



## **A Look at the True Causes of Disease and How Biological Medicine Can Transform Your Health**

The diagnostics and treatments used by physicians in the Sophia Health Network are based on the philosophy of European Biological Medicine, which seeks to find the root cause of disease, understanding that there are often multiple underlying influences that create it. Below are some of the hidden sources of illness that the medical staff in the Sophia Health Network take into consideration when diagnosing patients.

### **Environmental Toxins and Heavy Metals**

Unfortunately, these days it's virtually impossible to avoid exposure to toxins and heavy metals. From pesticides and phthalates to aluminum and lead, they're in the air we breathe, the water we drink, the food we eat, and the products we use. They accumulate in our organs, tissues, fat cells, and bones where they can remain for years. And although our bodies naturally possess specific mechanisms to eliminate them, they were not designed to cleanse the current number of toxins we dump into our environment—and as a consequence our bodies—on a daily basis. Over time, toxic overload in the body can either cause disease or complicate existing diseases. Below is a list of some of the most prevalent heavy metals and environmental toxins and the illnesses and disorders that can arise from being exposed to high levels of them.

- **Mercury:** The most common sources of exposure to mercury are from dental amalgams, vaccines, and fish consumption. Mercury is a neurotoxin, which means it interferes with brain and nervous system function. In children, it can stunt their mental development, impairing their motor skills and causing learning disabilities. In adults, it can affect everything from blood pressure regulation and fertility, to vision loss and neuropathy. It has even been linked to heart disease.
- **Aluminum:** Vaccines, cookware, antiperspirants, dyes, and food additives are common means of exposure to aluminum. It, too, is a neurotoxin and is damaging to the barrier that protects the brain from possible toxins in the blood, particularly when found in combination with mercury. Aluminum can inhibit over 200 important biological functions in plants, animals, and humans. Research has shown that it plays a role in the development of neurodegenerative diseases, such as Alzheimer's, Parkinson's, and Lou Gehrig's.



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- **Lead:** Due to mining and manufacturing lead-contaminated dust gets released into the air and winds up in our water and food supply. Lead piping was commonly used in houses built prior to 1950, as well as lead paint prior to 1978, so people that live in older homes are particularly vulnerable to lead exposure. In adults, lead toxicity can lead to disorders such as, high blood pressure, neuropathy, and muscle and joint pain. Children are especially susceptible to lead poisoning because it can severely damage their developing nerves and brains.
- **Parabens:** Parabens are preservatives that slightly mimic the hormone estrogen. A buildup of parabens (ethyl-, butyl-, methyl-, propyl-, etc.) in the body may lead to endocrine disruption and developmental and reproductive toxicity.
- **BPA:** BPA has been used rampantly for over forty years as a plastics hardener. It is so pervasive that over 90% of us have this chemical in our bodies—the biggest culprits of exposure being from plastic food and water containers, and canned goods. BPA is a hormone disrupter and high levels of it in the body can increase the risk of cancer, birth defects, reduced fertility, and insulin resistance.
- **Phthalates:** While BPA is used to harden plastics, phthalates are a group of chemicals used to make plastic more flexible. Like BPA, phthalates are ubiquitous—found in personal and infant care products, cosmetics, plastic shower curtains, adhesives, lubricants, and garden hoses to name a few. Studies have shown that phthalates are reproductive and developmental disruptors, reducing fertility and causing premature breast development in young women and altered genital development in baby boys.
- **Glyphosate:** Glyphosate is the active ingredient in Monsanto's Roundup herbicide. It's used on crops—such as soy, corn, and canola—that have been genetically modified to withstand applications of Roundup. The herbicide kills the weeds around the crops by interfering with the plant's Shikimate pathway, which is essential for the synthesis of important amino acids. Government officials consider Glyphosate safe for humans because our bodies do not possess the Shikimate pathway; however, our gut bacteria do. Glyphosate destroys human gut bacteria, which can result in illness, including Autism, leaky gut, and C. difficile diarrhea.

## **Chronic hidden infections and parasites**

Quite often certain illnesses can be misdiagnosed or go undertreated due to their complicated nature and to the unique response an individual's body may have to the illness. A patient that might be experiencing symptoms of the common flu could really be suffering from an undiagnosed bacterial, viral, or parasitic chronic infection. Susceptibility to such infections is particularly high when traveling, especially to developing nations where the water supply is often highly contaminated with pollutants. Below are three examples of chronic infections and how they may impact the immune system.

- **Lyme disease:** *Borrelia burgdorferi*, the bacteria that cause Lyme disease, have the ability—through several means—to evade the antibodies produced by the immune system to fight infection. This means that even once it's been treated with antibiotics the disease may still persist within the body and eventually reappear.
- **Epstein Barr virus:** Just as with the bacteria that cause Lyme disease, EBV has evolved numerous strategies to avoid being recognized by the immune system. In some people with an already weakened immune system, the virus can develop into a chronic infection, and may lead to certain forms of cancer.
- **Protozoa and helminths:** Protozoa are single-celled organisms that can be parasitic in nature. Once inside the human body, they are able to evade the immune system and multiply, which permits the development of numerous serious infections. Helminths are worms (e.g. tapeworm, roundworm) that can also be parasitic. They suppress the immune system and can cause disease, or worsen existing diseases.



## Unsuspected food sensitivities

Almost everyone experiences sensitivity to a certain food at some point in their lives. Sometimes you may not even know it. It can be tricky connecting symptoms of ill health to food sensitivity and deciphering whether you are truly allergic to a food or simply intolerant. Two foods that can be particularly confusing are grains and dairy.

- **Grains:** Grains such as barley, rye, wheat, and spelt contain a protein called gluten that can trigger many reactions in the body. When our bodies are in optimal health, eating grain-based foods should never result in bloating, gas, constipation, or diarrhea. However, over the last fifty years more people than ever are suffering from gluten sensitivity due to the drastic increase of processed foods and use of antibiotics—which can wreak havoc on good gut bacteria. In addition to gastrointestinal symptoms, it can cause skin inflammations, organ and nervous system disorders, fatigue, depression, impaired mental functioning, weight loss or gain, and various types of anemia. Unfortunately, most doctors take an "all or nothing" approach to gluten sensitivity. They run the standard test for Celiac disease—which is caused by an autoimmune reaction to gluten—and if the test comes up negative, the patient is considered gluten tolerant. The problem with this approach is that it doesn't take a full-blown allergic reaction to gluten to experience gluten-intolerant symptoms.
- **Dairy:** A common misconception is that if you are lactose intolerant you must be allergic to milk. However, while many people may not be able to digest lactose—a sugar that's naturally found in milk, very few are actually allergic to milk or dairy products. Being lactose intolerant simply means your body lacks the enzyme lactase, which is necessary to digest lactose. Lactose intolerance can develop at any age, and the severity depends on the overall health of your gut. Common symptoms include, bloating, gas, cramping, and diarrhea.  
A true allergy to milk and dairy products occurs when the body experiences an autoimmune reaction to casein, the protein found in milk. Unlike lactose intolerance, it's rare to develop an allergy to casein in adulthood. It appears in infancy and most people outgrow it as they get older. Milk allergy symptoms are similar to those of lactose intolerance, and also include skin reactions, swelling of the tongue, face, or throat, nasal congestion, and wheezing.

The best way to test for food sensitivities and allergies is to work with a physician that can help you identify and monitor food-intolerant symptoms, and support you while you eliminate these foods from your diet.



## **Interrelated medical-dental complex problems**

Although it is widely accepted that dental infections can lead to heart valve infections and heart disease, the average doctor rarely asks about a patient's dental history. Discovering whether a patient has amalgam fillings, has had a root canal procedure, or a tooth extracted can go a long way in determining possible causes of disease.

- **Amalgam fillings:** The Environmental Protection Agency recognizes mercury as a toxic waste material. Amalgam fillings contain 50 percent mercury. Studies have proven that the mercury from fillings can spread to the rest of the body, causing disease.
- **Root canals:** The intricacies of a tooth's anatomy often make it difficult to entirely remove the bacteria from a tooth infection. When a root canal is not properly executed, the infection can remain in the tooth and eventually travel to other parts of the body, causing chronic illness. Degenerative diseases including, heart disease, kidney and bladder diseases, arthritis, mental disorders, lung disease, rheumatism, and many forms of cancer may be linked to root canals.
- **Tooth extraction:** Once a tooth has been extracted, it is very common for the tooth socket to become infected. If overlooked, the infection can cause headaches, arthritic pain, fatigue, hormonal imbalances, heart problems, neurological symptoms, insomnia, intestinal problems, and even emotional and psychological disturbances.



## Genetic susceptibilities

When a cell divides to make new ones, it copies its DNA so that the new cells have an exact copy of it. Sometimes, though, a mistake is made in the copying process. The mistake leads to a variation in the DNA sequence, which is called a single nucleotide polymorphism (SNP). While some SNP mutations may occur during our lifetime, most of them are inherited.

When it comes to detoxification, immune function, and inflammation control, three important genes to look at for SNPs are MTHFR, CBS and GSTA1. Mutations in these genes can make a person more susceptible to chronic conditions.

- **MTHFR:** When functioning properly, the MTHFR gene initiates a multi-step chemical breakdown process called the Methylation Cycle. This cycle repairs your DNA, fights infections, and gets rid of environmental toxins, among other things. When mutated, it can lead to a whole host of conditions, including diabetes, fibromyalgia, mood and psychiatric disorders, and cardiovascular disease. Most children with Autism have this mutation. And women that possess it are at an increased risk of giving birth to a child with Down syndrome.
- **CBS:** The CBS gene begins the cycle that removes excess sulfur amino acids from the body. When this gene is mutated, CBS pathway activity is elevated or "up-regulated", resulting in a higher production of ammonia and urinary sulfates, and a decrease in glutathione synthesis. This can create a potential toxic overload in the body, with an inhibited ability to remove toxins.
- **GSTA1:** The GSTA1 gene encodes an enzyme called glutathione S-transferase, which detoxifies the body by catalyzing the union of the antioxidant glutathione with a wide range of carcinogens and environmental toxins. A mutation in the GSTA1 gene can impede the body's ability to detoxify and increase a person's susceptibility to various cancers.

While possessing these mutations may increase your propensity for conditions such as cardiovascular disease, cancer, and toxic overload it does not mean you are destined to develop them. However, external factors including a poor diet, chronic stress, and prolonged exposure to environmental toxins are likely to trigger these SNPs and thus cause disease. One smart, preventative measure you can take—particularly if you wish to conceive—is to have a genetic test done to determine whether you carry any of the above mutations and work with a physician that recognizes the important role these genes play in determining one's health.



## **Scar interference fields**

Interference fields are areas on the body where energy has been short circuited and is weakened due to scars, piercings, tattoos, or previous traumas (i.e., sprains, concussions, and falls). Although not every injury is disruptive, ones that did not receive proper nutrients or energy at the time of healing, as well as ones that carry emotional connotations are likely to cause interference with the body's flow of energy. Some of the most common scars associated with interference fields are the umbilicus (belly button) due to the premature or too short severing of the umbilical cord at birth, C-section scars, and surgical scars.

These depolarized electromagnetic points reflect back to a specific body part, creating problems in that area. It doesn't matter how long ago the injury took place, how well-healed it appears, or whether the area is still painful, it can still have a powerful effect on your body's natural energy flow. Over time, these weakened energy points can accumulate environmental and metabolic toxins, which can result in a variety of chronic illnesses.

Neural therapy is a safe and effective way to treat various conditions associated with interference fields. It involves injecting the scar or injured area with procaine, a natural anesthetic that breaks down into a B vitamin in the body. The condition may respond to a single treatment, or may need a series of them.

## **Electrosmog**

Electrosmog is the collective invisible radiation that is generated from wireless technology (cordless phones, cell phones, Wi-Fi, cell phone towers, etc.) and household electricity. For example, a typical living room might have a TV, a Wi-Fi router, and a table lamp. Each device emits its own electromagnetic field (EMF), which collectively produces electrosmog. Growing data suggest that electromagnetic fields are harmful to our health.

Humans have their own electromagnetic field that radiates at a lower frequency than electronic devices. When confronted by electrosmog, our bodies go into a state of distress trying to compensate for the overpowering field. Over time, such distress may cause anything from headaches, dizziness and nausea, to a swelling of the mucus membranes and pains in muscles and joints. In the bedroom, electrosmog may disturb our brain frequency, reducing the production of the hormone melatonin, which is necessary for a deep, relaxed sleep. Increasing evidence also points to EMFs as being carcinogenic.



## **Emotional and spiritual aspects**

Although it's common knowledge these days that emotional distress plays a significant role in the development of physical illness, it's still widely ignored by practitioners of Western medicine, who focus primarily on physical causes. A complete health assessment takes into consideration any emotional traumas a patient may have experienced; understanding that the memory (or light energy) of the trauma dwells within the body at the cellular level long after the trauma itself has passed. If we do not clear this energy from our cells, it can become toxic and eventually manifest as a physical ailment.

An understanding of family systems is also important to take into account when diagnosing someone. Often times when the natural order of a family is not followed, one member may unconsciously take on the role of another. For example, if a parent suffers from an illness, a child might take on the role of parent. This can disrupt the family system and create disharmony for all involved.

Family Constellations therapy may be recommended to help heal the emotional distress caused by the disrupted family system. A mixture of family systems therapy, existential phenomenology, and indigenous mysticism this method is based on the belief that many of us unconsciously take on the destructive patterns of our immediate family members and ancestors as a way to belong within the family. By recognizing negative patterns that may have existed for generations a systemic resolution is presented that may help an individual, couple, or family create healthier patterns.

Finally, a health assessment is not complete without a discussion about spiritual practice. In addition to grounding you, bringing you into the present moment, connecting you to your deeper self, and providing you clarity, having a spiritual practice can help you find meaning in the midst of suffering or chronic illness. Practices of the more traditional kind (meditation, yoga, attending church, etc.) are great, but any activity that you enjoy doing on a regular basis can bring you greater peace of mind and physical health.