

Dr. Marlene's NATURAL HEALTH CONNECTIONS

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The 6-Minute Heartburn Remedy

The shocking truth about the cause of heartburn and how to stop it for good — without drugs.

Did you ever wonder why you keep having to chew antacids or take heartburn drugs? You get relief, but then the symptoms come back. Wouldn't it be better if you could get rid of your heartburn for good? You can, if you understand what causes the problem and take the simple steps that have helped my patients relieve their heartburn, once and for all.

Antacids and heartburn drugs work by suppressing stomach acid. It seems sensible. The “burn” you feel is triggered by the acid, and when the drugs suppress it, you feel better. But there's an underlying mechanism that keeps that burn from coming back, and I want you to understand what's really happening and how to fix it — permanently.

The sensation that there's too much acid down there is a common symptom, but the root cause isn't what you think. In fact, the underlying cause of heartburn is most often a lack of stomach acid. Among my new patients, nine in ten have low stomach acid.

Given that it's been popularized as the villain, it may be hard to believe that stomach acid is an essential and valuable commodity. You need it to break down and digest food, absorb nutrients, resist infections, and maintain overall health.

You might be wondering why you don't hear more about this. Well, suppressing stomach acid is big business. Sales of just one heartburn drug, Nexium, totaled \$72.5 billion by the end of 2017. Also marketed as “the purple pill,” it ranks third among the best-selling drugs of the past 25 years.

Extensive marketing has turned the Nexium class of medications into a go-to heartburn remedy. Called proton pump inhibitors, or PPIs for short, they are the most powerful drugs for suppressing stomach acid, and about 15 million Americans take them every year.

Drugs that suppress stomach acid don't just interfere with normal digestive processes. They can seriously damage your health.



The more powerful the acid-suppressing action of a drug, the greater the risks of nutrient deficiencies and other side effects. Studies have found that PPIs increase risks of fractures, kidney disease, heart disease, pneumonia and other infections,¹ allergies,² and premature death.

Other types of prescription heartburn drugs, and antacids, have a less intense effect, but they all reduce the amount of acid in your stomach. The adverse effects are not as severe, but they do exist.

Before I go into more detail about the dangers, and how to truly fix heartburn and other common digestive problems, I want to put the drugs into perspective. There are situations where they can work wonders.

When Acid-Suppressing Drugs Should Be Used

A young woman had severe stomach pain when she first came to see me and was vomiting blood. She had gastritis, an inflammation of the stomach lining. She needed to take a PPI, to temporarily suppress stomach acid and give her stomach a chance to heal.

Severe stomach inflammation is one type of situation where the drugs are necessary and extremely effective. PPIs are also helpful if there is a peptic ulcer or inflammation or injury in the esophagus, the tube that carries food down from the throat and into the stomach.³

But there's a catch. In any of these scenarios, acid-suppressing drugs treat only the immediate symptoms. They don't address the cause of the problem.

Types of Heartburn Drugs and Side Effects

All heartburn drugs reduce stomach acid, but each class of drugs works in a different way. Proton pump inhibitors and H2 blockers have a long-lasting effect, for about 24 hours, whereas antacids suppress acid for only a few hours.

Proton Pump Inhibitors (PPIs)

The most popular class of heartburn drugs, proton pump inhibitors work faster than other types and are considered to be the most effective. All are available by prescription, and some are also sold over the counter.

PPIs inhibit production of stomach acid by blocking an enzyme, called the proton pump, which controls acid production. One daily dose of a prescription PPI can inhibit about 70 percent of acid production. Over-the-counter versions contain lower doses.

Generic Name	Brand Name	By Prescription	Over the Counter
Rabeprazole	Aciphex	X	
Dexlansoprazole	Dexilant, Kapidex	X	
Esomeprazole	Nexium	X	X
Lansoprazole	Prevacid	X	X
Omeprazole	Prilosec	X	X
Pantoprazole	Protonix	X	

Side effects of PPIs can include headache, diarrhea, nausea, and vomiting. With long-term use, the drugs increase risks for allergies, kidney disease, fractures, serious infections such as pneumonia, vitamin and mineral deficiencies, and premature death.⁴

H2 Blockers

Also called H2 antagonists, H2 blockers reduce stomach acid in a different way and are not as fast-acting as PPIs. The stomach lining has receptors that produce acid. H2 antagonists block these receptors, inhibiting their ability to produce the acid.

There are many H2 blockers, but these are some common ones.

Generic Name	Brand Name	By Prescription	Over the Counter
Nizatidine	Axid	X	X
Famotidine	Pepcid, Pepcid AC	X	X
Cimetidine	Tagamet, Tagamet HB	X	X
Ranitidine	Zantac	X	X

Side effects of H2 blockers are less common and less severe than those of PPIs but can include constipation, diarrhea, sleep problems, dry mouth, dry skin, headaches, ringing in the ears, a runny nose, and stomach infections.⁵

Antacids

Antacids don't stop your body's production of stomach acid; they neutralize existing acid in the stomach. They contain alkalizing substances such as calcium, magnesium, aluminum, or sodium bicarbonate (baking soda), or sometimes a combination.

All antacids are over-the-counter medications. They work instantly but the effects are short-lived. Popular ones include Tums, Maalox, Rolaids, Mylanta, and Alka-Seltzer (some versions contain aspirin, which can lead to intestinal bleeding).

Side effects of antacids are not likely to be significant with occasional use, but if taken continually they can cause a rebound effect, where excess stomach acid is produced. Constipation, diarrhea, headaches, or toxic levels of aluminum can also occur.

The Cause Is Never Found

There's a reason why a stomach or esophagus becomes inflamed, and that cause needs to be identified and corrected. Otherwise, ongoing suppression of stomach acid will cause new problems, while camouflaging the original one.

As an analogy, imagine someone working on an unsafe assembly line and repeatedly cutting their finger. Some antiseptic ointment and a bandage help the finger heal. However, if the safety procedures on the assembly line aren't corrected, there will be more cut fingers and potentially worse accidents.

PPIs and other drugs that suppress stomach acid are like the bandage. When there is a genuine need for them, it's a sign that something needs to be corrected on the assembly line in your digestive system.

Unfortunately, these drugs are commonly prescribed for long-term use, and too many people habitually take over-the-counter versions or antacids. And the faulty assembly line is never corrected

FDA Cautions

PPIs are the most dangerous when taken long-term. Prescription PPIs contain higher doses than over-the-counter products but otherwise, both versions of the drugs are identical.

The FDA states that over-the-counter PPIs should be taken for no more than 14 days at a time and should not be used more often than three times per year. Oddly enough, there is no time limit placed on the stronger prescription varieties. Older people are more likely to take prescription PPIs long-term, for years or even

decades, and are at the highest risk for adverse effects.

Why Stomach Acid Is Essential

A healthy human body makes at least a half-gallon of gastric juices every day, and stomach acid is an essential ingredient. Stomach acid breaks down proteins and turns on an active form of pepsin, an enzyme secreted by the stomach lining. It triggers production of other enzymes by the pancreas, which are essential to break down food and absorb nutrients. And, it stimulates production of bile by the gallbladder, to break down fats.

Did You Know?

There are ten times as many bacteria in the human body as there are cells.

The digestive tract contains a variety of bacteria, which regulate digestion, hormone production, neurotransmitters, and other processes. Although we hear a lot about "good" and "bad" bacteria, a healthy balance is most important.

The "good" bacteria thrive only in an acidic environment. When stomach acid is suppressed, the environment becomes inhospitable and some of them die.

On the other side of the coin, stomach acid protects against infections from "bad" bacteria, such as *E. coli* in tainted food. We're routinely exposed to these but get sick when our natural protective mechanisms malfunction.

In addition, some potentially harmful gut bugs are not all bad. *H. pylori*, which is linked to peptic ulcers, has been in our guts for

thousands of years and plays important and beneficial roles. It helps to regulate levels of stomach acid and hunger hormones and seems to protect against allergies and asthma. When *H. pylori* is eliminated with antibiotics, people have more heartburn, allergies, and asthma.

Balance of bacteria is the key. Your body makes stomach acid for a reason, and although artificially suppressing it may relieve some symptoms, there are unintended consequences.

Dr. Marlene's NATURAL HEALTH CONNECTIONS

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How Low Stomach Acid Triggers Heartburn

Your body uses several triggers to produce stomach acid: the smell and taste of food, and its presence in your stomach. After you swallow food, it travels down the esophagus, the tube that connects your throat to your stomach and is sometimes called the gullet.

To keep food from regurgitating back up, there's a valve at the lower end of the esophagus, called a sphincter. It's made of a group

of muscles. Stomach acid tells that valve to close. When your body doesn't make enough stomach acid, the valve may not close properly, and gastric juices can escape upward, causing the "burn" of heartburn.

Low stomach acid also inhibits the breakdown of food. Remember, you need stomach acid to produce enzymes and bile to digest food. Otherwise, partially digested food lingers in your stomach, leading to discomfort, gas, and a feeling that you're still hungry and full at the same time. It's uncomfortable.

Lingering food can also create pressure in the stomach, making it more likely that the valve won't keep the esophagus closed off. This can contribute to gastric juices moving up and causing heartburn.

At the bottom end of the stomach, there's another valve. Once food is digested, stomach acid signals it to open, to allow

stomach contents to move into the intestine. With low acid, that valve doesn't get the signals, and food stays in the stomach too long.

Yes, this sounds complex, but it happens to be the way your body works. Fortunately, the solution is simple: restore adequate levels of stomach acid.

What Causes Low Stomach Acid

Heartburn drugs and antacids are only one cause of low stomach acid. You may have started taking these because your stomach acid was already low enough to trigger heartburn. Getting older is another contributor, because your body produces less stomach acid as the years go by. But stress is the biggest factor.

Stress can be mental, from life situations, or physical, from excessive exercise, travel, infections, other illnesses, or a diet that is high in sugars and starchy carbohydrates.

Symptoms of Low Stomach Acid

Stomach acid breaks down protein and triggers production of enzymes to digest all types of food. The most common symptoms of low stomach acid include:

- Difficulty digesting protein
- Losing your taste for meat
- Heartburn
- A sour stomach
- Indigestion
- Belching
- Gas

Other symptoms may include:⁶

- Vitamin and mineral deficiencies
- Weak, peeling, and cracked fingernails
- Chronic intestinal infections
- A prolonged feeling of fullness after eating
- Bloating
- Diarrhea
- Constipation
- Nausea when taking supplements
- Undigested food in stool
- Hair loss in women
- Multiple food allergies

About Dr. Marlene

Dr. Marlene Merritt's passion for natural medicine is fueled by her drive to help others, and her own experience of overcoming a debilitating heart condition, diagnosed at the age of 20. A competitive cross-country cyclist at the time, she suddenly began experiencing severe chest pains. Forced to quit the sport, she suffered from extreme fatigue and constant pain for another 15 years, despite doing everything that conventional, Western medical doctors told her to do.

And then, the tide turned. A physician trained in naturopathic healing recommended a whole-food vitamin E supplement. A week after starting the supplement regimen, her energy began to return, and the pain began to disappear.

Dr. Marlene is a Doctor of Oriental Medicine, has a Master's in Nutrition, and is an Applied Clinical Nutritionist. She is Board Certified in Bariatric Counseling, and certified in the Bredesen MEND Protocol,TM a groundbreaking method of reversing Alzheimer's disease. She sees patients at the Merritt Wellness Centers in Austin, Texas, and Santa Fe, New Mexico, trains health practitioners nationwide, and is the author of *Smart Blood Sugar* and *The Blood Pressure Solution*.



The last one is very common.

Eating too many sugars and starches raises blood sugar and insulin, which leads to elevated levels of cortisol, the stress hormone. When your body is under stress, it focuses on dealing with the stress and puts other functions

aside. Making stomach acid is one of the functions that suffers.

How to Reduce Sugars and Starches

If you aren't familiar with my recommendation for sugars and starches, this is it in a nutshell:

Count total carbohydrates only in foods from specific categories. These are anything made from grains, including corn; fruit and juices; milk; soda; alcoholic drinks; potatoes of all colors; beans; candy; and desserts. From these foods only, limit carbs to no more than 60 grams daily, and no more than 30 grams in any one meal or snack.

Nutrient Depletions

Low stomach acid, from any cause, prevents vitamins and minerals from being well absorbed, from both food and supplements. Studies⁷ have focused on nutrients depleted by PPIs, because they are the most powerful acid-suppressing drugs, and found that they deplete these nutrients:

- **Vitamin B12:** essential for normal function of the nervous system and brain, especially among older people.
- **Vitamin C:** neutralizes oxidation, a process much like internal rusting, and enhances the effectiveness of other antioxidants.
- **Iron:** essential for healthy blood, transport of oxygen to the heart, and energy production.
- **Calcium:** used in cell-to-cell communication, and for bone structure.
- **Magnesium:** essential for more than 300 functions in the human body.
- **Zinc:** needed for good immune function, vision, energy, and overall health.
- **Beta-Carotene:** a precursor of vitamin A, needed for good vision, bones, and overall health.

How to Get Off the Most Powerful Heartburn Drugs

Acid-suppressing proton pump inhibitors, such as Nexium, Prilosec, or Prevacid, are the most powerful suppressants of stomach acid. Over-the-counter versions are designed to be taken for no more than 14 days, no more than three times a year, but many people take them for longer periods, or continually. Prescription PPIs may be prescribed for months, years, or indefinitely. When PPIs are taken longer-term, your body becomes used to the drugs, and when you stop taking them, there is often a rebound effect.

In a rebound situation, your body suddenly starts producing a lot of stomach acid. The effect can be so uncomfortable that discontinuing the drug becomes impossible. But there's a way to avoid getting "hooked."

If you've been taking over-the-counter heartburn drugs without consulting a doctor, follow the steps below. If you're taking prescription heartburn drugs, work with your doctor when reducing dosages or switching drugs.

Steps to Wean Off

- Continue taking the PPI as usual but with each meal, start taking a supplement of betaine hydrochloride with pepsin.
- Keep doing this for a few days.
- Keep taking the supplement and take your PPI at half-strength, either by taking a smaller dose or by taking your usual dose every other day.

- If you experience a rebound effect, switch from a PPI to an H2 blocker (see page 2 for brand names), as these are easier to deal with.
- Continue taking the supplement with each meal. If you switched to an H2 blocker, start reducing the dose.
- Continue taking the supplement. If you continued to take a lower dose of the PPI with no problem, stop taking the PPI. If you switched to an H2 blocker, cut the dose in half.
- If you experience occasional heartburn after you stop taking either drug, take an antacid.
- Continue to take the supplement with each meal.

The whole process may take a week or even several weeks, depending on how long you were taking the acid-suppressing drug. You may need to reduce drug doses more gradually than I've described above.

Restoring your own production of stomach acid can take 3 to 6 months. For my patients over age 60, I generally recommend taking the supplement, with meals, on an ongoing basis, to ensure that they absorb nutrients well from food and supplements.

Caution: Don't take betaine hydrochloride supplements if you have an ulcer or an inflamed stomach. (See page 6 for how to heal stomach inflammation.)

The 6-Minute Heartburn Remedy

Regardless of why your stomach acid became depleted, you need to re-educate your body to produce enough. It can take three to six months to restore your body's own production.

The acid in your stomach is hydrochloric acid. Betaine hydrochloride (HCl for short) is a dietary supplement that increases your levels of stomach acid.

In a study at the University of California, San Francisco, researchers suppressed stomach acid in healthy adults, with a PPI, gave them an HCl supplement, and measured levels of stomach acid for the next two hours. With the supplement, acid levels returned to healthy levels in about 6 minutes and remained at that level for over an hour, and then dropped again. There were no side effects.⁸

In other words, HCl works quickly but for a short period of time. By using it routinely with meals, and not taking antacids or other acid-suppressing drugs, you can restore your own ability to make stomach acid. However, older people whose stomach acid has been low for a long time may

need to keep taking the supplement on an ongoing basis.

How to Use Supplements

I recommend taking an HCl supplement that includes pepsin, an enzyme that breaks down protein. Take it immediately before or with each meal. You need the supplement while food is being digested in your stomach, so taking it an hour or two after eating won't be beneficial.

HCl supplements come in different doses, and you'll have to experiment to find the one that works best for you. If you feel worse or get a burning sensation after taking it (with food), it could be that the dose is too high, or you could have an inflamed stomach, which needs to heal before you can benefit from HCl.

As an alternative, you can try drinking apple cider vinegar at the start of each meal, but it's a weaker remedy and doesn't help everyone. Mix one teaspoon of the vinegar with a few tablespoons of apple juice or water, and rinse your mouth right afterward, as the vinegar is very acidic and can damage your teeth.

Make a habit of drinking plenty of water during the day, but only

between meals. When you drink water with food, it dilutes stomach acid and enzymes, making it more difficult for your body to break down food. Ice water is the worst, because enzymes don't work well in cold temperatures.

Other Helpful Steps

Being overweight increases the odds of heartburn, because extra body fat puts pressure on the esophagus and stomach. You can still benefit from the remedies I recommend but ultimately, you will need to lose some weight. My recommendation for reducing sugars and starches, on page 5, can help you change the way you eat and lose weight and keep it off.

Eating in a relaxed setting and avoiding foods you know disagree with you will also help. If you are sensitive to gluten, restoring stomach acid isn't likely to change that, as gluten intolerance stems from a different mechanism (which I'll be discussing in detail in a future issue). But because a healthy level of stomach acid is essential for normal function of your body, restoring it can produce surprising benefits.

How to Heal an Inflamed Stomach

These are telltale signs of an inflamed stomach: When your stomach is empty, it feels uncomfortable or painful, but it feels better when you eat. Or, your stomach gets irritated if you take a supplement of HCl and pepsin.

To heal your stomach, drink chamomile tea, at least twice a day, between meals on an empty stomach. Choose good quality, whole-leaf tea, loose or in tea

bags. Make it an excuse to take a break, unwind, and relax.

Don't eat acidic foods but do eat okra, which contains mucilage, a gel-like, healing substance. Drinking aloe juice is also helpful.

It can take two to four weeks for an inflamed stomach to heal. And then, you can try supplements of HCl with pepsin, to restore stomach acid.

1 Zirk-Sadowski, J., et al. "Proton-Pump Inhibitors and Long-Term Risk of Community-Acquired Pneumonia in Older Adults." *J Am Geriatr Soc*. 2018 Jul;66(7):1332-1338.

2 Untersmayr, E., et al. "The role of protein digestibility and antacids on food allergy outcomes." *J Allergy Clin Immunol*. 2008 Jun;121(6):1301-8.

3 Yadlapati, R., et al. "When is proton pump inhibitor use appropriate?" *BMC Med*. 2017 Feb 21;15(1):36.

4 Xie, Y., et al. "Risk of death among users of Proton Pump Inhibitors: a longitudinal observational cohort study of United States veterans." *BMJ Open*. 2017; 7 (6): e015735.

5 Tleyjeh, I.M., et al. "The association between histamine 2 receptor antagonist use and Clostridium difficile infection: a systematic review and meta-analysis." *PLoS One*. 2013;8(3):e56498.

6 Kelly, G.S. "Hydrochloric Acid: Physiological Functions and Clinical Implications." *Alt Med Rev*. 2(2):116-127.

7 Mohn, E.S., et al. "Evidence of Drug-Nutrient Interactions with Chronic Use of Commonly Prescribed Medications: An Update." *Pharmaceutics* 2018, 10(1), 36.

8 Yago, M.R., et al. "Gastric reacidification with betaine HCl in healthy volunteers with rabeprazole-induced hypochlorhydria." *Mol Pharm*. 2013 Nov 4;10(11):4032-7.

Flu Prevention Checklist

During flu season, we're all exposed to cold and flu viruses. Whether or not you get sick depends upon how well your immune system can resist them, and the steps I recommend will enhance your resistance. Even if you do catch a cold or flu, you'll get over it more quickly.

- Wash your hands often, and thoroughly. Bugs get into your body through your mouth, nose, and eyes, body parts you often touch. Clean hands help to keep the bugs out. Proper hand washing can stop the spread of diarrhea by up to 58 percent and colds and flu by up to 21 percent. The CDC recommends scrubbing with soap for at least 20 seconds — the time it takes to hum the “Happy Birthday” tune twice.
- Take preventive supplements. Echinacea¹ will improve your resistance if you start taking

it while you're healthy. Look for a brand that explains how it produces a high-quality supplement. And, if you don't routinely take vitamin D, start taking 5,000 IU daily.

- Get more sleep than usual. Sleep is the best immune booster, and flu season is one time when you can't afford to skimp on it. Aim for 7.5 to 9 hours. If you're under stress, aim for 9.
- Get regular exercise. Like sleep, moderate exercise, such as walking, boosts your resistance to bugs. But don't exhaust yourself with exercise, as that will make you more susceptible.
- Eat fermented foods. These support beneficial bacteria in your gut, where much of your immune system is housed, and they will enhance your natural resistance. Look for “cultured” on labels of foods such as sauerkraut, pickles, yogurt, apple cider vinegar, and kombucha (a fermented tea).

- Drink bone broth. Collagen and other nutrients in bone broth improve immunity by enhancing gut health. You can make your own: In a crock pot, cover bones with water and simmer on low heat. These are minimum cooking times:

Chicken bones: 8 hours
Turkey bones: 12 hours
Beef bones: 24 hours
Fish bones: 4 hours



If you mix different types of bones, use the longest cooking time in the list above. If you prefer to buy bone broth, make sure it's made the traditional way and doesn't contain chemical food additives.

- Go easy on sugar, starch, and alcohol. All these add stress to your body and reduce your immune defenses.

Natural Remedies

If you do get sick, these are some good natural remedies: elderberry, zinc lozenges, and olive leaf extract. Taking one or more will help your system fight off the illness.

If you become congested, do this: Boil a pot of water and add 5 drops of pure eucalyptus essential oil. Put a towel over your head and breathe deeply for 10 to 15 minutes. Repeat as needed, until your symptoms subside.

Chicken soup, made with your grandmother's traditional recipe, is a centuries-old remedy. Research shows that it contains natural anti-inflammatory chemicals.²

Should You Get a Flu Shot?

When considering a flu shot, here are some things to keep in mind:

- Some flu vaccines contain a preservative made with mercury — thimerosal. If you get the shot, it's best to ask for a vaccine without thimerosal.
- Flu vaccines are formulated annually to protect against a

specific flu virus that's expected to infect people in a given year. It's impossible to predict perfectly, so the effectiveness of vaccines can vary from one year to another.

- Getting a flu shot doesn't mean you should ignore all the other ways to protect yourself. A strong immune system will help to protect you against all types of seasonal bugs.

¹ Tiralongo, E., et al. “Randomised, double blind, placebo-controlled trial of echinacea supplementation in air travellers.” *Evid Based Complement Alternat Med.* 2012;2012:417267.

² Rennard, B.O., et al. “Chicken soup inhibits neutrophil chemotaxis in vitro.” *Am J Respir Crit Care Med.* 2000 Oct;162(4):1150-7.

14 Benefits of Nature

As a kid, you probably couldn't wait to go outside to play, but as you get older, there are more reasons to stay indoors. In summer, it's too hot, and when the weather gets colder and days get shorter, going outside may not seem appealing. But the benefits of being outdoors in nature might surprise you.

You've probably experienced feeling better when walking in a city park, rather than along a noisy street or in a mall. Now, British researchers have found a whole host of nature perks.¹ They looked at 143 studies of different ways in which being exposed to nature affects health, and found a wide range of benefits, including:

- Lower blood pressure
- Lower blood sugar
- Less diabetes

- Lower levels of stress hormones
- A lower, healthier heart rate
- A better mood
- Improved immune function
- More energy
- Improved attention span
- Healthier cholesterol levels
- Less heart disease
- Fewer strokes
- A healthier weight
- Less premature death from any cause

You might assume that to get any of these benefits, you'd have to spend days, or at least hours, out in nature. While that wouldn't be a bad idea, pretty much any amount of time in a natural setting creates a beneficial effect.

In the studies that were reviewed, the most common type



of nature experience was in cities, on streets with lots of trees or a canopy of big trees, and in small parks. And just five minutes in that type of environment was enough to boost mood.

The take-home from this is that it pays to get outdoors in any green spaces around you. When going for a walk, try to do it in parks, along local nature trails, or on streets with a tree canopy or a lot of greenery. And if it's cold, bundle up and try walking a bit faster or jogging.

A Heart-Healthy Diet: Not What You Think

When I recommend cutting back on carbohydrates, as I've done for years, my new patients often give me a puzzled look. Isn't it fat that you need to limit? It isn't surprising, given that we've had decades of dietary advice to eat less fat, but the idea is not based on evidence.

A recent study should help to drive home the facts. Data was combined from several large

studies, with a total of more than 218,000 people between the ages of 35 and 70. Some of these people were tracked for more than 9 years.²

The study showed that people with the healthiest hearts ate a diet that was rich in fruit, vegetables, nuts, and legumes, and included fish, dairy products, and meat. They were less likely to have heart disease or a heart attack, and less likely to die prematurely from heart disease or any other cause. (Note that grains, refined or whole, were not among the key foods that improved heart health.)

There are a couple of qualifiers. Only unprocessed meat was linked with a healthy heart. Processed meats include those that are salted, fermented, smoked, or cured, such as pepperoni on pizza. And, my experience has proven that not everyone does well when eating dairy.

A similar, earlier study found that people with diets high in carbohydrates were 28 percent more likely to die prematurely. In contrast, those eating small amounts of carbohydrates but lots of fat were likely to enjoy a longer, healthier life.

¹ Twohig-Bennett, C., et al. "The health benefits of the great outdoors: A systematic review and meta-analysis of greenspace exposure and health outcomes." *Environ Res.* 2018 Oct;166:628-637.
² Mente, A., et al. "Association of dietary quality and risk of cardiovascular disease and mortality in 218,000 people from over 50 countries." Presented at ESC Congress 2018. August 29, 2018. Munich Germany.

Very Low Blood Pressure Is Dangerous

Dangerously low blood pressure is a potential hazard for older adults who are taking blood pressure medication, according to a study of more than 475,000 patients at Kaiser Permanente, a Southern California HMO. It can double the risk of serious falls and fainting.¹

Researchers found that risk increases when systolic blood pressure (the top number) among such patients drops below 110 mm Hg. Normal systolic blood pressure is considered to be below 120 mm Hg.

The risk for falls and fainting doubled among people whose blood pressure was below 110 during just one doctor visit. More than one in four patients had such blood pressure readings. Risk among those with an average pressure below 110 was 50 percent higher than among people with higher blood pressure.

“White coat” hypertension, artificially high blood pressure in a doctor’s office, is common, and can lead to overly aggressive drug prescriptions. I always recommend checking your blood pressure at home, several times a day, until you’re sure that there’s no “white coat” effect inflating your levels.

If you start limiting carbs to reduce your blood pressure, as I recommend, your drug dosage will need to be adjusted.

Roast Your Own Pumpkin Seeds

Roasted pumpkin seeds can be a healthy snack and add flavor, texture, and nutrients to salads, soups, vegetables, and other dishes. You can buy them roasted, but high heat may have destroyed some of their nutrients. To preserve their nutritional value, try making your own from a fresh pumpkin.

Separate seeds from the pulp,

spread them out on a paper bag, and let them dry overnight. Preheat oven to no more than 170 degrees. Spread out seeds on an oiled baking sheet and roast for no more than 20 minutes.

To add flavors, sprinkle with dried oregano, garlic powder, or other seasonings of your choice before roasting.

Top Nutrients in Pumpkin Seeds

Mineral	Necessary for:	Percent of daily requirement in ¼ cup of seeds
Manganese	Healthy bones and skin; control of blood sugar.	64%
Phosphorus	Normal function of every cell, healthy bones, and energy production.	57%
Copper	Healthy bones, tissue, and blood; energy production.	48%
Magnesium	Healthy bones, blood sugar, and nervous system; energy production and control of inflammation.	45%
Zinc	Immune function; healthy skin, taste buds, vision, and sperm.	23%
Iron	Healthy levels of oxygen in blood and energy production.	16%

Why Too Much Sitting Hurts You

It’s well known that long periods of sitting increase risks for weight gain, diabetes, heart disease, and a general lack of wellness. Even if you do structured exercise, that holds true. But why?

When you sit, your muscles aren’t stimulated. And that, in turn, deactivates an enzyme (lipoprotein lipase) that helps blood sugar to be

absorbed and used to make energy. It also lowers production of “good” HDL cholesterol.²

The fix is very simple. Stand up at least once per hour and walk around for a while, do some household chores, or meet a friend for a walk. It doesn’t matter what you do, as long as you’re up on your feet and moving.

¹ Sim, J.J., et al. “Low Systolic Blood Pressure from Treatment and Association with Serious Falls/Syncope.” *Am J Prev Med*. October 2018 Volume 55, Issue 4, Pages 488–496.
² Eanes, L. “CE: Too Much Sitting A Newly Recognized Health Risk.” *The American Journal of Nursing*: September 2018 - Volume 118 - Issue 9 - p 26–34.

Q&A

Q: I've been following your recommendations for cutting back on carbohydrates and feel much better, but I read about a study showing that a low-carb diet can shorten life. Can you help me make sense of this?

— Andrew G.

A: I'm glad you asked. I know the study you're referring to and I've included a link to it at the end of my answer. Following my carb recommendations will put you on a healthier path and is not harmful. Keep in mind that I don't, in any way, suggest limiting most vegetables — only those that are high in starch — and I'm not in favor of excluding any food group (see page 5).

As often happens, headlines about this research didn't tell the whole story. There are some key points that can help put the findings into perspective.

The study participants who ate low-carb diets generally tended to have other characteristics that would increase their risk of an earlier death. They were more likely men, who don't live as long as women, and were more likely to be overweight, diabetic, and to smoke cigarettes. They were less likely to be physically active and ate less fruits and vegetables. The study also found that high-carb diets shortened life.

People in the study were tracked for up to 25 years. At various points during that time, researchers asked

them to remember what they had been eating up to six years earlier. Many studies collect information this way, but it isn't completely accurate and could skew results. Many people can't remember what they ate a few days ago.

Alcohol consumption was not tracked. Yet, other research shows that when people drink in excess, they're likely to eat fewer carbs. In short, there were health conditions and unhealthy lifestyles that likely influenced the longevity of people following a low-carb diet.

According to government surveys, most Americans eat too many grains and added sugars, and not enough vegetables. My patients have experienced tremendous benefits by turning the tables: eating more non-starchy vegetables and fewer sugars and grains.

Here's the link to the study: [www.thelancet.com/journals/lanpub/article/PIIS2468-2667\(18\)30135-X/fulltext](http://www.thelancet.com/journals/lanpub/article/PIIS2468-2667(18)30135-X/fulltext).

Q: My primary care doctor told me to take 600 IU of vitamin D daily, but you recommend 5,000 IU. Why is there such a big difference?

— Mary Ann S.

A: To determine your personal dosage, it's best to get a blood test that measures vitamin D levels, which can be done by any doctor. Two people with similar diets and exposure to sun, which makes your body produce vitamin D, may have very different levels because one absorbs it better than the other.

Once you know your vitamin D level, I recommend taking enough of the vitamin to achieve

and maintain a blood level of around 50 ng/ml (nanograms per milliliter). The evidence shows that this is an optimum level.

Short of testing, there are different ways to estimate dosage. Up to age 70, the federal government recommends 600 IU daily (and 800 IU in later years) to avoid a deficiency that can lead to serious bone defects, such as rickets or osteoporosis.

Government recommendations are often not based on the latest evidence, because it can take many years for guidelines to be updated. In addition, there's a difference between getting just enough to avoid a serious deficiency and achieving optimum health.

More than eight in ten American adults have low levels of vitamin D. Based on the scientific evidence and my experience in testing many patients, I recommend 5,000 IU of vitamin D along with vitamins A and K2, and magnesium. The other nutrients will enable your body to utilize vitamin D more effectively.

Do you have a question for Dr. Marlene?

Send your health-related questions to drmarlene@naturalhealthconnections.com. Please include your first name and the initial of your last name. Although she cannot answer each question directly, Dr. Marlene will select a few in each newsletter and will address other questions and concerns in articles in future issues. Answers are intended for educational purposes only and should not be viewed as medical advice.