

# Root Causes of Autoimmune Illness

Posted By Dr. Ben Kim, <http://drbenkim.com/>

You have countless immune cells in every corner of your body that are constantly working to keep you healthy by identifying, packaging, and eliminating harmful substances that have made their way into your blood. If your immune system falters and begins to identify some of your own tissues as being harmful or unnecessary, it will work to attack and eliminate these tissues through an inflammatory response that can cause pain and discomfort in many forms - this is how autoimmune illness develops.

The specific tissue or groups of tissues (organs) that your immune system decides to attack is determined by your genetics. But just because you have a genetic predisposition for an autoimmune illness does not mean that you are guaranteed to experience it sometime during your life, or that you cannot recover from it. Genetic predispositions are largely triggered, maintained, and kept under control by environmental factors, namely, your diet, lifestyle, and how much stress you experience. Ultimately, the development of autoimmune illness requires that your immune system begins to identify some of your own cells as being harmful, and that control mechanisms that are in place to prevent such "glitches" no longer do what they are supposed to in preventing such occurrences.

There are several theories that attempt to explain why and how these glitches occur. Rather than get into biochemical jargon that will not do much, if anything, to help you get better, we can explain these glitches in the following way: over time, as your cells are abused by lack of rest, lack of optimal nourishment, accumulation of waste products, and direct insult by excessive amounts of free radicals and toxins, your cells gradually become less efficient at eliminating waste products and exogenous toxins (toxins that are produced outside of your body). Eventually, waste products and toxins may incorporate themselves into your cell membranes, and if this happens, your immune system may identify such cells as being old and damaged. At that point, your immune system will work to attack and eliminate such cells from your body.

How does your immune system go about attacking and eliminating such cells? By producing antibodies, attaching said antibodies to the cell membranes of cells that have been identified as old and damaged, and then sending other components of your immune system to destroy these antibody-tagged cells. Your immune system destroys such cells using a process of inflammation, which is why autoimmune illness is often accompanied by discomfort.

If your genetic predisposition is such that the majority of cells that are tagged to be destroyed are clustered around your thyroid gland, your health challenges may be attributed to a diagnosis of Graves' disease. If your abnormal-looking cells are in the fatty, insulating sheath (myelin) that surrounds your nervous system, you may exhibit symptoms of multiple sclerosis. If your genetically weak tissues are those that line your joints, destruction of old and damaged cells in and around your joints may be diagnosed as rheumatoid arthritis.

Ultimately, the underlying inflammatory process that accompanies autoimmune disease is the same for all of the following names that we have created for different groups of symptoms:

**Acute disseminated encephalomyelitis (ADEM)** involves inflammation in the brain that typically occurs a few days or weeks after a vaccination or a viral infection.

**Addison's disease** involves dysfunction of the outer portion of the adrenal gland.

**Ankylosing spondylitis** is a type of arthritis that involves inflammation of the spine and pelvic joints.

**Antiphospholipid antibody syndrome (APS)** is a condition that affects the blood-clotting process, causing blood clots to form in veins and/or arteries.

**Aplastic anemia** is a condition whereby the bone marrow does not produce enough blood cells. It is often caused by an autoimmune attack on the bone marrow.

**Autoimmune hepatitis** involves inflammation of the liver.

**Celiac disease** is characterized by chronic inflammation of the first third or half of the small intestine, and is caused by exposure to a type of dietary protein called gluten, found in abundance in grains like wheat, oats, barley, and rye.

**Crohn's disease** involves chronic inflammation of the intestinal tract.

**Diabetes Mellitus Type 1** is characterized by low or non-existent production of insulin by the pancreas.

**Goodpasture's syndrome** involves destruction of kidney tissue and bleeding in the lungs.

**Graves' disease** is a form of hyperthyroidism.

**Guillain-Barré syndrome (GBS)** involves inflammation of the peripheral nervous system, and is also called acute inflammatory demyelinating polyneuropathy, acute idiopathic polyradiculoneuritis, acute idiopathic polyneuritis and Landry's ascending paralysis.

**Hashimoto's disease** is a form of hypothyroidism.

**Idiopathic thrombocytopenic purpura** is characterized by a low platelet count, resulting in easy bleeding.

**Systemic lupus erythematosus (SLE)** is a chronic autoimmune condition that can involve inflammation in the following areas: skin, joints, heart, lungs, kidneys, and nervous system.

**Multiple sclerosis** involves nerve dysfunction due to demyelination of the central nervous system.

**Myasthenia gravis** involves intermittent weakness and fatigue due to a problem with communication at the junction of nerves and muscles.

**Optic neuritis** involves inflammation of the nerves that supply your eyes which can cause partial or complete loss of vision.

**Pemphigus** is characterized by the formation of blisters and raw sores on mucous membranes and skin.

**Pernicious Anemia** is a form of anemia (inadequate red blood supply/function) that is caused by a problem with absorbing vitamin B12, which is needed to form healthy red blood cells.

**Rheumatoid arthritis** is characterized by joint pain and inflammation.

**Sjögren's syndrome** involves destruction of glands that produce saliva and tears.

**Takayasu's arteritis** is characterized by inflammation that narrows the lumen of arteries.

**Temporal arteritis** is characterized by inflammation in medium to large-sized arteries, mostly commonly in the head. It is sometimes called giant cell arteritis, and can lead to significant vision loss.

**Warm autoimmune hemolytic anemia** is characterized by destruction of red blood cells by IgM antibodies.

**Wegener's granulomatosis** involves inflammation of blood vessels, typically affecting the kidneys and lungs.

Diagnoses that are not universally accepted as being autoimmune in nature, but for all practical purposes belong in the same category of health conditions, include:

**Alopecia** is characterized by hair loss. Loss of random patches is called alopecia areata, while full body loss of hair is called alopecia universalis.

**Endometriosis** is characterized by endometrial tissue (tissue found in the uterus) being deposited outside of the uterus, causing pain and sometimes infertility.

**Interstitial cystitis** is a urinary bladder disease that is characterized by one or more of the following symptoms: intense, intermittent pelvic pain, frequent urination, a sense of urgency to urinate, pain with urination, and pain with sexual intercourse.

**Psoriasis** is a skin condition that is characterized by patches of rapidly-dividing cells that produce itchy, scaly, and inflamed lesions.

**Sarcoidosis** is characterized by granuloma formation in the lungs and sometimes throughout the body.

**Schizophrenia** is characterized by impairments in the perception or expression of reality, often leading to social and occupational dysfunction.

**Scleroderma** is characterized by excessive deposits of collagen throughout the body.

**Ulcerative colitis** is characterized by inflammation in the bowel, typically in the distal section of the large bowel and rectum.

**Vitiligo** is characterized by gradual loss of pigmentation in patches across the face and/or body.

All of these conditions may be caused, in part, by cells in the problematic regions becoming old, damaged, and congested enough to be tagged by your immune system as being ready for destruction and removal.

But there is another major mechanism by which all autoimmune illnesses can develop and worsen. Whenever any unnecessary, harmful, or unidentifiable substances enter your bloodstream, they get noticed by your immune system. In an effort to preserve your health, your immune system produces antibodies that seek out and attach themselves to these unwanted substances; these substances are generally referred to as antigens.

Once your antibodies attach themselves to antigens, antigen-antibody complexes are formed. Your immune system will work to eliminate these antigen-antibody complexes from your body so that the foreign antigens cannot harm your cells. But if enough of these complexes are formed, your immune system may not be able to eliminate them as quickly as they are formed. This can lead to some of these complexes getting deposited into different tissues, where they can cause inflammation and damage. Typically, the sites at which these complexes get deposited are determined by your genetic predisposition.

## **Causes of Antigen-Antibody Complex Formation and Ensuing Inflammation**

Perhaps the most common cause of excessive formation of antigen-antibody complexes is having an unhealthy digestive tract. From your mouth to your anus, your digestive tract is one long tube that is meant to extract nutrients out of your food and allow these nutrients to slip through into your bloodstream so that they can nourish your cells. While your digestive tract is designed for proper digestion and assimilation of nutrients, it is also designed to protect your blood and inner cells against undesirable substances that can become antigens that lead to antigen-antibody complex formation in your blood.

If you abuse your digestive tract long enough with poor dietary and lifestyle choices, it can begin to lose its ability to prevent harmful substances from entering your blood. The lining of your digestive tract can begin to break down, and the population of microorganisms that line your digestive tract can shift from being predominately health-promoting and protective bacteria to largely microorganisms that can break down your digestive tract lining, such as yeast, bad bacteria, and even parasites.

This state – where your digestive tract lining loses its ability to keep harmful substances out of your blood – is often called "leaky gut syndrome."

Leaky gut syndrome can cause incompletely digested food to enter your bloodstream. And the most problematic incompletely digested food group in autoimmune illness is protein. Your body expects to receive amino acids – the smaller constituents of protein – into its blood supply, not bigger molecules of protein (several amino acids linked to one another). So when incompletely digested protein enters your blood supply through an unhealthy digestive tract lining, your immune system identifies these molecules as being foreign and potentially harmful. Your immune system will quickly move to create antibodies that can attach onto chains of incompletely digested protein, forming antigen-antibody complexes. While your immune system will do its best to eliminate these complexes from your body, if enough of them form because you continue to have a dysfunctional digestive tract and you continue to eat large amounts of protein, some of these complexes will get caught up in various tissues in your body, leading to inflammation and pain.

Incompletely digested protein is not the sole group of substances that can contribute to autoimmune illness in this fashion. Any substances that your body cannot use for nourishment can potentially trigger the production of antigen-antibody complexes and ensuing inflammation. This is why it is important to be aware of common household and environmental toxins, and to do your best to decrease your exposure to them.

For example, great care should be taken to avoid unnecessary exposure to conventional cosmetic products. Lipstick, lip balm, and other products that are typically used around large pores have a relatively easy pathway to your blood supply. It is a well established fact that women suffer from autoimmune illness at a significantly higher rate than men; I have come to believe that this is, in part, due to the widespread use of cosmetics among women – this is a connection that has not been established in the medical literature, it is a personal hypothesis based on my own clinical experiences.

At this point, I hope that it is clear that autoimmune illness, no matter which specific one you are concerned about, is not a local problem in your body; it is a systemic problem that has multiple causes and should be addressed as such. Put another way, if you want to maximize your chances of experiencing a full recovery and being free of autoimmune illness for the long-term, you must take care of every aspect of your health on a daily basis.