

THE ROAD TO HEALTH & WELLNESS



News and advice
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ELITE
PERSONAL TRAINING
AND FITNESS
SOLUTIONS

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Inflammation and Autoimmune Disease: When Your Body Fights Itself

Autoimmune disease is your body's revolt against itself. The immune system, which is normally tasked with protecting your body from external threats, instead directs its assault against healthy tissues and organs.

Inflammation Series

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SCAN ME

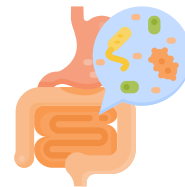
Antibodies (called autoantibodies because they attack your own tissues) and T cells target certain proteins and then launch an immune response against them.

More than 100 different autoimmune diseases exist. Together, they afflict more than 23 million Americans, with women disproportionately affected.

Causes

Why would the body turn against itself? Autoimmune conditions do run in families, so genes are clearly involved to some extent. Sometimes it is the predisposition for autoimmunity, rather than a specific disease, that is inherited. But genes don't tell the whole story. More likely, they just set the stage. Environment and lifestyle have a considerable impact on immunity as well.

Elite Personal Training and Fitness Solutions does not provide medical treatment or intervention. We acknowledge scientific evidence that appropriately intensive exercise and sustainable nutritional intervention can have significant impact on chronic health disorders and obesity, dramatically improving symptoms when recommendations are followed. Please visit us at Eliteptf.com for more information and to schedule your evaluation.



Gut microbiota

The gut microbiota plays a pivotal role in maintaining health and preventing autoimmune disease. Seventy percent of the body's immunity is created in the gut. The gut immune barrier (GIB) is the first line of defense against any potential harmful agents that are ingested in food.

Stress, diets that are high in sugar and/or processed foods, and drugs like antibiotics can radically change the bacterial composition of the gastrointestinal (GI) tract and damage its lining. This creates gaps in epithelial cells. Why is this a problem?

Think of the gaps as open doors. Open doors for big trouble. These openings are referred to as leaky gut. Rather than being eliminated through a normal bowel movement, large opportunistic pathogens, undigested foods and toxins pass right into your blood system. This passage of waste and toxic material into the body creates a scenario called metabolic endotoxemia. The result is systemic inflammation.



Common Autoimmune Diseases

Inflammatory Bowel Disease (IBD)

Inflammatory bowel disease is a broad term that refers to two inflammatory conditions affecting the digestive system: Crohn's disease and ulcerative colitis. These conditions cause ulcers and inflammation in the lining of the intestinal tract. The inflammation alters gut function in a way that gives rise to pain, diarrhea, and intense abdominal cramps. The symptoms often overlap, making it difficult to distinguish one condition from the other.

Ulcerative colitis is focused mainly in the colon and rectum, while Crohn's disease can cause inflammation anywhere in the digestive tract, from mouth to anus. Inflammation is also what distinguishes IBD from irritable bowel syndrome (IBS). IBS shares symptoms like diarrhea and cramps with IBD. The distinguishing features are that with IBS, inspection of the bowel and biopsy samples reveals no significant information or specific abnormality.

Persistent inflammation may permanently damage the intestinal lining and raise the risk for colorectal cancer. People with IBD also have a heightened risk for inflammatory conditions elsewhere in the body.



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Lupus (systemic lupus erythematosus)

Unlike some autoimmune diseases that target a specific body part like the joints or skin, lupus may affect many parts of the body.



The sheer number of organ systems involved leads to an abundance of symptoms such as fatigue, painful joints, fever, anemia, chest pain, butterfly-shaped rash on the face, light sensitivity, mouth sores and difficulty breathing. It can be very difficult to diagnose this complex disease.

One key feature of lupus is an impaired ability to remove old or damaged cells. These lingering damage cells create a perpetual inflammatory loop.

The environment can also trigger lupus symptoms. The sun's ultraviolet rays, viral illnesses, certain medications, exhaustion, stress and injury can all provoke immune reactions that causes disease flare.

Multiple Sclerosis

In multiple sclerosis (MS), the immune system attacks the central nervous system. The body's nerves transmit electrical signals from the brain and spinal cord to the rest of the body. These messages control just about everything we do, from picking up a glass of water to talking on a cell phone. In MS, this vital network comes under attack.



The specific target of the attack is a sheath that covers and protects your nerves. The inflammatory attack on the nerve sheath not only damages the protective coating, but also destroys the nerve fibers, producing areas of scarring in the brain and spinal cord. The result is a host of terrible symptoms including walking difficulties, numbness and tingling, muscle spasms, weakness, vision problems and bladder issues.



There are many theories regarding the origin of MS, including infection with a virus, previous brain trauma or concussion, and gut dysbiosis.

To Be Continued On The Next Page...

Rheumatoid Arthritis

Rheumatoid arthritis is the most common autoimmune disease, affecting more than 1.3 million Americans. Osteoarthritis is the result of the “wear and tear” of aging. In rheumatoid arthritis, a faulty immune response initiates inflammation, which attacks the lining of the joint.

Ongoing inflammation ultimately damages nearby tissues, including bone, tendons, ligaments and cartilage. Over time, the ligaments and tendons that hold bones in place can be destroyed, causing bones to become misaligned. Without the proper diagnosis and early intervention, this inflammation can permanently damage the affected joints.

Rheumatoid arthritis is a progressive systemic disease. Over time, the whole body may be affected. Besides the joints, inflammation can affect the skin, eyes, lungs and blood vessels.



Type I Diabetes

Both type I and type II diabetes are the result of the body’s inability to properly move glucose (sugar) from the bloodstream into the cells. The difference between the two conditions is that type I diabetes is an autoimmune disease. It is marked by insufficient production of insulin by the pancreas. Type II diabetes is a result of lifestyles that lead to insulin resistance and ultimately diabetes.

In people with type I diabetes, the immune system attacks insulin-producing cells in the pancreas. The resulting high blood sugar damages blood vessels throughout the body. It also acts as a warning to the immune system, which produces chronic inflammation in response.

The combination of inflammation and high blood sugar eventually damages organs like the kidneys, heart, and eyes as well as nerves and blood vessels.



Treating Autoimmune Diseases

The medical community typically treats autoimmune diseases with drugs that reduce inflammation or suppress the immune response. Pharmaceutical interventions include:

- **Nonsteroidal Anti-Inflammatory Drugs (NSAIDs)**

Common NSAIDs include aspirin, ibuprofen (Advil, Motrin) and naproxen (Naprosyn, Aleve).



- **Corticosteroids**

Common corticosteroids include prednisone and dexamethasone.



- **Conventional immunosuppressive drugs**

Common immunosuppressive drugs include methotrexate and Imuran.



- **Biologics**

Biologics are given as injections or as infusions. Biologics are a newer form of immunosuppressant drugs. They are derived from living cells or contain components of living organisms. Common examples are Enbrel, Humira, Avonex and Tremfya.



Conclusion

A plethora of dangerous autoimmune diseases are caused by inflammation. But what creates the inflammation in the first place? The culprits are gut dysbiosis and a leaky gut.

Exercise, nutritional changes and supervised supplementation from knowledgeable clinicians are essential in treating autoimmune diseases. If you have an autoimmune disorder, EPT can partner with you to improve your health and wellness.



Health Tip of the Month

Significant digestive dysfunction affects 75% of Americans and IBS (irritable bowel syndrome) has been diagnosed in 20% of the population. Women are disproportionately affected. These diagnoses are associated with anxiety, depression and other mental disorders.



Research Shows

Even one course of antibiotics can disrupt the gut microbiota in such a way that it may take several months to a year to return to normal.

Did You Know...

While all humans share 99.9% the same DNA, no one shares the same microbiota. Each person's microbiome is like a fingerprint - completely unique. Furthermore, the gut microbiota can be changed for the better or worse within hours. The bacterial content you woke up with this morning will be different tomorrow.

Medication & Food

Warfarin (Coumadin) is a blood-thinning medication that helps treat and prevent blood clots. However, warfarin causes more deaths worldwide from side effects than any other medication! Therefore, individuals taking Coumadin need to understand how it interacts with other foods and drugs.

There's no special diet for people who take warfarin. However, certain foods and drinks can make it less effective in preventing blood clots.

Vitamin K can make warfarin less effective. It's important to get about the same amount of vitamin K each day. The recommended intake level for adult men is 120 micrograms (mcg). For adult women, it's 90 mcg.

To keep vitamin K intake consistent, avoid changing the amounts of vitamin K-rich foods or drinks you have from day to day or week to week. Vitamin K-rich foods include kale, spinach, Brussels sprouts, collard greens, mustard greens, turnip greens, Swiss chard, broccoli and asparagus.

Certain drinks could lead to bleeding problems. When taking warfarin, avoid or drink only very small amounts of alcohol, grapefruit juice, cranberry juice, chamomile tea or green tea.

If in doubt, check with a nutritionally informed healthcare practitioner.

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