

## Glutenology MasterClass: Module 9 – Gluten Free & Still Struggling?

### This Module Covers

- Autoimmune Disease
- Leaky Gut
- Genetics
- Environmental Factors
- Medical Concerns
- Hygiene

### Troubleshooting Your Gluten Free Diet

#### Autoimmune Disease

- According to the American Academy of Allergy, Asthma, and Immunology an autoimmune disease is an illness that causes the immune system to produce antibodies that attack normal body tissues.
  - o Autoimmune is when your body attacks itself.
    - It sees a part of your body or a process as a disease and tries to combat it. Your immune system produces antibodies against you and the byproduct of that is deterioration of tissues.
    -
- According from the American Autoimmune Related Disorders Association:
  - o An estimated 50 million Americans suffer with autoimmune disease (AID) compared to 9 million with cancer and 22 million with heart disease.
    - That is about 1 to 7 people just in the United States.
  - o AID is the number one cause of death in women under the age of 65.
    - There are more than 100 forms of AID currently recognized by research.
  - o Symptoms cross many specialties and can affect all body organs.
    - This is one of the reasons why people that have gluten related to autoimmune get bounced back to the doctor or expert specialist because the symptoms are not concisely located in one specific area of the body. Some people develop more autoimmune disease or manufactures to average percent with one autoimmune disease. If they do not figure out why they have it, it will develop up to 6 more so 7 in a lifetime because it can be more finicky or can change.
    - This is one of the major problems medical specialties or medical education provides minimal learning about autoimmune disease.
  - o Just like medical education provides minimal learning about diet, gluten and provides minimal learning about the nature of autoimmune and complexity of autoimmune disease.
    - Specialists are generally unaware of interrelationships among the different autoimmune diseases. The medical specialists do not recognize the nutrition and gluten under the relationship.



Initial symptoms are often intermittent and unspecific until the disease becomes acute flared.

- You might have generalized fatigue in brain fog, dry skin or losing some hair.
- Research is generally disease-specific and limited in scope.
  - o More information-sharing and crossover among research projects on different autoimmune diseases is needed.
  - o Instead of looking for what triggers the process of autoimmunity in the body, researchers are specifically looking at the processes defined as the rheumatoid arthritis or the process is defined as Hashimoto's.
  - o They are looking for drug interventions to inject into the biochemistry of humans as help to mediate symptoms.
  - o They are not looking at the root cause and not looking at what triggers this cascade of events that sparks the pathway of autoimmune disease to begin.
- The average person that develops one autoimmune disease will go on and have several in their lifetime.
  - o Meaning, you should consider autoimmune disease as a distinct process that occurs within the body not as a different entity.
  - o If you can figure out what is triggering it, that is where the body has the capacity to heal itself.

#### Examples of Autoimmune Disease

- |   |                            |
|---|----------------------------|
| - Hashimoto's hypothyroidism                    | - Myocarditis              |
| - Rheumatoid arthritis                          | - Narcolepsy               |
| - Celiac Disease                                | - Multiple sclerosis       |
| - Ulcerative Colitis                            | - Alopecia areata          |
| - Type 1 Diabetes                               | - Addison's disease        |
| - Asthma  | - Graves' disease          |
| - Sjogren's                                     | - Fibromyalgia             |
| - Lupus   | - Endometriosis            |
| - Vitiligo                                      | - Eosinophilic esophagitis |
| - Psoriasis                                     | - Nephropathy              |
| - Reactive Arthritis                            | - TPP                      |
| - Scleroderma                                   | - Guillain-Barre syndrome  |
| - Dermatomyositis                               | - Restless leg syndrome    |
| - Vasculitis                                    | - Uveitis                  |
| - Raynaud's phenomenon                          | - Crohn's disease          |
| - Transverse myelitis                           |                            |
| - Sarcoidosis                                   |                            |
| - Hepatitis                                     |                            |
| - Dysautonomia or Reflect Sympathetic Dystrophy |                            |



If you have been diagnosed with a disease and you do not know whether it is autoimmune, you should ask yourself that question.

- Alzheimer's was recently identified as an autoimmune process.
- Osteoporosis was recognized to have an autoimmune component.
- Type 2 Diabetes was recently recognized to have an autoimmune component.
  - o Most of these chronic inflammatory diseases that were recognized are common in our US population and the global population of industrialized countries.
  - o It does have some form of autoimmune component underlying their genesis because it is important for you to understand that.

*What many of you have been told?*

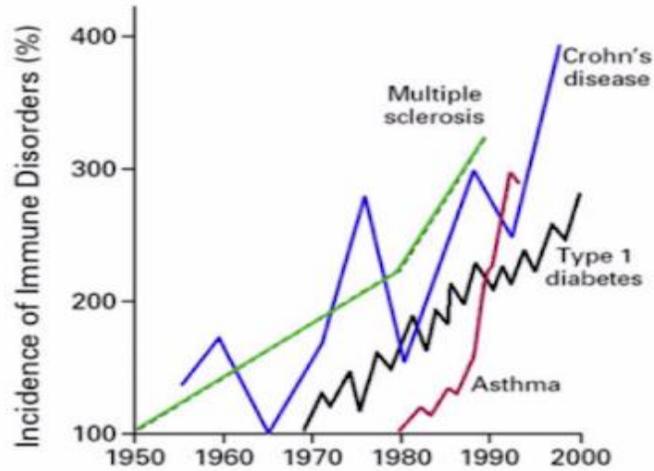
- The cause of autoimmune disease is unknown and there is nothing that you can do except take your medication.
- How can a doctor in one side of their mouth say that they do not know what causes it now to the other side so be so sure that the medication is the right thing for you to do?
- You will also probably have been told that food has nothing to do with autoimmunity.
  - o Even though you know that food has everything to do with autoimmunity.
  - o You will be told that there is no such thing as a leaky gut.
  - o You have probably been told the chemicals and the pesticides used in food production are safe and perfectly fine to consume.
  - o Maybe you have been told that sunshine is dangerous or that not getting vaccinated is dangerous and irresponsible.
    - These are common things you hear from people all the time.

You must understand the current system medically is diagnostic centric.

- It means that they want to give you a name.
- They want to match that name so that they can bill your insurance to give you a drug that is also paid for by your insurance.
- It is not designed to get you better.
- Remember it is designed to create and aim for your illness so that they can create a solution for the symptoms of your illness without creating an actual solution for your illness... It's why the medical model has largely failed.
- That is why the US ranks almost last in industrialized nations for degenerative diseases.
  - o Degenerative diseases like the autoimmune family of conditions.
  - o Treatment of symptoms with chemicals
    - No thought goes into the patient empowerment with diet and lifestyle change.
  - o Lifelong disease management must be implemented because there are no cures.
  - o This is what most people are told and the way the current system works.

A Diagram to illustrate the exponential increase in autoimmune conditions.

Figure 1: Rising Incidence of Autoimmune Disorders



From: Bach JF. The effect of infections on susceptibility to autoimmune and allergic diseases. N Engl J Med. Sep 2002;347(12):911-920.

- This diagram was published in New England Journal, shows the increase in Crohn's, Type 1 Diabetes and Asthma.
  - o You will see the same type of trending curve most forms of autoimmune conditions.
- There is a scientifically recognized central mechanism involved in autoimmune disease.
  - o There actually are several mechanisms that have overlap and interplay with each other.
    - One is too much hygiene.
      - Being too clean; Hyper hygiene is one of those mechanisms.
  - o Another mechanism is the process known as molecular mimicry.
    - When toxins in your gut mimic your own tissue, generating a response from your immune system that over time turns into your immune system attacking your own tissue.
    - That is molecular mimicry.
  - o Both these mechanisms tie into the process or the mechanism of leaky gut or intestinal hyperpermeability.
- A leaky gut is a core contributing factor to the genesis or development of autoimmune conditions.
  - o It is important to understand what causes that.
  - o Gluten causes a leaky gut.
  - o A leaky gut is pre-autoimmunity.
  - o About 70% to 80% of your immune system resides in your gut lining.

There is a big set of tonsils that wraps around your gut lining called the gastro associated lymphoid tissue.

- When your gut lining sprung leaks and then the toxins from your poop, the toxins from the bacteria and other things that you eat leak into your immune system generating massive reactions and overreactions.
- Your immune system is not supposed to, it is not supposed to react to everything.
- Your gut is supposed to be quarantined.
- It is supposed to be a sealed zone where things are not allowed to leak in.
- Your immune system is overreacting or being bombarded.
- This is what happens to the immune system over time with autoimmunity, it gets so amped up that it becomes overactive.
  - o The overburdened immune system is what contributes to the autoimmune process.
  - o Which is it contributing to the hyper chronic inflammation, to the tissue damage, and to the development of what doctors classify as diseases.
  - o If you can reverse engineer this whole process and move backward, you can overcome the process of autoimmune disease.
    - Understanding the causes of leaky gut becomes particularly important in this whole arena.

#### Known Causes of Leaky Gut

- There are different things that can contribute to gut, Gluten is one of those, gluten and grains.
- GMO Foods
- Plastics
- Pesticides
- Aggressive exercise
  - o Those of you are ultra marathoners or who are super aggressive in your exercise.
- Medicines can cause leaky gut.
- Infections
- Food allergies
  - o Those are our primary triggers for this process.

#### *What does Leaky Gut damage do?*

- Once you have leaky gut damage, it over stimulates the immune system that allows toxins to have central access to your circulation.
- It causes you to become allergic to foods, basically those food proteins that are leaking across your gut into your immune system and your immune system starts identifying as foreign, so you acquire allergies.
- This is why so many of you, after you have gone gluten free and you found you had to remove another food and another food and another food.
- It is because you have been acquiring or collecting allergies because your immune system's amped up and you must figure out a way to change your diet and lifestyle, and to calm that immune system down.

*What does Leaky Gut damage do?*

- It sets the stage for molecular mimicry which is a process, and it is linked to abnormal microbiome.
  - o Leaky gut disrupts the microbiome.
- A leaky gut causes an inflammatory process in the GI tract that leads to malabsorption of vitamins and minerals and other nutrients.
- Leaky gut also triggers what is known as leaky barrier syndrome.
  - o You have got a lot of different barriers throughout your body.
  - o You have got your blood brain barrier.
  - o Your lung is a barrier.
  - o Your lung epithelial lining and kidney epithelial lining are barriers too.
  - o These barriers begin to break down and this is when the disease becomes very systemic and extremely hard for doctors to treat symptomatically.

## Primer on Rheumatoid Logical Disease

- A book of everything that you need to know about being in the hospital and understanding these autoimmune diseases in a professional way so that you can help these people.
- You will find that depending on the different types of criminological disease, there were known causes.
  - o The authors and researchers wrote it.

## Celiac disease

- You have one model of autoimmune disease where there is an overwhelming scientific consensus on the cause.
- The model of celiac disease that food is the trigger or the cause.
- Gluten is one of the biggest causes of known causes and an agreed upon cause of autoimmune disease.
- You got to get your diet squared away with the gluten free diet.
- There is no magic bullet because autoimmune diseases are multifactorial.

One of the multifactorial components of autoimmunity is food.

- Food and nutrition
- Part of that is the chemicals that are found:
  - o Pesticides
  - o Herbicides
  - o The dyes
  - o Preservatives
  - o Flavoring agents

Another component of autoimmune disease is your air quality.

- Smoking
- Indoor pollutants
- Outdoor pollutants
- EMF or Electromagnetic pollutants from Internet connections
- Air “Fresheners”
  - o Those of you that use the plug that emit these very foul chemicals that are toxic and noxious to your brain.

A water quality component:

- Fluoride
- Chlorine and chloramine
- Medications are found in drinking water.
  - o In the city of Houston, 40% to prescription Meds were found in a recent analysis.
- Infections
  - o Bacterial
  - o Fungal
  - o Mold
  - o Yeast
  - o Viral
  - o Parasitic
    - All different types of infections that can be triggered for an autoimmune process.

Medical interventions can trigger autoimmunity.

- Vaccines
  - o Adjuvants in vaccines
- Amalgams
  - o The leaching of mercury from amalgams can be a trigger.
- Medications can be a trigger for autoimmunity.
- 
- Surgical Implant
  - o Breast implant
  - o Mesh implants for hernias
  - o Some people are allergic to the different metals that are being put in their joints because doctors do not test to see whether the person is reactive to what they are about to do a replacement surgery with.
  - o That can sometimes be an issue for the genesis of an autoimmune problem.

The lack of sunshine can be a big part of the issue.

- Vitamin D deficiency
- Melatonin deficiency
  - o The body needs to sustain immune function.

Lack of sleep

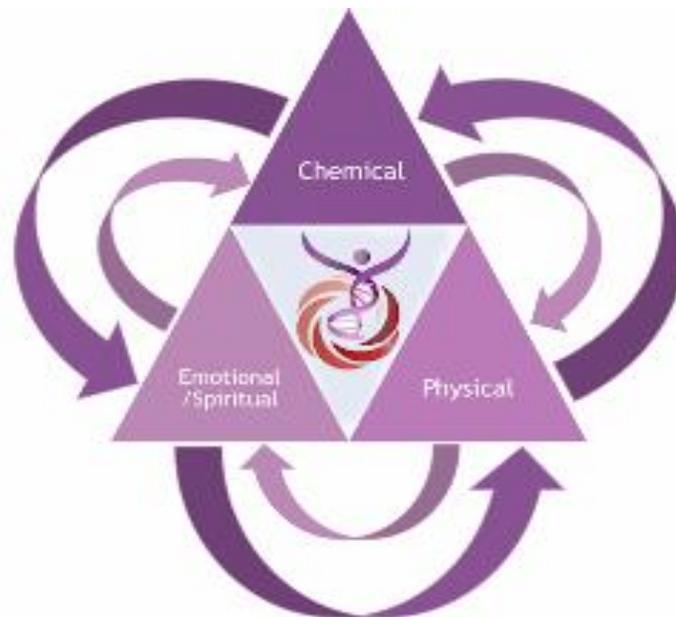
- Artificial light sources
- Caffeine overutilization

Excessive Stress

- Work life balance
- Relationship balance
- Life purpose
- Time management

Lack of physical activity

- Not exercising
- Not getting adequate physical movement for your body to be able to function
- Sedentary lifestyle
- Convenience



Triangle of Health – at the core is your genetics, you cannot change your genes.

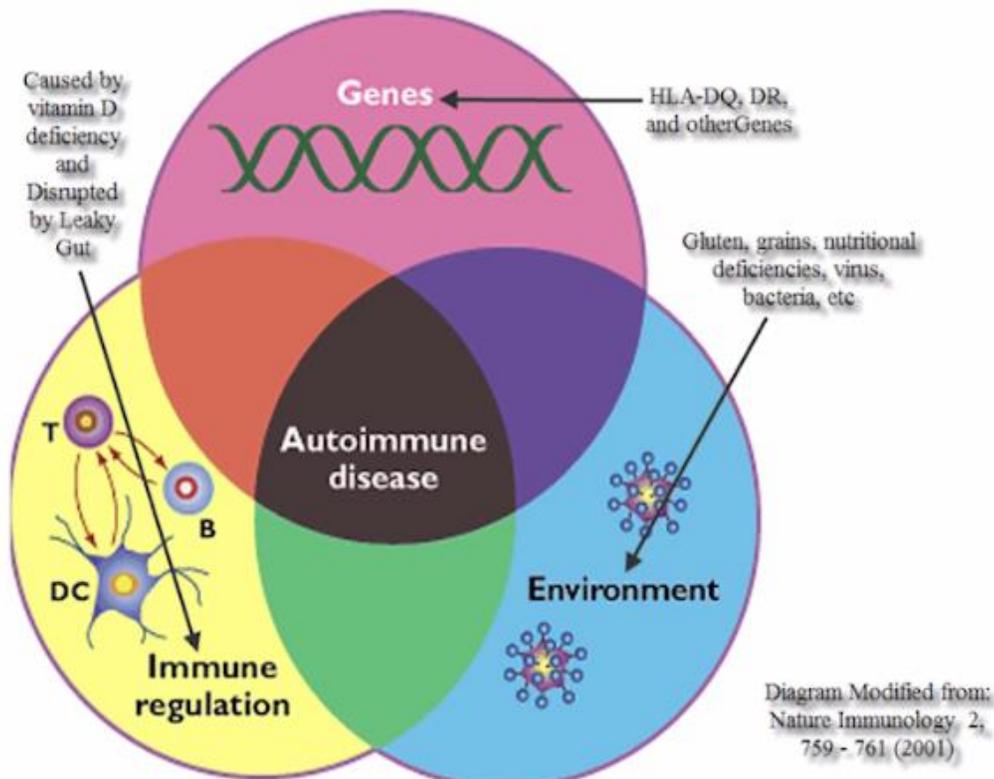
- On the outside of the triangle are your environment.
  - o Chemical choices
  - o Emotional/Spiritual choices
  - o Physical choices



The better the choices you make consistently over time, the better the input to your genetic code and the better your health outcome is going to be.

### Phenotypic Expression

- Phenotypic expression equals your genes plus your environmental choices.
  - o The components that are mentioned are all those things are choices you get to make.
- Autoimmunity is the perfect storm.



You can see the perfect storm of autoimmunity is an overlap between your immune system becoming dysfunctional. All the components and environmental choices, in the center of that is the potential for autoimmunity or the potential to overcome or to avoid autoimmunity.

There is hope.

- Remember that genes do not make you sick.
- Subjecting your genes to the wrong environment does.

You have the capacity to educate yourself, to act on what you learn and alter the outcome of your health.

Biochemistry is nutrition.

- The medical textbook says that, "Each of our hundred trillion cells is a living structure that can survive indefinitely and, in most circumstances, and instances can even reproduce itself provided it has appropriate nutrients".
- There are about 40 different essential nutrients that the human body needs to function and sustain that function.
- What you eat matters in a big way.

You should really be concerned about the quantity of chemicals that are being added to the food. Today order magnitudes of about 35,000 chemicals being used in the US alone, as reported by the EPA, the Environmental Protection Agency and many of these chemicals are reported to be potentially carcinogenic and many of these chemicals are reported to be potentially carcinogenic. Meaning hazardous to human health

- In terms of quantity of each chemical but the overall quantity of the multitude of different chemicals that you are being exposed to.

Law of Synergy - Means that when you subject something to more than one chemical then the outcomes are not predictable.

- It means that those two chemicals can interact in a way that is not predictable, and the outcome can become exponentially synergistic over time.
  - o When you add one chemical to another, that is easier to predict.
  - o But when you add a third chemical, it is harder to predict.
  - o When you add a fourth, it is much harder to predict.
  - o When you add 35,000 of them, it becomes a nightmare mess and almost impossible to predict.
- You want to be concerned about the chemical exposures that are coming through you in your food.
  - o When you justify those choices enough and you are struggling to overcome an illness, it can sabotage your outcome.
  - o It can sabotage your result.

Food - Aside from just reacting to food because there is that food sensitivity food allergy issue that people can have., the FDA has also approved approximately 3000 different food additives, preservatives and coloring agents that are added to your food.

- 35,000 environmental chemicals but 3000 chemicals in the food that have been approved on a grass list are generally recognized as safe food lists in the US.
- The average person ingests 150 pounds of additives every year.
- Many commonly eat and foods are genetically modified or contain genetically modified ingredients.

You need to pick real food.

- You have got to disassociate yourself as much as possible from food additives, preservatives, dyes, and other agents.
- You also got the toxins in the food.
  - o Herbicides
  - o Pesticides
  - o Steroid hormones
  - o Antibiotics
  - o Excitotoxins

Examples:

- A pound of beef has 5 to 8 pounds of chemically spray grain to produce one pound of beef.
  - o There are some people better suited for vegetarianism than for eating meat.
- On average, one glass of organic store-bought milk contains the residue of about a hundred different antibiotics.
  - o Once in your body, these antibiotics impact the microbiome and subsequently can disrupt your immune system.
- There are 3,000,000 tons of pesticide used each year worldwide. More than sixteen hundred chemicals are used in the production of these pesticides.
  - o Most have not been tested for their toxic effects on humans.
  - o The exposure of these pesticides to humans has been linked to autoimmune disease.
  - o Correlation is not causation, but correlation begins the scientific process of investigation which is important.

Air Quality

- Outdoor air is less toxic in indoor air.
- In most instances indoor air can be 100 hundred times more polluted.
  - o This is based on a study that was done by the Environmental Protection Agency.
  - o If you are not filtering your air inside, you should be.
- Filtration of your indoor air.
  - o When a house does not breathe as well, all the outgassing of your paints and chemicals and things of that nature stay in the home.
  - o These different chemical sprays with different smell agents or different traumatizing agencies are highly caustic chemicals that can trigger or contribute to the triggering of a lot of disease issues.

### Indoor Air Quality

- Modern construction
- Invention of HVAC
- Aging buildings - office and school infrastructure
  - o Many of these places are mold contaminated and some mold can be present in the workplace.
  - o Mycotoxins can be circulating in the air.
  - o There are some places that are so old they still have asbestos or lead paint.
    - 24% of the US population is susceptible to mold issues.
- Mold morphology
- EMF emissions
- Microwaves that are being emitted have the potential to disrupt cellular function.

### Outdoor Air Quality

- Ozone
- Automobile exhaust
- Power plant emissions
- Gas vapors
- Sulfur dioxide

### Outdoor allergens

- An increased population of growing asthma.
- Upper respiratory infections
- Lung cancers
- Heavy metal exposures from the petroleum solvents that are being blasted into the air on a regular basis.

You cannot control the outdoor air, but you can control your indoor air.

### Water Quality

- About 60% to 70% of water is in your body.
- If your water quality is poor, it is going to be hard for you to make a recovery.
- Tap water contains unhealthy contaminants (many of these are known carcinogens):
  - o microorganisms and heavy metals,
  - o agricultural runoff and pharmaceuticals
  - o household chemicals and lawn chemicals,
  - o gasoline, dry-cleaning solvents, drugs,
  - o chlorine fluoride, radioactive particles, and letting other impurities.

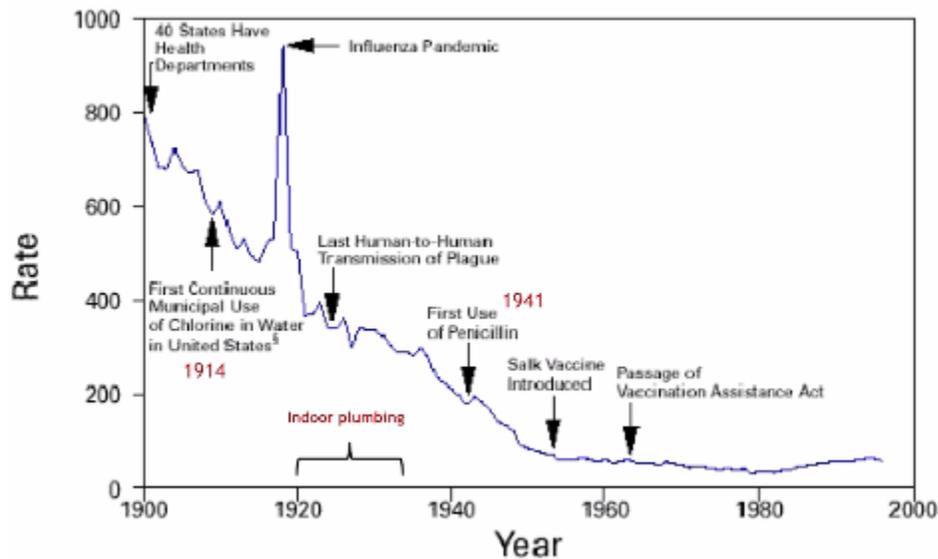
Chlorine was introduced to the public drinking water in 1908 in Chicago. It was used initially to eliminate water borne diseases such as cholera and typhoid fever and widespread use of chlorine in public water systems became available around 1914. In the 1970s it was discovered that chlorine when added to water formed something called a trihalomethane which is a chlorine byproduct.

- Combining this with certain naturally occurring organic matter such as vegetation and algae can have a potential cancer risk.
- The National Cancer Institute estimates that cancer risk for people who consume chlorinated water to be ninety three percent higher than people who are not exposed to chlorinated water.

**Fluoride:**

- Americans are consuming too much fluoride because it is in large quantities in the municipal water.
- The US Department of Health plans to lower fluoride in the drinking water for the first time in 50 years.
- Studies show that fluoride is very damaging to the brain, that it can affect sections of the brain that regulate reactions to stressful circumstances.
- The introduction of fluoride into the municipal water system was first used by Hitler.
  - o He used it on concentration camp prisoners.
  - o Fluoride is a big player in disruption of human physiology.

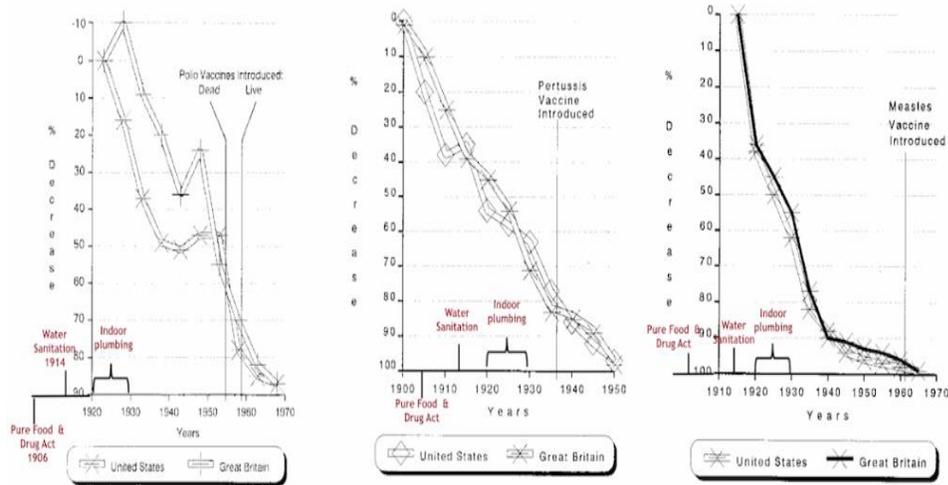
**Rate of Infection Disease** - There is a relationship between infectious disease and autoimmune disease.



- The rate of infectious disease circle around 1900 up to 2000. The diagram as you can see infectious disease rates were much higher.
- 1914, the first continuous municipal use of chlorine in the water supply in the US was implemented.
- Cholera and typhoid fever were infectious diseases that killed a lot of people.
- The influenza pandemic of 1918.
-

- A continuing reduction and at that next time plot between 1920 and 1930, indoor plumbing became the standard in many homes.
- It was these innovations in hygiene that made it possible for a lot of the reduction of infectious disease.
- 1941, one which is the year the first use of penicillin.
  - o Penicillin was not even used as an antibiotic.

Between 1941 and the 1960s, you had the passage of the Vaccine Assistance Act.

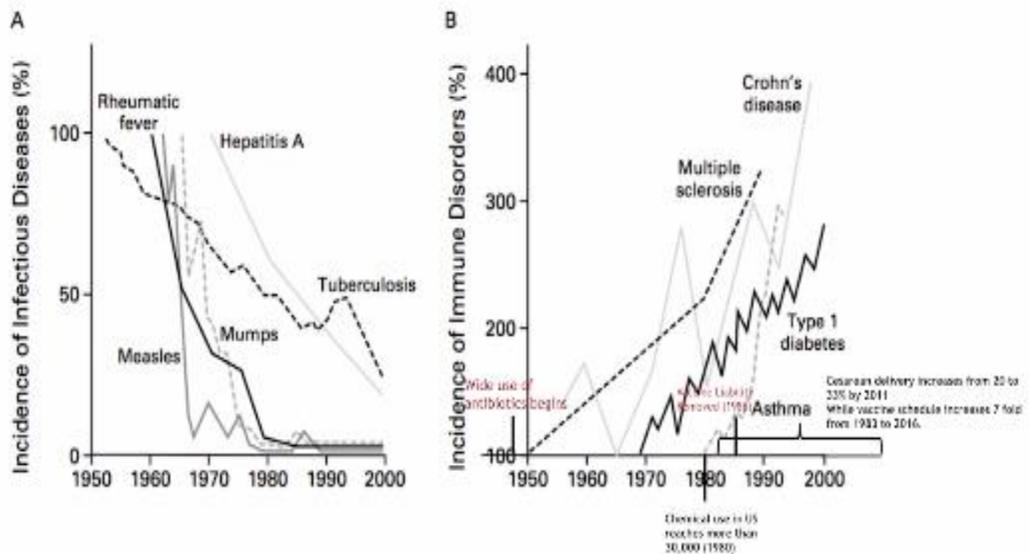


Source: [Journal of American Physicians & Surgeons](#)

The first diagram is polio, the middle is pertussis, and the last diagram is measles.

- A lot of medical history textbooks give the vaccine the credit for the reduction of the disease.

Infectious diseases and autoimmune disease



### Infectious diseases and autoimmune disease

- Coxsackievirus B is linked to myocarditis.
- Streptococcus is a bacterium that is linked to heart inflammation.
- Trypanosoma Cruzi which is a type of parasite that can cause cardiomyopathy.
- Borrelia which is Lyme that can cause arthritis and inflammation of nerves or myelitis.
- Escherichia Coli that can cause uveitis inflammation.
- Campylobacter Jejuni can cause GB's Golden Bar syndrome.
- Chlamydia can cause multiple sclerosis.
- Clostridium difficile can cause ulcerative colitis.

There is a lot of evidence that shows that different types of bacterial infections can cause or contribute to the formation of several different autoimmune diseases. Viruses, bacteria, and other infectious pathogens are thought to play a major role in the development of autoimmune disease.

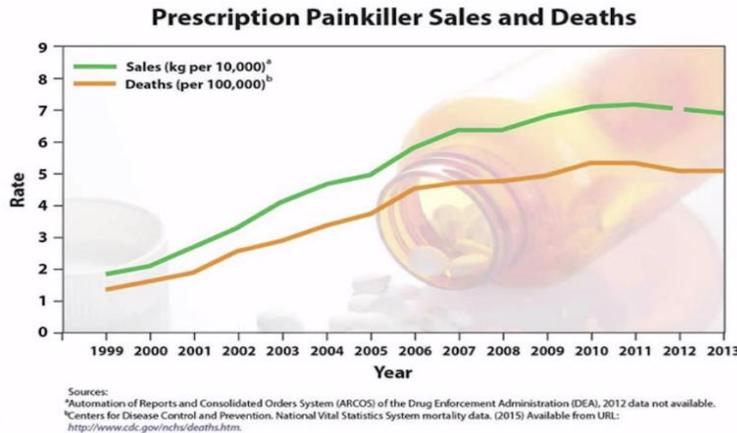
- When your immune system sees and views these infectious toxins as enemies, and it starts to produce antibodies and other inflammatory chemicals against these toxins.
- It can then turn on your own tissue and start producing the same types of inflammatory components and antibodies against your tissue because it is confusing your tissue for those infectious toxic compounds.

Mold is the type of infection.

- Candida is a mimic because of the high wall protein.
- The mycotoxins exposure from mold could lead to autoimmune disease of your nervous system.
  - Another study, aflatoxin is a fungal biome metabolite.
    - Open a new door to understanding the molecular mechanisms and functional consequences of this toxin inducing immune dysregulation, meaning disruption of your immune system.
    - Immunotoxicity means a toxic exposure to the immune system and thus non-infectious disease in humans meaning a mycotoxin, not a living structure.
    - It can poison your immune system.

Medications

- Prescription painkiller sales and deaths as the sales of prescription painkillers go up.
- This caused the death.



The most common medications and some of the most common deficiencies caused as a result of the long-term use of those medications.

DRUG INDUCED NUTRITIONAL DEFICIENCIES				DR. OSBORNE SCIENCE · FUNCTIONAL MEDICINE · COMMON SENSE · COMPASSION	
Medication Type	Common Examples	Vitamins Depleted	Minerals Depleted	Antioxidants Hormones and Nutrients Depleted	
BLOOD PRESSURE	Diuretics such as furosemide and Lasix	B1, B6, C	Magnesium, Calcium, Potassium, Zinc, Sodium.	Coenzyme Q10	
	Thiazides (HCT)				
	Beta Blockers		Magnesium, Potassium, Sodium	Coenzyme Q10, Melatonin	
CHOLESTEROL	Statins like Zocor, Lipitor, Crestor	D		Coenzyme Q10	
	Fibrates	B2, B6, B12, Folate			
	Colestid, Questran	A, D, E, K, Beta Carotene, B-12, Folate	Iron		
DIABETES	Glucophage and Metformin	B-12, Folic Acid		Coenzyme Q10	
PAIN ANTI-INFLAMMATORY	NSAIDs: Motrin, Naprosyn, Lodine, Aspirin	C, Folic Acid, B-12	Potassium, Iron, Magnesium		
	Steroids: for pain, asthma, skin conditions, etc.	A, C, D, Folic Acid	Calcium, Magnesium, Potassium, Zinc		
HEARTBURN REFLUX	Prilosec, Prevacid, Aciphex, Nexium, Protonix	B12, Beta Carotene		Protein	
	Zantac, Axid, Pepcid, Tagamet, Tums, Rolaids	D, B12, Folic Acid	Calcium, Iron, Zinc	Protein	
HORMONE REPLACEMENT	Oral Contraceptives: Premarin, Yasmin, as well as estrogen containing Menopausal medications	B2, B3, B6, B12, C, Folic Acid	Magnesium, Zinc	Selenium	

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- Damage caused by drugs that treat autoimmune disease can also increase the risk for developing autoimmune disease.

The drugs being used to treat autoimmune disease can create new drug disease problems, even if it is not the same disease.

- Your liver is the major organ that helps your body to water soluble toxins so that you can put them out.
  - o If that is not functioning, you are going to get in trouble.
  - o The other thing the liver is it is a storage facility for vitamins and minerals and nutrients.
- A drug treating an autoimmune condition that creates a new condition that can exacerbate the existing problem.

TNF alpha inhibitors

- It is tough for tumor necrosis factor.
- This is a type of drug that is very commonly in autoimmune pain condition.
- Rheumatoid arthritis is an example where we might see doctors using this type of drug to suppress the immune system to get relief of symptoms.
- - o This is a cancer drug that is used after women develop breast cancer.
  - o Lupus type of autoimmune disease and there is a whole slurry of drugs that we know can cause lupus.

Table 2: Drugs Implicated in the Development of Drug-Induced Lupus Erythematosus

Definite	Probable	Possible	Recent case reports
<ul style="list-style-type: none"> <li>• Hydralazine</li> <li>• Procainamide</li> <li>• Isoniazid</li> <li>• Methyldopa</li> <li>• Quinidine</li> <li>• Minocycline</li> <li>• Chlorpromazine</li> </ul>	<ul style="list-style-type: none"> <li>• Sulfasalazine</li> <li>• Antithyroid</li> <li>• Anticonvulsants:                             <ul style="list-style-type: none"> <li>o Ethosuximide</li> <li>o Phenytoin</li> <li>o Primidone</li> <li>o Valproate</li> <li>o Zonisamide</li> <li>o Carbamazepine</li> </ul> </li> <li>• Statins:                             <ul style="list-style-type: none"> <li>o Lovastatin</li> <li>o Simvastatin</li> <li>o Fluvastatin</li> <li>o Pravastatin</li> <li>o Atorvastatin</li> </ul> </li> <li>• Terbinafine</li> <li>• Penicillamine</li> <li>• Fluorouracil agents</li> <li>• Hydrochlorothiazide</li> </ul>	<ul style="list-style-type: none"> <li>• Antibiotics:                             <ul style="list-style-type: none"> <li>o Ciprofloxacin</li> <li>o Penicillin</li> <li>o Tetracycline</li> <li>o Nitrofurantoin</li> <li>o Cefepime</li> <li>o Cefuroxime</li> </ul> </li> <li>• Nonsteroidal anti-inflammatory drugs:                             <ul style="list-style-type: none"> <li>o Ibuprofen</li> <li>o Diclofenac</li> </ul> </li> <li>• Antihypertensives:                             <ul style="list-style-type: none"> <li>o Lithium</li> <li>o Interferons</li> <li>o Gold salts</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Infliximab</li> <li>• Etanercept</li> <li>• Interleukin-2</li> <li>• Zafirlukast</li> <li>• Clobazam</li> <li>• Tocainide</li> <li>• Lisinopril</li> <li>• Bupropion</li> </ul>

Labbat, 2014 May 23(6):545-53. doi: 10.1177/0961203314202871. Epub 2014 Feb 20.

Vaccines and Auto Immune Disease

Table 1. Association of Vaccines with Autoimmune Disease		
Type of vaccine	Autoimmune disease	Reference
Influenza	GBS	Schonberger et al., 1979
Meningococcal (MCV4)	GBS	CDC, 2006
HBV	MS, SLE, RA	Geier et al., 2005
HPV	<a href="#">IDDM</a> , IBD, vasculitis, SLE	Verstraeten et al., 2008; Sutton et al., 2009
MMR	ITP-like	Wraith et al., 2003
HAV, HBV, TT	Macrophagic myofasciitis	Gherardi et al., 2001
GBS, Guillain-Barré syndrome; SLE, systemic lupus erythematosus; MS, multiple sclerosis; ITP, idiopathic thrombocytopenic purpura; IDDM, insulin dependent diabetes mellitus; IBD, <a href="#">inflammatory bowel disease</a> ; HAV, hepatitis A virus; TT, tetanus toxoid.		

Source: Orbach, H, et al. Vaccines and autoimmune diseases of the adult *Discovery Medicine* 9(45):90-7.

- Metal implants might have metals.
- If you live near a factory that produces a metal foundry and that is being spit out into the air, those can all increase the risk for you to develop an autoimmune process.

For liability law, so again today in 2016, you have 24 doses by the age of 12 months, so you went from 5 doses in the first year to 24 doses, a 5-fold increase in the quantity of chemicals that we are injecting into our children.

- If you correlate that to the graph on the autism spectrum of diseases and correlate that to the graph on the incidence of the increased rise in autoimmune disease, they match again.
- Correlation does not mean causation, but it should open the door to more aggressive research.

## Brief History

- Hygiene has made probably the largest impact on the reduction of death and illness as it relates to infectious disease.
- Sunshine can regulate your sleep and regulates the balance of your immune cells.
  - o Sunshine is especially important for your melatonin regulation.
  - o Sunshine plays a major role through vitamin D and through melatonin to not getting adequate quantities.
- Sleep
  - o Autoimmune disease has been recognized as part of the process of the development of metabolic syndrome and diabetes.
  - o Lack of sleep can bring blood brain barrier conditions.
  - o It affects the mechanism of how your body protects your brain from toxins.
  - o You do not want a lack of sleep because that low level of inflammation, that lack of sleep produces over time deteriorates your blood brain barrier.
- Physically active patients with Type 1 diabetes have a decreased risk of autonomic neuropathy and cardiovascular disease.
- Both fibromyalgia and systemic sclerosis patients reported decreased disease severity pain, as well as better quality of life.
  - o The less you exercise, the worse your outcomes. Lack of exercise is a lack of treatment.
  - o The more you implement exercise consistently even though in the beginning it might hurt and it might be tough and challenging, the better the prognosis of your disease outcome is going to become.
- Stress
  - o Stress is just a biological process.
- Physical and psychological stress have been implicated in the development of autoimmune disease.
  - o Stress can be a major trigger.

Examples (can also be major contributing factors to ongoing autoimmune process):

- Water quality stress
- Chronic lack of sleep
- Air quality stress
- Etc.