Dr. Marlene's NATURAL HEALTH CONNECTIONS



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How to Reduce Your Risk for Cancer

The most important things to know about the food you eat, any medications you take, nutrient shortfalls, and everyday products in your home.

Once upon a time, some cultures lived without cancer. They included pockets of civilization in different areas of the world, including parts of Africa, South America, Asia, and the far north of this continent.

The environments in which these people lived were not polluted. They ate traditional diets of nutritious food from their local area. And lots of physical activity was built into their lifestyles, such as walking, hunting, or fishing. But when they became more modern and started eating our adulterated diets, cancer began to strike them, too.

This shows us that our food and daily habits play a major role in susceptibility to cancer. In fact, studies now show that 90 to 95 percent of cancers are preventable with the right diet and lifestyle. Nevertheless, cancer continues to be a leading cause of death in this country, second only to heart disease.

The most recent government statistics available from the National

Cancer Institute are based on data from 2015 to 2019.² These show a mixed bag of trends.

Overall, average rates of deaths from cancer, per year, decreased by 2.3 percent among men and by 1.9 percent among women. But death rates from some cancers increased, the top ones being uterine and endometrial cancers in women and cancers of the bones and joints in men.

During the same time period, the overall incidence of cancer didn't decrease. It stayed the same among men and increased very slightly among women, by 0.2 percent per year.

Keep in mind that these numbers represent a time period before the COVID pandemic. During lockdowns, cancer screenings dropped dramatically, so more cancers are

IN THE NEXT ISSUE: Blood Pressure Control: With or Without Drugs likely to be detected at later, less treatable stages.

Perhaps more importantly, we don't yet know the longer-term effects of COVID on the development of cancers, how fast they progress, and cancer deaths. But we do know that COVID causes genetic damage, inhibits repair,³ promotes chronic inflammation, and causes changes in internal processes that influence susceptibility to cancer.4

What About Genes?

Genes get a lot of media coverage and they do play a role, but not in the way most people think. What matters most is how your genes are switched on or off throughout your life. This is influenced by what you eat or don't eat, the way you live, and how much you're exposed to harmful substances, including toxins in your environment, drugs, food, and water. And some viruses can increase risk.

Most cancers take 20 to 30 years to develop. During that time, there are very subtle changes in genes— mutations — that occur in tiny increments. Many mutations are repaired by the human body and most are not cancerous, but some are.

With any type of cancer, there are subtle mutations in numerous genes. For example, cancers of the colon, breast, brain, or pancreas involve an average of 33 to 66 genes. For more examples see the *Genes* and Cancer chart on the right.5

In the rest of this article I'll address the most important factors in our lives that promote cancer and steps you can take to protect yourself. All these will help to prevent cancerous mutations in your genes.

A Word About Breast Cancer Genes

The BRCA1 and BRCA2 genes have received a lot of news coverage in recent years as "brahkuh" genes that increase risk for breast cancer. Everyone has these

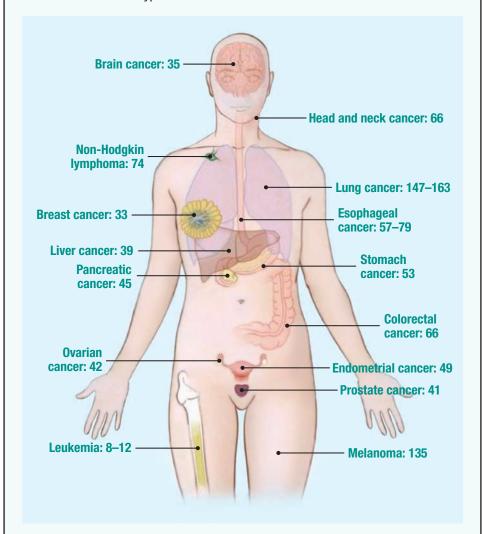
genes; their role is to repair DNA damage. Cancer risk increases if either one contains a mutation.

To be clear, mutations in these genes don't mean that a woman will get cancer, but susceptibility for breast, ovarian, and some other

Genes and Cancer

The Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins University, in Baltimore, is one of the country's leading cancer research and treatments centers. Researchers there have identified at least 140 genes whose mutations contribute to different cancers.

Below are some estimates of the numbers of genes that are subtly mutated in different cancers. Where the diagram shows a range of numbers, these represent different forms of that type of cancer.



The steps described in the rest of this article help to prevent genetic mutations that can lead to different types of cancer.

cancers is higher among women with mutations in these genes. However, not all cases of breast cancer stem from mutations in the BRCA genes.

If breast cancer runs in your family, with or without a mutation in a BRCA gene, iodine can help. Iodine helps to push carcinogenic toxins out of tissues so that they can be eliminated. It's also helpful in preventing prostate cancer. Unfortunately, our diets are much lower in iodine than in the past

The recommended daily amount of iodine is 150 mcg for adults, and some or all of this can be found in many multivitamins. However, this dose is designed to be adequate for healthy thyroid function — not for cancer prevention. A bit more iodine, preferably from food rather than supplements, can improve ongoing detoxification and help to prevent cancer, as can the other steps I describe later in this article.

If you are concerned about your risk for breast or ovarian cancer, I recommend getting extra iodine from seaweed, which is the richest food source. A good daily amount is ten sheets of a seaweed snack; each sheet is smaller than the palm of your hand. More is not better.

There is one exception: If you have Hashimoto's disease, which is an autoimmune disease that attacks the thyroid, don't take extra iodine. In this case, it's best to work with an integrative health professional to design a customized nutritional program.

Cancer Screening Is Not Prevention

We hear a lot about the importance of cancer screening: mammograms and colonoscopies, for example.

And these are often referred to — somewhat incorrectly — as preventive health.

Screenings can detect the presence of a cancer or, in some cases, precancerous growths. If cancer or a precancerous growth is detected earlier, rather than later, it's easier to treat and less likely to become deadly. But early detection and prevention are two different things.

Prevention means doing things that will stop precancerous or cancerous growths from developing in the first place. And most of the efforts and dollars spent on fighting cancer today are not addressing this type of real prevention.

I'm not saying that you should ignore generally recommended tests that can detect precancerous or cancerous growths. You shouldn't. I'm simply pointing out that real prevention means doing things that reduce the odds of precancerous or cancerous growths from ever developing.

Keep in mind that there are sometimes options for tests that are less invasive. For example, a stool sample, taken at home and analyzed in a lab, is less invasive than a colonoscopy. You can ask your doctor if a test done at home would be right for you instead of a colonoscopy. If so, a test kit such as Cologuard needs to be prescribed by your doctor.

When testing for breast cancer, thermography can show abnormalities about eight years earlier than a mammogram. Thermography does not diagnose cancer or replace mammography. Rather, it is an earlier warning system of an abnormality.

Thermography doesn't emit radiation. It's done with a very sensitive machine that shows heat spots in the human body. When there are heat spots in breast tissue, something is not normal in that area. It indicates a need to look further and to make changes to reduce cancer risk.

Fortunately, there are practical steps you can take to reduce your risk of cancer. These include correcting nutrient deficiencies and depletions, reducing exposure to toxins, and changing harmful habits.

Dr. Marlene's NATURAL HEALTH CONNECTIONS

Editorial Director Vera Tweed Art Director Jody Levitan Copy Editor James Naples

For subscriptions and customer service inquiries: 877-300-7849 support@primalhealthlp.com

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3100 Technology Drive, Suite 200, Plano, Texas 75074

Nutrient Deficiencies in Your Diet

When there are shortfalls of essential nutrients, even if subtle, they impair your body's ability to function optimally. And then, your system is less efficient at doing routine, ongoing repair, and the immune system is not as resilient as it should be. This increases susceptibility to any disease, including cancer.

As you probably know, processed foods are not the most nutritious and can contribute to nutrient shortfalls. Even a diet of fresh foods can lead to subtle but significant deficiencies of essential vitamins and minerals because conventional food is grown in nutrient-depleted soils.

As nutritional insurance, I recommend taking a multivitamin with up to 100 percent of the Daily Value of a variety of vitamins and minerals. This can't replace a nutritious diet, which I'll talk more about in a moment, but it's helpful.

Among essential vitamins, two are especially important for protection against cancer: folate and vitamin D.

Folate: This is one of the B vitamins (B9) but it's usually listed on labels by name. When it occurs naturally in food, it's called "folate," and when it's a synthetic form in a supplement or a fortified food, it's "folic acid."

The important thing is to get enough — but not too much. The daily recommended amount for adults is 400 mcg, which is found in many multivitamins. Some supplement formulas contain additional amounts for targeted benefits.

When dosages are listed on labels as folic acid, they should not contain more than 1,000 mcg per day. Dosages can also be listed as units of DFE, short for "dietary folate equivalents." In these cases,

daily dosages should not exceed 1,667 mcg DFE per day.

Getting adequate folic acid helps to prevent cancer. However, getting too much can be harmful because it can contribute to cancer.6

Vitamin D: In all my years of practice, I've rarely had patients with adequate vitamin D levels if they didn't supplement. The sunshine vitamin is generally in short supply, and in addition to being essential for virtually every aspect of health, it helps to protect against cancer.⁷

Studies show that adequate levels of vitamin D correlate with less incidence of cancer and, if the disease does occur, slower progression and less risk of death.

As you may know if you've been reading this newsletter for a while, I recommend getting your blood levels tested and taking enough vitamin D to get your level up to 50 ng/mL. Failing that, I suggest taking 5,000 IU daily along with vitamin K2, which is necessary for your body to properly use vitamin D.

Drugs and Alcohol Deplete Nutrients

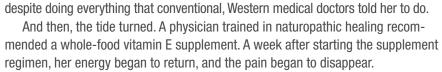
Not consuming enough nutrients is one reason for a shortfall. Nutrients can also be depleted by drugs or alcohol, leading to deficiencies of essential nutrients that make you more susceptible to cancer. If you are routinely taking any medications, ask your pharmacist or doctor about possible nutrient depletions.

These are some depletions caused by widely used drugs:

All the B vitamins, found in most multivitamin supplements, help to protect against cancer. Metformin, the most-prescribed drug

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 guit the sport, she suffered from fatigue and chest pain for another 15 years,



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. for type 2 diabetes, blocks absorption of folate and vitamin B12. If you take metformin, I recommend asking your doctor to test your levels of folate and B12.

Folate deficiency can also be caused by drinking and/or smoking, and alcohol also depletes vitamin B1. And if you're deficient in zinc, folate won't be absorbed as well. Nutrients work best in combination, which is why I recommend a multivitamin.

Nonsteroidal anti-inflammatory drugs (NSAIDs), which include aspirin and common pain relievers such as ibuprofen, can also reduce absorption of folate if taken in high doses.

Proton pump inhibitors (PPIs) for heartburn deplete multiple nutrients, including vitamins B12 and C, calcium, magnesium, iron, zinc, and vitamin A, and use of the drugs is linked to higher risk for stomach cancer.8 The way to remedy heartburn is to restore your natural digestive processes. (See Related to This Topic on page 8 for an earlier newsletter issue describing how to do this.)

Cholesterol-lowering statin drugs deplete CoQ10, which is essential for energy production in every cell. If you take statins, I recommend also taking 200 mg or 300 mg of CoQ10 daily.

Type 2 Diabetes and **Cancer Risk**

Heart disease has traditionally been viewed as the top cause of death in people with type 2 diabetes. However, a recent British study concluded that cancer is now becoming the top cause of death among diabetics.9

The study tracked more than 130,000 type 2 diabetics in the

United Kingdom between 1998 and 2018. Participants were at least 35 years old at the start. Researchers compared deaths resulting from cancer in this group with cancer deaths among people of similar ages who did not have diabetes.

Type 2 diabetes increased overall risk of death from cancer. But the most striking finding was this: Compared to people of similar age without diabetes, risk of death doubled among type 2 diabetics for colorectal, pancreatic, liver, and endometrial cancers. The highest risk for death from cancer was among diabetics who were the most overweight.

Carbs and Cancer

With or without type 2 diabetes, sugar feeds cancer.¹⁰ The "sugar" in this case refers to blood sugar, which is the main fuel for cancer cells. In other words, elevated blood sugar provides premium fuel for cancerous cells, making it easier for them to grow.

Both sugar and starch are carbs that are used in the same way in the human body, and an excess of one or both leads to elevated blood sugar.

Eating too many carbs also causes insulin to become elevated. And high insulin stimulates cell growth and division, contributing to growth of cancer.¹¹

To be more precise, a high-carb diet first causes insulin to rise, and later, blood sugar becomes elevated. But the upshot is that an elevation in one or both of these increases risk for cancer.

High insulin also promotes fat storage, making it difficult to avoid weight gain and to lose weight. And excess weight correlates with

higher risk for cancer. In addition, you probably know that a highcarb diet drives type 2 diabetes.

All this may sound a bit complicated. It is, because there are multiple processes in the human body that can contribute to cancer. Fortunately, there's a simple step you can take to address these risk factors: Eat a low-carb diet of wholesome foods

The Best **Blood-Sugar Test**

Achieving and maintaining a healthy level of blood sugar is a vital step in protecting yourself against any type of cancer. If cancer runs in your family or you want to make sure your diet is optimal, I recommend following a lowcarb diet for three months and then getting an A1c test.

The A1c test shows your average blood-sugar levels during the past three months, which is what's most important. A healthy A1c result is below 5.3 percent. This is lower than "normal," which is below 5.7 percent. ("Normal" doesn't mean optimal.)

Even if you haven't been told you have high blood sugar or diabetes, the most effective way to learn what influences your blood



sugar is to monitor your levels with a continuous glucose monitor (CGM). It can give you frequent blood-sugar levels on your smartphone and help you learn how different foods and activities — amounts of exercise and sleep, for example — influence your blood sugar.

Once your blood sugar is below 5.3 percent and you know how to maintain that level, you probably won't need to keep using a CGM.

A low-carb diet lays a foundation for reducing risk by correcting the three things I've just talked about: It lowers insulin, blood sugar, and weight. In Related to This *Topic* on page 8, I've listed earlier newsletter issues that cover my recommended diet in detail.

Diet also plays a vital role in protecting you against damage from toxins. Before I explain how, it's important to understand how we get exposed to toxic substances. As you read the next few sections, the many sources of toxins around us can seem overwhelming but don't despair! I'll give you some practical ways to reduce your exposure.

Toxins in Food

As it's grown, our food accumulates toxins from pesticides and herbicides. Animals are given antibiotics and hormones, animal feed is grown with pesticides, and residues of these can be in meat, milk, and other dairy products. And then there are harmful food additives (see *Hazardous but Legal* Chemicals on page 7 for some common ones to avoid).

These toxic substances are not used in producing organic food, so I do recommend choosing organic as much as possible. I realize this isn't realistic across the board, but do the best you can.

For meat, grassfed animals are usually raised without toxins, even if the meat is not labeled as being "organic." As a next-best option, look for meat and dairy foods produced without antibiotics or hormones — a fact that will be listed on labels.

How you cook meat also makes a difference, which I covered in detail in an earlier issue about

Healthy Meat, listed in Related to This Topic on page 8. Processed meats, in particular, are linked to higher cancer risk. These include cured ham and bacon, salami, hot dogs, and other types of processed sausages. Choose fresh cuts of meat and, even better, organ meats.

Toxins in Your Kitchen

Plastic containers are another source of toxins, such as BPA (short for bisphenol A), which can leach into food. Never microwave food in plastic containers, as heat releases the toxins. And use glass or metal containers to store food at home. But there's more to watch out for.

Many nonstick pans can emit "forever chemicals" that persist in the human body and the environment. The abbreviation "PFAS" is commonly used to describe this category of chemicals, which are also found in waterproof clothing and furniture, fire retardants, and food packaging and disposable plates and cups made to resist oil and water.

To keep PFAS out of food, you can cook with cast iron or stainless-steel pots and pans. And instead of using disposable tableware, you can use traditional plates and cups — the kind you put in the dishwasher.

As an alternative, you can find PFAS-free nonstick cookware, disposable tableware, and other products that have been independently tested and verified by the nonprofit PFAS Central, at www.pfascentral. org/pfas-free-products/.

Toxins in Water

There are two things to know about drinking water: Tap water can contain varying amounts and types

of toxins, depending upon where you live. And with bottled water, toxins can leach out of plastic containers, especially when these sit in a hot environment — in the trunk of your car in hot weather, for example, or while being transported to stores in trucks.

The simple way to deal with this is to get a water filter. It will save you money and trips to the store. And fill a glass, stainless-steel, or BPA-free water bottle with your filtered water.

Toxins in Everyday Products

Products you put on your skin and hair or use around the house are other potential sources of toxins.

Tips to Reduce Toxins in Your Life

Here are some simple ways to reduce your exposure to toxins.

Choose organic produce as much as possible. Pesticide residues are found on 75 percent of our conventional produce. See page 10 for some shopping tips and ways to save money on organic fruits and vegetables.

Beware of foods with long lists of ingredients. As a general rule, the longer the list of ingredients, the more likely it is that a food contains toxic additives that contribute to risk for cancer and other ills.

Keep your home and car well ventilated. Most air fresheners contain toxic chemicals to mask unpleasant smells. Avoid them.

Avoid artificially scented products. For skincare, haircare, and household cleaning products, choose non-toxic versions. If you like scent, look for essential oils or scents made from plants — not chemicals.

Although they can contain a variety of harmful ingredients, one in particular is common to all these, and avoiding it is a simple way to step onto a healthier, less toxic path.

That ingredient is artificial scent, which can be listed as "fragrance" or "scent." Manufacturers are not required to list the ingredients in

fragrance because the formulas are viewed as trade secrets.

Consequently, unless a scented product clearly states that the aroma comes solely from essential oils or other natural substances from flowers, trees, or plants, it's safe to assume that it contains harmful chemicals

Ironically, air fresheners are major sources of toxins, as are scented candles and virtually all scented products, including laundry detergents, dryer sheets, household cleaners, and many skincare and haircare products. Air fresheners in cars are another source of toxins,

The good news is that it's easier than ever today to find non-toxic versions of these types of products. To keep the air fresh in your home, open windows for better ventilation, regularly replace the air filter in your HVAC system, and if needed, get an air purifier. Keep your car well ventilated. And if you garden, find non-toxic gardening products in your local store or online.

Hazardous but Legal Chemicals

Many chemicals that are banned in European countries because they are suspected or known carcinogens are legal in this country. Below are some common ones to avoid.

In Food and Beverages

Potassium bromate	Added to dough to make it springier and stronger and to promote rising. Found in many breads and other baked goods. Also banned in Canada, Brazil, China, and India.		
Titanium dioxide	Added to candy and pastries as a whitening agent.		
Azodicarbonamide	Added to flour and bread dough as a whitening agent. Also banned in Australia.		
Synthetic hormones	While not a food additive, synthetic hormones such as rBST or rBGH may be given to dairy cows to increase milk production and to beef cattle to boost growth. Residues may persist in their milk, other dairy products, and meat.		
Artificial colors	Red 40, Yellow 5, and Yellow 6 are used in candy, cake icings, some cakes, snacks, sodas, and cereals. They are not completely banned in Europe but require a warning label about health risks.		
Chlorine on chicken	Chlorine is used to wash chickens to get rid of harmful bacteria.		
Artificial preservatives	BHA and BHT stop oils or other fats from turning rancid. They are added to many foods including cereals, chips, vegetable oils and shortening, breads, and gum.		

In Skincare and Hair Products

Countries in Europe and elsewhere have banned more than 1,600 chemicals from skincare and hair products but only 9 are banned for safety reasons in this country. To check products that you are using or considering, search by product in the Skin Deep database of the nonprofit Environmental Working Group at www.ewg.org. You can also check for toxins in water and different food and household products on the site.

How to Enhance Detoxification

In addition to avoiding toxins in food, water, and personal grooming and household products, you can take steps to enhance your body's ability to eliminate toxic substances. Here are some easy ways to do so:

Eat cruciferous and allium vegetables every day. Make it a habit to eat a variety of vegetables. In addition to valuable nutrients, they contain fiber, which helps your body eliminate toxins along with waste. Two vegetable families are especially important: cruciferous vegetables, such as broccoli, kale, cabbage, cauliflower, and Brussels sprouts; and allium vegetables, such as onions, garlic, and shallots. These are rich in nutrients that are especially good at helping to break down and eliminate toxins.

Cruciferous and allium vegetables also help your body to produce glutathione, often called the "master antioxidant," because it plays a

major role in damage repair, detoxification, and health maintenance.

Hydrate and sweat. Make a habit of drinking filtered water during the day to enhance elimination. In addition, sweating helps to get rid of toxins through the skin. Both exercise and saunas can make you sweat and are beneficial. If you have access to a sauna, use it regularly.

Consider a supplement. The steps I just mentioned, along with a lowcarb diet, are essential, and supplements are not a substitute. But if you feel you would benefit from additional detoxification support, you can take liposomal glutathione or NAC (short for N-acetylcysteine), which is a precursor to glutathione. Either one will boost your internal supply of glutathione. For dosages, follow product directions.

Other Ways to Protect Yourself

Not smoking, getting regular exercise and good sleep, and protecting yourself from the sun are other

important ways to reduce risk for cancer. For sunscreen, use only products that contain titanium dioxide and/or zinc oxide, sometimes called "mineral" sunscreens. These are the only types that are known to be non-toxic.

In addition, be vigilant for unusual moles or other skin growths, and if any appear get them checked by a dermatologist. Basal and squamous cell skin cancers are the most common types of cancer; if caught early, they are usually simple — but essential — to treat.

Three viruses are known to increase cancer risk and should be checked for. Human papillomavirus — HPV — is a group of more than 200 viruses that are spread through sexual contact and increase risk for cervical cancer. The virus can be dormant for decades and then become active, but it can be treated. Women can be checked for HPV when they get a pap smear. There is no HPV test for men.

Two other viruses — hepatitis B (HBV) and

hepatitis C (HCV) — can damage the liver and increase risk for liver cancer, and they can be treated. The CDC recommends that all adults get tested for these two viruses once in a lifetime.

A Final Word

I've covered a lot of ground, so let me zero in on the most important steps: Get your blood sugar under control by eating a low-carb diet without toxic additives, drink filtered water, and take a multivitamin. Choose non-toxic versions of the products you use on your skin and hair and around your home. Check for and correct any drug-induced nutrient deficiencies. Get enough sleep and do some exercise on most days, if not every day.

When cancer develops, the person's genes haven't changed. What did change — long before the diagnosis — was which genes were switched on or off. The steps I've given you can help to tip those genetic switches in your favor to keep you in good health.

Related to This Topic

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

Related Topic	Volume	Issue	Title Title
A Healthy Diet	6	1	Your 2023 Guide to Better Health: Part 1
A Healthy Diet	6	2	Your 2023 Guide to Better Health: Part 2
Healthy Meat	3	2	The Diabetic's Guide to Eating Meat
Vitamin D	3	8	Vitamin D: Fight Diabetes, Osteoporosis, Infections, and More
Heartburn	1	6	The 6-Minute Heartburn Remedy
Cholesterol	1	4	When Statin Drugs Can Harm You More than Cholesterol
Sleep	5	4	Restful Sleep: How to Get Enough

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

5 Vogelstein, B., et al. "Cancer genome landscapes." Science. 2013 Mar 29;339(6127):1546-58.

6 Kim, Y-I. "Folate and cancer: a tale of Dr. Jekyll and Mr. Hyde?" Am J Clin Nutr. 2018 Feb 1;107(2):139-142.

7 Moukayed, M., et al. "Molecular Link between Vitamin D and Cancer Prevention." Nutrients. 2013 Oct; 5(10): 3993-4021. 8 Poly, T.N., et al. "Proton Pump Inhibitor Use and Risk of

Gastric Cancer: Current Evidence from Epidemiological Studies and Critical Appraisal." Cancers (Basel). 2022 Jun 21:14(13):3052.

9 Ling, S., et al. "Inequalities in cancer mortality trends in people with type 2 diabetes: 20 year population-based study in England." Diabetologia. 2023 Apr;66(4):657-673.

10 Tran, Q., et al. "Revisiting the Warburg Effect: Diet-Based Strategies for Cancer Prevention." Biomed Res Int. 2020 Aug 4;2020:8105735.

11 Kilvert, A., et al. "Hyperinsulinaemia and cancer risk: cause and effect?" Practical Diabetes. 2020 Nov;37(6):223-227a.

¹ Anand, P., et al. "Cancer is a preventable disease that requires major lifestyle changes." Pharm Res. 2008 Sep;25(9):2097-116. 2 National Cancer Institute. "Annual Report to the Nation 2022: Overall Cancer Statistics."

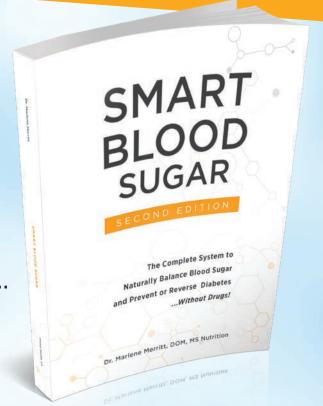
³ Gioia, U., et al. "SARS-CoV-2 infection induces DNA damage, through CHK1 degradation and impaired 53BP1 recruitment, and cellular senescence." Nat Cell Biol. 2023 Mar 9. doi: 10.1038/s41556-023-01096-x. Online ahead of print. 4 Saini, G., et al. "Cancer as a prospective sequela of long COVID-19." Bioessays. 2021 Jun;43(6):e2000331.

Or. Marlene Discovers "Insulin Switch" That Stops Blood Sugar Spikes



This blood sugar "switch" is built into every cell of the body and, when it is flipped "ON"...

- Blood sugar returns to the healthy range
- Weight is shed from belly, neck, arms, and thighs
- Energy levels return to normal
- Sleep becomes easy again



Dr. Marlene has been helping people repair their blood sugar for the last 15 years.

Just like Arthur Mabee, who was suffering from high blood sugar. His insulin levels were so high, the blood vessels in his eyes began bursting. He was severely overweight and suffering from heart problems. Arthur's doctor wanted to put him on Metformin...

That's when Arthur discovered Dr. Marlene's best-selling book, **Smart Blood Sugar**. "I said, 'Well, I'm going to order this book because this doctor knows exactly what she's talking about,'" Arthur explained.

In just three days of using Dr. Marlene's **Smart Blood Sugar** program, Arthur began to feel changes in his body. He gained more energy, his memory improved, he began sleeping 8 to 12 hours per night—and best of all—he lost 118 pounds since reading the book.

diabetes. I no longer have a pre-diabetic condition," shared Arthur. "My eyes have even cleared up. This has definitely helped me more than anything I've ever done in my life."



Did you see that? Arthur no longer has diabetes. And so can you! Yes—it is possible to reverse type 2 diabetes and maintain blood sugar in the normal range.

Dr. Marlene's **Smart Blood Sugar** is working for people all across America. And she believes it can work for you, too. Here's how...

This simple plan works by doing a few simple things that bring blood sugar down while stopping a few things that have been pushing blood sugar up. It's a combination of these two actions that make the protocol work so well.

Dr. Marlene's **Smart Blood Sugar** has become a best-selling book because it cuts through all the confusing and contradictory information and zeros in on the exact steps to take right now to heal your blood sugar.

In this easy-to-read, 100-page book, you will find step-by-step guidance, easy tools, and dozens of tips on how to maintain healthy blood sugar levels and repair insulin resistance without wasting a lot of time or money.

"Get this book, sit down, and do the same thing I did. Read it word for word," Arthur shares with others. "Smart Blood Sugar will help you greatly."

It's time to bring your blood sugar back in the healthy range. Get your copy of Dr. Marlene's best-selling book, **Smart Blood Sugar**, today for only \$27!

Order Your Copy Today! www.SmartBloodSugar.com/Book

The Latest on Pesticides in Produce

I take a good-better-best approach to choosing food. Eating plenty of vegetables and some fruit is good. Eating organic versions as much as possible is better. Eating all-organic produce is best, but it's not realistic for most people because of limited availability or higher prices.

Organic produce is grown without the use of many toxic pesticides that can be harmful for your health. And organic fruits and vegetables generally contain higher levels of antioxidants and other beneficial nutrients than their conventional cousins.

Knowing which vegetables and fruits are most and least likely to contain pesticide residues can help you make smart choices. And there's a simple way to do this.

Each year, the nonprofit Environmental Working Group issues a list of conventional (not organic) produce with the most and least pesticide residues. The ranking is based on more than 46,000 tests of conventional produce sold around the country. All the produce samples were peeled or scrubbed and washed before being tested. The chart on the right gives you the most important information from the latest report.¹

What to Do

Make it a priority to buy organic versions of the produce in *The Dirty Dozen* list in the chart. Look for produce that is "certified organic." This means that the food and the farm where it was grown meet strict, regulated standards that protect against contamination with harmful chemical pesticides.

If you want your local stores to carry more organic produce, let them know. Local farmers markets are

another option. And for discounted organic produce, check out Misfits Market online (www.misfitsmarket.com).

Misfits are fruits and vegetables that are not sold in stores because they aren't pretty enough. They may be too small or too big or have an imperfect shape. Not all the produce sold by Misfits Market is organic, but much of it is, and the prices are steeply discounted.

Organic Shopping Tips

The Dirty Dozen: Most Important to Buy Organic

According to the nonprofit Environmental Working Group. the items listed below contain the most pesticide residues. Make it a priority to buy organic versions of these:

- Strawberries
- Peaches Pears
- · Bell and hot peppers

- Spinach
- Nectarines
- Cherries

- Kale, collard and mustard greens
- Apples Grapes
- Blueberries Green beans

The Clean Fifteen

Tests of produce samples found no detectable pesticide residues on nearly 65 percent of these items. They are less important to buy organic.

 Avocados Sweet corn

Pineapple

Onions

Papaya

- Asparagus
- - Honevdew
- melon
- Kiwi
- Cabbage
- **Potatoes** Watermelon

Mangoes

Sweet

- Carrots
- Sweet peas Mushrooms

For a shopping guide to use in stores, visit www.ewg.org.

Healthy Gums Prevent Joint Pain

In all my years of seeing patients, I've found that infected gums often trigger chronic inflammation, which contributes to joint pain, weight gain, diabetes, brain fog, and other ills. So, I was pleased to see a recent study of the connection between gum

disease and rheumatoid arthritis. which is an autoimmune disease. Researchers found that germs from infected gums cause molecular and genetic changes that provoke painful flare-ups in joints.²

Unfortunately, our healthcare system doesn't take a holistic

approach. If you have rheumatoid arthritis, doctors are not likely to ask about your dental health before prescribing a drug. So, it's up to you to make sure that your mouth is in good shape. For an effective way to keep your teeth and gums healthy, see Volume 3, Issue 10, of this newsletter: *The 5 Simple Steps* to Healthy Teeth and Gums.

¹ EWG's 2023 Shopper's Guide to Pesticides in Produce, www.ewg.org. 2 Brewer, R.C., et al. "Oral mucosal breaks trigger anti-citrullinated bacterial and human protein antibody responses in rheumatoid arthritis." Sci Transl Med. 2023 Feb 22;15(684):eabq8476.

5 WAYS **DUOMEGA 3&7** FISH OIL MAY **SAVE YOUR LIFE.**

Harvard College and Cleveland Clinic confirm it.



In the 1970s, Danish researcher Dr. Jorn Dverberg discovered Alaskan Eskimos' hearts were 7 times healthier than his fellow Danes, in spite of mainly eating oily fish. This discovery led to the billion dollar Omega 3 fish oil industry. But what was lost in the original research was Eskimo blood was rich in Omega 3 and Omega 7. And yet, 99% of fish oils sold today don't have Omega 7. DuOmega **3&7** corrects this error and provides the missing Omega 7 for heart health!

#2 Cleveland Clinic finds Omega 7 vital to heart health

Dr. Michael Roizen, chief Wellness Officer at Cleveland Clinic, conducted a study of Omega 7 on adults at risk for cardiovascular events. After 30 days of taking a purified form of Omega 7 called Provinal, the subjects showed a 44% reduction in inflammation...an 18% reduction in triglycerides... an 8% reduction in LDL (bad) cholesterol... and a 5% increase in HDL (good) cholesterol.

#3 Harvard study shows lower incidence of blood sugar issues

Research at Harvard School of Public Health showed that people with the highest blood levels of Omega 7 had a 60% lower incidence of blood sugar issues. Study subjects had lower body mass index (BMI), healthier triglycerides, and lower inflammation. Omega 7 also improved glucose metabolism and insulin sensitivity. Du0mega 3&7 contains Provinal,® the purest and best studied of all Omega 7s.

#4 Double Strength Omega 3 promotes normal blood pressure and brain health

Du0mega 3&7 contains Incromega™ Omega 3 in double the strength of ordinary fish oils. Its high concentration of EPA Omega targets inflammatory conditions, providing superior support for brain, eyes, nerves and joints. Its high concentration of DHA Omega relaxes and opens blood vessels for improved blood pressure.

FATTY ACIDS

#5 Fish oil benefits with no fishy taste or burps

Most fish oils are contaminated with toxic chemicals like PCBs. They're susceptible to spoilage. And many are oxidized because of sloppy manufacturing and exposure to heat, light and oxygen. Finally, few fish oils actually meet label claims. **Du0mega 3&7** eliminates these problems with Incromega[™] the finest and purest Omega 3 available today. You get the benefits of Omega 3 with no fishy odor, taste or burps.

Here's what users say*

- "I've been taking **DuOmega 3&7** for a couple of years. My cholesterol and triglycerides are perfect now." — Edward B.
- **"DuOmega 3&7** has helped me keep my blood sugar in the normal range." — D. Campbell
- "I've been taking **Du0mega 3&7** for a number of month now, and my triglycerides are back to normal." — M.C.
- I love **DuOmega 3&7**. Last time I had blood work they called to ask what I was doing for my cholesterol. They were amazed!" — Wayne G

*Individual results may vary.

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Q: You advise to cut back on carbs, bread, and pasta. Does that include whole grain breakfast cereal and whole wheat bread? You never mention the latter as being okay carbs. — Bill K.

A: I understand why you're asking. Whole

grains are more nutritious than refined grains. However, both types of grain ultimately have a similar effect on blood sugar and, therefore, I recommend counting and limiting carbs in all foods made with grains — whole or refined.

If there's a choice, whole grains are the better option. But here's something that may seem surprising: The glycemic index of both white and whole wheat bread is virtually identical.

The glycemic index is a measure of how quickly and how high blood sugar rises after a person eats a specific food in a lab setting. In such tests, people eat only one food at a time, and then their blood sugar is tracked. This is not how we eat in real life, but it gives us a sense of how individual foods compare. And both white and whole wheat bread cause an equal rise in blood sugar.

I've had many patients who asked a question similar to yours because we've heard a lot about the benefits of whole grains. To be clear, my diet doesn't exclude grains. But it does call for tracking and counting the carbs in all grains, because an overload of these is one of the big reasons why so many Americans have high blood sugar or type 2 diabetes.

I aim to make my diet practical so that it's easy to follow, to adapt to your personal preferences, and to maintain for the long haul. That's what makes the big difference in one's health.

Q: I'm starting to walk for 40 to 45 minutes, 3 times a week. How many minutes of walking is recommended for seniors over 80 years old? — Don C.

A: You're off to a good start. The general recommendation for exercise after age 65 is to do



activity, such as brisk walking, per week. This is no different than recommendations for all adults ages 18 and older.

There are no specific recommendations for exercise after age 80, other than making sure that you are as active as you can be.

The 150 minutes per week amounts to an average of 30 minutes per day but it can be broken down in different ways. The amount of walking you mention doing comes close to 150 minutes per week.

Other recommendations for people of all ages include exercise that strengthens muscles, twice per week. After age 65, exercise that improves balance, such as standing on one foot, is also recommended.

With exercise at any age, it's im-

portant to progressively challenge yourself a bit more — but not too much or too quickly. For example, you could go for a walk every day. And then introduce some spurts of faster walking that leave you a bit out of breath, for a minute at a time, and walk slowly in between those spurts. Walking along a hiking trail or up and down hills has the same effect.

If you exercise more intensely, you get more benefit per unit of time, but a higher intensity is difficult to maintain for a longer time. Spurts of intensity are easier to do and provide more benefits than a moderately-paced walk at a

steady rate.

For anyone who has limitations, these need to be considered. For example, if joint pain limits the ability to move, exercise in a pool is a good option.

I'm glad you're walking. People really underestimate the power of exercise and how much difference it makes

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 guestions about Primal Health supplements, email support@primalhealthlp.com or call 877-300-7849.