



THE TRUTH
ABOUT

INFLAMMATION



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Introduction



On February 23rd, 2004, a fiery silhouette was depicted on the front cover of Time magazine with the ominous words **“The Secret Killer”** printed across it. As scientists across the world delved deeper into the fundamental cause of various diseases, they were starting to see significant links between them and one of our immunological defense mechanisms — inflammation, aka “the secret killer.”

The lead article described how inflammation is the real cause behind most diseases. For example, chronic inflammation in the heart and circulatory system is a major factor in heart attacks,

stroke, and blood vessel disease. Low grade chronic infections, especially viral infections, have strong associations with increased cancer risk due to inflammation. Inflammation is also a major component of allergies and asthma, bowel diseases, skin conditions, and neurological disorders, not to mention autoimmune disease as well.

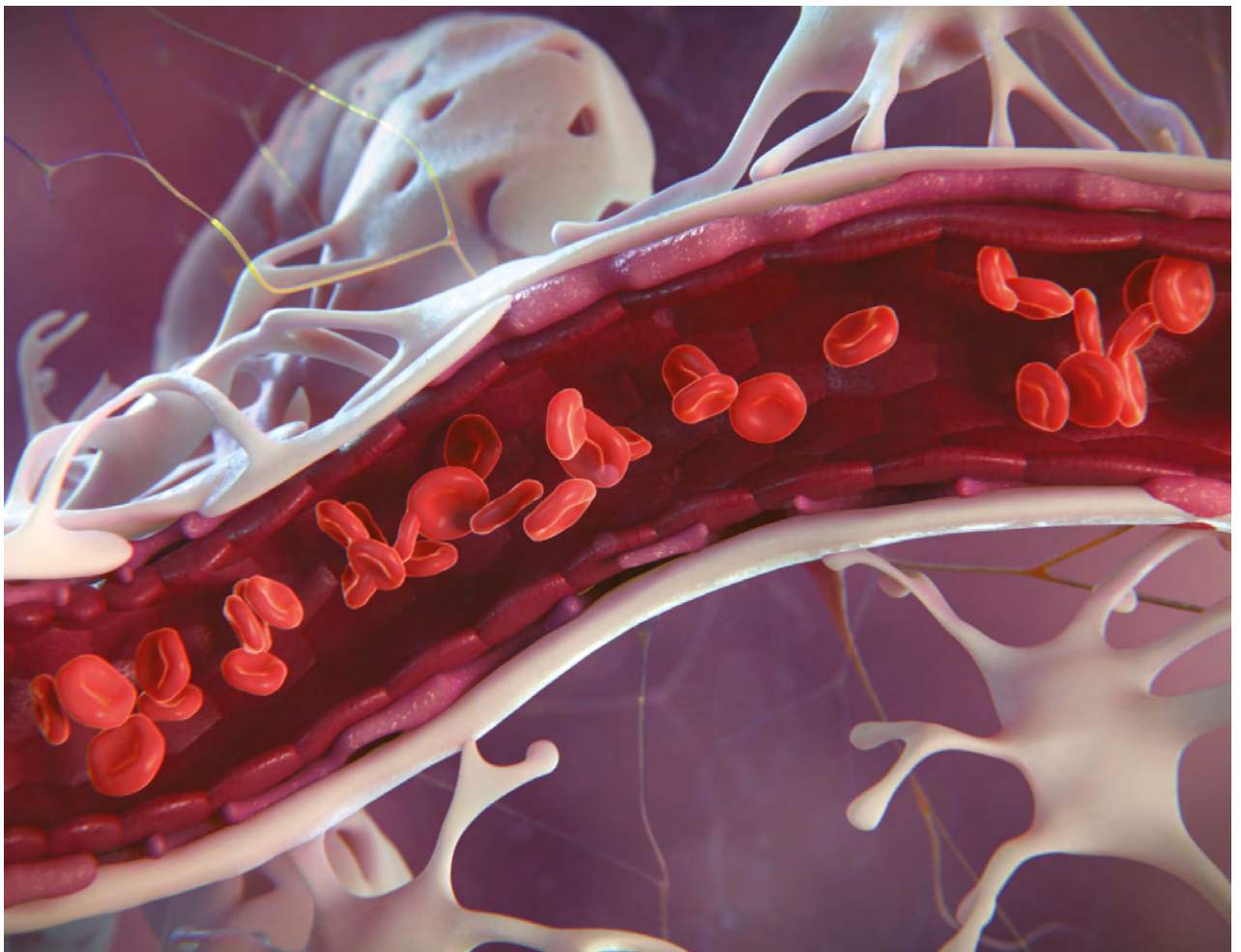
The large number of anti-inflammatory drugs used in Western medicine alerts us to the importance of controlling and resolving inflammation in the treatment of disease. While they can be immensely effective in alleviating pain and inflammation short-term, many have undesirable long-term side effects such as heartburn, high blood pressure, or allergic reactions. As a result, many are looking for alternative treatments for chronic inflammation.



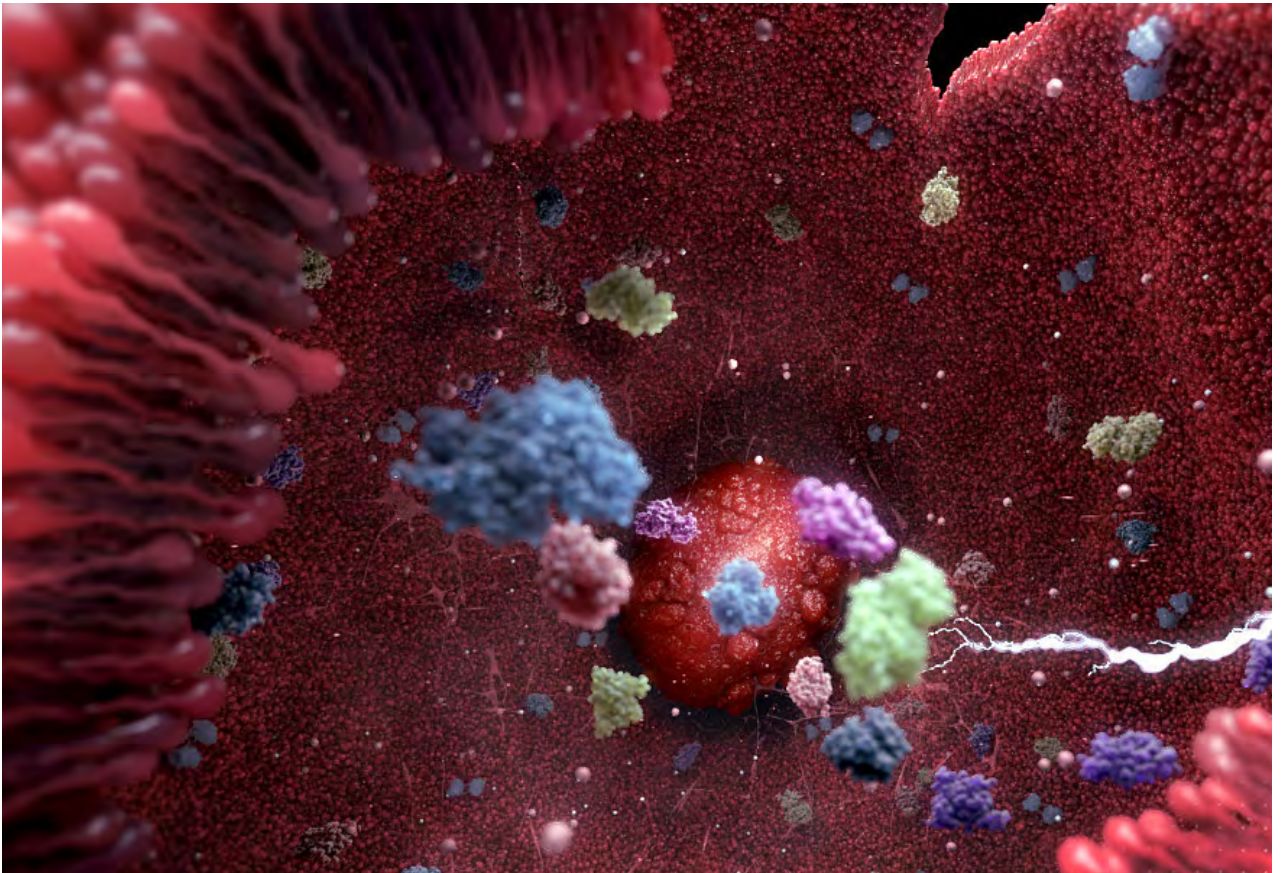
What is Inflammation?

Most of the time, inflammation is a lifesaver that enables our bodies to respond to injury and fend off various disease-causing bacteria, viruses, and parasites. The instant any of these potentially fatal invaders are detected in the body, our immune system incites a defensive, inflammatory attack to help neutralize the threat and bring the body back to homeostasis.

An inflammatory messenger increases blood flow to the area, bringing additional nutrients and white blood cells to kick-start the healing process. Without this inflammatory response, your body would be vulnerable to deadly infections.



However, sometimes our defense mechanisms are compromised and our inflammatory immune response doesn't shut down. This is when inflammation becomes a problem. If this inflammatory response does not resolve the threat, the constant inflammatory drive can damage tissue, affect organ function, and can eventually lead to a dysregulated immune system. What you may not realize is that this chronic inflammation, which has subtle signs and symptoms, may go undetected for decades and lead to the development of a host of degenerative and life-threatening diseases.



Hardly a week goes by without the publication of yet another study revealing a new way that inflammation harms the body. For example, inflammation promotes the growth of plaques and destabilizes deposits in your arteries, triggering blood clots and increasing the risk of heart attack or stroke. It leads to the activation of microglia, the resident immune cells in the brain, impairing their ability to combat pathogens and causing damage to healthy neurons. Inflammation can cause DNA damage and lead to the development of cancer. In other words, chronic inflammation is the engine that drives many of the most feared illnesses of the Western world.

Fact #1: Inflammation Can Get Stuck To The “On” Setting Due to Several Factors

When chronic inflammation occurs, it means a switch in your immune system gets stuck to the “on” setting, releasing harmful chemicals that can damage cells. **Some of these inflammation triggers include:**

- ⊙ Persistent bacterial, viral, or fungal infections
- ⊙ Dysbiosis (imbalance of bacteria in the gut)
- ⊙ Toxin exposure
- ⊙ Common allergens such as food or pollen
- ⊙ Poor diet and nutritional deficiencies
- ⊙ Metabolic syndrome
- ⊙ Chronic stress
- ⊙ Hormonal imbalances
- ⊙ Circadian rhythm dysfunction
- ⊙ Tissue damage/injury
- ⊙ Imbalances of omega-3 and omega-6 fatty acids in the diet
- ⊙ Medications/NSAIDs

There are also some more complex drivers that can be at play such as electromagnetic hypersensitivity (EHS), chronic inflammatory response syndrome (CIRS), and mast cell activation syndrome (MCAS).

Fact #2: There Are 7 Tests You Can Take To Find Out If You Have Chronic Inflammation

Simple things that many of us take for granted, such as brushing our hair or getting out of bed in the morning can become painful activities if we have chronic inflammation. These symptoms not only affect us physically, but they also affect us emotionally and can have deleterious effects on our relationships.

If you're questioning whether you have chronic inflammation, some of the signs and symptoms include:

- ⦿ High blood glucose levels
- ⦿ Digestive problems such as gas, diarrhea, bloating, and constipation
- ⦿ Fatigue
- ⦿ Skin issues such as eczema and psoriasis
- ⦿ Allergies
- ⦿ Puffy face or puffy bags under your eyes
- ⦿ Mood and cognitive disorders such as depression and anxiety
- ⦿ Brain fog
- ⦿ Arthritis
- ⦿ Joint, back, and muscle problems
- ⦿ Headaches
- ⦿ Chronic, recurring bronchitis

Inflammation can also be present in the body without these familiar symptoms which is why it is referred to as the “silent” or “secret killer”.

The underlying process behind some forms of cardiovascular disease is an example of invisible inflammation. Many cardiovascular disease patients do not show the recognised risk factors such as high cholesterol or high blood pressure, yet they become unwell. “Silent” inflammation can also be a contributor to conditions such as fibromyalgia and chronic fatigue syndrome.

If you suspect you have chronic inflammation, there are various tests that help to determine whether you’re dealing with the “secret killer”:

1. High sensitivity CRP

C-reactive protein (CRP) is a protein in the blood that increases when inflammation is present. CRP has been used for many years as an indicator of infection and inflammation associated with disease. As it is highly sensitive, it needs to be measured a number of times to get an accurate reading because it can change quickly based on factors such as how much sleep you’ve had, what you’ve eaten recently, and whether you’re feeling stressed.

2. Myeloperoxidase (MPO)

Myeloperoxidase is an enzyme made by white blood cells. Elevated MPO levels in circulation are associated with inflammation and increased oxidative stress. Evidence suggests an association between MPO and cardiovascular disease.

3. Lipoprotein lipase (Lp-PLA2)

Lp-PLA2 is another enzyme that’s made by circulating white cells. It appears to play a role in the inflammation of blood vessels and is thought to promote atherosclerosis. The Lp-PLA2 test is sometimes used to help evaluate a person’s risk of developing coronary heart disease or to help determine the risk of having an ischemic stroke.

4. Microalbumin

A urine microalbumin test detects very small levels of a blood protein (albumin) in your urine. A microalbumin test is used to detect early

signs of kidney damage in people who are at risk of developing kidney disease. It has also been associated with inflammation.

5. F2-isoprostane

F2-isoprostanes (F2-isoPs) are prostaglandin-like compounds formed by free radical-induced peroxidation of arachidonic acid. It is the 'gold standard' for measuring oxidative stress which is associated with inflammation.

6. Homocysteine

A homocysteine test measures the amount of homocysteine in your blood. Homocysteine is a type of amino acid, a chemical your body uses to make proteins and it is broken down by vitamin B12, B6, and folic acid. Elevated levels can be associated with vitamin deficiency. As inflammation promotes cell proliferation which can lead to vitamin deficiencies, homocysteine can be used as a marker of inflammation to indicate the presence of inflammation.

7. Ferritin

Ferritin is a protein that contains iron and is the primary form of iron stored inside cells. The small amount of ferritin that is released and circulates in the blood is a reflection of the total amount of iron stored in the body. This test measures the amount of ferritin in the blood. Ferritin is also a marker of both acute and chronic inflammation. It is elevated in a wide range of inflammatory conditions.

Food sensitivity tests and intestinal permeability tests can also indicate gut and systemic inflammation.

Fact #3: There's A Vicious Cycle Between Inflammation And Obesity

In recent years, science has shown an association between obesity and inflammation, and the two conditions create a cycle that makes it even more challenging to lose weight.



Under normal circumstances, the levels of nutrients you ingest are low enough that only required metabolic pathways are engaged. However, over-feeding means your body is exposed to higher nutrient levels.

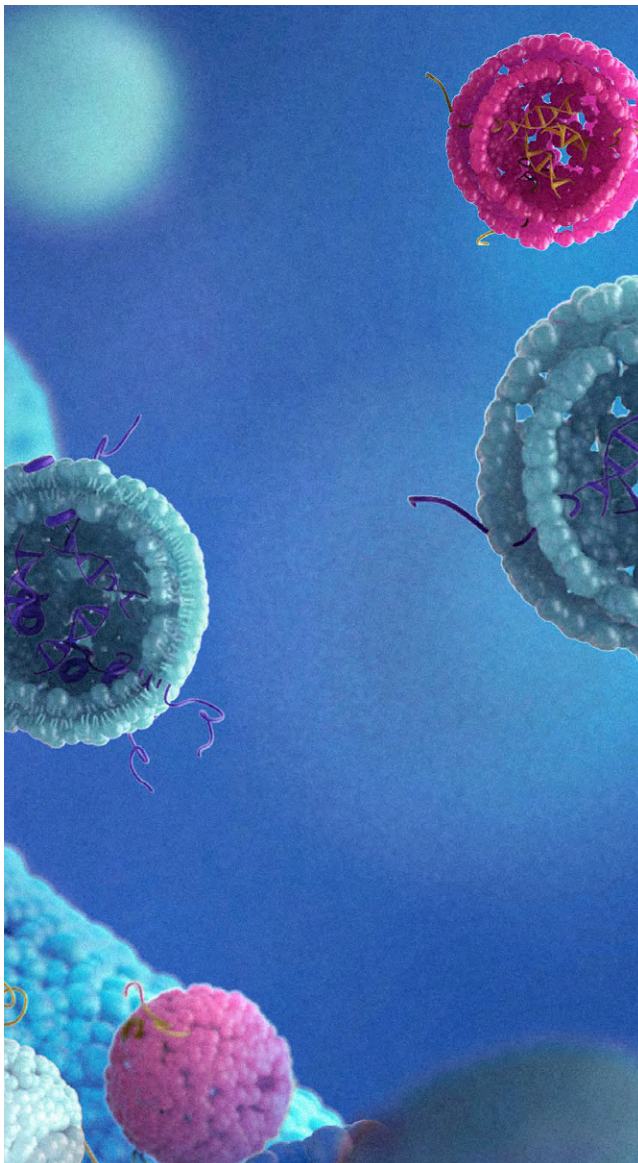
Research is showing this can provoke the immune system to respond to these foreign “pathogens.” The nutrients themselves are not considered inflammatory, however in excess, the body is tricked into thinking these abundant nutrients are potentially pathological. Interestingly, these over-feeding, immune response effects have been shown to be exaggerated in obese subjects and in those with type 2 diabetes. Similarly, excess fat tissue — particularly around the waist — has also been shown to trigger an immune response and the release of large quantities of pro-inflammatory chemicals.

Excess fat tissue also leads to elevated levels of serum leptin, a hormone responsible for feelings of fullness after eating. Science is finding increasing evidence that leptin contributes to low-grade chronic inflammation on which degenerative diseases could develop. A number of studies have also implicated a role of leptin in the pathogenesis of several autoimmune diseases — which are characterized by chronic inflammation — including type 1 diabetes, inflammatory bowel disease, and possibly rheumatoid arthritis.

Obesity and inflammation are also the driving force behind the development of type 2 diabetes. After fat cells have expanded as a result of weight gain, they sometimes do not get enough oxygen from the blood and start to die. This cellular death calls immune cells to the scene, where inflammation ensues. This inflammation activates and increases the expression of several proteins that suppress insulin-signaling pathways, making the body less responsive to insulin and increasing the risk for insulin resistance.

This inflammation can also damage your endothelial cells, the cells that line your blood vessels. Chronically high levels of blood sugar and the subsequent inflammation can cause your blood vessels to produce harmful free radicals via compounds called advanced glycation end products (AGEs). This leads to oxidative stress, endothelial cell dysfunction, and inflammation in the blood vessels. High blood glucose levels can also cause the oxidation of low-density lipoprotein (LDL), platelet clumping, and the narrowing of your blood vessels, which can increase the risk of plaque build-up and promote heart attacks and strokes.

Fact #4: Excessive Inflammation Plays A Huge Role In Autoimmune Diseases



Autoimmune disease develops from damage caused by excessive inflammation. If inflammation is self-perpetuating and becomes chronic, this can lead to autoimmunity.

Autoimmunity is when the body attacks itself and causes organ and tissue damage. Normally, when a virus or bacterial infection begins to invade the body, your immune response produces antibodies that work against these harmful microorganisms. But with autoimmunity, the body creates autoantibodies that end up attacking the cells they're meant to protect. You can go a lifetime with the earliest symptoms of autoimmunity — including

joint pain, weight gain, brain fog, gut imbalances, depression, mood disorders, and fatigue — without ever receiving a diagnosis of a disease. Unfortunately, if a diagnosis is made, it is often after significant tissue damage has already transpired.

Autoimmunity occurs on a spectrum and develops slowly, often almost imperceptibly, over time. The spectrum of autoimmunity is a progressive state of disease that runs from vibrant health at one end to degenerative disease at the other. This spectrum can be measured by the level of antibodies. Whether you have noticeable symptoms or not, if you have elevated antibodies, you are experiencing tissue degeneration. Neglecting or suppressing symptoms only allows the underlying imbalance to continue causing more tissue damage.

For inflammation to continue to a chronic state and cause autoimmunity, three distinct factors must be present:

- ⊙ Genetic susceptibility
- ⊙ Environmental triggers
- ⊙ Leaky gut

1. Genetic Susceptibility

Your genetic code affects your health in many different ways. If you are genetically predisposed to a certain autoimmune disease, you are vulnerable to developing heightened antibody levels for that tissue or organ. However, there has to be an environmental trigger to activate the gene as well as a loss of intestinal barrier function. In other words, even if you have genes for autoimmunity that put you at risk, those genes will not necessarily translate into disease.

2. Environmental Triggers

An environmental trigger is the straw that breaks the camel's back. Some of the common environmental triggers include food sensitivities, sugar, molds, pesticides, preservatives or additives, heavy metals, and other environmental toxins.

Like food allergies, food sensitivities also cause inflammation. Unlike food allergies, food sensitivities are often marked by a delayed reaction: the body may not respond to the problematic food for up to 72 hours after the food is consumed. Gluten, dairy, and sugar are generally the most common food sensitivities, although you can develop a food sensitivity to almost any type of food. The longer you go without recognizing a food sensitivity—and the longer you continue to eat those foods—the more likely you will develop an autoimmune disease. This is due to the excessive inflammation and tissue and organ damage that it causes. However, once the food causing the problems is identified and avoided, the immune system can begin to recover and the body can start to heal.

3. Leaky Gut

The epithelial lining of the intestines functions like a cheesecloth: only small molecules are supposed to get through to the bloodstream. However, if you have a leaky gut, larger molecules such as food proteins, toxins, and bacteria can get through the cheesecloth and into the bloodstream, triggering an immune response and the creation of antibodies. Every time your body is exposed to an invader, your immune system memorizes its structure so it can recognize it in the future and develop an adequate defense against it.

However, certain food proteins — such as gluten, egg, and dairy proteins — happen to be structurally similar to a number of your own body's tissues. The immune system may then register your own tissues as an invader and mount an attack. For example, when someone with autoimmune thyroid disease eats gluten, the immune system sends out antibodies to detect and destroy the gluten. However, since gluten and thyroid gland are structurally very similar, some of those immune cells end up attacking the thyroid by mistake. This phenomenon is known as molecular mimicry. If gluten is continually eaten, the inflammatory fire continues to be fueled.

Fact #5: Inflammation Can Wreak Havoc On Your Brain

Inflammation is not only harmful to the body, but it can also wreak havoc on our brains.



As you've already seen, when you have leaky gut, the lining of your gut becomes porous and pathogens escape through the wall of the intestines and enter the bloodstream, promoting an immune response and widespread inflammation. This gut-derived inflammation can also lead to the breakdown of the blood-brain barrier (BBB), resulting in what is referred to as leaky brain.

Toxins, harmful bacteria, and other pathogens are thus able to reach and affect the brain — and may even trigger the development of certain

diseases in those with genetic predispositions including depression, Alzheimer's, and Parkinson's disease as well as other memory and mood disorders.

Once you have inflammation in the brain, neural messages are not passed as fast. This can result in brain fog and symptoms of poor memory, fatigue, depression and anxiety.

The Role of the Microglia

Microglia are the immune cells of the brain and constantly guard the microenvironment of the central nervous system (CNS) to clear it of any possible toxic molecules. They account for 10-15% of all cells found within the brain and outnumber neurons in a ratio of 3:1. As the resident macrophage cells, they act as the first and main form of the active immune defense in the CNS.

They are neuroprotective and they initially protect the blood-brain barrier from damage due to systemic inflammation. When infectious agents and pathogens cross the BBB, inflammatory cytokines are activated and microglial cells must react immediately to decrease inflammation and destroy the invader before damage occurs to the sensitive neural tissue. Few antibodies are small enough to cross the BBB, so it is up to the microglial cells to recognize the foreign bodies and destroy them.

Activation of the Microglia

However, while the microglia are neuroprotective under normal circumstances, disruption to the BBB and the subsequent increased inflammation causes an immediate switch in the behavior of the microglia. In the process of protecting the neurons, they begin to attack the components of the BBB, increasing the barrier's permeability (or leakiness) and damaging the neurons instead of protecting them.

The cellular damage that occurs as a result of the microglial activation and subsequent inflammation leads to the creation of neuronal protein fragments. Your immune system develops antibodies against the damaged cellular protein, leading to neuro autoimmunity where your immune system attacks its own brain cells. This neurodegeneration is a process that leads to conditions such as dementia, Alzheimer's, and Parkinson's.

Fact #6: You Can Stimulate Your Vagus Nerve To Regulate Inflammation

Communication between the immune system and the brain is vital for controlling inflammation. A big player involved in this communication is the vagus nerve. The vagus nerve is the primary communication pathway between your gut and your brain — and connects a vast majority of our major organs, particularly those which make up your gut. Its most important function is to bring information of the inner organs such as the liver, heart, and lungs to the brain.



The vagus nerve is also essential for regulating your immune system and inflammation. It sends anti-inflammatory signals to other parts of the body through three different pathways. The first pathway is the HPA axis. The second pathway is the splenic anti-inflammatory pathway where the vagus nerve stimulates the splenic sympathetic nerve, which in turn prompts the release of noradrenaline and acetylcholine. The last pathway is called the cholinergic anti-inflammatory pathway.

It stimulates the release of acetylcholine to inhibit inflammatory molecules. When we are in a state of chronic stress, the vagus nerve triggers inflammation and immune dysregulation.

In recent years, the vagus nerve has taken center stage as a potential therapeutic approach for not only treating psychiatric and gastrointestinal disorders but also a range of inflammatory diseases such as rheumatoid arthritis, chronic headaches, fibromyalgia, and diabetes. In fact, disruption of vagus nerve signalling has been shown to exacerbate systemic inflammation in disease.

Medical vagus nerve stimulation involves applying electrical impulses to the vagus nerve by either a direct invasive stimulation where tiny electrical devices are surgically implanted that sends shocks to the vagus nerve or via an indirect transcutaneous non-invasive stimulation. Besides electrical stimulation, several simple exercises can be employed to activate the vagus nerve to “turn down” inflammation. These include:

Cold Exposure

Cold water therapy stimulates the vagus nerve, which can activate the parasympathetic nervous system and reduce inflammation. Cold stimulation triggers peripheral vasoconstriction, making your core work harder to keep warmer by shifting the blood volume toward the centre. This resulting increase in central pressure in turn activates the baroreflex which is responsible for reducing sympathetic nervous activity while shifting autonomic heart rate control toward a parasympathetic dominance. In fact, many studies have shown that immersion in cold water or even putting your face in cold water is an effective means to increase parasympathetic nervous activity.

Studies have shown that a single cold water immersion therapy session of 15 minutes at 15 degrees Celsius (60 degrees Fahrenheit), provided statistically beneficial responses for a reduction in inflammation markers, improved athletic performance, and improved mood. Regular use of cold water therapy has also been shown to provide long-term improvements in inflammatory diseases such as rheumatoid arthritis and chronic depression.

Singing

Singing, humming, or chanting activates the parasympathetic nervous system and the vagus nerve by actuating the muscles in the throat, neck, and lungs. The vagus nerve passes through by the vocal cords and inner ear and the vibrations that singing produces is a simple way to activate the vagus nerve.

Yoga and Exercise

Studies have shown yoga and gentle exercise increases vagus nerve activation through the parasympathetic nervous system. A particular breathing-based meditative technique called the Sudarshan Kriya Yoga (SKY) stimulates the vagus nerve and exerts several autonomic effects including changes in heart rate, improved cognition, and improved bowel function. Another study showed that after receiving an intervention with SKY for eight weeks, even patients who did not respond to antidepressants showed a significant reduction of depressive and anxiety symptoms compared to the control group.

Deep Breathing and Meditation

Studies have demonstrated that individuals suffering from depression, anxiety, and chronic pain experience a remarkable improvement in symptom severity after participating in regular mindfulness meditation training. The diaphragm and intercostal muscles between the ribs are what control the movement of breathing. When a person is under stress, their breathing becomes shallow and they use their shoulders to move air in and out of the lungs instead of the diaphragm. This pattern of breathing prolongs feelings of stress. Deep breathing actually activates the parasympathetic nervous system and helps to reduce stress-induced inflammation.

Social Connectedness

Studies have also shown that perceptions of social connectedness lead to increased positive emotions which in turn produces increases in vagal tone. In a longitudinal field experiment, participants were randomly assigned to an intervention group that self-generated positive emotions via loving-kindness meditation or to a control group. Participants in the

intervention group increased in positive emotions and improved vagal tone relative to those in the control group.

Probiotics

Research is beginning to show that the vagus nerve is highly influenced by bacteria, fungus, and other microbes in our gut microbiome and that some probiotics such as Bifidobacterium, signal to the brain via vagal pathways. Recent research has demonstrated that patients with depression, anxiety and schizophrenia have alterations of both the gut microbiota as well as vagal tone. Thus, having a healthy gut microbiome is essential for healthy vagus nerve functioning.

Choline

Acetylcholine is the main vagal neurotransmitter. It assists in reducing inflammatory cytokines and improving memory and focus. Choline, an amino acid, is its precursor and is needed to make acetylcholine. It's involved in numerous key reactions including muscle control, memory,, and mediation of emotion and behaviour in the brain – all due to its effects on the vagus nerve. Choline is also important for cardiovascular function. In fact, animal studies have shown that choline ameliorates cardiovascular damage by improving vagal activity and inhibiting the inflammatory response, showing promising benefits for therapeutic use in other inflammatory conditions such as depression.

Plant foods that are especially high in choline include tofu, soymilk, cruciferous vegetables especially broccoli, cooked dried beans, quinoa, peanuts, and mushrooms.



Fact #7: There Are Lifestyle Changes You Can Make To Reduce Runaway Inflammation

Stay Hydrated

When you don't have enough water to flush waste from the digestive tract, toxins recirculate into the bloodstream and throughout the body, leading to inflammation. You also need to be well-hydrated to support a friendly microbiome. Dehydration creates a gut environment that is favorable for the proliferation of pathogenic microbes, thus fuelling dysbiosis and the accompanying cascading symptoms of leaky gut and perpetual inflammation. Drinking an adequate amount of water promotes elimination which can aid in managing inflammation. Water also supports the production of lymph that carries the white blood cells throughout the body to fight infections.

To approximate how much water you need to consume on a daily basis, simply divide your body weight in pounds in half and aim to consume at least this amount in ounces of water. For example, if you weigh 150 pounds, shoot to consume at least 75 ounces of water daily. For those who measure in kilograms and liters, simply divide your weight in kilograms by 3 and move the decimal one place to the left. Thus, a 60 kg individual should consume at least 2 liters of water daily. 2 liters/half a gallon of water is a good goal for daily consumption for most people. Aim to drink at least this much every day and pay attention to how you feel to know if you need more.

Exercise Regularly

Exercise is an important tool when it comes to reducing inflammation. Research shows regular exercise reduces fat mass and adipose tissue inflammation which is known to contribute to systemic inflammation. Exercise also reduces stress which can contribute to inflammation.



Aim for at least 30 minutes of exercise per day as it reduces stress, boosts endorphins, increases blood flow, and improves sleep — all of which help to decrease chronic inflammation. If you struggle with motivation, find a group of health-minded people or join a gym, as exercising with friends makes it a lot more enjoyable. Also, move as much as you can throughout the day. Instead of taking the lift, take the stairs. Walk around the block at lunch time. Do some stretching as soon as you get up. There are endless ways to incorporate more movement into your daily schedule.

Manage Your Stress

In normal circumstances, when you are faced with a stressor, your body activates your “fight or flight” response, which shuts down processes like digestion to focus instead on dealing with the threat at hand.

The stressors we face today are often ongoing and, when experienced daily, can leave you in a state of “fight or flight.” This constant nervous system activation leads to chronic inflammation as pro-inflammatory cytokines are upregulated in your system. This means the cycle of stress and the resulting inflammatory response becomes self-perpetuating — and this is when inflammation can start to cause deleterious effects on the body.

Stress reduction and management is essential in reducing inflammation. Here are some ideas to help you manage your stress more effectively:

- ⊙ Practice meditation, yoga or guided visualization.
- ⊙ Practice deep breathing. Simply by taking a deep breath you can lower the levels of inflammation and stress hormones in your body. Shallow breathing is a signal that communicates to the body that something is wrong — that danger is present — and the body releases stress hormones accordingly. A few deep, diaphragmatic breaths a few times per day can be enormously healing and help to blow away stress and its biochemical debris!
- ⊙ Set boundaries in relationships, families, and work.
- ⊙ Get support from friends, family, and colleagues.
- ⊙ Schedule time for yourself to express your creativity. Write, garden, paint, sing — or take up a new hobby or classes.
- ⊙ Grounding yourself in nature (aka earthing) can help decrease excessive positive charge that builds up in our bodies over time, leading to both physical and mental health problems.
- ⊙ Practice gratitude. Regularly expressing gratitude may help reduce the negative effects of stress and improve overall well-being. Write down five things you are grateful for every day.
- ⊙ Find positive affirmations or quotes that inspire you to fight off negative thoughts.

Improve Your Sleep

A strong body of evidence shows that a lack of sleep raises levels of inflammation in the body by increasing concentrations of inflammation-inducing cytokines. It doesn't take years or months for sleep to have negative effects on inflammation levels. Research has found that it takes as little as a single night to activate the pro-inflammatory processes in your body.

Sleeping too much can also have negative effects on the immune system's inflammatory response. Sleeping excessively has been shown to raise levels of key inflammatory markers including C-reactive protein, which is associated with heart disease, high blood pressure and type 2 diabetes.

Studies show that an average of seven to nine hours of good quality sleep each night is the sweet spot for how much you should be getting each night. **Here are some tips to help you get a good night's rest:**

- ⦿ Set your sleep schedule. Having a set schedule normalizes sleep as an essential part of your daily routine and gets your brain and body accustomed to getting the full amount of sleep you need. Make sure you have a fixed wake-up time regardless of whether it's a weekday or weekend.
- ⦿ Follow a nightly routine. Give yourself 30 minutes to wind down before you sleep. Take advantage of whatever puts you in a state of calm such as soft music, light stretching, reading, or meditation exercises.
- ⦿ Create a good sleep environment. Make sure your room is dark and at the right temperature. If weather allows, open a window so that you have good airflow. Make sure your mattress is comfortable and you have the right number of blankets for body warmth.
- ⦿ Avoid screens. Turn off any blue lights one to two hours before bedtime. Don't give in to the temptation to look at your phone before you close your eyes. Light can hinder the production of melatonin — and phones, tablets, and laptops cause mental stimulation that is hard to shut off.

Conclusion

What we eat, what we expose our bodies to, and the health of our gut all matter when it comes to inflammation. Over time, these (and many more) inflammatory triggers accumulate — and when more and more matches are struck, and not enough of the small spot fires are extinguished, the net inflammatory load increases and a proverbial bush fire eventuates. This bush fire is destructive and has been shown to be the real cause behind most diseases in the developed world.

Fortunately, science is also showing that because many of these matches are a consequence of an unhealthy diet and lifestyle, they can be modified and therefore mitigate inflammation. While the large number of anti-inflammatory drugs can be effective in alleviating pain and inflammation in the short-term, determining the individual drivers, correcting gut health through diet and lifestyle, and using anti-inflammatory supplements such as turmeric are the best ways to treat, manage, and prevent inflammation.

We know this can be a lot to take in...

So to help empower you with the resources and knowledge to fight inflammation naturally, we've created [The Inflammation Solution](#) — a docuseries masterclass with today's leading doctors, researchers, and educators guiding you through this critical information, one step at a time.

Not only will you discover **how to tell if you are inflamed**, you'll also learn exactly **what you must do now to protect your health**.

Plus, you'll **walk away with proven and practical natural remedies you can start using at home right away**.

[Be part of The Inflammation Solution](#) so you can know how to improve your health, reduce your risk of disease, and upgrade your quality of life... and the lives of those you love.



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