

# Dr. Marlene's NATURAL HEALTH CONNECTIONS



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## What To Do, and Not Do, To Stay Mentally Sharp

**What to eat, how to exercise, and lifestyle habits to adopt or avoid for better memory, alertness, and overall mental function, for a long time to come.**



Do you worry that you may be “losing it” when you forget where you left your keys? Most of the time, it isn’t anything to be concerned about. If you can retrace your steps, when you had the keys and what you were doing after that, you’ll find them. Occasionally forgetting a word or someone’s name, or even an appointment, are also not signs of dementia. Being distracted and not paying attention is what often leads to such situations.

However, a big fear that many older people have is that they will develop dementia. In fact, some studies have found that dementia is the most-feared health condition after age 50.<sup>1</sup>

Dementia is much more than forgetting where your keys are. It’s a decline in mental function that’s severe enough to interfere with everyday life. Are dementia and Alzheimer’s disease the same thing? Not exactly.

Alzheimer’s is a specific neurolog-

ical disease that underlies the biggest share of dementia. But serious head injury, vascular disease, other neurological illnesses, and even a severe deficiency of vitamin B12 are also possible causes. Bottom line, they all drastically impair mental function.

Some — but not all — studies show that in the U.S. and Europe, the incidence of dementia has been declining in the last few decades.<sup>2</sup> So, the risk of an older American developing dementia may be decreasing. However, because our older population is growing rapidly, many more people will be affected. And there’s no cure.

Today’s medical research all-too-often focuses mostly on drug treatments that target a specific substance in the human body (cholesterol in

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**IN THE NEXT ISSUE:  
Herbs for Health: In  
Food and Supplements**

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relation to heart disease, for example). In the case of Alzheimer's disease, much of the research and drug development have targeted amyloid plaques in the brain. But this has not led to success. Clearing the plaques may bring some temporary improvement for some people, but it's often followed by a decline that leaves a patient in worse condition than if they had never taken the drug.

The failed attempts at a cure

have made mental deterioration a mysterious condition. But there's a lot that we *do* know.

### The Latest on Brain Plaque

In recent years, more and more evidence has shown that plaques in the brain don't affect every person in the same way. There are people with significant amounts of brain plaque whose mental functions are top-notch.

One study, led by Northwestern

University in Chicago, looked at "superagers": people over age 80 with exceptionally good memory and other mental functions, comparable to adults 20 or 30 years younger. It found that the superagers did not have as much plaque and other physical signs of brain degeneration as their peers with poor memory or dementia. But also, the superagers were more resilient, so that their memory and other mental abilities were not impaired by the physical brain changes that were present.<sup>3</sup>

At the University of California, Irvine, The 90+ Study has been investigating the health of people age 90 and older since 2003. It's the longest-running study of its kind. It found that among participants with excellent cognitive abilities, Alzheimer's-type brain changes were common but did not impair their mental abilities. These same individuals also had fewer brain changes that lead to other neurological diseases, such as Lewy body disease.<sup>4</sup>



## Dementia Risk Factors

These 14 risk factors for dementia were identified by a large group of researchers from the U.S. and other countries.

- |                                  |                                       |
|----------------------------------|---------------------------------------|
| 1. Physical inactivity           | 8. Obesity                            |
| 2. Smoking                       | 9. Hypertension                       |
| 3. Excessive alcohol consumption | 10. Diabetes                          |
| 4. Air pollution                 | 11. Depression                        |
| 5. Head injury                   | 12. Hearing impairment                |
| 6. Infrequent social contact     | 13. Vision impairment                 |
| 7. Less education                | 14. Unhealthy cholesterol (see below) |

There are a few others, based on other research and clinical experience:

- |   |                                   |
|---|-----------------------------------|
| 15. Insulin resistance, with or without type 2 diabetes | 18. Severe vitamin B12 deficiency |
| 16. A high-carb diet                                    | 19. Exposure to mold              |
| 17. Low thyroid function                                | 20. Infections                    |
|   | 21. Sleep apnea                   |

### About Cholesterol

Elevated LDL ("bad") cholesterol is typically considered a risk factor, but this is not accurate. LDL cholesterol can be made up of small, dense particles or large, fluffy ones. The small particles are the dangerous ones, as they can

penetrate walls of arteries and trigger or contribute to atherosclerosis. Large, fluffy LDL particles do not pose the same risk.

These tests can help you identify your own cholesterol risk:

**NMR Test:** This is a blood test that shows LDL particles size. If your insurance doesn't cover it, these are some of the companies that offer the NMR test direct-to-consumer:

[www.ultalabtests.com](http://www.ultalabtests.com)  
[www.walkinlab.com](http://www.walkinlab.com)

### Coronary Artery Calcium (CAC) Test:

This is a special type of CT scan that measures the degree of plaque in coronary arteries. Your doctor can either order one or let you know where the test is available in your area.

If you have to pay out-of-pocket, do shop around, as prices vary.

### Reducing Risk

The odds of having the dangerous small LDL particles and calcium deposits in arteries increase with a high-carb diet that leads to insulin resistance and, sometimes, type 2 diabetes. The risk can be reversed with a low-carb diet and other lifestyle steps I describe in this article.

One recent study examined all the available evidence and identified 14 factors that, if controlled, could potentially prevent nearly half of all dementia cases.<sup>5</sup> I've listed those 14 factors in *Dementia Risk Factors* on the previous page. I've also added a few other items (numbers 15–21) that would likely reduce risk even more.

If it seems like there are too many items to keep track of, let me simplify things. There aren't that many essential steps you need to take to be as mentally sharp as possible. I'll cover each one and give you a snapshot of the internal processes that slow down or interfere with all aspects of mental function.

## Essential Brain Fuel

The brain uses more energy than any other organ in the human body. Blood sugar is its fuel, but problems arise when the supply of fuel is unstable.



The typical high-carb American diet leads to high levels of blood sugar after eating or drinking a sugary beverage, followed by peaks of insulin to get that blood sugar absorbed and used by muscles and other cells, including the brain. This creates a rollercoaster effect: blood sugar peaks and crashes. It's an unstable fuel supply.

After a while, the pattern leads to insulin resistance. This means that cells throughout the body don't respond properly to insulin; as a result, blood sugar is not fully absorbed and utilized to produce energy. Instead, it lingers in the blood; this is elevated blood sugar.

When cells in the brain become insulin-resistant, the brain can't

get its fair share of blood sugar and it starves, to a greater or lesser degree. Naturally, it can't function optimally at that point.

Symptoms can include cravings, irritability, and feeling “hangry,” a combination of hungry and angry, although you may have recently eaten. As this pattern continues, the brain gets less and less efficient. At its worst, the process can lead to significant forgetfulness and confusion: dementia. This phenomenon has been called “diabetes of the brain,” and “type 3 diabetes.”<sup>6</sup>

In the rest of the body, the problematic pattern I described leads to prediabetes and type 2 diabetes. But the brain manifestations can occur with or without those conditions.

There's another harmful aspect to this pattern: Insulin levels eventually become chronically elevated. Excess insulin increases chronic inflammation, promotes fat storage, leads to weight gain, and makes it difficult to lose weight. Elevated insulin also leads to belly fat that is especially inflammatory. Insulin resistance also underlies hypertension and unhealthy cholesterol and increases risk for depression.<sup>7</sup>

Reversing this unhealthy process starts with following a low-carb diet, which will lead to stable levels of blood sugar. This is how the brain will be consistently fueled and able to work at its best.

In *Related to This Topic* on page 6, I've listed an earlier issue that describes my low-carb diet in detail. By switching to such a diet, you can reduce multiple risk factors: insulin resistance, diabetes, obesity, hypertension, depression, and unhealthy cholesterol.

## Essential Physical Activity

This is the closest thing to a magic bullet for mental acuity as we age. It works on several levels.

Exercise makes cells in the brain and the rest of the body more sensitive to insulin. This doesn't eliminate the need for a low-carb diet but it dramatically enhances its effectiveness.

When cells are more sensitive to insulin, the body produces less insulin to get blood sugar utilized by the brain and other cells. Lower

### Dr. Marlene's NATURAL HEALTH CONNECTIONS

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insulin levels mean less fat storage, especially in the belly area where the fat is inflammatory, and it helps to reduce excess weight.

Better insulin sensitivity also helps blood-sugar levels to be more stable. And that means a more consistent supply of fuel to the brain, enabling it to work more efficiently.

Exercise is the top booster of BDNF: brain-derived neurotrophic factor. BDNF is a protein our bodies make to continually repair and support the health of neurons (cells in the brain and nervous system) and synapses (the connections between those cells). In a nutshell, BDNF strengthens and repairs the brain on an ongoing basis and it does this better than anything else.

Another role of BDNF is to help regulate blood sugar and energy production, which helps the brain to be consistently fueled. It also helps to prevent insulin-producing beta cells in the pancreas from getting worn out. These roles of BDNF help to prevent diabetes.

Low levels of BDNF are associated with loss of brain cells and neurological conditions such as Alzheimer's, Parkinson's, and Huntington's diseases, and multiple sclerosis.<sup>8</sup>

All told, BDNF is a vital substance. Often, when my patients learn about it, they immediately want to take BDNF supplements. You can't get BDNF in a pill; only your body can make it. But you can increase your BDNF levels with the right type of exercise.

Studies show that BDNF levels rise in response to high-intensity aerobic exercise — the kind that gets your heart pumping.<sup>9</sup> Low-intensity exercise and weight training do not increase BDNF levels.<sup>10</sup>

## How to Exercise

Intense aerobic exercise that gets you out of breath is especially effective in enhancing the function of the brain and nervous system. Here's how I recommend doing it, at least three times per week:

- Pick a form of aerobic exercise. It can be walking, jogging, running, biking, or any other activity you enjoy that allows for intense movement. Traditional yoga, for example, will not fit the bill, although it offers other benefits.
- Go at a comfortable, slow pace for a few minutes to warm up.
- Speed up to a pace that raises your heart rate for 1–2 minutes.
- Slow down to a comfortable pace until your heart rate returns to normal.
- Speed up again for 1–2 minutes.
- Repeat slowing down and speeding up for a total of 20–30 minutes. End with a slow pace so that your heart rate returns to normal.

The intensity or speed each person needs to raise heart rate depends on their fitness level. If you haven't been exercising, your heart rate may rise very easily.

As you become more fit and your heart becomes stronger, you will have to exercise more intensely to raise your heart rate.

I also recommend resistance training to maintain and build strong muscles. With age, our muscles atrophy if we don't work them, so it's important to keep them in shape. Plus, it takes a lot



of brain power to activate your muscles when weight lifting.

## 2 Other Protective Habits

Staying connected to friends and family is an essential part of a brain-healthy



lifestyle. Studies show that being isolated and lonely can nearly triple the odds of significant mental deterioration,<sup>11</sup> but often being in touch with others is protective. Nothing beats seeing other people in person, but talking to them on the phone is also beneficial.

Doing things that challenge you mentally is another therapeutic activity. There are many online brain games, but not all work equally well. Studies show that more challenging programs that test speed and accuracy — answering questions with a time limit, for example — are the most effective.<sup>12</sup> When learning new skills, the more mental effort an activity requires, the more beneficial it is.<sup>13</sup> But easy-peasy won't produce much improvement.

Mentally challenging activities can't substitute for physical exercise and are not nearly as beneficial, but they can be helpful. If you have a mentally challenging job, business, or volunteer role, it may also help to expand and maintain your social circle.

## Other Risk Factors

Below are risk factors that need to be addressed separately. Some of these topics are covered in more detail in earlier newsletter issues, listed in *Related to This Topic* on page 6.

**Low thyroid:** This is probably the number-one factor that gets missed when people think they have a cognitive problem. Testing is the only way to tell for sure; the earlier newsletter issue on this topic gives the details.

**Vitamin B12 deficiency:** Levels of B12 can be inadequate because of low stomach acid or other digestive problems, not eating meat, or taking drugs that deplete the vitamin, such as metformin or heartburn drugs. Depending on how low B12 levels have dropped, cognitive symptoms can be mild or severe.

Vitamin B12 levels are checked with a blood test you can get from your doctor. If your level is above 400 pg/mL (picograms per milliliter) but below 500, taking a multivitamin should be sufficient. If it's lower, take an extra B12 supplement in addition to a multi. If re-testing shows that this didn't increase your level to at least 500 or your symptoms don't improve, you probably need B12 shots.

**Mold:** It's more common in homes than you might think. Not everyone is sensitive to mold but for those who are, it can cause debilitating cognitive symptoms. Where this is happening, the mold needs to be detected and removed.

**Infections:** Lyme disease and dental, sinus, and urinary tract infections can all trigger or contribute to mental fog and other debilitating symptoms. The infection must be treated.

**Sleep apnea:** Often unidentified or untreated, this is a major risk factor. If in doubt, talk to your

doctor about it. If you have sleep apnea, get the right treatment.

**Poor hearing and poor vision:** Both deprive the brain of stimulation, and this contributes to mental deterioration. If in doubt, get hearing and vision checked and, if necessary, use a hearing aid or glasses or contacts.

**Excessive alcohol consumption:** The U.S. Dietary Guidelines recommend either not drinking at all or limiting daily drinks to no more than one for women and two for men.

**Smoking:** Don't do it.

**Mercury:** Fish is a healthy food — unless it's a significant source of mercury. The saying “mad as a hatter” is based on the fact that hatters once used mercury in the hat-making process and often went insane from the exposure.

Tuna (albacore and yellowtail varieties), swordfish, Chilean sea bass, and freshwater bass are high in mercury and should not be eaten often. Good low-mercury options include salmon, shellfish, and small fish such as sardines, herring, and mackerel.

**General anesthesia:** Its effects can linger. If you have to “go under” for a procedure, I recommend taking a glutathione supplement to help counteract those effects. Glutathione, made by your body as its master antioxidant, helps your body to detoxify. A supplement enhances that process.

Take a form called “liposomal glutathione,” one serving daily for a week before the procedure and for one-to-two weeks afterward.

**Gluten or dairy:** Sensitivity to gluten, dairy, or both can make you feel foggy and tired. Gluten can also trigger or contribute to

## About Dr. Marlene

Dr. Marlene Merritt's passion for natural medicine is fueled by her drive to help others and by her own experience of overcoming a debilitating heart condition, diagnosed at the age of 20. A competitive cyclist at the time, she suddenly began experiencing severe chest pains. Forced to quit the sport, she suffered from fatigue and chest 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 degree and is board-certified in Nutrition, and is board-certified in Functional Medicine. She is certified in the Bredesen MEND Protocol™, a groundbreaking method of addressing Alzheimer's disease, and is a Proficiency Diplomate in the Shoemaker CIRS protocol for treatment of mold-related illness. She is the author of *Smart Blood Sugar* and *The Blood Pressure Solution*, and co-author of *The Perfect Sleep Solution*. After 31 years in private clinical practice, she now focuses on writing and educating health professionals and consumers to reach more people and positively impact their health.



depression. If this happens to you, avoid the offending foods.

## Supplements

Supplements can never substitute for the right diet, exercise, and any other lifestyle or health issues that need to be addressed. But they are beneficial.

**Nutritional insurance:** To guard against deficiencies, I recommend taking a multivitamin and/or a B complex supplement. A multi should contain about 100 percent of the daily value (100% DV) of the major vitamins, plus a variety of minerals. If you don't eat oily fish two or three times per week, I also recommend taking 1,000 mg daily of fish oil.

**CoQ10:** If you take a statin, take 100–200 mg daily, because the statin depletes it. Otherwise, you can take 100 mg daily. CoQ 10 is used by the heart and other muscles to produce energy.

**MCT oil:** This is a concentrated form of one type of fat found in coconut oil. (MCT is short for the technical name of the fat: “medium-chain triglycerides.”) This type of fat is quickly used for energy by the brain and the rest of the body. Studies have found that MCT oil can improve memory and other mental functions in older adults.<sup>14</sup>

MCT oil is sold both as a food and as a supplement in oil, powder, and capsule forms. You can add it to coffee (it's what makes “bulletproof coffee”) or other beverages or foods. Start with 1 teaspoon and gradually increase to 1 tablespoon or more per day.

**Herbs:** Although many herbs can have a beneficial effect on mental function, ginkgo biloba is a chief one that has been used for thousands of years. It enhances circulation and improves blood flow to the brain. Found in many formulas designed to enhance cognitive function, ginkgo

works even better when it's combined with ginseng.

## A Final Word

The diet and exercise I've described are your top tools, and if any of the *Other Risk Factors* on page 5 apply to you, those should get high priority.

Our health is influenced most by what we do or don't do every day. The points I described can help you not only maintain but also improve your memory and overall mental abilities.

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13 McDonough, I.M., et al. “The Synapse Project: Engagement in mentally challenging activities enhances neural efficiency.” *Restor Neurol Neurosci.* 2015;33(6):865–882.

14 Gianni, P., et al. “Medium-chain triglycerides may improve memory in non-demented older adults: a systematic review of randomized controlled trials.” *BMC Geriatr.* 2022 Oct 23;22(1):817.

## Related to This Topic

These are some earlier issues of this newsletter that address related topics:



Related Topic	Volume	Issue	Title
A Healthy Diet	7	1	My Low-Carb Diet — Fine-Tuned
Mold	2	11	Mold: The Hidden Trigger of More Than 40 Ailments
Infections	6	8	Bacterial Infections: How to Treat and Prevent Them
Thyroid	2	7	The 30-Day Thyroid Restoration Protocol
How to Avoid Toxins	1	7	The 21-Day Energy Restoration Plan
Sleep	5	4	Restful Sleep: How to Get Enough
Gluten	2	3	How Gluten Can Cause More Than 30 Health Conditions

Access these online by logging in to [www.NaturalHealthConnections.com](http://www.NaturalHealthConnections.com).



# Vicki wanted to lose weight, but she hated exercise – so how the heck did she **drop 32 pounds** in two months?

If you're having trouble losing 15 pounds or more, just see what happened to Vicki...

Like most of us hitting middle age, Vicki started packing on a few extra pounds each year. Her weight crept up so gradually she hardly noticed. But eventually, Vicki, her husband, and her doctor became concerned. As you might imagine, Vicki's self-esteem took a big hit.

Vicki tried to lose weight by depriving herself of all her favorite foods. She forced herself to eat boring salads and tasteless frozen diet meals. And she exercised like crazy (even though she hated it). But the extra pounds just wouldn't budge.

That's when a friend suggested Vicki try **Smash-It!** This nutrient-infused slimming shake was developed by Primal Labs – a leader in nutritional supplementation.

In the first month alone, Vicki lost 3.5 inches from her belly and 2 inches from her waist, hips, and thighs. And when you hear Vicki tell the story, you'll see why she feels like a different person. "I have so much energy. Oh my gosh, my co-workers noticed within two weeks I was dropping weight," she said. "I was walking around with a big smile on my face."

**It's easy to see why Vicki had a big smile. She lost 18 pounds in just 30 days merely by substituting one meal a day with Smash-It! But she wasn't done...**

In the second month, Vicki lost an additional 2.5 inches off her belly and waist, and 1.75 inches off her hips. **In only two months, Vicki lost a grand total of 32 pounds!**

What's more, Vicki lost all this weight with only minimal exercise. Which just shows you proper nutrition is 90% of successful weight loss. Because if you're eating the wrong foods, you can't exercise enough to get rid of unwanted fat.

And that's the secret of **Smash-It!**, the delicious meal-in-a-glass that works better than any diet or weight loss program.

**Smash-It!** has been scientifically formulated to fix the #1 reason most people can't lose weight: **TOXIC FAT CELLS**. Most people get stuck with unwanted pounds, not because of *too much* fat, but rather because of too much of the *WRONG* kind of fat.

This was proven in a landmark study at Temple University. Researchers studied fat cells of overweight people and found them to be toxic, inflamed, and unhealthy. Worse yet, these toxic fat cells "affect blood pressure, blood sugar, triglycerides, and cholesterol," according to *Future Medicine*.

Fortunately, a delicious **Smash-It!** meal replacement shake is an amazing improvement over any meal replacement, protein supplement, or "nutrition shake" you may have tried. In fact, by drinking a daily **Smash-It!** shake, you can:

1. FIX those toxic fat cells for good...
2. FIRE UP your metabolism and supercharge your health...
3. TAKE INCHES AND POUNDS OFF your hips, thighs, and waist, giving you the body you've been dreaming of...

Discover everything you will get with **Smash-It!** on the next page!



# Here's What You'll Find in Smash-It!

First, you'll get 21 grams of **quality protein** in a proprietary Quadsource Blend. This includes whey and pea protein, and even cranberry seed protein to help boost your metabolism and give you the nutrition you need.

Next, a patented *Spectra Blend* contains 29 of nature's most powerful, health-boosting fruit, vegetable, spice, and herbal extracts, including green tea, turmeric, broccoli, bilberry, cinnamon, blueberry, acerola, and many more.

You'd have to eat several servings of fruits and vegetables to get the **antioxidant power** you'll find in *Spectra Blend*. As you know, antioxidants fight the free radical damage that comes with aging. Plus, they increase nitric oxide production to support healthy blood pressure levels and brain function.

In **Smash-It!**, you'll also get:

- ✓ 3 grams of gut-healthy **fiber**, including oat fiber, xanthan gum, and blue agave inulin to help support healthy lipid levels
- ✓ 8 special **enzymes** to help you better digest your food
- ✓ 6 special **probiotics** – “friendly” bacterial strains to support regularity and immune function
- ✓ Biotin and chromium to help maintain healthy blood sugar levels
- ✓ Vitamins A, C, E, B, and D for more health benefits, including support for bone and brain health, as well as healthy blood pressure
- ✓ L-leucine, an amino acid that helps minimize the loss of lean muscle tissue – something to guard against as you age (and when losing weight)
- ✓ And many more vitamins, minerals, and other nutrients to maintain your good health

But what about fat? You know you need fat to feel full and satisfied, so you won't be tempted by unhealthy carbs and sweets. But it has to be *good* fat, not the bad fats typically found in fast and processed foods.



Well, **Smash-It!** contains the absolute **best kind of fat** – medium chain triglycerides found in coconut oil that your body easily burns for energy. And as an added bonus, these fats help support cognitive health.

What's more, the Primal Health team knew that if it didn't taste great, you wouldn't drink it. So, **Smash-It!** comes in rich chocolate, strawberry, and vanilla caramel flavors. It's sweetened with monk fruit that's actually sweeter than sugar. **Smash-It!** contains just one gram of sugar per serving. Compare that to Ensure, with its unhealthy 15 grams of sugar.

With **Smash-It!**, you can **safely and easily melt off up to 15 pounds in just one month**. And enjoy all these benefits in just 30 seconds a day – with minimal exercise and **NO** impossible-to-maintain diet. What's not to love?

And no worries... Try **Smash-It!** completely risk-free with a no-questions-asked 100% money-back guarantee.

Just like Vicki, now YOU can start shedding those unwanted pounds. Imagine looking and feeling years younger... Fitting into your skinny clothes again... Sounds amazing, doesn't it? Say hello to your new life.

**TRY IT TODAY! Smash-It! Nutrient-Infused Slimming Shake**  
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For Faster Service, call 1-888-309-0629  
Monday-Friday 7 a.m. to 6 p.m. CST • Saturday-Sunday 8 a.m. to 5 p.m. CST



# Technology for Managing Blood Sugar

Diabetics who use insulin must check blood-sugar levels often, and many others can also benefit by tracking their levels. But the traditional test — pricking a fingertip and testing blood with a strip — is not an easy way to do it.

Continuous glucose monitors (CGMs) are a newer, FDA-approved tool that makes the process much simpler, less invasive, and more effective. Fingertick tests give only a snapshot of blood sugar at a given moment, whereas CGMs provide a bigger picture of ongoing blood-sugar levels.

CGMs have been available for some years, but until a few months ago they always required a prescription. Some of my patients have had difficulty getting a CGM prescribed because their doctor was not familiar with the device and didn't feel it was necessary.

High prices have also been a huge barrier. Although Medicare and other insurance plans have been covering some of the costs, they do so only for diabetics — not other people who would benefit by managing blood sugar to prevent diabetes and improve health.

But recently, CGMs have become much more accessible and affordable. And for people who aren't using insulin, CGMs are available without a prescription.

## How CGMs Work

A CGM measures blood glucose with a sensor, worn under a small patch on the upper arm. Each sensor, which is worn continuously, needs to be replaced

after 7 to 15 days, depending upon the CGM model. While wearing a sensor, you can shower, exercise, sleep, and go about the rest of your day as usual. With some CGMs, you can also swim.

The sensor continually monitors blood sugar and transmits readings to a smartphone, smartwatch, or other digital device. Depending on the CGM brand and model, blood sugar may be checked every minute, every few minutes, or every 15 minutes. While wearing a CGM sensor, you can simply look at your smartphone or other monitoring device any time to check your blood sugar.

## Why Use a CGM

For people with or without diabetes, a CGM is an educational tool that gives you a peek into the inner workings of your body.



Learning how foods, stresses, exercise, and sleep habits affect your blood sugar is invaluable information. From there, you can adjust these factors to your body's needs to improve your blood sugar and overall health.

As your health improves, your reaction to these same factors will change. Then, you can adjust your lifestyle again, probably in smaller ways. Athletes and fitness buffs who are not diabetic or prediabetic use CGMs to help them fine-tune their diet and exercise regimen.<sup>1</sup>

## Types of CGMs

**Prescription CGMs:** These are for diabetics who use insulin; they should be covered by Medicare or other insurance.

Until recently, without insurance, initial costs for a prescription CGM ranged from about \$250 to \$1,000 or more for a starter kit with a receiver and sensors for the first two months or so. After that, sensor prices have varied from around \$45 to \$60 each. But more recent prescription models can cost less: around \$150 to \$200 (FreeStyle Libre) and around \$50 per sensor. Health Savings Accounts and some Flexible Spending Accounts can be used for CGM costs.

**Over-the-counter CGMs:** Earlier this year, the FDA approved these two

CGMs, which work with a smartphone or smartwatch:

**Stelo ([www.stelo.com](http://www.stelo.com)):** For diabetics who do not use insulin, for people with prediabetes, and for those who want to track blood sugar to improve their health. Price is \$99 per month for two sensors or \$89 per month with a subscription. The app works with Apple and Android smartphones and smartwatches.

**Lingo ([www.hellolingo.com](http://www.hellolingo.com)):** For healthy people who do not have prediabetes or diabetes but want to track blood sugar to improve their health. One sensor, for two weeks' wear, costs \$49. As we go to press, the app is available only for iPhone.

<sup>1</sup> Klonoff, D.C., et al. "Use of Continuous Glucose Monitors by People Without Diabetes: An Idea Whose Time Has Come?" *J Diabetes Sci Technol.* 2023 Nov;17(6):1686-1697.

# Health Benefits of Trees

A new study at the University of Louisville, in Kentucky, shows that trees do more than provide shade and enhance the look and feel of an area. They deliver a significant health benefit.

The university's Green Heart Louisville Project found that increasing the number of trees and shrubs in a neighborhood significantly lowers residents' levels of inflammation — a major risk factor for heart disease, diabetes, and other chronic illnesses.<sup>1</sup>



## Study Details

In 2018, researchers chose a four-square-mile area of south Louisville, where they measured air pollution and tree coverage, and tested health markers of 745 residents between the ages of 25 and 75. Blood, urine, hair, and nail samples were used to document health data.

Then, the research team partnered with other organizations and contractors to plant mature evergreen trees and shrubs in some, but not other, neighborhoods within the study area. By 2022, more than 8,400 trees and shrubs had been planted in designated areas. During the next two years, study participants' health markers were retested.

Here's what the study found: Compared to people whose neighborhoods did not receive new trees and shrubs, those in the greened neighborhoods had 13–20 percent lower levels of a key marker of chronic inflammation: high-sensitivity C-reactive protein (hs-CRP).

The reduction is significant. It's associated with a 10–15 percent lower risk of having a heart attack, getting cancer, or dying from any disease. And other research shows that nature reduces anxiety and enhances mood and overall well-being.

## What To Do

This Louisville project enabled a *lot* of trees to be planted. As individuals, we don't have the power to suddenly transform our own neighborhoods. But, where possible, we can support community efforts to make our neighborhoods greener. And we can do our best to seek out and spend more time in nature.

If you aren't familiar with parks and hiking trails in your vicinity, it's never too late to learn about them and explore. Spend time in parks and green areas near your home, and for more outdoor adventures, check out the National Park Service website at [www.nps.gov](http://www.nps.gov).

<sup>1</sup> Sears, C.G., et al. "The Effects of Neighborhood Greening on Inflammation in The Green Heart Project." ISEE 2024: 36th Annual Conference of the International Society of Environmental Epidemiology. 25 August 2024. <sup>2</sup> Kaur, E., et al. "Arm Size Coverage of Popular Over-the-Counter Blood Pressure Devices and Implications in US Adults." *Hypertension*. 2024 Sep 5. doi: 10.1161/HYPERTENSIONAHA.124.23473. Online ahead of print. <sup>3</sup> Lo, C.-H., et al. "Association of Ultra-processed Food and Unprocessed or Minimally Processed Food Consumption With Bowel Habits Among U.S. Adults." *Clin Gastroenterol Hepatol*. 2024 May 15:S1542-3565(24)00448-8.

# Blood Pressure Cuff Size

Most of today's blood pressure monitors are automated; you push a button and they inflate. Typically, they all come with the same-sized cuff. But a recent study has found that these cuffs don't fit more than 17 million American adults.<sup>2</sup> And if the cuff is the wrong size, your readings won't be accurate.

The study, by researchers at the Johns Hopkins Bloomberg School of Public Health in Baltimore, tested ten monitors that are popular on Amazon. Each of these came with only one cuff size, for arms that measure between 8.6 and 16.5 inches. Some manufacturers sell smaller or larger cuffs for an extra cost.

Readings will be falsely high with a cuff that's too small, and falsely low with one that's too big. Be sure to use a cuff that fits.

# Foods and Constipation

You've probably heard that ultraprocessed foods are unhealthy. They contain industrial ingredients that you wouldn't find in nature or in a home kitchen, such as emulsifiers, gums, and various hard-to-pronounce chemical substances. These increase risk for high blood pressure, obesity, heart disease, diabetes, cancer, and more.

But that's not all. The latest study on the subject found that consuming ultraprocessed food more than doubles the odds of constipation, because it disrupts normal digestion.<sup>3</sup>

# Olive Oil Tips

Extra virgin olive oil, best known as part of the Mediterranean diet, is a healthy fat that contains anti-inflammatory compounds and anti-



oxidants. As well as adding flavor to food, it helps to protect against heart disease, joint problems, brain deterioration, and cancer. And there are different ways to benefit.

Combined with vinegar or lemon juice, and perhaps herbs, it makes a healthy and tasty salad dressing. Drizzling it on cooked vegetables and adding some seasoning can turn bland dishes into delicious ones. But there's more.

## Cooking With Extra Virgin Olive Oil

In discussions of cooking, we often hear about the smoke point of different oils, which is the temperature at which an oil begins to burn and smoke. This gives food an unpleasant, bitter flavor.

Olive oil is often dismissed as an oil to cook with because it has a lower smoke point than some other oils. For example, avocado, peanut, and refined coconut oil can

be used with high heat, for frying, stir frying, or broiling. However, extra virgin olive oil works well in medium or low heat — when sautéing or baking.

What's the difference between frying and sautéing? When frying, food is at least partially submerged in fat. Fried chicken is an example; it cooks in the fat. Olive oil is not a good fat in this case, because the temperature required to cook the food is too high.

Olive oil works well for sautéing, which requires lower temperatures. Sautéing uses less oil — just enough to coat the bottom of the pan to prevent sticking — and it gives the food a nice flavor. (Butter is another sautéing option, for a different flavor.)

## Preserving Nutrients

Cooking will destroy some nutrients in olive oil. But there are ways to reduce the loss.

When Spanish researchers tested nutritional content of extra virgin olive oil before and after cooking in different ways, they found the higher the temperature, the more nutrients are degraded. How long a food cooks has a lesser effect.<sup>1</sup>

In other words, you will preserve more nutrients in extra virgin olive oil if you sauté or bake at a lower temperature, even though you will probably need to let the food cook longer. The Spanish study concluded that the oil is still a healthy fat when used in cooking this way.

How you store olive oil also helps to preserve nutrients. There's no need to keep it in the fridge if you're going to use it within a month or so. Olive oil starts to become somewhat solid when chilled because it contains some saturated fat, and you will need to let it warm up to room temperature each time you take it out of the fridge. But this is unnecessary for everyday use.

Keep olive oil in a cool place — not by or above the stove. And it's best to choose a product in a dark bottle or keep it in a cupboard, away from light. Rancid olive oil has a strong, unpleasant taste and smell, which people have compared to chemicals, plastic, crayons, old walnuts, or putty. Don't eat rancid olive oil

If you're cooking with vegetable or corn oil — both of which are inflammatory — extra virgin olive oil is a better option for anything that doesn't require high heat. And the olive oil is much more versatile.

# Gum Disease and Diabetes Complications

Gum disease increases risk for diabetes and diabetes complications, such as diabetic neuropathy and vision problems. At the same time, type 2 diabetes increases the risk for gum disease: gum inflammation that, left untreated, is the most common cause of tooth loss. The link is so strong that a group of Danish researchers recently suggested that where one condition is present, the

other should also be checked for and addressed.<sup>2</sup>

Whether you have type 2 diabetes or not, if you have sore or bleeding gums, or haven't seen a dentist in years, make it a point to get your mouth examined. For keeping your teeth healthy, I describe a very effective protocol in an earlier issue of this newsletter: Volume 3, Issue 10, *The 5 Simple Steps to Healthy Teeth and Gums*.

<sup>1</sup> Lozano-Castell n, J., et al. "Domestic Sautéing with EVOO: Change in the Phenolic Profile." *Antioxidants* (Basel). 2020 Jan 16;9(1):77. <sup>2</sup> Bitencourt, F.V., et al. "Periodontitis and Diabetes Complications: A Danish Population-Based Study." *J Dent Res*. 2024 Aug;103(9):870-877.



# Q&A

**Q: I have been taking a blood-pressure medication and recently started to also take some supplements to lower blood pressure. Since starting the supplements, my blood pressure has gradually been dropping, but I also got dizzy, so I stopped taking the supplements. What should I do? — Amy J.**

**A:** Although I can't give you a medical diagnosis, your blood pressure may be improving as a result of the supplements, and your drug dosage may need to be adjusted by your doctor.

I am not telling you to stop the medication. Rather, I recommend that you bring your blood pressure readings and notes about dizziness to your prescribing doctor. If you have experienced any other improvement or made any changes in diet or exercise, your doctor should know that, too.

With your current information in hand, your doctor can determine the best option. Keep in mind that the average patient who takes a blood pressure medication doesn't make any changes in their life, and their overall health does not improve. You are a happy exception, and your doctor should be happy to help you.

**Q: You recommend eating every three hours, but I can't do that when I'm at work. Is there an alternative to eating every three hours? — Monty B.**

**A:** Yes, there are things you can do. But first, I want to review why I recommend eating that often. With the typical American diet that is too high in carbs, blood sugar rises sharply after eating and then crashes within the next few hours. The blood-sugar crash can lead to low energy, brain fog, or irritability, along with cravings, especially for high-carb and sugary foods or drinks.

More carbs or sugar make the cycle repeat. Over time, this leads to various health maladies that afflict many people, such as prediabetes, diabetes, weight gain, and chronic inflammation.

The trick to breaking this cycle is to eat in a way that leads to more stable blood sugar. This requires eating low-carb meals with enough fat to keep you satiated and eating often enough.

Eating every three hours works well for most people. However, I've occasionally had patients who needed to eat every 90 minutes for 6 weeks before their blood sugar became stabilized enough for them to eat less often.

Gradually, they extended the time between meals and snacks. Now, they just eat three meals a day without experiencing low energy, moodiness, or brain fog because they no longer have drops in blood sugar that were causing those symptoms. Many people who follow my approach don't need to eat between meals once their blood sugar has stabilized, but it's an essential step to reach that point.

If you eat fewer carbs and more fat at each meal, then your blood sugar becomes steadier for longer

periods of time. For example, you can add butter or cheese to cooked vegetables — use full-fat cheese. If you drink protein shakes, add some peanut butter. If you eat oatmeal in the morning, add some MCT oil or powder to it. MCT powder can be added to any food. (See page 6 in this issue for more information about MCT oil.)

You can also add fat to beverages. If you drink coffee, for example, avoid low-fat or nonfat milk as well as sugary syrups that add flavors. Instead, use full-fat milk, half-and-half, or a touch of heavy whipping cream, or try adding MCT oil or powder, coconut oil, or coconut cream. If you want sweetness, try stevia, which is available in plain and flavored liquid versions.

In other words, low-carb meals with some fat can help to tide you over to your next meal. In addition, if you get enough sleep and some regular, moderate exercise, you should be able to maintain stable energy while eating less often.

## Do you have a question for Dr. Marlene?

Send your health-related questions to [drmarlene@naturalhealthconnections.com](mailto: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. If you need help with your subscription or have questions about Primal Health supplements, email [support@primalhealthlp.com](mailto:support@primalhealthlp.com) or call 877-300-7849.