Dr. Marlene's
NATURAL HEALTH CONNECTIONS

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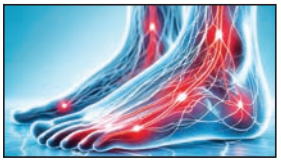
CONTENTS

Peripheral Neuropathy: Causes and Remedies

There are no drugs to effectively treat peripheral neuropathy. But the right nutrition and exercise can help to relieve symptoms or prevent the condition from developing.



We've all had an arm or foot "fall asleep" because we sat or lay down in a way that temporarily cut off circulation to the area. Once we move so that circulation is restored and the numbness starts going away, we get that "pins and needles" tingling sensation. Peripheral neuropathy can include those and more severe sensations, pain, and numbness to varying degrees — and it doesn't go away.

Symptoms develop because of injury to peripheral nerves — the nerves in the extremities of our bodies, such as feet and hands. Injury can be mechanical, such as repeated compression of toes by boots in rock climbing or skiing, injury from impact in sports, or some other type of accident.[1]

In carpal tunnel syndrome, a nerve in the wrist is compressed due to repetitive movement on a computer or during other tasks. This can lead to pain, numbness, tingling, or weakness in the fingers.

However, these are not the causes of most peripheral neuropathy; type 2 diabetes is.[2] And diet and lifestyle changes to better manage, and sometimes reverse, type 2 diabetes, are an essential part of the remedy in such situations.

In fact, damage also occurs with prediabetes — blood sugar that is elevated but not high enough to be diabetes. And before that, the first sign of a malfunction is elevated fasting insulin. This is not tested in people who aren't insulin-dependent diabetics, but it should be.

Nutritional deficiencies, especially of vitamin B12 and other B vitamins, can also cause neuropathy. These can be corrected. In addition, I'll cover some specific herbs and nutrients that help.

IN THE NEXT ISSUE:
Simple Signs of Health or Unwellness

Injury to peripheral nerves can also be a side effect of chemotherapy, and there is no medical treatment to prevent or treat it. Some supplements, which I'll cover, can reduce damage but can't prevent or completely reverse such side effects.

With chemo, some damaged cells die but other cells survive. Cells that aren't killed off but are damaged have a better chance of functioning. How much damage occurs depends on the health of cells before chemo and the levels of toxicity they are exposed to.

I'll discuss this type of injury in more detail in a moment. Although it isn't always possible to return full function to damaged nerves, there are things you can do to improve the situation.

To keep peripheral nerves healthy, there are basic diet, exercise, and lifestyle steps you can take, which I'll cover below. And when neuropathy exists in these nerves, it's essential to identify the cause of the damage and address it. As I mentioned, type 2 diabetes is the most common trigger. But in addition to the other causes I mentioned, toxicity from heavy metals or mold can sometimes be the culprit.

I'm including a list of symptoms on this page. If you're suffering from any of these, you likely don't need to be reminded. However, I've seen many people who were unaware that they were experiencing symptoms, which can be subtle but dangerous. In such situations, I hope the list can help to raise awareness.

Before I describe remedies, it's important to understand what the peripheral nerves are, what keeps

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Symptoms of Peripheral Neuropathy

Symptoms can fall into two types: absence of sensation that should occur — numbness or reduced feeling — or sensations or pain that shouldn't occur. Here are some examples:

Lack of sensation, including:

- Not being able to feel pain or discomfort, or feeling it less. An example is stepping on a sharp object that cuts the foot and not feeling it. As a result, the wound is not treated and can easily become infected.
- Not feeling hot or cold. Stepping on or touching a surface that is very hot or very cold can cause injury.
- Not feeing vibration. This could lead to loss of balance.
- Weakness.

Increased sensation, including:

- Tingling.
- Chilling or freezing.
- Burning.
- Prickling pain or sensation.
- Shooting pain.
- Electric shock-like sensations.
- Feeling pain or discomfort from touching things that shouldn't trigger such reactions, such as a foot brushing against a bed sheet.
- Slight pressure causing abnormal pain or discomfort.

Stocking and Glove

Because symptoms most often start in the feet and then progress to hands, researchers have described this as a stocking-and-glove pattern.

Chemotherapy

With chemotherapy, peripheral neuropathy symptoms can be temporary, starting days or hours after treatment, or they may start a few months afterward. And sometimes, they become chronic. Symptoms often follow the stocking-and-glove pattern.

them in good shape, and why they are susceptible to damage.

The Importance of Circulation

Nerves in the feet are the farthest from the brain and are the most susceptible to damage. Symptoms may be very subtle and easy to ignore at first. Some people may notice symptoms in their hands before they notice them in their feet, because their feet may have lost sensation and they aren't aware of it.

The peripheral nerves in the extremities are very small and are fed with oxygen and nutrients through capillaries — blood vessels that are also very small. For a more detailed description, see on right: *How Big Are the Capillaries that Feed Peripheral Nerves?*

The blood flow through these tiny vessels is called "microcirculation." Good microcirculation is essential to maintain healthy peripheral nerves and normal perception and sensation.

If capillaries aren't working properly, they can't deliver enough oxygen and nutrients to the nerves, causing nerve cells to die off. There may also be direct damage to nerves from high blood sugar, an accident, chemotherapy, or other toxic insults to nerve cells.

The Dangers

Nerves send signals to different parts of the body and the brain. Damaged nerves can interfere with normal communication throughout the body in several ways.

They can block signals, producing numbness or an inability to feel sensation and vibration. They can also send signals that shouldn't be sent, such as stabbing pain or tingling for no reason. And they can alter messages, making a towel that touches a foot trigger searing pain.

Loss of sensation can lead to seemingly minor injuries that are ignored and become infected, or to loss of balance and coordination, which can lead to higher risk of falls. Walking can become difficult.

In hands, loss of sensation can make it difficult to fasten buttons or perform other tasks we take for granted. Handling scissors or a knife, for example, can lead to cuts. And it can lead to poor coordination — dropping an everyday object that lands on a foot and causes an injury.

Not being aware that sensation is missing can make it hard to believe that something is amiss. Diabetes takes years to develop, and so does loss of sensation. But because it happens gradually, it seems "normal."

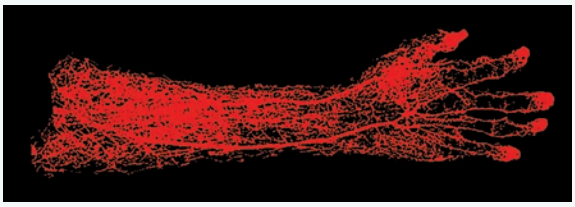
Sensation Testing

If there's even a slight possibility that you've lost some sensation in your feet, I recommend asking

How Big Are the Capillaries that Feed Peripheral Nerves?

Our bodies have three main types of blood vessels that carry oxygen and nutrients from the heart to organs and tissues and remove waste, such as carbon dioxide and other byproducts.

- Arteries carry blood from the heart to organs and tissues and are the largest in diameter.
- Veins carry blood back to the heart and are next-largest.
- Capillaries are the smallest, and they are tiny —smaller than a human hair. They connect arteries and veins and supply blood and nutrients to areas that the bigger blood vessels don't reach. In the feet and hands, healthy capillaries are essential for healthy nerves.



The blood vessels of the hand. This real hand specimen, injected with a dyed plastic, gives a reare glimpse at our amazing network of blood vessels. Some of the capillaries, the smallest blood vessels, are so thin that they are barely visible.

The diameter of human hair, capillaries, red blood cells (which have to squeeze through capillaries), and peripheral nerves is measured in microns (also called micrometers). Here's how these compare:

- Diameter of a human hair: 17–181 microns
- Diameter of a capillary: 2–12 microns
- Diameter of a red blood cell: 8 microns
- Diameter of a peripheral nerve in the extremities: 2–12 microns

your doctor to give you a test. I've seen many people resist being tested, but it's better to discover a problem earlier, rather than later.

Doctors test for numbness in several ways, including: They touch different points on each foot with a soft nylon fiber — technically called a "monofilament" — to see whether you can feel it. (You can't look to see where the fiber is touching your foot.) They test how well your legs and arms are conducting electrical signals. They check responses to vibration and temperature changes. And they may do additional tests, based on an individual's health situation and medical history.[3]

There are home "monofilament" tests you can buy online. However, the home test is not reliable for detecting neuropathy. A review of research concluded that it was not accurate unless neuropathy had significantly progressed, to a point where there were visible ulcers on the feet.[4] You want to detect neuropathy much sooner — as early as possible — because that's when you have the best chance of repairing damage.

You should also get levels of fasting insulin, fasting glucose, and A1c tested to see if diabetes or prediabetes is an underlying factor. All too often, it is.

The steps I'm going to give you next will enhance the health of the tiny capillaries — microcirculation — and the nerves. And where damage has already been done, the same steps will help with repair. The sooner you detect a problem and start addressing it, the better your results will be.

Food Sources of Flavonoids

These are some good sources of flavonoids:

- Apples 
- Beets 
- Berries 
- Broccoli 
- Celery 
- Citrus Fruits 
- Dark Chocolate 
- Garlic 
- Hot Peppers 
- Kale 
- Legumes 
- Onions 
- Parsley 
- Red Cabbage 
- Red Grapes 
- Scallions 
- Spinach 
- Tea 
- Thyme 

Aim to eat a variety from the list above and include some in at least one meal each day. In addition, consider this daily food plan to boost microcirculation:

- 1 clove of raw garlic
- 1/3 of a chocolate bar containing 85 percent or more cacao
- 2 to 3 ounces of berries
- 3 to 4 cups of green tea
- 1 serving of beets, raw or cooked

About beets: As well as being a source of flavonoids, beets contain natural nitrates that enhance your own production of nitric oxide, a compound that helps to dilate blood vessels and improve circulation. (Celery is also a rich source of natural nitrates.)

What to Eat

As I mentioned, type 2 diabetes is the most common cause of peripheral neuropathy. As a foundation to prevent or reverse the disease, I recommend following my low-carb diet of whole foods. I describe it in detail in earlier issues of this newsletter, listed in *Related to This Topic* on page 7.

In addition, aim to eat plenty of foods that are high in flavonoids. These are a family of nutrients that are found in plant foods. Researchers have identified more than 8,000 different flavonoids.[5]

Flavonoids are powerful antioxidants. Oxidation — an internal byproduct of metabolism — is much like rusting. For example, oxidation makes apple slices turn brown. Flavonoids are also anti-inflammatory, and they help the immune system to function well and protect against cancer.

Flavonoids are beneficial in many ways, especially for

A Spicy Tip

Sprinkling some cayenne pepper in your socks improves circulation, can help to relieve foot pain, and keeps your feet warm in cold weather. About one-quarter teaspoon in each sock should work. It's especially helpful if you're skiing or hiking in winter.

improving the health of capillaries that feed peripheral nerves. They improve microcirculation, which is crucial for preserving and repairing peripheral nerves.

All plant foods contain flavonoids but some are especially good sources. And since there are so many types of flavonoids, different plants provide different ones, so eating a variety of them will deliver the most benefit. For some top sources, see *Food Sources of Flavonoids* on page 4. These should be part of a rainbow of brightly colored vegetables in your diet, including red, orange, yellow, green, blue, and purple ones.

B Vitamins

Vitamin B12 is essential for nerve health, and a deficiency can lead to peripheral neuropathy. A severe deficiency can also lead to a reversible type of dementia.

Vitamin B12 is stored, mostly in the liver, and there's generally enough to supply adequate amounts of the vitamin for years. However, if there is a lack of B12 in the diet for a long period, as can sometimes happen with a vegan diet that is followed for many years, that stored supply can be exhausted, creating a deficiency. (This is why B12 supplements are always recommended for people who eat no animal foods, which are the only food sources of B12.)

In an unusual and extreme case, one of our patients was a young woman who had previously had liver surgery as part of the treatment for a serious infection. It seemed to go well. But about two months later, she developed peripheral neuropathy that was so debilitating, she could hardly walk.

Tests revealed that she had depleted her stores of vitamin B12 and had developed a severe deficiency. Supplements were not enough to restore her levels, but a series of B12 injections raised her level and relieved her peripheral neuropathy.

More often, the lack of B12 is more subtle and develops over a longer period of time, much like diabetes. Next time you get blood tests at your doctor, you can ask for your B12 level to be checked.

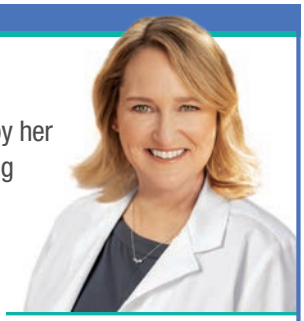
Meanwhile, I recommend taking a B complex supplement with B12 and other B vitamins, as they are all necessary for healthy metabolism of carbohydrates. Diabetics use more B vitamins to digest carbs. And, if metformin is taken, it depletes B12.

If you have any symptoms of peripheral neuropathy or if it runs in your family, you can take an extra B12 supplement as a spray or in sublingual tablets that dissolve in your mouth. These are absorbed faster than capsules.

There are two types of B12 in supplements: cyanocobalamin, a synthetic form, and methylcobalamin, a naturally occurring form found in food. A study of diabetics who had taken metformin for four years found that they lacked B12. Taking the methylcobalamin form — 1,000 mcg daily for a year, or 1,500 mcg daily for four months — effectively raised B12 levels and reduced symptoms of neuropathy.[6]

Vitamin B12 depletion is not always a trigger of peripheral

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.

neuropathy, and if it isn't, taking a B12 supplement probably won't produce any noticeable improvement. But I do recommend always taking a multivitamin with about 100 percent of the Daily Value of the main vitamins. It's insurance against nutrient shortfalls for all of us, and especially for diabetics.

Ginkgo

Ginkgo is an herb that has been used medicinally for centuries for many ailments. It contains flavonoids and a variety of other beneficial compounds, and it acts as an antioxidant.

Ginkgo has been shown to improve microcirculation in two ways: It helps to dilate blood vessels and it makes red blood cells squishier, so that they fit through tight capillaries more easily.

This effect enhances blood flow to peripheral nerves and to other parts of the body. In the brain, better microcirculation improves memory and mental function. The same effect can also help to slow or reverse the progression of atherosclerosis.

Studies of its effect on peripheral neuropathy have tested the herb on type 2 diabetics, because it is such a common cause of neuropathy. The research shows that gingko has improved nerve conduction[7] and, with six months of daily use, significantly reduced type 2 diabetics' neuropathic pain and improved their sense of touch.[8]

Studies have used different formulations and dosages of ginkgo. Take one serving daily or, if needed, two servings daily.

Carnitine

Carnitine is a nutrient found in animal products, with red meat being the richest source. In supplements, it has been shown to reduce symptoms for people with peripheral neuropathy due to diabetes, damage from antiretroviral drugs,[9] or chemotherapy.

Carnitine is essential for proper function of mitochondria, energy-generating components of every cell, including peripheral nerve cells.[10] Chemotherapy damages mitochondria, and carnitine may help to restore function to those vital components of cells.

For peripheral neuropathy, studies have used a form of carnitine known as acetyl-l-carnitine. One Chinese study tested the supplement on people suffering from chemo-induced peripheral neuropathy. It found that taking 3 grams (3,000 mg) daily for 8 weeks significantly reduced symptoms in half the patients, while others experienced more subtle improvements. Study participants also felt less cancer-related fatigue.[11]

CoQ10

CoQ10 is another nutrient that is essential for energy production by the mitochondria, which declines as we get older. For anyone who takes statin drugs to lower cholesterol, CoQ10 supplements are esssential because the drugs deplete the nutrient.

For peripheral neuropathy, animal studies have found that CoQ10 can help to prevent and relieve the condition. And it can help nerves to regenerate.[12]

In a human study, CoQ10 was compared with a placebo among people with painful diabetic neuropathy who were taking a medication for the condition. After four months, those who took the supplement daily — 100 mg every 8 hours —had significantly less pain than those taking a placebo.[13]

CoQ10 is usually fat-soluble, so it should be taken with some fatty food. However, some products are now being formulated to be water-soluble, and those don't require fat for absorption.

Among my patients, taking 100 mg daily has helped to prevent and relieve diabetic neuropathy.

Exercise

The fact that I'm talking about exercise near the end of this article does *not* mean that exercise is last in importance — it is not. In fact, exercise is essential for both preventing and relieving peripheral neuropathy.

Remember, good circulation is necessary to deliver oxygen and nutrients to your capillaries — the small blood vessels that feed peripheral nerves in your feet — as well as to the rest of your body. Walking is a basic way to keep your circulation humming. But what if your feet hurt or have lost sensation, and walking is a problem? These are some other exercises you can and should do:

- If you have access to a stationary recumbent bike — the kind that puts you in a reclined sitting position — start cycling. With this type of bike, you don't need to put any weight on your feet, but you'll still be getting circulation-boosting exercise.

- As an alternative, use an inexpensive pedal or elliptical exerciser. There are many products like this online; costs start around $20.
- When you wake up in the morning, go to the bathroom if needed, and then lie down on your bed. Do some bicycles in the air, ten times, rest, do another ten, rest, and do ten more. Do this again later in the day. Over time, work up to doing 12 cycles in each set, then 15, 18, and so on.
- This is a quick exercise you can do any time to boost circulation in your feet and calves: While sitting, lift your heels, keeping your toes on the floor; then, put your heels down and lift your toes. Repeat that for 30 seconds or, if you don't have a timer, 25 to 30 times.
- For arm exercises, pretend you're boxing, punching out in front of you, multiple times with one arm and then the other. And then, punch with alternating arms.
- Do arm cycles in front of you, as though you're riding a bike but pedaling with your arms.

A Final Word

Diet, exercise, and supplements can all help to relieve peripheral neuropathy.

However, it's also vital to address any treatable cause, such as diabetes. If there is a toxic insult going on in your environment, such as exposure to mold in your home or work environment, or other toxins, that also has to be dealt with. Otherwise, you're fighting a fire even as it's being stoked.

How much improvement occurs depends on the degree of damage and what steps you take to enhance microcirculation and the health of capillaries and nerves. Some people can regenerate more nerve cells than others; we don't know why.

That said, the most important thing to keep in mind is that improvement is always possible.

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
Healthy Fats	4	11	Healthy Fats: Deadly Myths and Life-Saving Facts
Eating Meat	3	2	The Diabetic's Guide to Eating Meat
Food Sensitivities	7	6	Food Sensitivities: Are They Hurting You?
Toxins in Food	1	7	The 21-Day Energy Restoration Plan
Exercise	1	7	The Secret to Effective Aerobic Exercise (page 7)
Diabetes	6	12	Diabetes Drugs and Supplements: Your Top Questions Answered
Diabetes	5	2	How to Use Supplements to Prevent and Reverse Type 2 Diabetes
Getting Off Drugs	7	12	Herbal Supplements: How to Get the Full Benefits (see "Herbs, Drugs, and Doctors" on page 3)

Access these online by logging in to www.NaturalHealthConnections.com.

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Is Your Phone Hurting You?

Once upon a time, phones were just for talking, and then there were texts. Eventually, phones became mini computers connected to the internet, with never-ending streams of social media and other online content. But too much of it can be detrimental to our mental health.[1]

Studies show that half of Americans who use smartphones — and 80 percent of those under age 30 — worry that they use their devices too much. And research has linked heavy smartphone use to decreased well-being and mental function.

To get a better sense of how smartphones affect us, a team of American and Canadian researchers ran an experiment. They asked 467 adults who used their phones a lot to access social media and other internet content to use them only for calls and texts for two weeks.

It worked like this: Study participants installed a phone app that blocked internet access but allowed calls and texts. They could access the internet on their desktop computers or laptops, but not on their phones.

Researchers could monitor use of the app, so participants couldn't cheat. The study revealed some interesting benefits.

Without internet access on their phones, study participants spent more time socializing in person, exercised more, and spent more time outdoors in nature. They felt better, they were more satisfied with their lives, their outlook became more positive, their mood improved more than with antidepressants, and their attention span improved significantly — the equivalent of being ten years younger in some cases.

What We Can Learn

The effect of phones differs from that of computers. Unlike computers, phones are with us all the time. And they constantly occupy people — in waiting rooms, at bus stops, in line at a coffee shop or post office, and many other places.

Before smartphones, people might chat with others in their vicinity. Now, it isn't uncommon to see a group of friends sitting together in a restaurant but not talking to each other. Instead, each person is fixated on their phone.

If you use a smartphone, the next time you reach for it to check social

media or other online content, stop and ask yourself: Is it important? What might you be doing instead?

This doesn't mean that all smartphones, social media, and other online content are bad. If you stay in touch with friends or family through social media, for example, that can be a good thing. But do talk to them as well, at least once in a while.

Smartphones and the internet can work for you or against you. It depends on how you use them.

If you'd like to try your own internet-blocking experiment, you can download the app that was used in the study: Freedom. There are free and paid versions. For more information about the Freedom app, visit https://freedom.to/.

Stay Vigilant During Flu Season

As you probably know, we're having an exceptionally virulent flu season in many parts of the country. Although RSV, norovirus, and COVID are also circulating, the flu is causing the most havoc. And risks for bird flu, which I wrote about in last month's newsletter, are still not known.

To protect yourself, wear a mask if you're going to be in crowded spaces or near people who are sick. And wash your hands often, with soap, lathering long enough to hum the Happy Birthday song twice.

I know you've heard this before, but it works. Please stay safe.

1 Castelo, N., et al. "Blocking mobile internet on smartphones improves sustained attention, mental health, and subjective well-being." PNAS Nexus. 2025 Feb 18;4(2):pgaf017.

5 Important Reasons to Get Green SUPER FOODS Into Your Diet

Reason #1

You don't eat enough fruits and vegetables.

Eat your broccoli! Can you hear your mother say it? Sure, but do you really want to?

Getting the fresh vegetables you need every day for good health isn't easy, or fun.

Fruits are friendlier, but unless you're eating berries, you're getting too much sugar. Apples, bananas, oranges, grapes and melons are especially high in sugar. And too much sugar impacts your weight, your blood glucose, and your lipid profile.

And yet vegetables and berries are essential to good health. And that's why, today, many people are choosing Primal Labs' **Super Greens** nutrient drink.

This delicious raspberry-flavored powder mixes easily in water, or can be added to a smoothie. It's loaded with nutritious phytonutrients, alkalizing chlorophyll and free-radical-fighting antioxidants.

In less than one minute you get all the green nutrients you need for the day!

Reason #2

You want a healthier body chemistry

Did you know your body's natural pH is 7.4? That's slightly alkaline, which is exactly what your body needs for good health.

But your body's natural pH can come under assault from the typical Western diet, which leans acidic, with a pH between 5 and 6.9.

For example, red meats, deli turkey, sodas, grains and processed foods are all acidic foods. Alcoholic beverages are acidic, too. And even some cheeses are acidic.

It's not hard to choose foods that are almost all acidic, and that can push your natural pH levels down.

Super Greens nutritional drink comes to the rescue with its concentrated formula of alkalizing superfoods that provide essential phytonutrients, polyphenols, chlorophyll, live enzymes and several bioavailable vitamins and minerals.

All the nutrients in **Super Greens** support good health while maintaining the proper pH.

Reason #3

You want health-promoting Phytonutrients

Fruits and vegetables contain over 25,000 different phytonutrients, and up to 8,000 of them are antioxidants that fight the free radicals that contribute to aging.

More benefits on the next page! →

For Heart Health, Bone Health, Digestive Health and Brain Health – Get **Super Greens**!

Until recently, only a relatively small number of phytonutrients have been studied, but that's changing. And already many of these amazing nutrients are known to…

- **Lift your energy**
- **Boost your immune system**
- **Fight cellular oxidation (aging)**
- **Improve your digestion**
- **Support eye and artery health**

Plus...

- **Promote brain health**
- **Nourish your skin, hair, and nails**
- **And fight food cravings!**

Just a quick glance at these important benefits tells you that getting your phytonutrients is essential to good health. And now they're easy to get with Primal Labs' **Super Greens** nutrient drink.

Reason #4
You want a nutritious "greens drink" that tastes great

Maybe you've tried a greens drink before and found it to be "awful." I know what you mean. Some of them taste like blenderized grass clippings. And many of them are sickeningly over sweetened.

Super Greens is different. It contains a healthy berry blend that tastes like a refreshing raspberry drink. Make a smoothie with a couple of ice cubes and a scoop of your favorite yogurt, and it'll taste like dessert (incidentally, while most dairy is acidic, yogurt is alkaline).

Best of all, because it tastes so good, you'll love making **Super Greens** a regular part of your diet. And you may even want to have it more than once a day. Can you do that?

You sure can, there's no harm, only good.

Use **Super Greens** daily and you won't miss out on the important nutrients you'd get from fresh fruits and vegetables. For many folks, **Super Greens** is a convenient and delicious alternative.

Reason #5
You need to watch your weight

One of the biggest problems many of us have is nagging hunger pangs. That's when we reach for a candy bar. Or a bag of chips. Or a sugar-laden drink.

But that's too much sugar, and too many empty calories.

Here's the solution – mix up a glass of delicious **Super Greens**! It's refreshing. It's filling. It's loaded with green superfoods. And best of all, because it's lightly sweetened with stevia, it has ZERO sugar and only 20 calories per serving.

So, use **Super Greens** to support your heart health, bone health, digestive health and brain health. Use it to keep inflammatory responses normal. And also to support a healthy body chemistry that resists aging.

Considering that it's not always practical to get all the fruits and vegetables you need – **Super Greens** offers a convenient and great-tasting alternative.

Try it and see for yourself how much better you feel. Through this ad, you can get 15% OFF your order. And Primal Labs has an unbeatable 100% money-back guarantee. You must be happy or your money back. Period. So, give it a try on my recommendation. I know you'll be glad you did!

Order **Super Greens** at 15% Off Today Through This Special Link:
www.PrimalSpecials.com/Greens

How Many Steps Improve Health?

Counting daily steps with a smartphone, fitness band, or smartwatch is an easy way to gauge your activity level. But how many steps make a significant difference to your health?

A recent study[1] set out to answer that question. A team of researchers from the US, Australia, and other countries analyzed data on more than 72,000 adults in the United Kingdom, where a national healthcare database enables such research. Ages of those in the study ranged from 53 to 68.

Here's what they found:

- Risk of heart disease and death began to decrease with more than 2,200 steps per day, but a higher step count was more beneficial.
- Risk of death was lowest with 9,000–10,500 daily steps.
- Among people with similar numbers of daily steps, those who spent less time sitting had less risk of heart disease.

Before this study, it was well known that long periods of sitting increase risks for disease and death. This study showed that these risks could be reduced by being more active throughout the day, as measured by a higher step count.

What To Do

Tracking steps, and setting goals to get more steps per day, is a good way to begin increasing fitness. Regardless of your starting point, the aim is always to improve. But it's also important to keep in mind that there is more to a complete fitness program.

Unless you're using a fitness band or smartwatch that tracks heart rate, simply tracking steps won't measure exercise intensity, and you need to get your heart pumping to improve its health. Step counts don't measure activities that strengthen and build muscles, such as resistance or weight training.

If you aren't already doing exercises that raise your heart rate and maintain and build muscle, do start tracking your steps. And set goals to take more daily steps each week.

Once you're doing that on a regular basis, start alternating your regular walking pace with a faster pace. Warm up at a comfortable pace, then speed up for a minute or a city block. Then, walk at your comfortable pace for a few minutes or a couple of blocks and speed up again. Repeat that process for about 20 minutes.

Once you've made that a habit, add some strength training two or three times per week, with weights, fitness bands, or using your body weight for resistance. And keep challenging yourself more, bit by bit.

This way, you'll have a complete fitness program. And you'll feel and function much better.

Sad Soda Facts

It's no secret that sweetened drinks, such as sodas, raise blood sugar, increase risks for diabetes and heart disease, and contribute to weight gain. But some recent statistics about the worldwide impact of sweetened drinks on health are staggering. In 2020, there were an estimated 2.2 million new cases of type 2 diabetes and 1.2 million new cases of heart disease attributed to sweetened drinks worldwide.[2]

Soda use is escalating most rapidly in some developing nations. In this country, there is more awareness about its potential downsides, but there is no shortage of other sweetened options, such as syrupy coffees or smoothies loaded with sugar.

Healthier alternatives include flat or carbonated water with a spritz of lemon or lime, or flavored stevia; hot or cold herbal teas; coffee without syrups or other sweeteners; or black or green tea. And there are many bottled sodas with natural, rather than chemical, ingredients and no added sugar.

1 Ahmadi, M.N., et al. "Do the associations of daily steps with mortality and incident cardiovascular disease differ by sedentary time levels? A device-based cohort study." Br J Sports Med. 2024 Mar 8;58(5):261-268. 2 Lara-Castor, L., et al. "Burdens of type 2 diabetes and cardiovascular disease attributable to sugar-sweetened beverages in 184 countries." Nat Med. 2025 Jan 6. doi: 10.1038/s41591-024-03345-4.

Q&A

Q: I lost 20 pounds, went from a size 22 to 12–14, and I feel great. I'm 82. But now, the weight isn't dropping. Could I be gaining muscle, which weighs more than fat, because of protein supplements I'm taking? *— Andy S.*

A: It sounds like you are doing a fantastic job. Keep it up.

If your waist size is getting smaller and the scale shows no change, you are losing fat, and the fat is being replaced with muscle. Muscle can be gained at all ages.

Protein powders can be helpful because protein is necessary to repair and maintain muscle and other lean tissue. But protein supplements alone have not been shown to increase muscle mass.

A recent analysis of studies with a total of over 2,600 people aged 50 and older found that both strength training and the combination of strength training and protein supplements increased muscle mass and improved strength, but the protein supplements alone did not.

This doesn't mean that the supplements are not helpful. With age, our bodies become less efficient at absorbing and utilizing protein. In addition to getting protein from food, incorporating protein powder into your diet can help ensure that you're getting enough protein to maintain healthy muscle. You can also do some regular strength training.

If you want to track changes in muscle and fat, you can use a scale that measures both. These scales are especially helpful to track trends of increase or decrease in muscle and fat.

Q: What's the difference between processed food and ultraprocessed food? Isn't all processed food bad for you? *— Lena R.*

A: Technically speaking, processing food means altering it in some way from its natural state. Even cooking is a form of processing, but it doesn't mean the food is necessarily unhealthy.

In some cases, cooking a food may be the only way we eat it — you wouldn't eat raw rice or potatoes, for example. Or cooking may improve availability of nutrients. When tomatoes are cooked to make tomato sauce, a beneficial nutrient — lycopene — becomes more absorbable.

In other cases, processing can be harmful. Industrial manufacturing techniques can destroy nutrients and generate harmful byproducts, and food additives can have a negative effect on the digestive system and overall health.

Food additives are regulated but — and this is a big "but" — they are tested one at a time. In practice, many products contain multiple food additives, and most people eat many foods with additives each day. So, there's a cumulative effect. And interactions between additives can make a food product more harmful. That type of real-world ingestion is not tested for safety before food additives are approved.

The term "ultraprocessed" was coined by Brazilian researchers. It describes foods that have undergone a lot of industrial processing, contain a variety of additives, and are associated with poor health — more diabetes and heart disease, for example — and a shorter life.

About 73 percent of the food in our supermarkets is ultraprocessed. Some common food additives in these foods include mono- and diglycerides, a type of fat that improves the texture and shelf life of food products. Maltodextrin is another common one. Artificial flavor or color are other ultraprocessed ingredients.

One way to identify ingredients that make a food ultraprocessed is to ask yourself: Would you find that ingredient in your grandmother's kitchen? If the answer is "no," that food product is likely ultraprocessed.

It's virtually impossible to eat a perfect diet. If you occasionally eat an ultraprocessed food but most of your meals contain a variety of fresh vegetables and meat or fish, you're on the right track.

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. If you need help with your subscription or have questions about Primal Health supplements, email support@primalhealthlp.com or call 877-300-7849.