

Cancer

By Dean L. Gano & E. J. Ledet; January 2023

A Message to the Reader:

This article is provided as documentation of the writers' two-year journey to better understand the causes of cancer. It is intended to provide helpful and informative material on the subject so that the reader can also learn from our research. The writers do not provide any medical or health advice, rather we are sharing what we have learned from over 120 reference sources. As such, the reader should consult his or her medical, health, or other competent professionals before adopting any of the suggestions provided herein. Also, you might be inspired to seek out a fact checking site to test or refute some information in this article. Fair enough, but before you do, know that most of them are propagandists for Big Pharma. For more evidence of this fact, read: [Cancel Culture Revealed](#). All statements of fact are hyperlinked so you can read the original source for yourself. And remember, the word "media" means "in the middle of and between." Indeed, the news media's narratives stand in the middle of and between you and people of power. Only when you know this, can you decide for yourself what's promotion, what's propaganda, what's marketing, and what is truth.

Cancer! What is it?

The human body is made up of trillions of cells that are always growing, meaning they are fulfilling their role in keeping the entire body healthy. To keep this normal metabolism going, at some point all cells die and are replaced by new ones through a cell division process. Sometimes this orderly process breaks down, and abnormal or damaged cells grow and multiply when they should not. These cells may form tumors, which are invasive lumps of tissue foreign to the body, which can be cancerous or not cancerous.

So, what is cancer, what causes it, and what can we do to prevent it?

Cancer is defined by the [National Cancer Institute](#) as: A disease in which some of the body's cells grow uncontrollably and spread to other parts of the body. Cancer is a genetic disease—that is, it is caused by changes to [genes](#) that control the way our cells function, especially how they grow and divide.

Cancer Genes:

The genetic changes that cause cancer tend to affect three main types of genes—[proto-oncogenes](#), [tumor suppressor genes](#), and [DNA repair genes](#). So, what are these big fancy words?

Proto-oncogenes:

Proto-oncogenes promote normal cell growth and division. And as you would expect, when these genes are altered in certain ways or are more active than normal, they may become cancer-causing genes (or oncogenes), allowing cells to grow and survive when they should not.

Tumor suppressor genes:

Tumor suppressor genes are also involved in controlling cell growth and division, acting kind of like a quality control technician, making sure the cells divide properly, and don't form tumors. If the tumor suppressor genes get damaged in some way, they may cause uncontrolled cell division.

DNA repair genes:

DNA repair genes are involved in fixing damaged DNA. So far, [scientists have identified](#) 125 genes directly involved in DNA repair. Our normal biology includes a mechanism that checks to make sure the cell divides properly. If it detects an error, these genes activate and correct the mistake. Cells with mutations in these genes tend to develop additional mutations in other genes and changes in their chromosomes, such as duplications and deletions of chromosome parts. Together, these mutations may cause the cells to become cancerous.

Types of Cancer:

There are over 100 different types of cancer and you can find out all about them here: [Cancer Types A to Z](#). Unfortunately, our doctors and scientists have mostly named cancers based on where they are found, not on how they are caused. Another way they classify them is by the types of cells the cancers occur in and here are some of the most common ones:

Carcinomas:

These are the most common type of cancer and are formed in the epithelial cells, which line every organ in the body, like blood vessels, intestines, lungs and the skin. These cancers are usually caused by environmental [carcinogens](#), which are any substance, [radionuclide](#), or [radiation](#) (both ionizing and non-ionizing) that promotes the formation of cancer. Asbestos, [dioxins](#), and tobacco smoke are common examples of these toxins.

Sarcomas:

Sarcomas are cancers that form in bone and soft tissues, including muscle, fat, blood vessels, [lymph nodes](#), and fibrous tissue (such as tendons and ligaments). With regard to what potentially causes sarcomas, researchers know that sarcomas – like many other cancers – develop as a result of DNA mutations. These mutations can be passed down from parent to child, or be acquired during a person's lifetime. These DNA mutations prevent the body's proto-oncogenes (genes that promote normal cell division) and/or tumor suppressor genes (genes that cause cells to die when they reach the end of their normal life cycle) from properly doing their jobs. If the genes that regulate cell division and death do not function properly, unregulated cells can accumulate into tumors. These cancerous cells can continue to spread into nearby tissues and lymph nodes.

Leukemia:

Cancers that begin in the blood-forming tissue of the [bone marrow](#) are called leukemias. These cancers do not form solid tumors. Instead, large numbers of abnormal white blood cells (leukemia cells and leukemic blast cells) build up in the blood and bone marrow, crowding out normal blood cells. The low level of normal blood cells can make it harder for the body to get oxygen to its tissues, control bleeding, or fight infections. As we will learn later, cancer cells like the lack of oxygen.

Lymphoma:

Lymphoma is cancer that begins in lymphocytes (T cells or B cells), which are disease-fighting white blood cells that are part of the immune system. In lymphoma, abnormal lymphocytes build up in the [lymph nodes](#) and lymph vessels, as well as in other organs of the body. There are two main types of lymphoma:

Hodgkin lymphoma – People with this disease have abnormal lymphocytes that are called Reed-Sternberg cells. These cells usually form from B cells.

Non-Hodgkin lymphoma – This is a larger group consisting of all other lymphoma cancers. These cancers can grow quickly or slowly and can form from B cells or T cells. Lymphomas in the brain can cause weakness, seizures, problems with thinking, and personality changes.

Multiple Myeloma:

Multiple myeloma is cancer that begins in [plasma cells](#), another type of immune cell. The abnormal plasma cells, called myeloma cells, build up in the bone marrow and form tumors in bones all throughout the body. Multiple myeloma is also called plasma cell myeloma and Kahler's disease.

Melanoma: Melanoma is cancer that begins in cells that become melanocytes, which are specialized cells that make melanin (the pigment that gives skin its color). Most melanomas form on the skin, but melanomas can also form in other pigmented tissues, such as the eye. The biggest problem with melanomas is they can easily spread to other organs.

Understanding Cancer:

To understand cancer, we must first understand the bio-chemical processes of a living organism at the cellular level. Cellular biochemistry occurs within a cell and interactions between different cells. These interactions require knowing [bimolecular](#) structures and biochemical mechanisms such as metabolic processes. There are many, but suffice it to say the human body is one giant chemical plant and as long as all these biochemical reactions are working properly, everything is fine. For a detailed discussion of biochemistry go here: [Introduction to Biochemistry](#). But for a simplified understanding, read on.

The first concept we need to understand is what a normal cell is doing. If everything is working properly ([homeostasis](#)), the metabolism is in sync and doing its part in keeping the whole organism alive and well. So, what is metabolism?

Metabolism is a set of life-sustaining biochemical reactions found in all organisms. The three main purposes of metabolism are:

1. The conversion of food into energy to run cellular processes.
2. The conversion of food into building blocks for [proteins \(amino acids\)](#), [lipids \(fats\)](#), [nucleic acids \(genetic material\)](#), and some [carbohydrates](#) (sugars) that make up the cell's structure.
3. The elimination of surplus or toxic [metabolic wastes](#).

These three processes use [enzyme](#)-catalyzed reactions that allow organisms to grow, reproduce, maintain their structures, and respond to their environments.

If any of these biochemical reactions go awry there are built-in biological mechanisms for fixing the mistakes, but sometimes they aren't enough, and a cancerous cell is created anyway. The main problem with cancerous cells is that unlike all other cells in the body, they do not possess any instructions to stop growing, so once they start, they can grow out of control if not stopped.

Also, cancer cells:

- ignore signals that normally tell cells to stop dividing or to die (a process known as [programmed cell death](#), or [apoptosis](#)).
- invade into nearby areas and spread to other areas of the body. Normal cells stop growing when they encounter other cells, and most normal cells do not move around the body.
- tell blood vessels to grow toward tumors. These blood vessels supply tumors with nutrients and remove waste products from tumors.
- hide from the [immune system](#). The immune system normally eliminates damaged or abnormal cells.
- trick the immune system into helping cancer cells stay alive and grow. For instance, some cancer cells convince [immune cells](#) to protect the tumor instead of attacking it.
- rely on different kinds of nutrients than normal cells. In addition, some cancer cells make energy from nutrients in a different way than most normal cells. Cancer cells are primarily [anaerobic](#), meaning they grow without oxygen or in very low oxygen environments. This lets cancer cells grow more quickly.
- accumulate multiple changes in their [chromosomes](#), such as duplications and deletions of chromosome parts. Some cancer cells have double the normal number of chromosomes.

Remember, [chromosomes](#) are the building blocks of life contained within the Deoxyribonucleic acid ([DNA](#)), which is a very large molecule, called a polymer, that is composed of two polynucleotide chains that coil around each other to form a double stranded helix you may have heard of. They are made up of Hydrogen, Oxygen, Nitrogen, Carbon, and Phosphorus atoms. This polymer carries [genetic](#) instructions for the development, functioning, growth and [reproduction](#) of the [organisms](#) and many [viruses](#).

Most DNA is found inside the nucleus of a cell, where it forms the chromosomes. Chromosomes have proteins called histones that bind to DNA. DNA is made up of four

building blocks called nucleotides: adenine (A), thymine (T), guanine (G), and cytosine (C). The nucleotides attach to each other (A with T, and G with C) to form chemical bonds called base pairs, which connect the two DNA strands on each side. Genes are short pieces of DNA that carry specific genetic information. See Figure 1 below for some cool DNA graphics. When you consider this complicated molecule is just one tiny part of a single human cell, you can get an idea of how complicated cell division is.

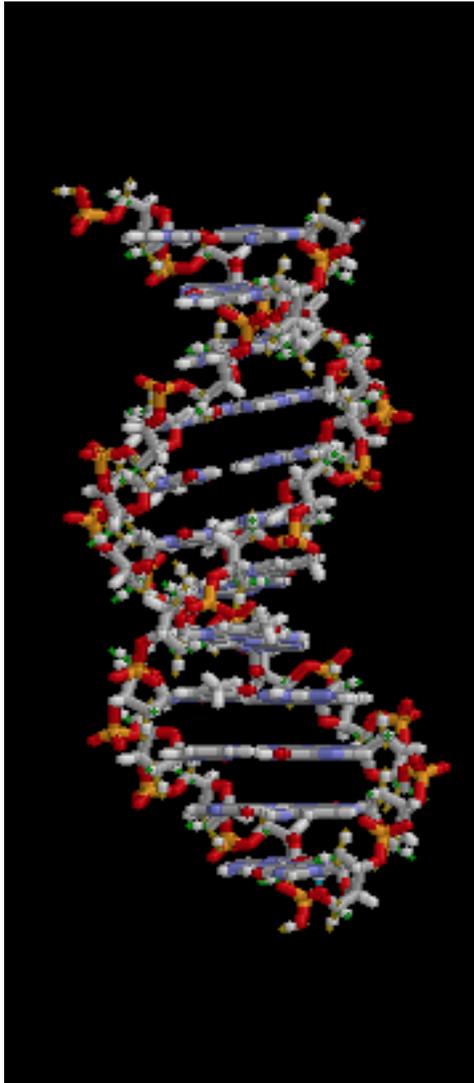
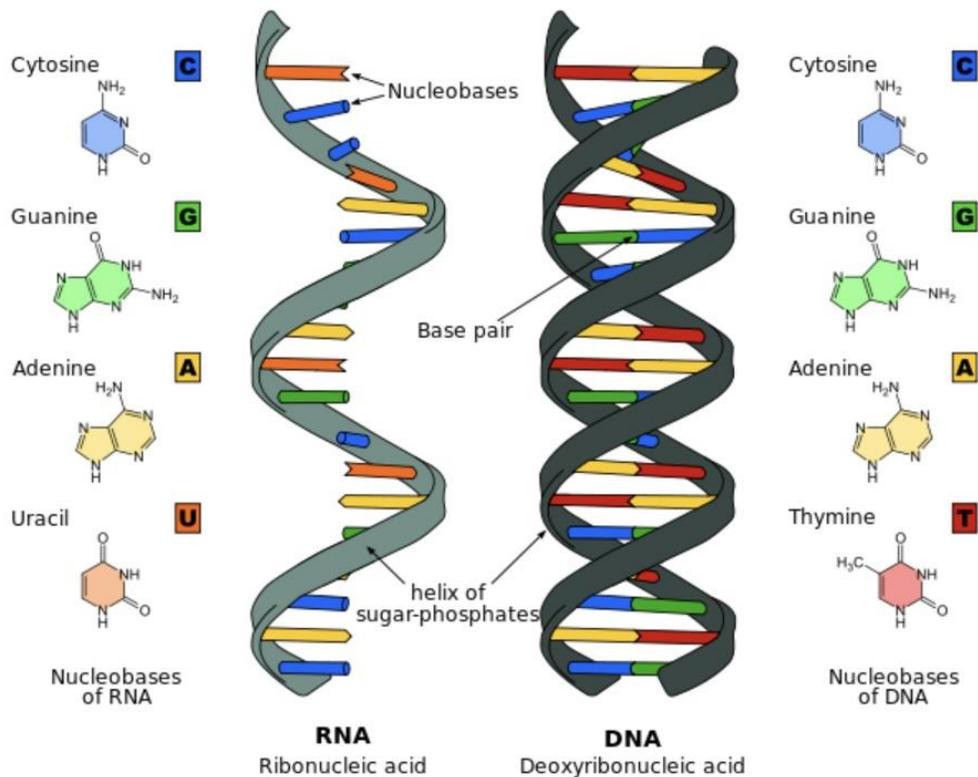


Figure 1: DNA Strand (Click image to see more graphics)



A comparison of RNA (*left*) with DNA (*right*), showing the helices and nucleobases each employs

Figure 2: RNA and DNA Compared

The two main classes of nucleic acids are **deoxyribonucleic acid** (DNA) and **ribonucleic acid** (RNA). DNA molecules are the building blocks of life and contain all the instructions for the cell to grow, function, and replicate, The RNA carries out these instructions by copying the DNA to make proteins. So, DNA makes RNA, RNA makes proteins, and proteins help make up cells. [Go here](#) for a 3-min. video of this process.

Causes of Cancer:

Now that we have the What, When, Where, and Significance of cancer defined, we need to understand the causes, which are many and extremely complicated, so we will try to simplify and make some sense out of all the technical details.

If you take the time to read some of the references above, you will find that most of them start out or finish with words like this: ‘We don’t know the detailed causes and further study is required.’ Because the causes are so complicated and varied, the

researchers use the term 'cancer pathways' to describe correlations common across different types of cancer. 'Pathway' means the complex causal path that occurs at some stage of the cell division. And just to give you an idea of how complicated our scientists make things, here is a sentence from one of their reports: "For example, the study of Wang *et al.* focused on the hippo signaling pathway, Ge *et al.* focused on the ubiquitin pathway, Zhang *et al.* focused on the PI3K/AKT/mTOR pathway and Way *et al.* focused on the Ras pathway." Because they don't know about the [principles of causation](#), they tell each other stories and categorize the causal relationships. But this failed strategy is not their fault, it is that of our [failed education system](#), and may be one reason they have so much trouble understanding cancer.

However, if you step back and look at some of the common systemic causes of cancer, you find that inflammation, enzyme malfunction ([methylation](#)), oxidative stress, and viruses are often involved.

Inflammation:

In response to tissue injury, the body starts many biochemical processes, including inflammation. In addition to cell proliferation and tissue repair, inflammation is also responsible for clearing out dead cells and other debris. This kind of physiological inflammatory response is self-limiting, and is terminated after the assaulting agent is removed or the repair is completed. However, if inflammation is unregulated, it can become chronic, inducing malignant growth and tumor initiation in the surrounding tissue. This is caused by the persistent production of [cellular growth factors](#) as well as reactive oxygen and nitrogen species (RONS), also called free radicals, that interact with the DNA of the newly generated cells and results in permanent alterations of genes. In addition to tumor initiation, inflammation plays a decisive role in tumor promotion, malignant growth and spreading the cancerous cells.

While epidemiological studies indicate that at least 20% of all cancers begin as a direct consequence of chronic inflammatory disease ([Table 1](#)), inflammatory processes caused by the tumor itself are likely to be involved in the majority of solid malignancies. Inflammation is the common mechanism of action for numerous cancer risk factors, including infection, obesity, tobacco smoking, alcohol consumption, exposure to microparticles, [dysbiosis](#) (disruption of the gut micro-biome), and chronic inflammatory diseases such as pancreatitis and colitis. Considering the extreme commonality of inflammatory changes in different cancer types, preventing or reversing inflammation is an important approach to cancer control. To learn more about the research on inflammation, go here: [Targeting Inflammation in Cancer Prevention and Therapy](#).

Enzyme malfunction ([methylation](#)):

The most widely investigated external cause of cancerous cells is the methylation of DNA. Methylation is part of the normal metabolic process whereby an enzyme forms around a molecule such as DNA or RNA and with the help from some anaerobic (without oxygen) microbes a methyl group is formed. A methyl group is a molecule of one carbon atom connected to 3 hydrogen atoms (symbolized as CH³) and usually found amongst a larger group of molecules in a DNA or RNA group of atoms.

In normal conditions, methylation regulates gene expression and inactivation and obviously if not done properly it can cause cancerous cells. The key causation link here is an oxygen starved environment allowing the microbes to form the enzymes that start the process, so it is causally related to the next common cause: Oxidative Stress.

Oxidative Stress:

During the three processes of our normal metabolism as discussed above, oxygen and nitrogen of many molecular species are used in various bio-chemical reactions. If there are not enough or too many of these different molecules it can cause problems. They call these different oxygen and nitrogen molecules: Reactive Oxygen Species (ROS) and Reactive Nitrogen Species (RNS), and combined they are denoted as RONS. When there is an imbalance of these molecules, it creates Oxidative Stress.

RONS are constantly generated and eliminated in the biological system and are required to maintain normal cellular function. Under normal physiological conditions, cells control RONS levels by balancing the amount generated with the amount eliminated by the scavenging systems. But under oxidative stress conditions, excessive RONS can damage the proteins that make up the cell's structure, the fatty acids used for fuel, and the DNA, all leading to fatal lesions in the cell that contribute to the formation of cancer cells.

Cancer cells exhibit greater oxidative stress than normal cells do, partly due to gene mutations, increased metabolic activity, and reduced energy from mitochondrial malfunction. Reactive oxygen species not only cause cancerous cells if there are too many, but once the cancerous cells are formed, low levels of RONS facilitate cancer cell survival and chronic inflammation, making things worse. In fact, most of the chemo drugs and radiotherapeutic agents kill cancer cells by increasing the oxidative stress. The ability of cancer cells to distinguish between RONS as a survival or cellular death signal is controlled by the dosage, duration, type, and site of RONS production. Modest levels of RONS are required for cancer cells to survive, whereas excessive levels kill them.

There are four common types of free radicals: Oxygen-centered, nitrogen-centered, carbon-centered and Sulphur-centered radicals, but the oxygen and nitrogen species are the dominant causes of cancer cell growth. For example, the nitrogen-centered species (Nitric oxide) modifies DNA directly and inactivates the DNA repair process. It is also a very important regulator for cellular functions, so if it gets out of control, bad things happen.

If we dig a little deeper, we find that at the very core of the way our bodies work, energy is produced from biochemical reactions converting food and oxygen into energy, carbon dioxide, and water. This is called cellular respiration, where large molecules are broken down into smaller ones, releasing energy in the process. The exchange of energy involves the transfer of electrons from one molecule to another. This "combustion" of sorts, called the Krebs cycle, creates cellular energy and also various molecular side reactions. There is a collection of very tiny molecules created in these side reactions, which vary in size from 2-4 atoms, and are called REDOX signaling molecules (RSM).

They are generated in some cells a million times a second, and also used to carry out their work equally as fast. It is no wonder that these molecules are so pivotal in our biology. These Redox Signaling Molecules are normally provided by the body, but after age 12 our cells make fewer and fewer and the aging process begins, leading to errors and oxidative stress, which causes many problems as seen in Figure 3 below:



Figure 3: Conditions Caused by Oxidative Stress

DNA and RNA Viruses:

A virus is a nucleic acid molecule inside a protein coat. It is too small to be seen by a microscope, and only replicates inside a living cell, and the reason we get sick from them is they mess with the cell division process. There are several cancer causing (oncogenic) viruses that cause cancer through different mechanisms such as alteration of cellular genes, suppressing or disrupting the immune system, or causing long-term inflammation.

Viruses also attack the natural cell correcting mechanisms to ensure the cancerous activity continues.

Here are nine viruses that contribute to cancerous cells:

1. Epstein-Barr virus (EBV is a DNA virus):

[EBV](#) is a type of herpes virus. You may be familiar with it as the cause of infectious mononucleosis, or [mono](#). Once you've contracted it, it remains in your body for the rest of your life. But it eventually lies dormant in your body. Mutations that occur in cells due to EBV infection may contribute to certain rare cancers, including:

- [Burkitt's lymphoma](#)
- [nasopharyngeal cancer](#)
- [Hodgkin's lymphoma](#)
- [stomach cancer](#)

2. Hepatitis B virus (HBV is a partially stranded DNA virus):

[HBV](#) causes viral hepatitis. [Hepatitis](#) is an inflammation of the liver. Many people with HBV go on to recover following an acute infection. Having a chronic HBV infection leads to liver inflammation and damage, which are risk factors for [liver cancer](#).

3. Hepatitis C virus (HCV is an RNA virus):

Like HBV, [HCV](#) also causes viral hepatitis. According to the [American Cancer Society Trusted Source](#), HCV is less likely than HBV to cause symptoms. But it's more likely to cause a [chronic infection](#). Similar to HBV, a chronic HCV infection can lead to prolonged liver inflammation and damage, increasing a person's risk of liver cancer.

4. Human immunodeficiency virus (HIV is an RNA virus):

[HIV](#) is a [retrovirus](#) that can lead to the development of [AIDS](#). HIV infects and destroys cells in the immune system called helper T cells. As the numbers of these cells [decline](#), the immune system has a harder time fighting infections. It's important to note that HIV doesn't cause cancer by itself. The immune system is important in both fighting infections and in finding and attacking cancerous cells, so the weakening of the immune system caused by HIV infection can increase the risk of developing certain types of [cancer](#), such as Kaposi sarcoma, [non-Hodgkin lymphoma](#), and cervical cancer.

5. Human herpes virus 8 (HHV-8 is a DNA virus):

Like EBV, it's a type of herpes virus. Infection with HHV-8 is rare. It's estimated that less than 10% of people in the United States develop an infection. It causes a rare type of cancer called [Kaposi sarcoma](#). This cancer affects the lining of blood vessels and lymph vessels. HHV-8 can be found in the cells of these tissues. Normally, the immune system keeps the virus under control. As a result, most people with an infection don't have any symptoms or develop Kaposi sarcoma. However, people who have a weakened immune system, due to HIV for example, are at an increased risk for developing Kaposi sarcoma. This is because their immune system may not be able to keep the HHV-8 in check.

6. Human papillomavirus (HPV is a DNA virus):

According to the National Cancer Institute, there are more than 200 types of [HPV](#). Many people with an HPV infection eventually go on to clear it. However, in some cases long-term HPV infection can lead to cellular changes that can contribute to the development of several cancers. Strains of HPV that can cause these cancers are called high-risk HPVs. There are 14 high-risk strains of HPV, although HPV16 and HPV18 are responsible for most cancers.

7. Human T-lymphotropic virus (HTLV is an RNA retrovirus that uses a reverse transcribing enzyme to produce DNA from RNA):

Like HIV, [HTLV](#) is also a retrovirus. It's more common outside of the United States in areas such as Japan, the Caribbean, Africa, the Middle East, and South America. Many people with HTLV infections have no symptoms. However, HTLV infection is associated with an aggressive type of cancer called acute T-cell leukemia/lymphoma (ATL). It's estimated that 2 – 5% of people with the virus will develop ATL.

8. Merkel cell polyomavirus (MCV is a DNA virus):

MCV is one of seven recently discovered human oncoviruses. Most people contract the virus during childhood and have no known symptoms. MCV was first identified in cell samples from a type of cancer called [Merkel cell carcinoma](#), a rare type of [skin cancer](#).

Keep in mind that having an infection caused by a cancer-causing virus doesn't mean you'll develop cancer. It simply means you may have a higher risk than someone who's never had the infection.

9. SARS-CoV-2 is an RNA virus:

The spike protein, [known as a prion](#), from both the SARS-CoV-2 virus and the COVID-19 vaccines bind to a gene in our bodies that's known as the guardian of the genome: the P53 tumor suppressor gene. As [explained by Dr. Ryan Cole, MD on November 23, 2022](#) "It also binds to a breast cancer gene and an ovarian cancer gene." The spike protein binding to these receptors allows tumors to grow unimpeded. "There's an uptick of some unusual cancers that I've been seeing ... This should at least open the door to other pathologists and universities to say 'well, we should maybe go back and look at some of these unusual fast-spreading cancers in young patients that we normally don't see."

He also said: "There are at least a dozen mechanisms that the spike protein can induce in those cancer pathways ... One way is that micro clotting can cause the "choking off" of tissues as cancers like an oxygen-depleted environment."

One mechanism by which the jab causes cancer has to do with the fact that the SARS-CoV-2 [spike protein obliterates 90% of the DNA repair mechanism in lymphocytes](#), which are white blood cells that help your body fight infections and chronic diseases such as cancer. That's bad enough, yet that's just one [mechanism of many](#).

More evidence is provided by [Dr. Charles Hoffe](#), who reports on Dec. 2022 that two-thirds of cancers being diagnosed today are Stage 4 with tumors bigger than those seen

before and they are [resistant to treatment](#). He also says the COVID vaccines are the [biggest disaster in medical history](#).

In order to understand the details of what's happening to mRNA vaccinated people, we first need to understand the basics of how our immune system works and why mRNA vaccines are a very bad idea. In the case of COVID vaccines, they cause the human body to produce the COVID-19 Spike protein found on the outside of the virus. By circulating in the blood, these mRNA proteins are carried to every organ in the body and because the immune system sees these proteins as foreign objects, it sends out killer T-cells to attack them and in the process the T-cells start killing the perfectly good cells in every organ in the body. As you might expect since it is pumping this poison, the first organ this process occurs in is the heart, but it is happening throughout the entire body, so it is only a matter of time before other organs fail to function properly or cancerous cells begin to form. And [Pfizer knew about these effects from early animal studies](#), but said nothing. [Criminals!](#)

The most serious attack is on our adaptive immune system itself. These mRNA spike proteins get into your lymph nodes and infect the killer T-cells which are the germ fighting [antibodies](#) used to fight any foreign invaders. They are large, Y-shaped [proteins](#) used by the [immune system](#) to identify and neutralize foreign objects such as [pathogenic bacteria](#) and [viruses](#). They are used to fight off all diseases your body has developed immunity from since birth. But when these foreign spike proteins get into the source of your antibodies, the lymph nodes, the immune system attacks itself and your immune system begins to fail. And if that were not bad enough, a major [Swedish study](#) found that because of the way these spike proteins weaken the immune system it increases your chance of cancer. Consequentially, the first bad pathogen, like Tuberculosis, Pneumonia, or a simple infection, to come along may kill you. It appears this immune system degradation will be a gradual process, and some scientists think it will take 5 to 10 years for the immune system to totally fail, depending on your immune system and its ability to remove the spike proteins. More on this later.

Note: Did you notice how many times inflammation and lack of oxygen were listed as a causal factor? As we will see later, understanding these causal relationships will provide us with ways to prevent cancer.

Other Causal Models:

[The Nexus model](#) says that all celled creatures are designed to evolve. The cause of evolution is a change in the environment of the cells. This natural evolutionary process occurring in the cells is somewhat random, but a function of the environment. The cells that cause the organism to continue to live, or live better, survive, but the inappropriate cell divisions result in tumors, or inappropriate cells, we call cancer. So, the basic mechanisms of cancer are a natural process designed into the organism as a potential pathway to long term success. The comes at the cost of some failures along the way.

As an example; let's say that the atmosphere becomes filled with cigarette smoke, which contains 70 cancer causing chemicals; so, everyone must breathe it. The human body starts the evolutionary process to adapt to this new environment. This involves cell

mutations, some of which will succeed and some of which will fail, but in the end, the ones that succeed will continue the existence of the creature. It may be a small percentage, but at least there is some success and evolution continues. And in fact, there are some people who already have this ability; people who have smoked all their lives and never had lung cancer.

This NEXUS model proposes that the initial causes of cancer are physical, chemical, biological, and lifestyle related causes. These conditional causes then interact with the cellular biochemical pathways and generate reactive oxygen and nitrogen species (RONS) along with other free radicals. The RONS, free radicals and viruses contain random genetic defects, which then generate structurally and functionally altered regulatory molecules (biomolecules) involved in the cellular metabolism.

This interference results in the accumulation of incomplete molecules. As this 'garbage' accumulates, the cellular environment hampers the breakdown of normal metabolic processes and is eventually overloaded. Such a scenario results in the loss of intercellular signaling in a tissue and ultimately causes prolonged cellular biochemical stress that continues through many cell cycles, and eventually alters the cellular microenvironment.

Such a complete alteration of the cellular microenvironment and the loss of intercellular signaling then creates a "perfect storm" to initiate a chain of events leading to genetic changes. Such events cause prolonged biochemical stress, thereby inducing considerable changes in stressed cells and marking the beginning of cellular events leading to cancer. Such events are hereby called the Nexus. Initially, such mutations are random and cause expression of biomolecules which may either add to or reduce the biochemical stress, better known as positive or negative cellular feedback. Over time, survival and accumulation of these mutated molecules (garbage) aid in the positive feedback which results in cancer of a healthy cell.

Cancer Prevention:

When we step back and look at the big picture rather than the detailed causes, we find that, as the Nexus Model says, cancers are caused by physical, chemical, biological and lifestyle related causes - all things found in our modern lifestyle. So, if we looked for lifestyles or living environments where cancer is low or non-existent, we might find some natural ways to prevent cancer in the first place; regardless of the detailed and complicated causes.

In 2000, a National Geographic Explorer named Dan Buettner, set out to find cultures where people lived the longest. After he finished his research he wrote a book called, ["The Blue Zones."](#) The people who live in the Blue Zones have the following nine life style habits:

1. They move their bodies a lot by working and playing, not pumping iron.
2. They have a sense of purpose.
3. They do not overeat and stop eating when their stomach is 80% full.
4. They have social circles that reinforce healthy behaviors.

5. They take time to de-stress.
6. They are part of communities, often religious ones.
7. They are committed to their families.
8. They eat a little meat and mostly beans, soy, and lentils; a diet rich in anti-inflammatory, antiviral, antibacterial, and anticancer nutrients.
9. They drink moderate amounts of wine daily.

Another common characteristic of these longevity cultures is that their medical community focuses first on preventing illness and treatment second. Completely opposite of our Big Pharma controlled healthcare system. Why? Because sick people are much more profitable!

The other thing about these centenarians is that they all started out life with very little to eat. Most experiencing famine and surviving many communicable diseases earlier in their lives. And it is not just about longevity, they have many more years of quality life.

These people live in five regions located on the island of Sardinia, a small Aegean Sea Island in Greece, a sea coast city in Costa Rica, a Seventh Day Adventists community in Loma Linda, California, and the island of Okinawa, Japan. Notice that with the exception of Loma Linda, CA, all these communities live near the ocean where seafood, rich in Iodine and zinc, is plentiful.

When Dan asked a woman in Okinawa her secret to living to 102, she said: "It comes from not worrying so much about your own problems. Sometimes you can best take care of yourself by taking care of others." Anything else he asked. "[Eat your vegetables](#), have a positive outlook, be kind to people, and smile."

At the end of Dan Buettner's journey of discovery he says the most important thing about these nine agents of longevity is they all reinforce one another *for the long term*. They can't be just a new habit - they must become a lifestyle and the most important one is community.

For more details, go here: <https://www.bluezones.com/2016/11/power-9/> Or, to take a test to determine your longevity, go here: <https://apps.bluezones.com/en/vitality> .

Another researcher named Dr. Mario Martinez, found that at the core of longevity is a community centered culture, and he wrote a book titled: [The Mindbody Self](#), copyright 2017.

In it we [learn that avoiding stress](#) by being honest with oneself is very important. Also, shame creates an inflammatory response, which contributes to disease and aging, while pride increases your immunity and promotes health. He notes that Carl Jung says you have to learn how to be an individual in order to grow, but the culture will punish you by shame, abandonment, or betrayal – today we call it "[The Cancel Culture](#)." One way to minimize personal stress is to never lie or exaggerate, but to be humble and kind by doing unto others as you would have them do unto you. The truth will set you free, so make sure you understand your world through [evidenced-based causal relationships](#),

not categories, correlations, and storytelling. When he asked the centenarians for tips on aging, they said:

- Get to know your body.
- Ask questions and get different perspectives from others outside your group.
- Talk to a medical doctor and alternative health practitioners (acupuncture, homeopathy, etc.), stay active, meditate or use your mind by reading and writing, and consume healthy foods.
- Empower yourself by being responsible for yourself.

Now if we couple this sage knowledge with our understanding of the dominate causal factors of cancer like inflammation, enzyme malfunction ([methylation](#)), oxidative stress, and viruses we might find some simple lifestyle practices we could adapt to help prevent cancer. So, let's see how we can fight each of them.

Fighting Inflammation:

As we learned earlier, at the core of all cancers is inflammation, and we know from our earlier paper: [Ivermectin or Vaccines?](#), that Ivermectin is very good at fighting inflammation, so taking this simple and safe compound on a regular basis could help prevent cancer. In fact, several studies have shown that it [prevents different forms of cancer](#) and many [more studies are being performed](#) to better understand this curative agent. It also helps many chemotherapy [drugs work better](#). A side benefit is that it also [prevents many viral infections](#) and helps [reduce arthritic inflammation](#).

In breast cancer, ivermectin helps the body [clean out damaged cells](#). In ovarian cancer, ivermectin can block the cell cycle and [induce cancer cell death](#). In leukemia, ivermectin preferentially kills leukemia cells at low concentrations by increasing the influx of chloride ions into cells, which triggers reactive oxygen species (ROS) production. Ivermectin also [suppresses prostate cancer](#) progression very well.

Another inflammation fighter that is found in the diets of these longest-lived people is Nattokinase. When scientists looked at how the beans in these old people's diets provided health benefits, they found a compound known as Natto (bean) Kinase (enzyme). Nattokinase (NK) is an enzyme extracted from a traditional Japanese soybean called natto. It was [found to prevent and mitigate](#) inflammation and oxidative stress. Due to its strong blood thinning activity, NK is regarded as a valuable dietary supplement or nutraceutical for oral thrombolytic (blood vessel) therapy. In addition, NK has been [investigated](#) for some other medical applications including treatment of [hypertension](#), Alzheimer's disease, and eye disorders like macular degeneration, by dissolving blood clots and spike proteins. Other proteolytic, naturally occurring enzymes which have shown to be helpful in the degradation of Alzheimer's disease amyloid plaques are Lumbrokinase (LK) and Serratiopeptidase (SP).

Fighting Enzyme Malfunction and Oxidative Stress:

The natural way for these long-lived people to fight these two common causes is zinc, which is found in their diets. The [anti-cancer effect of zinc](#) is most often associated with its antioxidant properties that fight oxidative stress.

Also, all inflammatory and immunosuppressive diseases result from or are caused by zinc deficiencies. As we learned in our paper; [Zinc – The Key to Good Health](#), zinc is involved in over 300 bodily functions; this is why it is so important.

When zinc availability is reduced, it alters the survival of our cells throughout our bodies; in particular, cells of the immune system – the key to fighting cancer. Zinc deficiency affects cells involved in both the [innate](#) and [adaptive](#) immune systems. Zinc is commonly found in shellfish, wheat germ, red meat, pumpkin seeds and sesame seeds. Legumes like chickpeas, lentils, and beans (all common in the Blue Zone diets) contain zinc. The beans also contain phytates, which are antinutrients that reduce zinc's absorption, but processing methods like heating, sprouting, soaking, or fermenting (all processes used by the Blue Zone people), can help improve the bioavailability of zinc. As we age, the body has more trouble retaining zinc, so we need to supplement our diets to maintain a strong immune system. A common dose for people over forty is 30 to 40mg per day of [elemental zinc](#). Also, the [anti-cancer effect of zinc](#) is worth understanding. But it can't work all of its magic unless it can get into the cells with the help from a zinc ionophore found in many compounds like Vitamins C, D, and E, NAC, Quercetin (QCT from fruits/vegetables), Resveratrol (from red grape peel-skin /wine), Curcumin (from Turmeric), Elderberry from the fruit, or Ivermectin (an antibiotic), which is one of the strongest zinc ionophores around.

Compelling evidence supports the plausibility that a zinc treatment regimen will prevent development of malignancy and termination of progressing malignancy in these cancers; and likely other carcinomas that exhibit decreased zinc.

Also, wine is a great antioxidant and promotes a healthy gut biome. Red wines have a higher concentration of antioxidants but the ones in white wine get more antioxidants into your blood stream.

And, as discussed above, Nattokinase (NK) was also [found to prevent and mitigate](#) oxidative stress. Another way to fight it is to take supplements of Redox Signaling Molecules. To learn more, go here: [Asea Redox Signaling](#).

Fighting Viruses:

One of the best natural forms of virus protection is iodine. It naturally fights bacteria, viruses, microbes, and toxins. Also, an iodine deficiency in children [causes intellectual impairment](#), along with growth retardation and is an important cause of preventable mental impairment worldwide. Iodine is found in seaweed, fish, shrimp, dairy products, eggs, prunes and some beans – kind of like the diets of the old people living in the Blue Zones. The iodine in our salt is not enough, so supplementation is recommended if you are not eating these foods regularly. For more details go here: [Healing with Iodine](#), By Dr. Mark Sircus, or [Iodine, Why You Need It](#), By David Brownstein, M.D. Here you will learn that it not only kills the viruses that can cause cancer, but it can also kill cancer cells themselves.

Zinc also kills RNA viruses by [preventing them from replicating](#) inside a cell.

Fighting Cancers from COVID-19 Vaccines:

In a scientific paper: [Degradative Effect of Nattokinase on Spike Protein of SARS-CoV-2](#), dated September 2022, we learn that NK can help with [Long COVID syndrome](#) and other more [deadly conditions, like Thrombosis](#), caused by the spike proteins in the vaccines. Like Ivermectin, it does this by breaking down the spike proteins, which are then removed from the body. By removing the spike proteins from the body, you prevent the cancers from starting. So, [since we now know](#) for sure [that the mRNA vaccines do nothing to prevent viral infection](#), yet cause cancer and [many other kinds of immune system failures](#), you need to get them out of your body if longevity is a goal.

Nattokinase, NAC (N-acetyl-cysteine) and Ivermectin all seem to do a very good job of accomplishing this. For some people, who have these compounds in their normal diet, the damage to the immune system will be less and they may overcome it naturally. Ivermectin has also been shown to [increase the health of the gut microbiome](#).

Conclusion:

In our journey down this path of trying to better understand cancer, the biggest take-away for us is [how complicated it is](#), but also how incredible the human body is. It is also noteworthy to learn how those who are the farthest away from the influence of Big Pharma are the healthiest people on the planet. Could it be that Big Pharma has been [manipulating the Western World](#) ever since they were formed in 1910 as a way for Rockefeller to retain control of his billions of dollars after his oil company was broken up by anti-trust laws? [They control all the medical colleges and hence the medical doctors](#), AMA, FDA, CDC, NIH, NSF, WHO, and Big Tech. They are on the board of directors for all main stream media companies, so they control the narrative that the Sheeple are fed. [They promote fake news](#) that downplays nutraceuticals and get some doctors to promote cancer causing drugs and then sell more cancer repairing drugs, all to line their pockets; and do not provide better healthcare as the [Sheeple](#) believe they are doing.

As we learned in [COVID-19 and Real Science](#) (2020), where Marcia Angell, former Editor-In-Chief of the New England Journal of Medicine writes in her 2004 book: [The Truth About Drug Companies](#). "The combined profits for the ten drug companies in the Fortune 500 (\$35.9 billion) were more than the profits for all the other 490 businesses put together (\$33.7 billion) [in 2002] ... Over the past two decades the pharmaceutical industry has moved very far from its original high purpose of discovering and producing useful new drugs. They are now primarily a marketing machine to sell drugs of dubious benefit, this industry uses its wealth and power to co-opt every institution that might stand in its way, including the U.S. Congress, the FDA, academic medical centers, and the medical profession itself."

A Big Pharma company named Gilead, [contributes big money](#) to the income of 20% of the National Institute of Health (NIH) Board Members and since Dr. Fauci headed the NIAID, one of 27 institutes that make up the NIH, it might be hard for him to contradict them. And, oh-by-the-way, he is not required to disclose any ties to Big Pharma. Gilead also funds Academic Medical Research and cleverly influences Medical Journal

Publishers. When you couple that with the fact that 45% of the FDA's budget comes from Big Pharma, we can see the [huge conflict of interest](#) which does not serve our best interests.

Unfortunately, and sadly, since the public does not know about the principles of causation and [effective problem-solving](#), they have to trust our government scientists and physicians to do the right thing and, in the process, they are being duped. This travesty has been clearly proven in a 440-page book by Dr. Ben Goldacre, titled: "[Bad Pharma – How Drug Companies Mislead Doctors and Harm Patients.](#)" © 2012.

Further proof of the evil Big Pharma has wrought can be [found here](#), where we see what the COVID-19 Vaccines have done to our communities. Figure 2 below is one example of how these vaccines have caused many more deaths than the virus itself. This graph is only for Thailand, but when you read the source document you find this same type of curve for every country that allowed access to this information.

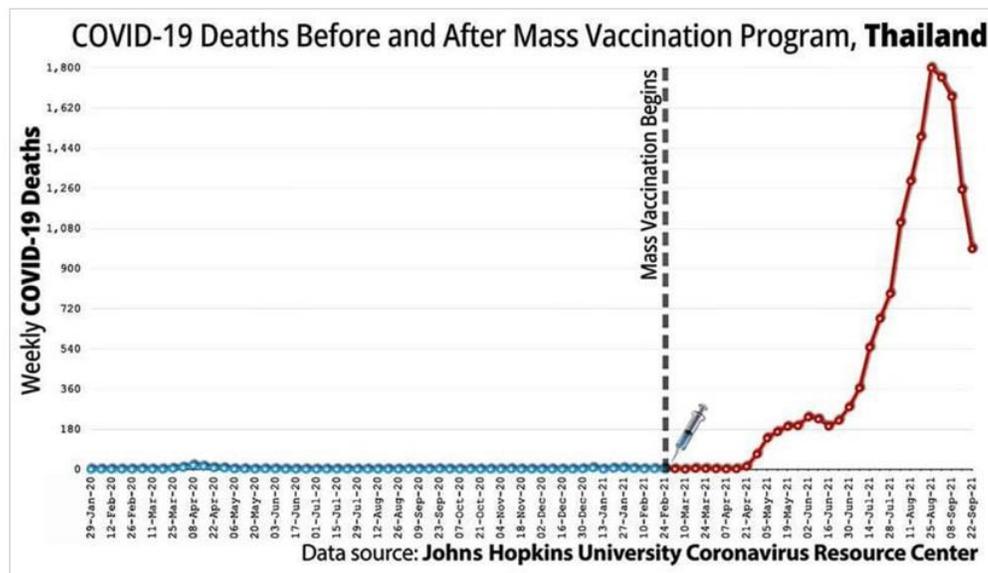


Figure 2: COVID-19 Deaths

Lessons Learned:

So, the main lessons we have learned from this research are:

1. It is better to follow nature first, not modern medicine, but use both.
2. Take anti-inflammation meds like Ivermectin.
3. To avoid inflammation, eat healthy by avoiding processed foods, sugar, and fats.
4. If you are over forty, take zinc supplements and a zinc ionophore like Ivermectin or Vitamin D. Have your Vitamin D level tested once a year.
5. Take Nattokinase supplements to maintain a healthy blood system and fight inflammation.
6. Take 12.5 mg of potassium iodide daily to protect against all pathogens.
7. Continue to eat lots of nuts every day.
8. For a healthy heart, walk at least [7500 steps](#) per day.
9. It is very important to be part of a community that supports your beliefs, because at the core of humanity is the need to be needed, and if met, this reduces

emotional stress, which reduces oxidative stress, which in turn reduces cancerous growths. If you do not have a family or a group of friends, a pet can help fill this need.

10. Sip a little wine (contains antioxidants & zinc ionophores), eat dark chocolate (contains zinc) and relax.

11. Oh, and question everything, especially anything to do with healthcare.

Epilogue:

An interesting side note on the Blue Zone people: The younger people in these cultures have been subjected to the same easy lifestyle we have in America and their weight is going up and their lifespan is going down just like most Americans.

Also, the Loma Linda group is primarily a vegan diet, and they get their fat from nuts which are high in unsaturated fats. By avoiding red meat and processed meats they considerably reduce their chances of [colorectal cancer](#). [Nuts](#), especially Brazil nuts, also provide boron, normally found in meats, which are required for clarity of thought.