Heroes Against Cancer Newsletter

The TRUTH About CANCER™
educate • expose • eradicate

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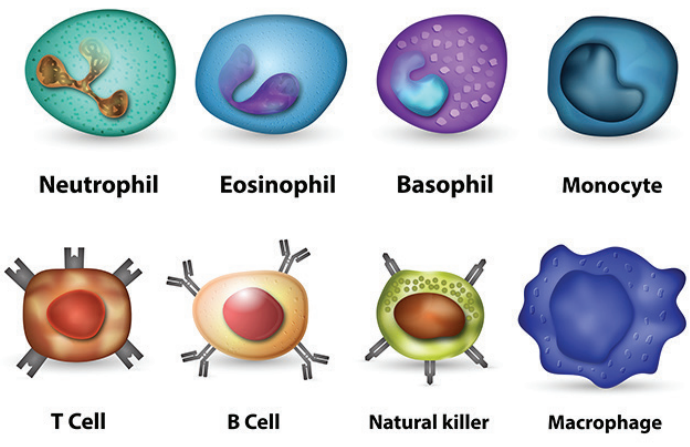
Natural Killer Cells: How To Keep Them Healthy So They Can Protect You From Cancer

By Dr. Véronique Desaulniers

Of all the cells we have floating around in our bodies, about 2 billion (roughly 5-15 percent of the total) are known as "natural killer" (NK) cells. The name makes them sound dangerous – and indeed they are, but only to cancer cells and other pathogens that can hurt the body!

NK cells are a critically important component of our "innate immune system," so maintaining a good NK cell level is important for everyone. And especially if you are on a cancer-healing or prevention path of any kind, a healthy amount of properly functioning NK cells in your system is *absolutely vital*.



Natural Killer Cells are a type of white blood cell that patrol your bloodstream looking for cancer cells and other "foreign invaders"

Follow the steps below to make sure you have plenty of active NK cells in your system and that they are operating at their best in order to hunt out and destroy any cancer cells that may be lurking in your body.

In This Issue:

What are Natural Killer Cells?

Natural killer cells are a type of *lymphocyte* or white blood cell that is part of the lymphatic system. NK cells have the important job of "patrolling" your bloodstream and are on constant lookout for foreign invaders and cancer cells. They are formed in the bone marrow, lymph nodes, tonsils, thymus, and spleen and can also be found in the liver, intestine, skin, and lungs.

Did you know that there are cancer cells developing in your body at this very moment? But **if your NK cells are healthy, strong, and plentiful, you have nothing to worry about**. These microscopic "exterminators" have the ability to "control both local tumor growth and metastasis," according to a comprehensive report published in the *Journal of Biomed Biotechnology* in 2011. Metastasis refers to the spread of cancer cells from one part of the body to another, usually via the lymphatic system and the blood.

NK cells block the growth and spread of cancer through their ability to directly cause cellular cytotoxicity and death in cancer cells.

Briefly, here is a step-by-step overview of how NK cells work:

1. NK cells patrol the body and bloodstream looking for the "bad guys," including viruses, bacteria, foreign matter, and of course, cancer cells.

2. Once an NK cell spots something that looks out of the ordinary, it calls its friends into action. A pack of NK cells is formed and together they squirt a toxic substance directly at the unhealthy cell.

3. This toxic substance, once it hits its target, goes to work to penetrate the skin of the invading or cancer cell, causing it to quickly "implode."

4. The NK cell then releases a hormone that will put the call out to other immune system cells, which then enter the area and "eat up" the remains of the unhealthy cell.

Just how does an NK cell know the difference between a healthy cell that's a normal part of the body and a cancer cell? Natural killer cells have a built-in "detection and communication" system that can talk to the nucleus of a suspect cell to find out if it is normal or unhealthy. Based on that information, they determine if they will attack or not. Now *THAT'S* a smart cell!

(Note - the nucleus is the control center of every cell in the body, including cancer cells. It contains DNA and controls the production of genes and proteins by the cell.)

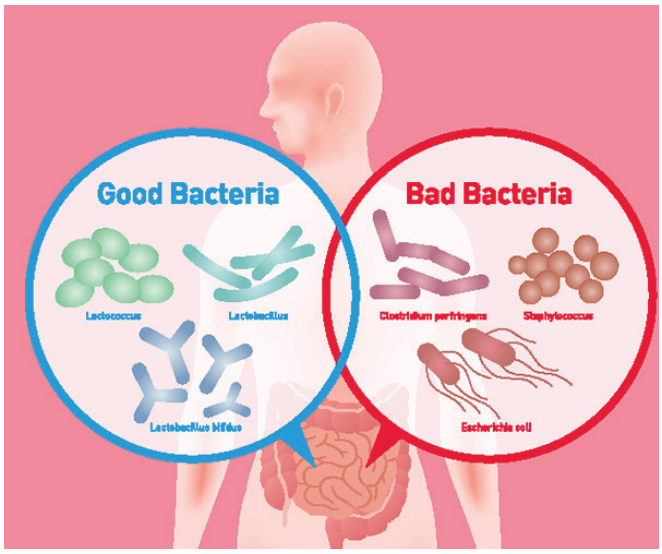
In fact, for years researchers have been stumped as to exactly how NK cells can so specifically target unhealthy cells while leaving healthy cells alone. Although much progress has already been made into finding out what makes these cells so unique in this regard, ongoing research continues to shed new light. Cancer researchers hope that further investigations into NK cells will lead to new strategies for dealing with cancer cells more effectively.

Steps You Can Take to Keep Your NK Cells Healthy and Strong

Here are ten ways to keep your NK cells healthy, strong, and plentiful:

- **Keep Your Gut Healthy**. 65-70 percent of your immune system is housed in the lining of your intestinal tract, including a fair amount of NK cells. Maintaining a balanced amount of gut flora in your intestines is essential for proper immune system functioning and to ensure that your NK cells are working efficiently.

Avoiding sugar, processed foods, and simple carbohydrates as much as possible, taking a daily probiotic and consuming prebiotics such as fermented foods as well as bone broth can all help to not only boost your immune system, but also repair and prevent conditions that can lead to leaky gut syndrome.



Maintaining healthy gut flora is essential for proper immune system function

Intestinal distress conditions such as leaky gut are believed to be the foundational cause of autoimmune disease. Studies such as a 2013 investigation conducted by the University of Washington have already established a clear link between autoimmune issues and impaired NK cell production, as well as low NK cell functionality.

- **Reduce Your Overall Toxic Load**. As we age, we are exposed to more and more stressors in life. The unfortunate result of this exposure is a process called *immune senescence*, which is a general decline in overall immune system function. A typical example of immune senescence would be the "reawakening" of the chicken pox virus in an older adult in the form of shingles.

A part of age-related immune system decline is probably because of the lower effectiveness and production of NK cells. Some of this is unavoidable as we age, but there are also *many things* you can do to maintain your immune system integrity and keep your NK cells healthy.

First of all, be aware of the toxic effects of *stress* and how you respond to the stressors in your life. Stress responses and the cascade of hormonal releases they can trigger have been directly linked to lowered immune function. Get into a daily routine of stress management by using techniques such as Emotional Freedom Technique (or "Tapping"), prayer, meditation, stretching / yoga, or walking in nature as a way to nurture yourself and "decompress."

Also, be aware of how you are exposing yourself to outside toxins through what you eat, if you still have amalgam fillings and root canals, what sundry products you put on your body, what household cleaners you use, and what toxins you may be exposed to in your community and in your workplace.

Take measures to reduce your toxic load as much as possible through using natural products and "going organic," as well as removing any heavy

metals from your mouth. Then establish a routine detoxification regime for yourself through the use of gentle cleanses that include supplementation, enemas, and sauna sessions.

All of these healing modalities have been documented as extremely effective for relieving stress, healing the body, and boosting the immune system.

- **Raise Your Melatonin Levels Through Quality Sleep And Supplementation**. Melatonin, a hormone that is produced by the pineal gland, is a powerful cancer inhibitor in and of itself, especially when it comes to breast cancer. Studies have shown that it has the ability to literally "put cancer cells to sleep." It also appears to have an effect on cancer stem cells, according to a 2016 Brazilian study published in the peer-reviewed medical journal *Plos One*.

  One of the many functions it performs for the immune system is managing NK cell production. Getting an adequate amount of quality sleep is the best thing you can do to help stabilize your melatonin levels, since this important hormone is mostly produced at night and in total darkness.

Getting sufficient quality sleep is the best thing you can do to help stabilize your melatonin levels

If you think you may be deficient in melatonin, be sure to get your levels checked regularly and consider a quality supplement, especially if you suffer from insomnia.

- **Eat More Organic Blueberries**. Blueberries are not only super-tasty, they have also been shown to *double* the amount of NK cells in your system. A joint study conducted by Appalachia University, the University of Montana, and Vanderbuilt University studied the NK cell count of trained runners who consumed blueberries and those who did not. They found that "daily blueberry consumption for 6 weeks increased NK cell counts." They also found that upping the amount of blueberries per day reduced oxidative stress and increased the levels of anti-inflammatory cytokines

  (Note - Cytokines are small proteins secreted by immune cells that affect other cells in the body.)

- **Add Some "Spice" to Your Diet**. The anti-cancer properties of "super spices" like turmeric have been thoroughly established. But did you know about the healing power of black pepper and cardamom, in particular, for boosting the immune system and enhancing the effectiveness of NK cell function?

  According to a 2011 study published in the *Journal of Medicinal Food* which focused specifically on these two spices, their immune-regulatory effects were conclusively proven. However, the researchers were surprised at the effect these two spices had on NK cells in particular.

"Remarkably, it is evident that black pepper and cardamom extracts significantly enhance the cytotoxic activity of natural killer cells, indicating their potential anti-cancer effects," the report states. "Our findings strongly suggest that black pepper and cardamom exert immunomodulatory roles and antitumor activities, and hence they manifest themselves as natural agents that can promote the maintenance of a healthy immune system."

- **Up Your Beta-Carotene Count**. Foods that are high in beta-carotenes such as sweet potatoes, carrots, kale, spinach, and spirulina can stimulate NK cell activity. An interesting study done almost 20 years ago and published in the *International Journal of Food Sciences and Nutrition* compared the effectiveness of NK cells treated with beta-carotene and vitamin E respectively when these NK cells were interacting with human and mouse model lymphoma cells. The study researchers found that both vitamin E and beta-carotene-infused NK cells displayed enhanced cytotoxic activity against lung cancer cells.

- **Eat More Garlic And Mushrooms**. Garlic is rich in *ajoene*, *allicin,* and *thiosulfinates*, all sulfur-rich compounds that can boost the immune system. A study conducted by Tarbiat Modares University in Tehran and published in the journal *International Immunopharmacology* found that sulfur-containing compounds in garlic can stimulate NK cell production and activity. They also found that certain compounds in garlic directly blocked the growth of breast cancer cells in mice directly.

In addition, mushrooms, and especially mushroom extracts, are said to be rich in beta-glucans, which have been proven to increase T-cell counts as well as NK cell production. T-cells are another type of lymphocytes (white blood cells) that are critical for immunity. A 2009 study at the University of Hong Kong found that beta-glucans can trigger several immune receptors, including those on macrophages and NK cells. A 2014 study published in the *International Journal of Oncology* found that the immune-boosting properties of beta-glucans may specifically help to suppress endocrine-resistant breast cancers by regulating breast cancer gene expression.

Multiple studies have also noted the fact that different sources of beta-glucans have differing potencies – so be sure that if you opt for a beta-glucan supplement, you get one that you know is from a pure source and that the product does not contain fillers. One excellent choice is 7M+ from Epigenetic Labs.

Mushrooms and mushroom extracts are rich in beta-glucans which can increase NK cell production

- **Make Sure You're Getting Plenty of Selenium**. Selenium is a vital mineral for immune system function in general as well as for many other biological processes in the body.

Brazil nuts are an excellent source of selenium

Multiple studies since the early 1990s have linked selenium with increased NK cell activity in particular, including a 1996 study conducted by New York University which looked at NK cell production in the spleen. According to the researchers: "Dietary supplementation with Se [Selenium] resulted in a significant increase in the lytic activity of activated NK cells."

Interleukin-2 receptors are a type of protein expressed on the surface of immune cells which respond to a substance called IL-2 and helps cells of the immune system to communicate with each other.

These receptors stimulate movement towards sites of inflammation, including areas where cancer cells may reside. Selenium's effect on immunity and in particular NK cell activity has also been connected directly to improved breast cancer prognoses.

- **Want to Really Up Your NK Cell Count? Consider Enzymatically Modified Rice Bran (EMBR)**. According to an in-depth report written by *Life Extension International* in January 2015, Enzymatically Modified Rice Bran (EMBR) has *been shown to increase NK Cell activity by up to 84 percent.* A study conducted by the European *Cancer Research Institute* in 2013 focused on the effects of the substance MGN-3, found in EMBR, on patients with multiple myeloma (myeloma is a form of cancer that effects blood plasma). The researchers found "a *clear increase* in NK activity in MGN-3-treated patients compared to the placebo group."

In addition, an unpublished in-house study conducted by *Daiwa Pharmaceutical Co*., a Tokyo-based natural products company, showed that a dose of 500 mg/day of EMBR given to healthy participants who were 45 to 55 years of age resulted in a *three-fold increase* in NK cell activity within three weeks, with no known side effects.

EMBR is available in supplement form and is available from Source Naturals as well as in a product called BioBran from Daiwa Pharmaceutical company. If you do a search in Google or on Amazon for "BioBran," you will find it available for purchase.

- **Consider these Other Powerhouse NK Cell Stimulators**. Other NK cell stimulators include vitamin C, hydrogen peroxide, and hypothermia modalities.

Vitamin C is a well-known powerhouse of the immune system. According to a report published in the journal *Immunopharmacology and Immunotoxicology*, "Vitamin C in high oral dose was capable of enhancing NK activity up to ten-fold in 78% of patients" who had originally been exposed to high levels of toxins.

(Note – Discover more about the cancer-fighting benefits of vitamin C in the following article in this newsletter.)

Hydrogen Peroxide has been proven to stimulate NK cell production while alkalizing the whole body. For a gentle at-home alkalizer, mix one part 35% food-grade hydrogen peroxide with 10 parts water. (Make sure you're getting the food-grade peroxide, not the kind commonly available in drug stores). Begin with just a few drops in a glass of water and gradually increase to 1 teaspoon in water, once daily.

Finally, **raising the body temperature** through modalities such as far-infrared sauna sessions, healing baths, heliotherapy, and the use of a Biomat has been directly linked to increased immune function. In fact, according to Dr. Nobuhiro Yoshimizu, MD, PhD, author of *The Fourth Treatment for Medical Refugees*, for every one (1) degree that the body temperature is raised, there is a 40 percent increase in immune function! Other NK cell stimulators of note include **Echinacea** and **Panax Ginseng**.

Conclusion

Without a doubt, the two billion or so natural killer cells that are currently residing within your body and blood are the true "superstars" of your immune system. No matter what your health challenge may be, or if you just wish to be proactive with prevention, upping your NK cell levels naturally using the various approaches I have described above will not only help to boost your immunity in general… it may also help you prevent and even heal cancer in your body.

About Dr. Véronique Desaulniers

Dr. Véronique Desaulniers (also known as "Dr. V") is a natural health pioneer with over thirty years active practice in Bio-Energetics, Digital Thermography, Meridian Stress Analysis, Homeopathy, and Chiropractic.

After she was diagnosed with breast cancer in 2004 and healed herself through natural means, Dr. V decided to devote her time to sharing her personal, non-toxic healing journey with others. Her years of experience and extensive research have culminated in the award-winning book Heal Breast Cancer Naturally and The 7 Essentials™, her coaching program that unravels the mystery of healing the body in seven easy steps. Dr. V's story, wisdom and knowledge has touched the lives of thousands internationally. Her website is BreastCancerConqueror.com

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Does Vitamin C Lower Stomach and Colorectal Cancer Risk?

By Suresh Nair, PhD

Vitamins are organic substances that are found mainly in plants and are essential in small amounts for your health, growth, reproduction, and maintenance.

You need to consume vitamins regularly, since they either cannot be made at all or are not made in sufficient quantities in your body. For instance, vitamin C is considered to be an "essential" nutrient because you cannot make it at all in your body, so you must get all the vitamin C you need from the foods you consume.

You must get vitamin C from plant sources or supplements as your body cannot produce it

Vitamin C occurs naturally in two forms, along with several other related compounds with vitamin C-like activity – including **salts of ascorbic acid** as well as oxidized forms, such as **dehydroascorbic acid (DHA)** – along with natural compounds known as **bioflavonoids**.

Bioflavonoids are widely present in plants and are important for flower coloration. They produce yellow or red/blue pigmentation in petals that are designed to attract pollinator animals such as bees and birds.

Bioflavonoids are also involved in higher plant functions such as UV filtration, symbiotic nitrogen fixation, and floral pigmentation. In some instances, they may act as chemical messengers, physiological regulators, and cell cycle inhibitors.

Why is Vitamin C an "Essential Cofactor"?

In your body, vitamin C acts as an essential cofactor in many enzymatic reactions. A cofactor is a compound needed for an enzyme to function optimally – and "essential" means that many enzymes simply cannot do their job without vitamin C.

Enzymes are biological proteins that dramatically increase the speed and efficiency of hundreds of chemical reactions in the cells in your body.

For instance, vitamin C is an essential cofactor for the enzymatic reactions by which collagen – a fibrous protein that is the structural basis of skin, tendon, bone, cartilage, and all other connective tissue – and other biologically important substances are made in your body.

Vitamin C is crucial for the growth and repair of your body's tissues, for making skin, tendons, and blood

vessels, helping wounds heal faster, and keeping bones and teeth healthy.

Along with being a cofactor, vitamin C is also a powerful antioxidant. An antioxidant prevents or reduces the damage caused by reactive oxygen species (ROS) or free radicals – both of which react chemically with cellular structures, damaging them and contributing to aging and chronic diseases such as diabetes, heart disease, and cancer.

Vitamin C is the main antioxidant both in blood and in your body's cells, where it acts to protect proteins, fats, carbohydrates, DNA, and RNA from damage by free radicals and ROS that are generated both by the normal daily workings of your body, as well as a result of exposure to toxins and pollutants like pollution, chemotherapy drugs, and cigarette smoke, among others. Importantly, vitamin C also helps to re-activate other important antioxidants such as vitamin E from its inactive to active form.

Multiple studies show that higher intakes of vitamin C from either diet or supplements are linked to a lower risk of cardiovascular disease, including both coronary heart disease and stroke.

The Link Between Vitamin C and Stomach Cancer

Gastrointestinal cancers account for 20 percent of all cancers in the U.S. Geographic and ethnic differences in stomach cancer incidence worldwide clearly indicate that there is a close link between this disease and diet.

Evidence from multiple studies strongly suggests that stomach cancer risk increases with consumption of alcohol, traditional salt-preserved foods and grilled, smoked, and processed meat – specifically, carcinogenic N-nitroso compounds present in these meats – and being overweight and/or obese.

Consuming processed meats preserved with nitrites and nitrates can increase your risk of stomach cancer

Promisingly, stomach cancer risk is reduced in response to high intake of fruit and vegetables. Laboratory and animal studies suggest that vitamin C is the most likely candidate responsible for this.

Consuming fiber, lycopene, and lycopene-containing food products, and selenium may also potentially reduce the risk for stomach cancer.

The most obvious and effective way to reduce your risk of developing stomach cancer is to reduce consumption of processed and salted foods, while simultaneously increasing consumption of fresh fruits, vegetables, and vitamin C supplements.

Specifically, vitamin C is believed to block the formation of carcinogenic N-nitroso compounds in the stomach. While higher dietary vitamin C has been linked to a lower risk of stomach cancer in numerous studies, it's not yet clear how vitamin C intake via diet relates to blood levels when it comes to stomach cancer risk.

To understand this relationship, vitamin C levels were measured in the blood of 215 patients with stomach cancer relative to 416 control subjects without the disease. This was done within the *European Prospective Investigation into Cancer and Nutrition (EPIC)*, a large cohort involving 10 European countries.

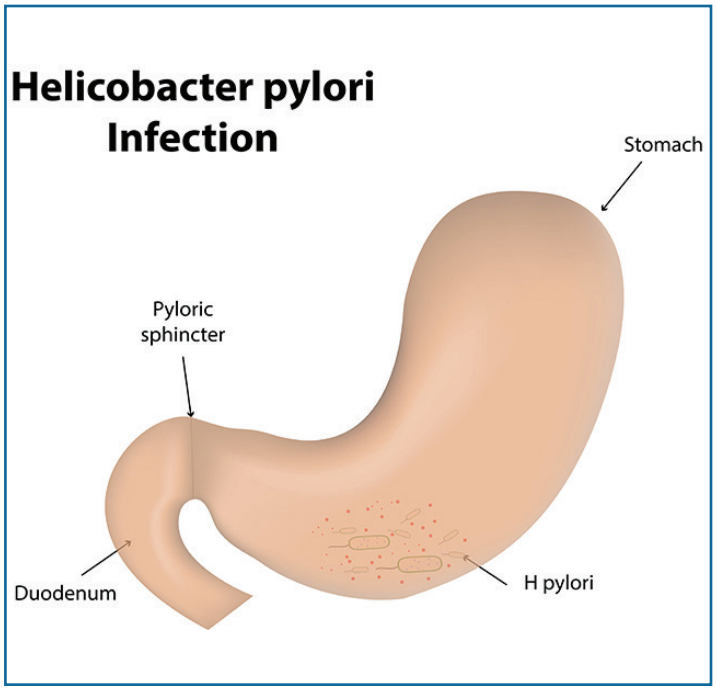
(Note - A cohort is a group of subjects who share a common characteristic such as age range or are at high risk for a particular disease, or already have it, such as gastric cancer.)

Interestingly, subjects with the highest blood levels of vitamin C were at significantly lower risk relative to those with the lowest blood levels. This so-called "inverse association" was seen more clearly in subjects who regularly consumed red and processed meats, which is likely to increase production of carcinogenic N-nitroso compounds in the body.

Infection with *H. pylori* – a type of bacteria that grow in the digestive tract and attack the stomach lining, causing ulcers to form in the stomach and small intestine – is an established risk factor for stomach cancer, but thought to be insufficient on its own.

A 1998 study showed that vitamin C levels in the stomach liquids of 19 patients infected with *H. pylori* were significantly lower than those in 10 subjects who were *H. pylori*-negative, even though both groups had similar blood levels of vitamin C.

Evidence further suggests that vitamin C supplementation along with standard therapy used to eradicate *H. pylori* increases the efficacy of the therapy. In other words, vitamin C may prove to be effective as a preventive therapy for *H. pylori* infections, indirectly lowering stomach cancer risk.



H. pylori are harmful bacteria that attack the stomach lining

The Impact of Vitamin C on Colorectal Cancer Risk

Colorectal cancer is the world's third most common cancer and is the second leading cause of cancer deaths in the U.S. While 90 percent of new cases appear in people who are 50 years or older, anyone with a parent, sibling, or child with has colorectal cancer has a two- to three-fold risk of developing this disease themselves.

Most colorectal cancers are adenocarcinomas – in other words, they begin in cells that make mucus and other fluids and typically first appear as a growth called a polyp on the inner wall of the colorectal or rectum. Some of these polyps eventually turn into colorectal cancer.

In a 2016 laboratory study, ascorbic acid was seen to selectively kill up to three different types of colorectal cancer cells. However, human studies have not always been so clear-cut.

For instance, a 2010 study looked at the possible links between consumption of vitamins A, C, and E and risk of colorectal cancer using data from 13 cohort studies in which over 5000 colorectal cancer cases were identified in 676,141 men and women.

Interestingly, consumption of vitamins A, C, and E obtained from food alone did not alter colorectal cancer risk. However, higher combined intakes of vitamins C and E from both food and supplements, as well as multivitamin supplementation, were seen to significantly lower colorectal cancer risk.

Because of its known toxicity towards cancer cells, vitamin C has been successfully administered along with non-steroidal anti-inflammatory drugs (NSAIDS) in order to maximize anti-cancer efficacy of these drugs and reduce their side effects.

As described in this TTAC article, intravenous (IV) administration of very high doses of vitamin C has been shown to be very effective in treating colorectal cancers bearing KRAS and BRAF gene mutations, which don't respond very well to conventional therapies, including chemotherapy.

Interestingly, vitamin C given to patients in this way appears to get converted into its oxidized form known as dehydroascorbic acid (DHA) – which is easily able to enter cancer cells. Once inside, DHA is converted into ascorbic acid, causing cancer cells to commit programmed cell death, or suicide.

Treating treatment-resistant colorectal cancers using IV vitamin C has been shown to help cancer patients live four times longer than average. Today, high-dose, IV vitamin C drips are used in many progressive cancer clinics as part of their cancer treatment protocols.

Intravenous vitamin C therapy is offered in many cancer clinics and other medical centers

Why the Recommended Daily Allowance (RDA) for Vitamin C is Likely Too Low

The current recommended dietary allowance (RDA) for vitamin C for adult non-smoking men and women is 60 milligrams (mg) per day. Recent evidence indicates that a much higher intake of vitamin C is necessary to lower the risk of developing chronic diseases such as cancer, cardiovascular disease, and cataracts. Specifically, **non-smoking men and women need to consume 90-100 mg vitamin C daily for optimum reduction of chronic disease risk.**

The Linus Pauling Institute goes even further and states that there is sufficient evidence to support a daily vitamin C intake of at least 200 mg/day. In fact, because of the very high benefit-to-risk ratio of vitamin C supplementation, the Institute recommends a daily vitamin C intake of at least 400 mg for all adult men and women. This is because maximizing vitamin C blood levels is considered important for optimum protection against oxidative damage to our body's cells.

Also, in older adults aged 60-96 years, the same dose of vitamin C led to lower blood levels compared with younger individuals – which is why **at least 400 mg daily is considered the minimum necessary for adults older than 50 years**, especially those who are at higher risk for heart disease, stroke, certain cancers, and cataracts.

Consuming at least five servings (2.5 cups) of fruit and vegetables daily will provide about 200-250 mg of vitamin C. Papayas, bell peppers, guavas, dark leafy green vegetables, broccoli, strawberries, raspberries, kiwi, citrus fruits such as oranges, limes, and lemons, peas, and lightly-cooked tomatoes are all rich in vitamin C.

One fresh medium papaya contains 224% of the RDA for vitamin C. As a comparison, a medium orange contains 93% of the RDA

Additionally, the Linus Pauling Institute recommends taking supplemental vitamin C in two separate 250-mg doses daily, once in the morning and once in the evening.

Buyer Beware: Not All Vitamin Supplements Are Created Equal

When it comes to taking vitamin C supplements, our bodies have been conditioned by centuries of evolution to absorb and safely use vitamins in their natural context. For instance, vitamin C is now known to be present in natural sources as multi-component complexes, synergistically interconnected with other nutrients and elements that help it to be absorbed more easily and function more effectively in our bodies.

Similarly, an ideal vitamin C supplement should contain the entire intact natural complex necessary for it to function properly in your body in terms of its bioavailability, efficacy, and safety.

In last month's HAC newsletter (see the article *How Important are Multi-Vitamins in Preventing Cancer?)*, Ty shared an excellent detailed explanation of why the quality of the supplement you choose is vital. For all vitamin supplements, make sure **you using only whole-food-based vitamin supplements** such as those available through Epigentic Labs.

About Suresh Nair, PhD

Suresh Nair is a health writer with more than 15 years of experience as a practicing laboratory scientist. He is also a former copy-editor and project manager at a medical communications company.

Suresh is a regular contributor to The Truth About Cancer, and has also written hundreds of articles for other websites and publications on health, alternative health, fitness, and nutrition as well as various other medical and clinical topics.

As a scientist with a PhD in Molecular Biology from UPenn, his articles are always thoroughly researched and have a sound scientific basis.

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Charlene's Cancer Fighting Kitchen

Strawberry Banana Almond Green Smoothie

This smoothie is good any time of day but particularly in the morning because of the high antioxidant and protein components. Spirulina and spinach are both good sources of beta-carotene which helps support Natural Killer Cell production.

The strawberries add unique detoxifying agents and the almonds control blood sugar in a way to keep you energized while satisfying hunger. It's a smoothie that's quick to make and so worth the effort.

Yield: Two 10-ounce servings
Preparation time: 10 minutes + soaking time

For all recipes, please use fresh, organic, locally-grown ingredients whenever possible, including organic, non-irradiated spices. This will give you the maximum cancer fighting benefits.

Ingredients:

- ¼ cup raw almonds, soaked 2-4 hours
- 1 heaping cup fresh strawberries
- ½ medium banana
- 1 teaspoon Spirulina powder*
- 1 handful of spinach
- ½ cup freshly squeezed organic orange juice (squeezing it just before blending optimizes the nutritional benefits)
- ½ cup spring OR filtered water
- Pinch of pink or sea salt

Directions:

1. Drain the soak water from the almonds and put them in a blender.
2. Wash the fruit and greens carefully. Then add all the remaining ingredients including the fruit and greens to the blender.
3. Blend on low for 10 seconds and then high until a smooth consistency is obtained.
4. Pour into glasses and enjoy!

Tip:

Almonds can be soaked the night before, drained and stored in the fridge for one day.

** Most health food stores carry Spirulina powder or flakes but this online source is excellent as well.*

Hearty Borscht (soup)

Borscht is a very popular cold beet soup among Europeans, but this version contains ingredients that serve up multiple cancer stem cell fighting nutrients: Resveratrol (beets and Balsamic vinegar), Quercetin (purple onion), EGCG (carob powder), Isothiocyanates (cabbage), Silymarin (beet greens), Anthocyanin (purple onion and beets), Ursolic acid (oregano), Piperine (black pepper), lycopene (tomato), Curcumin (turmeric), 6-Gingerol (ginger), and Vitamin D3 (hemp seed).

It also features powerful immune strengthening and liver detoxifying components that repair damaged tissues. This soup can be served hot or cold.

Yield: Seven 6-ounce servings
Preparation time: 30 minutes

Ingredients:

- 3 medium purple beets, peeled and shredded
- 3 medium carrots, shredded
- ¼ of a medium sized cabbage, sliced with a mandolin or finely chopped
- 1 large ripe tomato, diced
- 2 stalks fresh organic celery with leaves, washed and coarsely chopped
- 2 large handfuls beet greens, thinly sliced
- 1 medium purple onion, diced
- 3-4 cloves garlic, crushed and coarsely chopped
- 2 quarts (8 cups) spring OR filtered water

Spices:

- 1 teaspoon dried oregano
- 2 tablespoon Balsamic vinegar
- 1 teaspoon carob powder or more to taste*
- 1 cup of fresh Italian parsley leaves, finely chopped
- 1 cup fresh dill, coarsely chopped
- 2 teaspoons fresh turmeric root, minced OR 1 teaspoon turmeric powder
- 1 teaspoon fresh ginger, minced
- 1-2 tablespoons Hemp seeds as garnish**
- 1 teaspoon pink or sea salt and fresh ground black pepper to taste

Directions:

1. Fill a large stainless steel pot with the eight cups of spring or filtered water. Add the dry spices/herbs, onion, garlic, chopped beet greens and celery with leaves to the pot. Turn heat on low and bring to a simmer (approximately 15 minutes).

2. Meanwhile, using a food processor with the shredding attachment, shred the peeled beets, carrots, and cabbage (or can be done by hand with a manual shredder). Add them along with the diced tomato to the pot.

3. Finally, add the chopped fresh herbs and remaining ingredients except hemp seeds, cooking gently for 10 minutes more. Turn off heat and cover pot with a lid.

4. Allow to cool for 10 minutes, then add salt and pepper to taste.

5. Ladle soup into bowls. Garnish with hemp seeds and dill and serve immediately for a warm soup. For a traditional cold soup, place in refrigerator for at least one hour before serving. Enjoy!

Serving Suggestions:

- This soup is a nice snack with flaxseed crackers in the midafternoon.
- Make this your main dish for lunch with a salad and buckwheat crepes.
- As an appetizer for dinner this soup goes well with vegetarian and meat dishes.

** Raw Carob Powder can be purchased at specialty grocery stores or online.*

*** Raw Shelled Hemp Seeds are sold at most health food stores, many grocery stores, and online.*

Ginger Moringa Applesauce

This sweet and tangy applesauce is especially good to slow cancer stem cell activity in the body. It features Moringa powder which is a powerful antioxidant and anti-inflammatory super- food.

In addition it contains prunes and apples that are rich in Ursolic acid and many spices that increase absorption of nutrients while simultaneously knocking out cancer stem cells and removing toxins.

Always use organic produce for the best nutritional value.

Yield: Four 4-ounce servings
Preparation time: 20 minutes

Ingredients:

- 2 cups organic apples, coarse chopped with seeds and peels
- 6 prunes, pitted
- 2 tablespoons lemon juice, freshly squeezed
- 1 handful unsweetened fresh or dried cranberries
- 1 handful untoasted pecans or walnuts, coarsely chopped

Spices:

- 1 teaspoon fresh turmeric root, minced OR ½ teaspoon turmeric powder
- 1 teaspoon fresh ginger, chopped
- 1 teaspoon Moringa powder*
- 1 teaspoon ground Ceylon cinnamon**
- ½ teaspoon ground nutmeg
- ¼ teaspoon ground clove
- Pink or sea salt to taste and a pinch of freshly ground black pepper

Directions:

1. Add all ingredients except cranberries and nuts to a food processor and blend until smooth or chunky depending on your preference.

2. Distribute into serving bowls, add nuts and unsweetened cranberries with a dusting of cinnamon powder. Enjoy!

3. Applesauce can be refrigerated in an airtight container for up to three days.

Ginger Moringa Applesauce *(continued)*

Serving Suggestions:

- Applesauce goes well with all meat entrees as a delicious healthy side dish
- This dish is excellent as a breakfast with buckwheat crepes or oatmeal.
- As a snack it can be mixed with granola or used as a topping for fruit salad.

**Moringa powder is available at most health food stores and online.*

***When buying cinnamon, look for Ceylon cinnamon. The cinnamon sold at most grocery stores is not true cinnamon and lacks the health benefits of Ceylon cinnamon.*

About Charlene Bollinger

Charlene Bollinger is a devoted Christian, happily married wife, joyful mother of 4 beautiful home-educated children, health freedom advocate, co-founder of CancerTruth.net, former model/actress/fitness buff, and lover of healthy food and healthy living.

After losing various family members to conventional cancer treatments, she and her husband, Ty, learned the truth about cancer and the cancer industry and together work tirelessly helping others learn and live free, healthy lives.

Currently, Charlene is working on compiling a cookbook to help families learn that they can indeed cook healthy, delicious food in this toxic world. Along with her husband, Ty, she is also the co-owner of Infinity 510 Squared Partners Publishing Company.

Understanding the Dangers of Glyphosate and How to Minimize Your Exposure Risk

By Ty Bollinger

Since practically the beginning of time, mankind has been on the hunt for new and better ways to ease the burden of having to work the earth for food. Plowing, tilling, cultivating, and harvesting: it can be a deeply rewarding experience, no doubt, but one that also comes with its own unique set of challenges and hardships.

When pestilence, disease, or drought ravage the fruits of one's labor – the toil and sweat of a job well done stolen away by unrelenting Mother Nature – the motivation quickly becomes: how can I make this whole farming thing easier and less taxing on my efforts and resources?

Farmers are constantly searching for ways to get the highest possible yields with the least amount of effort and expense

In the modern age, the answer to this age-old question has centered around the development of advanced chemical pesticides and herbicides designed to target various insects, weeds, diseases, and climate conditions in the hopes that doing so will lead to higher yields with the least possible effort. Much like modern, drug-based medicine, it's a plan of action that addresses the *symptoms* of a specific problem rather than the root cause – and in many cases it works, at least initially.

But it's also a particularly *toxic* approach that, as in the case of the world's most widely used herbicide, is doing substantial harm to our soils, our water, our air, our pets, and even our own bodies.

The chemical I'm referring to is known as **glyphosate**, the primary active ingredient in the widely popular Roundup herbicide manufactured by the Monsanto Company. Chances are you've seen it in the garden section at your local hardware or home improvement store, or maybe even purchased it yourself for use on your lawn or flower beds.

Roundup is aggressively marketed as a safe and effective way to control persistent weeds, one of the most problematic aspects of farming. This selling tactic has worked wonders. Statistics show that glyphosate is now applied to the tune of *300 million pounds* annually, just on U.S. farms alone.

This is a truly staggering figure that allows Monsanto bragging rights to claim that glyphosate is an agricultural miracle and that farmers just love the stuff. But is this actually true? And more importantly, is glyphosate actually as safe and effective as Monsanto claims it is?

In this month's newsletter focus, I'll unpack the science behind glyphosate that Monsanto doesn't want you to know, including the now-verified fact that glyphosate *can and does* cause cancer, both in animals and humans.

Additionally, I'll also offer some helpful tips that you and your family can use to avoid this persistent environmental chemical and the threat to your health that it poses.

Glyphosate Strips Nutrients from Plants and Soil While Embedding Itself in Food Crops

Originally developed and patented as an industrial chelating agent (something that acts like a magnet), glyphosate's inherent purpose and mode of action is to draw out metal ions from wherever it's applied.

In the case of plants, it binds to trace minerals and nutrients like manganese, magnesium, zinc, calcium, and iron, among many others. It does this in order to disrupt the physiological and enzymatic processes plants require for growth and life, ultimately destroying them. For this reason, glyphosate is used as a broad-spectrum weed killer both in residential and commercial applications.

Glyphosate has a particular affinity for manganese, drawing it out of plants in order to thwart the enzymatic expression of 5-enolpyruvylshikimate-3-phosphate synthase, or EPSPS, an enzyme that plants need to produce essential aromatic amino acids like tryptophan and phenylalanine. These amino acids serve as the building blocks of proteins and as precursors to various growth factors and defense systems by which plants protect themselves against disease.

Put simply, glyphosate performs two primary functions in agriculture – it robs plants of vital nutrients and weakens their immune defenses, resulting in their systematic destruction and eventual death.

Since glyphosate, by design, kills nearly every living thing with which it comes into contact, Monsanto has had to genetically engineer and patent an entire lineup of "Roundup-Ready" crops that are resistant to its application – no harm, no foul to anything other than all those obnoxious weeds, right?

Well… not exactly.

Fertile soil is a living organism as well, rich in beneficial microbes that glyphosate and Roundup have been gradually saturating and destroying by the tens of millions of acres over the past four-or-so decades since it was first released commercially.

Over 9 million tons of Roundup have been sprayed on fields worldwide since its introduction in 1974

Recognizing that plants and food crops get the nutrients they need from healthy soils, this is obviously a problematic scenario. When soils are

stripped of nutrients and killed by glyphosate, the result is nutrient-deficient food that's far less nourishing than food grown in healthy, microbially-rich soils. And this is just one of the many major problems with glyphosate's widespread use.

Another serious issue is glyphosate's increasing presence *inside* the foods we're eating, a growing problem that's proving to have disastrous consequences for public health.

The direct uptake of glyphosate by plants via their root systems is a verified fact. One study out of Norway looking at Roundup-ready soybean crops confirmed the presence of glyphosate *inside* the beans themselves, and even Monsanto itself admits that some glyphosate remains on *and in* food crops like canola, cotton, and corn that are heavily sprayed with it. This means that animals and people are literally eating glyphosate in unknown amounts on a regular basis.

The pesticide Roundup is found inside the crops it's sprayed on including soybeans, corn, canola, and cotton

Monsanto claims that this isn't all that big of a deal because humans don't possess the shikimate pathway targeted by glyphosate, and thus the chemical is completely harmless to human health.

(Note - The shikimate or shikimic acid pathway is a metabolic route used by bacteria, fungi, algae, parasites, and plants for making the so-called aromatic amino acids and protein building-blocks phenylalanine, tyrosine, and tryptophan. This pathway is not found in animals, hence these "essential" amino acids must be obtained from our diet.)

But the scary truth is, glyphosate is implicated in triggering and contributing to a host of serious health problems in both animals and humans, both directly and indirectly. A number of independent and publicly-funded studies essentially prove this.

Indirectly, glyphosate damages both food crops and soils, depleting them of the nutrients our bodies need for health. Manganese, which I mentioned earlier as being a chelating target of glyphosate, is an important trace mineral that governs multiple essential functions within the human body.

For instance, manganese protects the integrity of mitochondria, the energy centers of our cells, against degradative oxidative damage. It also protects bone integrity, gut balance, bile acid homeostasis, neurological function, as well as a number of other vital life systems.

If glyphosate's broad-spectrum chelating ability to strip not only manganese but a host of other vital nutrients from plants and soils is enough to kill them, imagine what it's doing to our bodies when we consume the nutrient-deficient foods derived from them! Add to this the direct effects of glyphosate on human physiology and it quickly becomes apparent just how much of a toxic threat this supposedly "safe" herbicide truly is to human health.

Glyphosate is a chelating agent that strips manganese and other vital nutrients from soil leading to nutrient-deficient foods

The Science is Clear: Glyphosate Isn't Safe and Can Lead to Cancer

Before I get into the various cancer-related outcomes of glyphosate exposure, there are a number of other toxic effects that you need to know about to truly understand what we're dealing with here.

Truth be told, glyphosate is associated with practically every major disease epidemic humans currently face. Everything from endocrine disruption and obesity to diabetes and heart disease – and, of course, cancer – has a scientific tie-in to glyphosate exposure.

Some frightening facts about glyphosate:

- **It's highly persistent**. U.S. Geological Survey data shows that glyphosate is present in more than half of all surface waters, soil, and sediment. Aminomethylphosphonic acid (AMPA), its degradation product, is even more commonly detected, showing up in more than 80 percent of wastewater samples collected at municipal treatment plants.

- **It's killing off our precious pollinators**. Monarch butterflies are literally dropping like flies, with a shocking 81 percent of them having disappeared as a result of glyphosate exposure, according to researchers from Iowa State University (ISU). Glyphosate destroys the insect's vital food source, milkweed, leaving the creatures to fend for themselves. Translation: they eventually starve to death.

- **It's destroying people's guts and immune systems**. Glyphosate is a registered anti-microbial agent that annihilates organisms, both good and bad. When it enters your gastrointestinal tract, glyphosate not only destroys protective organisms like *bacillus* and *lactobacillus*, it also inhibits the growth of new protective organisms, leaving your body vulnerable to pathogenic invaders and bowel diseases like leaky gut syndrome.

- **It's even more toxic in combination with the other chemicals found in Roundup**. Dr. Robin Mesnage is a scientist at the acclaimed International Agency for Research on Cancer (IARC), a division of the World Health Organization (WHO). He's also a leading expert at King's College of London's Department of Medical and Molecular Genetics and recently declared glyphosate to be "definitely genotoxic," meaning it causes cell mutations.

Dr. Mesnage added that: "Glyphosate is everywhere throughout our food chain – in our food and water. The lack of data on toxicity of glyphosate is not proof of safety and these herbicides cannot be considered safe without proper testing. We know Roundup, the commercial name of glyphosate-based

herbicides, contains many other chemicals which, when mixed together, are 1,000 times more toxic than glyphosate on its own."

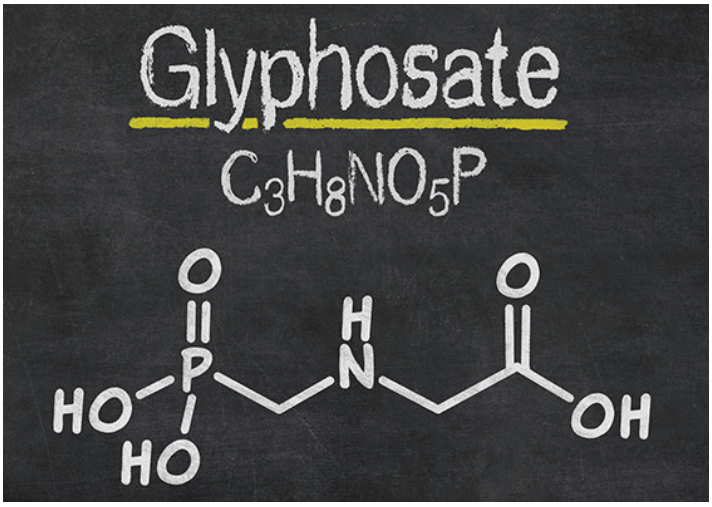
Leading Researchers Agree on the Dangers of Glyphosate

Concerning glyphosate's cancer-causing potential, a panel of scientists at IARC – of which Dr. Mesnage is a member – unanimously declared glyphosate to be "probably carcinogenic" to humans back in 2015. The group's assessment revealed multiple lines of evidence showing tumors of the kidney, pancreas, and other organs resulting from exposure to glyphosate. Epidemiological studies that were also taken into account linked glyphosate to DNA and chromosomal damage, another mechanism that leads to cancer formation.

In case you were wondering, IARC isn't some kooky special-interest group with an axe to grind; it's the world's leading authority on all things cancer. Its committees are made up of highly-qualified, cream-of-the-crop scientists who know what they're talking about when it comes to carcinogenic substances.

A case in point: another one of the 17 scientists who unanimously determined glyphosate's probable carcinogenicity was Dr. Aaron Blair, a distinguished and now-retired epidemiologist who formerly served at the U.S. National Cancer Institute.

The U.S. Environmental Protection Agency (EPA) also weighed in on glyphosate's safety risks back in 1985, classifying the chemical as a "possible carcinogen" after experiments showed tumors in rodents exposed to the chemical. This designation would have persisted, had Monsanto not responded to the findings with its own input and influence – ultimately driving the FDA to suddenly and arbitrarily reclassify glyphosate as a non-carcinogenic substance just six years later, in 1991.



As far back as 1985 the EPA classified glyphosate as a possible carcinogen

Still, the overwhelming scientific consensus portends a serious and largely underestimated cancer risk associated with glyphosate exposure, as evidenced by the following studies:

- A two-year animal feeding trial – the only one of its kind ever to be conducted on glyphosate – found that exposure to Roundup-resistant NK 603, a genetically-modified maize (corn) product manufactured by Monsanto, as well as Monsanto's Roundup herbicide itself, causes rats to develop kidney failure, liver congestion, necrosis, pituitary failure, and mammary tumors. Mortality rates amongst the mice also increased between two- to threefold as a result of exposure to Roundup and GM corn.

- Researchers from the Department of Oncology at University Hospital in Sweden found that human exposure to glyphosate triples the risk

of a specific subtype of non-Hodgkin lymphoma known as lymphocytic lymphoma. However, because the gap between time of exposure and when the cancer forms can be upwards of 10 years, the findings remain obscured.

- In the same vein, a systematic review of 44 scientific studies conducted several years later concluded that glyphosate doubles the risk of non-Hodgkin lymphoma amongst farmers who use it on their crops. The evidence is now so strong on this issue that a group of Nebraska farmers recently filed a lawsuit against Monsanto claiming that glyphosate caused them to develop non-Hodgkin lymphoma, a cancer of the immune system.

A group of Nebraska farmers recently filed a lawsuit against Monsanto claiming glyphosate caused their non-Hodgkin lymphoma

- Research into glyphosate's effects on gut bacteria shows that it's exceptionally damaging to beneficial microbes, while harmful microbes are mostly resistant to it. Since the gut is the cradle of the human immune system, the consequence of this assault on our microbiota is a greatly increased risk of chronic illness, not the least of which includes cancer.

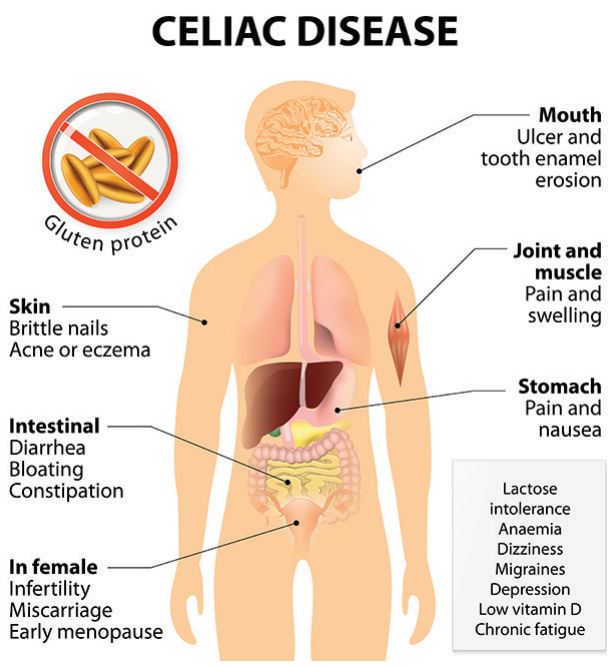
Glyphosate, Wheat, and the Common Misnomer of "Gluten Intolerance"

Recognizing that glyphosate disrupts human digestion in much the same way that it provokes disease and death in target plant species, it doesn't take a rocket scientist to figure out that consuming even trace amounts of this toxic herbicide in food is detrimental to health. And yet, avoiding glyphosate is becoming increasingly more difficult as its presence grows more ubiquitous throughout our modern food supply. This is the direct result of farmers using it not only as a broad-spectrum weed killer, but also as a pre-harvest crop desiccant.

What is a dessicant, you might be wondering? Existing law allows farmers to douse cereal grains like wheat and oats as well as oilseed, rapeseed (canola), and sugar cane with glyphosate just prior to harvest – not solely to kill weeds, but also to rush along the ripening process and promote the rapid release of new seeds.

Doing this is economically advantageous for farmers trying to maximize their profits, but detrimental to the health and wellbeing of those who eat the various food products made from these contaminated crops, which include many common foods like bread and pastries.

Some scientists now speculate that celiac disease, as well as various forms of "gluten intolerance," may actually be indications of systemic glyphosate poisoning rather than an allergic reaction to gluten. Their reasoning is that many celiac and gluten intolerance symptoms parallel those associated with chronic glyphosate exposure – microbial imbalance in the gut, nutrient deficiency, and heightened cancer risk being among these.



Celiac and gluten intolerance symptoms parallel those associated with chronic glyphosate exposure

"Celiac disease is associated with imbalances in gut bacteria that can be fully explained by the known effects of glyphosate on gut bacteria," explains one study on the subject published in the journal *Interdisciplinary Toxicology*.

"Characteristics of celiac disease point to impairment in many cytochrome P450 enzymes, which are involved with detoxifying environmental toxins, activating vitamin D3, catabolizing vitamin A, and maintaining bile acid production and sulfate supplies to the gut," it adds, noting that glyphosate has the same pathological effects.

"Deficiencies in iron, cobalt, molybdenum, copper, and other rare metals associated with celiac disease can be attributed to glyphosate's strong ability to chelate these elements. Deficiencies in tryptophan, tyrosine, methionine, and selenomethionine associated with celiac disease match glyphosate's known depletion of these amino acids.

Celiac disease patients have an increased risk to non-Hodgkin's lymphoma, which has also been implicated in glyphosate exposure. Reproductive issues associated with celiac disease, such as infertility, miscarriages, and birth defects, can also be explained by glyphosate."

8 Tips to Help You Avoid Harmful Exposure to Glyphosate

Its widespread use, ease of mobility, and environmental persistence are all factors that make glyphosate difficult to completely avoid in our modern world. But the good news is that there are steps you can take to help *minimize* your exposure to glyphosate as much as possible, as well as mitigate the threat it poses to your health and that of your family:

1. **Avoid all food products made with conventionally-grown wheat and other grains**. Every time you purchase bread, crackers, or some other food product made with conventional wheat, barley, or rye, you're potentially exposing yourself to dangerously high levels of glyphosate. These are the most common food crops sprayed with glyphosate as a pre-harvest desiccant. Other crops that are frequently sprayed include canola, sugar, and pulse (legume) crops such as beans and peas.

Bread products made with conventionally-grown wheat, barley, and rye often contain glyphosate

2. **Avoid GMOs**. Genetically-modified organisms and conventional food crops in general are almost always sprayed with glyphosate in the form of Roundup. The most common GMOs in our food supply include ingredients derived from corn, soybeans, canola, cotton, sugar (from sugar beets), zucchini, yellow squash, and papaya.

3. **Certified-organic foods are better, but still not in the clear**. The U.S. Department of Agriculture's National Organic Program standards prohibit the use of glyphosate on certified-organic food crops. But tests have shown that many of them still contain small amounts of glyphosate. This is likely the result of glyphosate drift from nearby farms that use it, as well as exposure through contaminated rainwater and irrigation systems.

4. **Look for certified glyphosate-free foods**. Because of growing awareness about the glyphosate problem, forward-thinking companies like Tropical Traditions have begun actively testing all of their products to ensure that they're free and clear of glyphosate. Looking for the "Healthy Traditions Glyphosate Tested" seal will ensure that you're buying only the cleanest foods possible for you and your family.

5. **Avoid vaccines and commercial gelatin**. Vaccines are another common source of exposure for glyphosate due to the fact that many of their ingredients are derived from contaminated animal and plant materials.

   Research compiled by independent scientist Anthony Samsel and Stephanie Seneff, his colleague from MIT, show that popular childhood vaccines like Zostavax (shingles), MMR (measles, mumps, and rubella), and MMR-II are among the worst offenders. The latter two show some of the highest contamination levels of glyphosate in multiple confirmed laboratory tests!

   This same research implicates commercial gelatin, which is found in many vitamin and dietary supplement products, as well as gelatin-containing processed foods, as a prominent glyphosate offender. Gelatin, also a common ingredient in vaccines, often contains concentrated levels of glyphosate that, over time, build up in the animal tissue and bones from which it's derived. Stick with gelatin derived only from pasture-raised animals and you'll help minimize your risk of exposure.

6. **Invest in an advanced water filtration system**. Glyphosate is just one herbicide among many that now contaminate many of our nation's drinking water sources. High-end reverse osmosis followed by activated carbon filtration is one of your better options, as is ozone treatment.

Use a quality water filter to remove pesticides such as glyphosate from your drinking water

7. **Adopt a chemical-free, detoxifying dietary regimen for improved glyphosate resistance**. Consuming plenty of clean-grown, sulfur-rich foods like cruciferous vegetables, onions, garlic, pastured meat and eggs, wild fish, and nuts is a great way to not only avoid glyphosate, but also help rid it from your body as part of a detoxifying diet. Broad-spectrum detoxification formulas that include sulfur-rich amino acids, food-based vitamin and trace mineral cofactors, and potent botanical extracts like *Ginkgo biloba* can further help to prevent glyphosate-induced toxicity within your body.

8. **Speak up for change**. The only way we're ever going to eliminate the dangers of glyphosate from our food and water supplies is from a full and immediate ban on its use. Monsanto is a powerful company with deep pockets, but our Truth About Cancer community is also a powerful voice. Wherever you live in the world, I encourage you to push your legislators to support legislation that bans glyphosate (Roundup) and GMOs, and educate your family and friends so they will do the same.

About Ty Bollinger

After losing several family members to cancer (including his mother and father), Ty Bollinger refused to accept the notion that chemotherapy, radiation, and surgery were the most effective treatments available for cancer patients. He began a quest to learn all he possibly could about alternative cancer treatments and the medical industry.

Ty has now made it his life's mission to share the most remarkable discovery he made on his quest: the vast majority of all diseases (including cancer) can be easily prevented and even cured without drugs or surgery.

Ty is a happily married husband, the father of four wonderful children, devoted Christian, best-selling author, medical researcher, talk radio host, health freedom advocate, former competitive body-builder, and also a certified public accountant.

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Here we are, September already… where has the summer gone! (or winter, for all my friends in the Southern hemisphere :-)).

I hope you had a wonderful summer. I also hope you made the time to enjoy at least a little R&R before diving back into a jam-packed activity schedule that so many people maintain throughout the school year.

I will admit that I'm guilty too of not always taking the down time I should to rest and recharge. Happily, I did get away with Charlene and the kids this summer in between recording some incredible new expert interviews that I'll be sharing in the not-too-distant future.

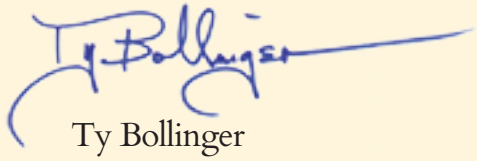
One project that I'm super excited to finally be able to share is our brand new *TTAC's Ultimate Cancer Prevention, Healing & Healthy Living program*. The team and I have been working extremely hard on this for the past several months.

We have so much important information to share on creating an anti-cancer lifestyle, but sometimes people find it overwhelming as to what they need to do first (or second, or third). If that sounds like you, *this program* may be something you want to check out.

The countdown is on now too for our *Ultimate LIVE Symposium* in Texas in mid-October. If you're able to make it, please be sure to tell me that you're a Heroes Against Cancer newsletter subscriber when we meet.

On behalf of Charlene, the TTAC team, and me… thank you as always for your on-going support of our mission!

Until next month...



Ty Bollinger