most people think that melatonin is only made by the pineal gland, it is also produced in neuroendocrine cells in the lining of the digestive tract. Melatonin not

only plays a protective role in the gut, it also helps control both stomach acid secretion and the lower esophageal sphincter. Melatonin reduces nitric oxide production in the muscles of the esophageal sphincter. Nitric oxide relaxes the sphincter to allow the stomach contents to move up into the esophagus.

Guess what destroys the cells in the gut that produce melatonin? PPIs! This is yet another reason to avoid these drugs.

The effective melatonin dosage for GERD patients is up to 6 mg taken at bedtime. In some studies, roughly 70 percent of those treated with melatonin had significant improvement in their symptoms.

Melatonin doesn't always provide instant relief, though. It takes time for the gut to heal. A one- to threemonth trial is recommended to give it time to work.

Reviewing the research, it appears that taking L-tryptophan (100 mg/day), a vitamin B complex, and melatonin (6 mg) may produce the best results. Studies show that when these three are used concurrently, the results are equal to those of the drug Prilosec. In fact, after 40 days of treatment, 100 percent of those using the supplements reported complete remission of their symptoms, compared to only 65 percent of the patients using Prilosec. (*J Pineal Res 2006 Oct;*41(3):195–200)

I should mention that a small number of those taking melatonin reported experiencing diarrhea (4 percent), headaches (1 percent) and high blood pressure (1.7 percent), which might be alleviated by reducing the dosage somewhat.

Melatonin both protects and helps heal the gut lining by increasing blood flow to the area. It also acts as an anti-inflammatory and inhibits the manufacture of certain enzymes that are associated with gastric ulcer formation. So if you're looking for a natural and safe way to deal with GERD, try the melatonin, tryptophan, and B-complex combination.

## LINX Surgery

On the other hand, if your esophageal sphincter has been damaged to the extent that it can't be functionally restored through natural means, surgery might be required. (I've seen this on occasion in patients who've undergone radiation.)

One of the latest less-invasive surgical corrections is a procedure called LINX. In a nutshell, what looks like a small magnetic-beaded bracelet is placed around the lower esophageal sphincter.

The surgery is performed laparoscopically, so only small incisions are made. It is an outpatient procedure and the recovery is very short. Most patients see immediate relief and retain their ability to belch, vomit, and eat normally.

It appears to be a permanent solution since the rare earth magnets are encased in titanium and never wear out. You can find additional information and doctors trained in the procedure at linxforlife.com.

Wishing you a healthy, happy and prosperous 2016!

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)n. David Will

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