



***Shingles and Auto
Immune Disorders***

Presented to the Sheboygan Natural
Health series of classes

by

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No, Not These. . . The Other Kind!



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Shingles Comes from Chicken Pox

What is It?

- Herpes Zoster, or Shingles,
- Disease caused by Varicella-zoster virus
- Same virus that causes chicken pox
- Any person who had chickenpox can get shingles
- Varicella-zoster cells remain dormant in nerve roots for life
- Shingles is a virus that affects the nervous system, which causes painful symptoms.

Source: Mayo Clinic



Chicken Pox



Shingles

Shingles. . .Definition, Location, Pain

Definition: an acute viral infection affecting ganglia/roots of nerves, characterized by inflammation, pain, and skin eruptions along course of the affected nerve.

Typical in men & women over age 50 with weakened immune systems: HIV, cancer, organ transplant, or chemo.

Locations for shingles rash: chest, back, ribcage, waist, or head or neck area (face, ears, mouth, eyes, or tongue). Symptoms less common on the lower body.

Source: <http://www.shinglessymptomss.com/>

Shingle's pain: mild or intense, usually described as unrelenting. The intense discomfort ultimately sends folks to the doctor.

-Anything brushing across the inflamed nerve endings on the skin is virtually unbearable.

Cause of reactivation: local injury, emotional stress, fever, trauma, sunlight exposure, periods. Most prominent is the Age-related decline in immune function called-

immunosenescence (Oxman 2009; Pfister 2008; Steiner 1995; Roizman 2001; Albrecht 2012a).

Later in life, the virus awakens

Shingles-How It Works

Its awakening brings on a migration of the virus to the skin causing shingles. There are about 500,000 cases each year, primarily in the elderly.

INITIAL SYMPTOMS

- Flu-like symptoms.
- Numbness, tingling, or itchiness followed by a rash.
- Pain defined as burning, aching, piercing. The light touch of clothing can be unbearable.

STAGE 1

When the virus awakens, it multiplies and travels toward the skin.

STAGE 2

The nerve swells as the virus travels through.

STAGE 3

Bumps form as the virus spreads to the surface.

STAGE 4

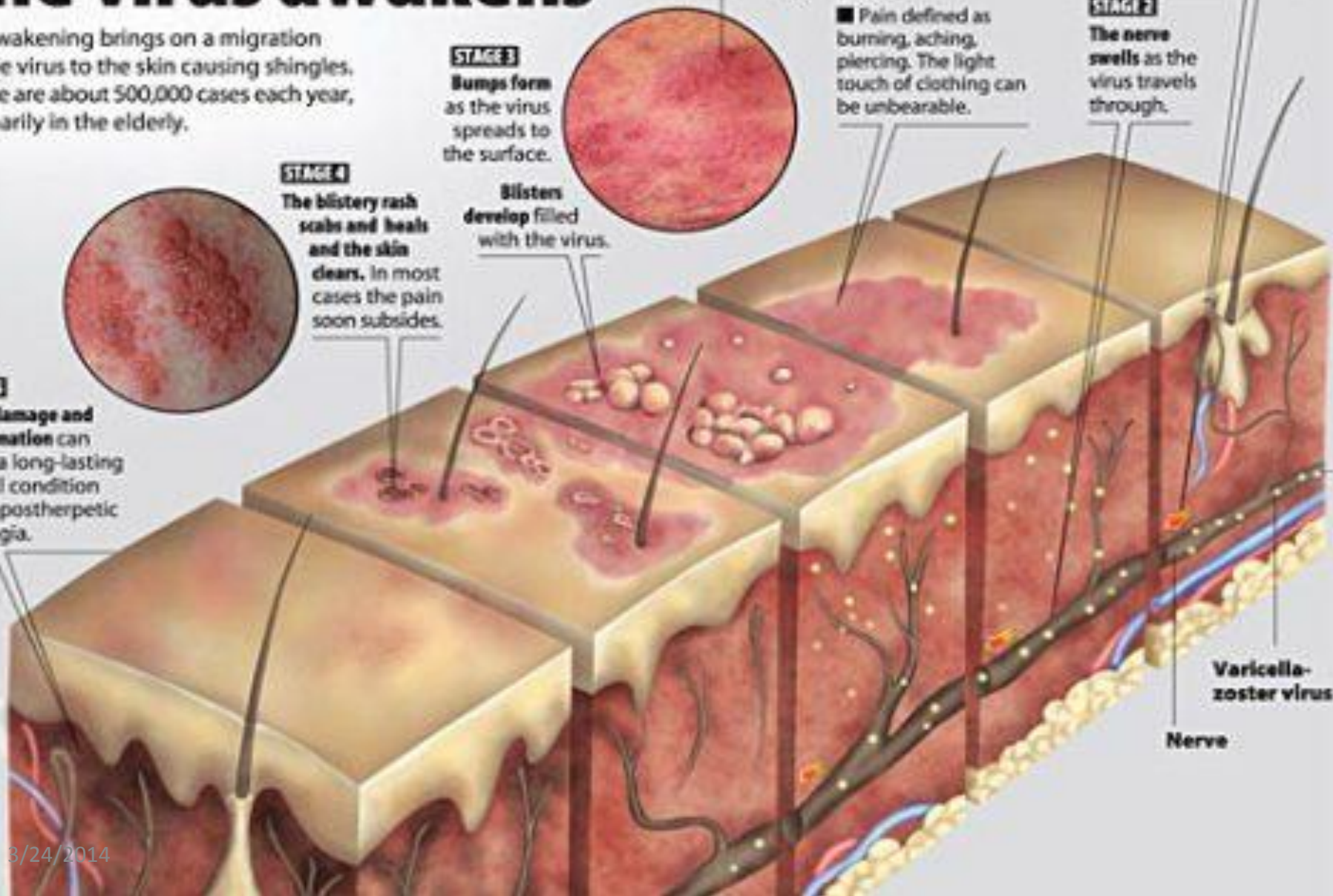
Blisters develop filled with the virus.

The blistery rash scabs and heals and the skin clears. In most cases the pain soon subsides.

Scarring can result from blistering.

STAGE 5

Nerve damage and inflammation can cause a long-lasting painful condition called postherpetic neuralgia.



More on Shingles. . .

- Is an infection that affects the nerve and most of the skin around it.
- Mostly affects a certain area of body on either left or right side
- Virus never crosses the body's midline. Either way, shingles is terribly painful & irritating
- Cannot spread from person to person, except fluid from blisters is contagious leading to chicken pox, but not shingles- if person didn't have C.Pox as kid
- Person feels sick (fever/chills, headache, upset tummy, tender lymph nodes) for a couple of days until a
- Then a painful rash appears. Followed by 3-5 days of painful, itchy & nerve wracking blisters on reddened skin
- Other side effects include: feeling dizzy, weak, & having trouble with vision
- Unknown what causes virus to reactivate later in life (over age 50) after long dormancy

More on Shingles- 2

- **No cure available**. Rash can last 7-10 days, but not totally healed for 4 weeks
- Prescription, over the counter **drugs** help as do **natural supplements** for pain and blister healing
- Shingles can lead to **postherpetic neuralgia**- serious nerve pain lasting 3 months or longer, even when rash is gone. Is difficult to treat. Debilitating

Source: <http://www.natural-cure-remedy.com/shingles.html>

- Taking Zostavax vaccine helps, but is not 100% effective. Expensive
- According to *Life Extension magazine*- Use of an OTC heartburn drug called **cimetidine** (Tagamet) reduces symptom severity.
- Eating a healthy diet & getting plenty of rest helps strengthen immune system

http://www.lef.org/protocols/infections/herpes_shingles_01.htm

More on Shingles- 3

- Shingles is triggered by stress, or immune system weakness which causes virus to emerge in its active form
- Virus uses amino acid **arginine** for viral replication
- **At onset-** avoid all arginine increasing foods such as nuts, chocolate and dairy products
- **Arginine** and the **amino acid L-lysine** have an antagonistic relationship, competing for entry into the cells

L-Lysine inhibits arginine induced viral replication-

- Take 500 to 1,000 mg **L-lysine** a day for prevention & up to 3,000 mg/day during acute outbreaks.
- Keep stress to minimum
- Exercise 3-5 times/week.
- Use Deep breathing and relaxation techniques
- Avoid caffeine and nervous system stimulants
- Get proper rest & nutrition

Source: <http://www.livestrong.com/article/123011-natural-treatments-shingles/>

3/24/2014

What to Do About Shingles. . .

- Aztec Indian Healing Clay made into poultice & used with apple cider vinegar for blisters
- Topical **Capsaicin** for blisters

Use specific **Essential Oils**:

Peppermint, German Chamomile, Ravensara added to Tamanu, Australian Blue, Maleuca & Eucalyptus

Source: Reference Guide for Essential Oils by Connie & Alan Higley- Young Living Oils

From **Life Extension** magazine:
http://www.lef.org/protocols/infections/herpes_shingles_les.htm

- **Antioxidants-** Vit. C, Reishi (Ganoderma) mushroom, Vits A & D, Zinc, Lysine, Bee Propolis, Lactoferrin, Curcumin/Turmeric, Fucoidans, Lemon Balm, and Licorice Root.
- **Others:** Thai Go, Xango, Cordyceps, VS-C, Olive Leaf Extract, Oregano, Grapefruit Seed Extract

A microscopic view of biological cells and antibodies. The background is a dark red color. There are several large, spherical cells with a textured, bumpy surface. One is yellow, one is pink, and one is red. There are also smaller, round cells scattered throughout. In the foreground, there are several Y-shaped structures, which are antibodies, colored in a light blue or cyan. The text "Auto Immune Disorders" is overlaid in a white box with black text.

Auto Immune Disorders

THE DISEASE TREE

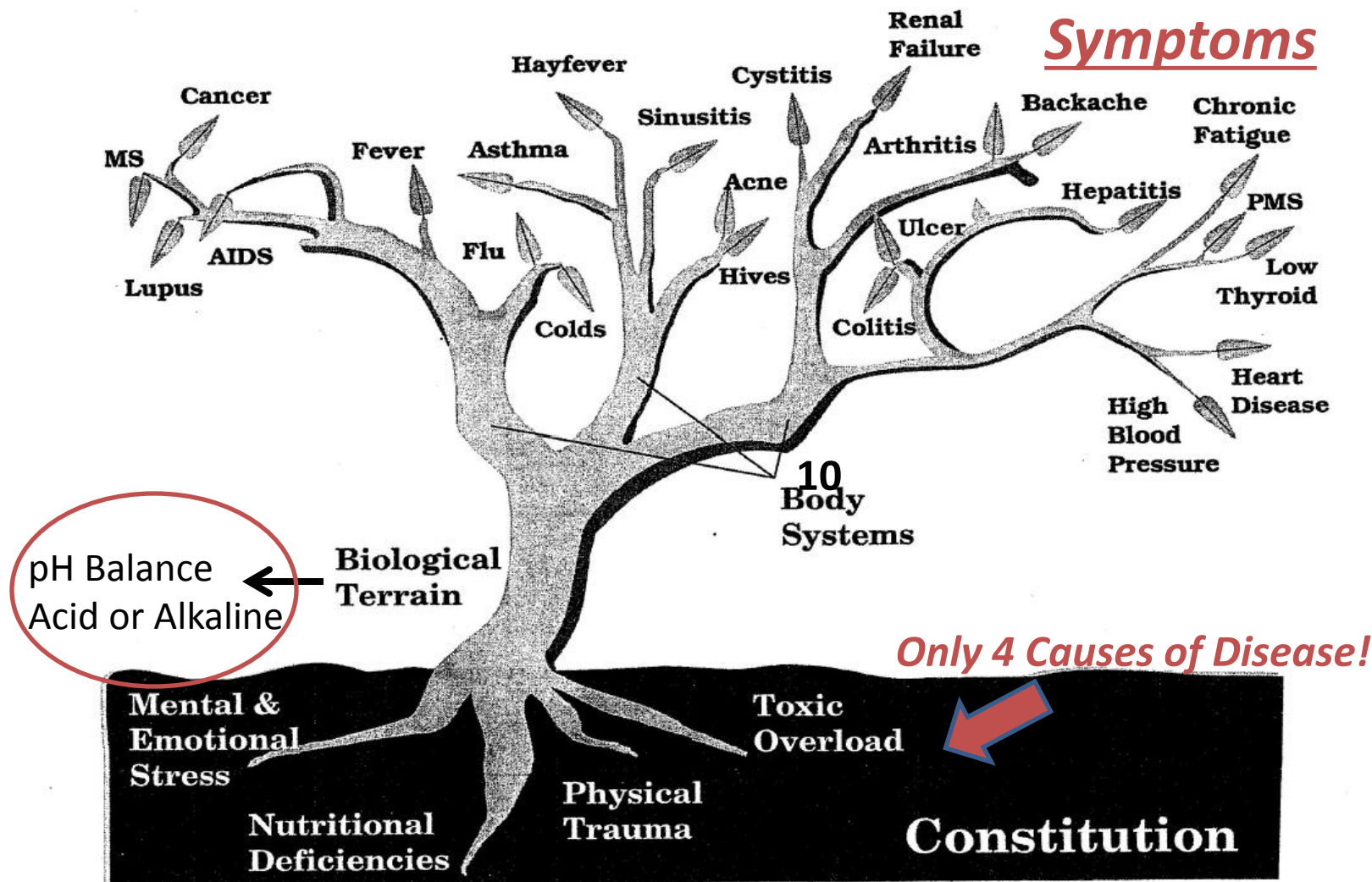
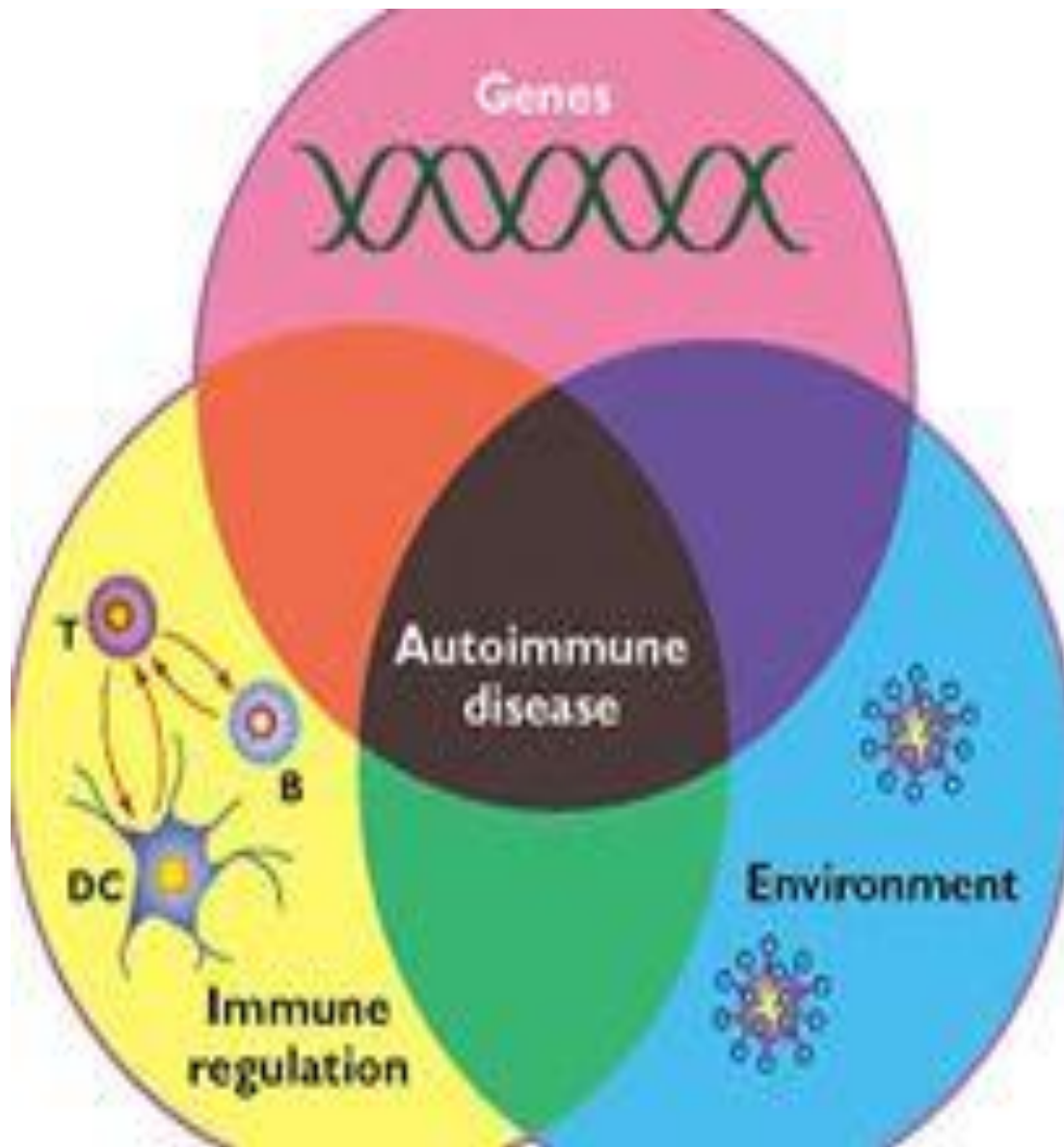


Figure 1—The Disease Tree

Source: Steven Horne www.treelite.com



What Causes Auto Immune Disease?

- Must understand function of Immune System first
 - Imm. System cells are ***army of soldiers*** to protect from invasions from opportunistic organisms: bacteria, viruses, parasites, & other organisms
- **Definition: A.I.** = When the Immune System can NOT distinguish the difference between body tissue and foreign invaders/infectious organisms (bacteria, virus, splinter, etc.)
- ***Affects major organs***, muscles and tissues
- Particularly important is ***Brain Autoimmunity***
- **3 Stages** of Autoimmunity
- Rates of A.I. have exploded worldwide- ***Epidemic***

Autoimmunity Overview. . .

- These days people's imm. systems going haywire!
- **Loss of Self-Tolerance-**
Dysfunctional Imm. Sys. inappropriately attacks tissue it's supposed to protect
- **Number of known cases is staggering:**

1 out of 9 women

1 out of 12 men has A.I. disease in U.S. now

Source: Datis Kharrazian

- NIH stats: **50 million cases** of A.I. & rising in U.S.
- **Compare:** - Cancer = 9 million cases. Hrt. Disease= 22 million
More A.I. disease than Cancer & Heart Disease combined!
- # is actually higher- A.A.R.D.A. (American Autoimmune Related Disease Association)
- M.D.s receive minimal education on this. Early symps. hard to diagnose

Immune System- Descriptions and Function

- **Immunity is:** Very Complex and Integrated. Innate or Acquired; Active or Passive; Natural or Artificial (vaccines)
- **Antigens** are any substance eliciting an immune response- from a virus to a sliver
- **Skin** is first line of defense, followed by **Lungs, Stomach, Mucosal membranes** all over body, **Intestinal Friendly Flora**
- Also comprised of body's 2 fluid systems: **Blood and Lymph**
- **Lymphocytes = B Cells and T Cells**
 - **B cells** from stem cells in bone marrow; create antibodies- Humoral
 - **T cells** from bone marrow & go to Thymus- cell mediated immunity
- 2 Types: Cell Mediated Immunity, Humoral Immunity

Source: <http://uhaweb.hartford.edu/BUGL/immune.htm>

NORMAL IMMUNE RESPONSE

Antigens invade



Antibodies form

Antibodies remove invading antigens



Antibodies remain and protect



AUTOIMMUNE DISEASE

Immune system forms antibodies to self-antigens



Antibodies attack self-antigens



Inflammation and tissue damage



Autoimmune Disease Occurs. . .

- When the body's immune system attacks the body and views normal cells as a threat
- Body cells have ***recognition sites*** on them that allow the immune system to differentiate them from
 - bacteria, viruses, fungus, toxins, cancer and transplanted organs.
 - In A.I. disease, these ***recognition sites*** may be defective due to genetics, and other reasons.
 - Immune system then proceeds to target normal body cells and tissues.
 - More than 80 known types of autoimmune diseases, and each type affects a different body part.

Source: U.S. Dept. of Health Human Services

Auto Immune System. . .

Description- Immune System

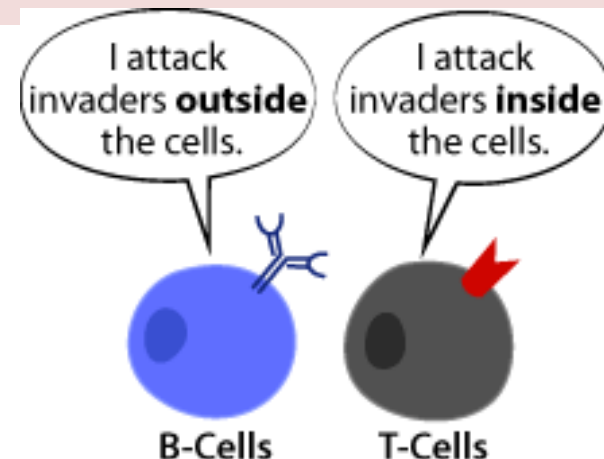
- How immune system works
- A network of organs, cells and molecules that work together to defend the body against attacks by foreign (not of the body) invaders (aka antigens)
- Germs, bacteria, viruses, parasites & fungi = antigens
- When antigens try to break into body, skin and mucous membranes are 1st line of defense
- ***In Skin/Mucous Membranes:***
 - ***Macrophages*** (white blood cells) which digest antigens.
 - ***Antibodies***- trap antigens which get away

If the antigens break through these barriers:

- body reacts by producing ***lymphocytes (B and T cells)***
- programmed to attack and kill the specific antigen

Autoimmune disorders occur:

- When antibodies are directed against the body's own cells,
- or when B & T cells attack & destroy their own body's cells and not foreign antigens



3 Stages of Autoimmunity. . .

Stage 1- Silent autoimmunity-Positive antibodies noted, but no symptoms or loss of function. Loss of Tolerance to body's own tissues

Stage 2- Autoimmune Reactivity- Positive Antibodies w/ symptoms & loss of function, but not total destruction of tissue

Stage 3- Autoimmune Disease- Positive Antibodies with significant symptoms and loss of function. Can be identified with MRI or nerve conduction testing. This is the point of NO return. There is NO cure at this point. A.I is permanent.

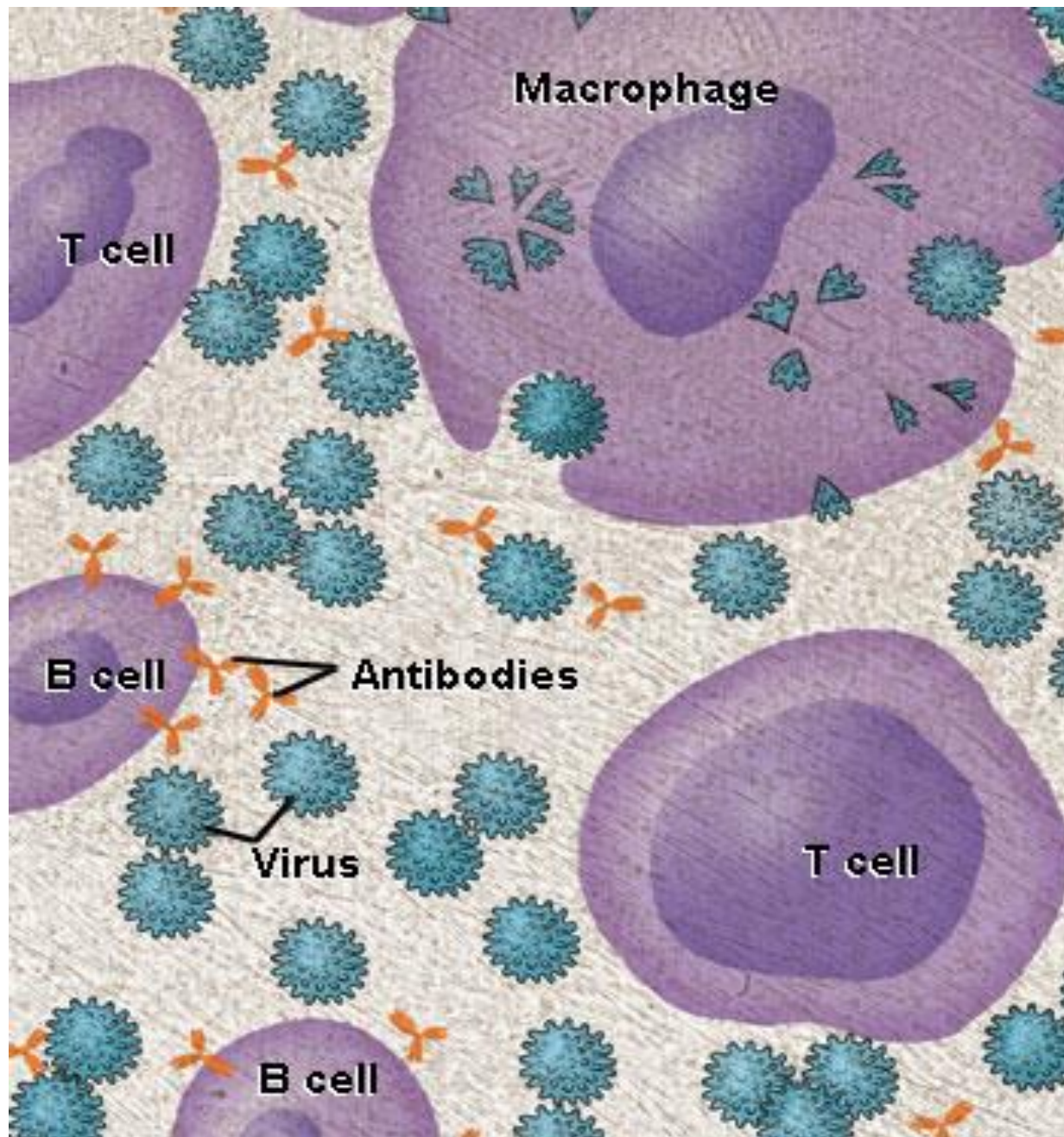
Names of Common Auto Immune Disorders

Over 80 autoimmune disorders

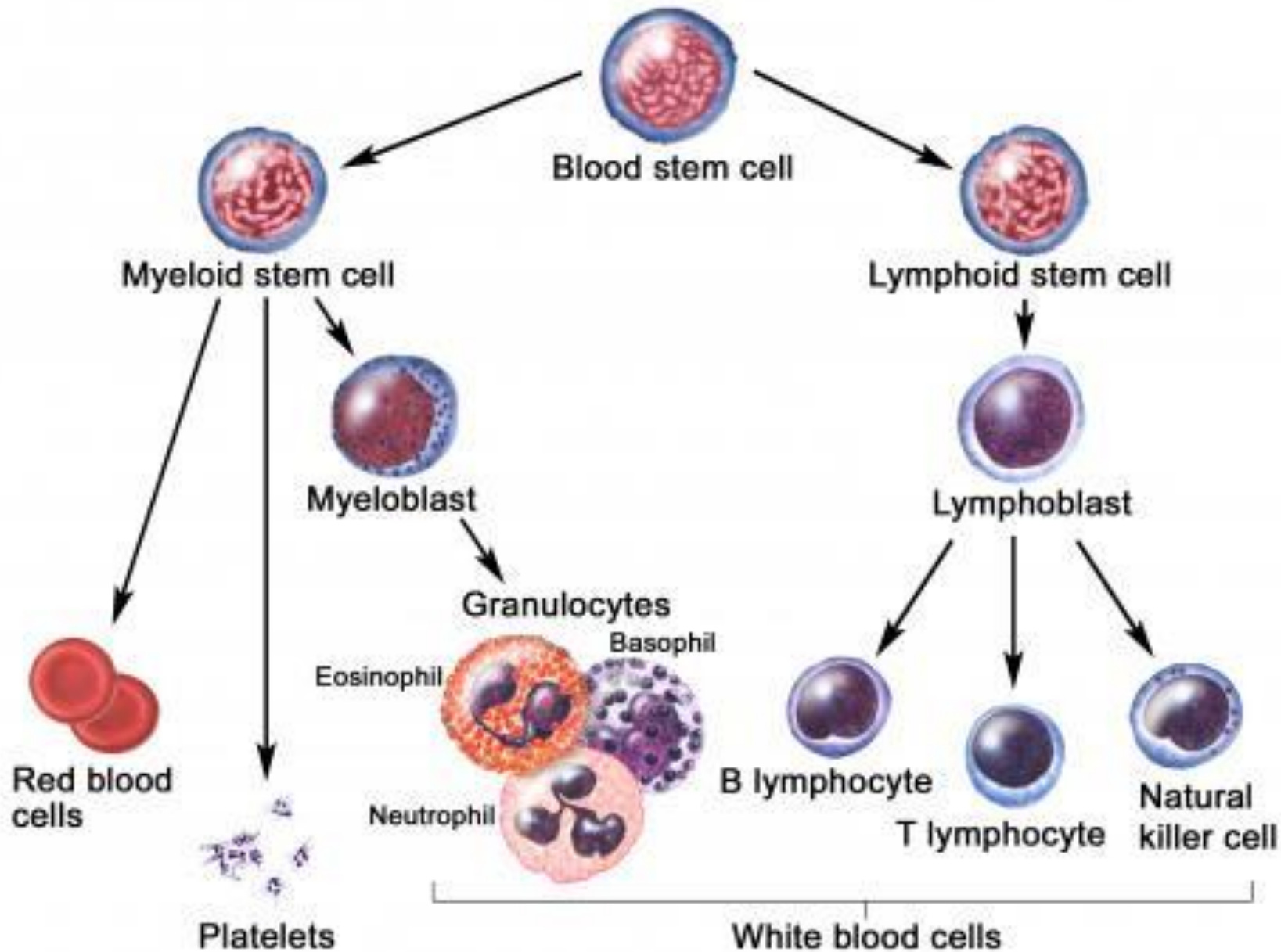
- COPD (Chronic Obstructive Pulmonary Disease)
- Crohn's & Celiac Diseases
- Type 1 Diabetes
- Endometriosis (outside uterus cell growth)
- Guillain-Barré Syndrome
- Graves' & Hashimoto's Diseases (Thyroid)
- Interstitial Cystitis (Bladder)
- Lupus (Body attacks itself)
- Myasthenia Gravis (Nerve impulses to Muscles)

- Multiple Sclerosis (MS)
- Narcolepsy
- Psoriasis
- Pernicious Anemia
- Polymyositis (inflamed muscles)
- Rheumatoid Arthritis
- Scleroderma (Connective Tissue)
- Sjögren's Syndrome (Saliva Tears)
- Schizophrenia (Mental Delusions)
- Stiff Person Syndrome (Muscles)
- Ulcerative Colitis(Inflamed Bowel)
- Vasculitis (Inflamed blood vessels)
- Vitiligo (Depigmentation of skin)

Source: <http://www.buzzle.com/articles/list-of-autoimmune-diseases.html>



*Parts of the
Immune
System*



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What Do T cells & B Cells Do?

- T- and B-cells are highly specialized defender cells - different groups of cells are tailored to different germs. When body is infected with a particular germ, only the T- and B-cells that recognize it will respond.
- These selected cells then quickly multiply, creating an army of identical cells to fight the infection. Special types of T- and B-cells 'remember' the invader, making you immune to a second attack.
- Your T- and B-cells recognize invaders by shape of molecules - **antigens** - on their surfaces. Your immune system can produce a T- and B-cell to fit every possible shape.
- However, any T- or B-cell that recognized molecules found on your cells were destroyed while you were growing in the womb, to prevent them from attacking your own body. But you were left with millions of others, one for every foreign antigen you might ever encounter.

What do T Cells do?



T cell (orange) killing a Cancer cell (mauve)

- T-cells have different jobs. Some send chemical instructions (cytokines) to immune system. Body can then produce best weapons against invaders, (bacteria, viruses or parasites).
- Other types of T-cells recognize and kill virus-infected cells directly. Some help B-cells to make antibodies, which circulate and bind to antigens/invaders.

Source: <http://www.sciencemuseum.org.uk>

More on Auto Immunity. . .

Autoimmune process has varied consequences.

- ***slow destruction*** of a particular type of cell or tissue
- **stimulation of an organ** into excessive growth or interference in its functions.

Organs and tissues frequently affected: ***thyroid, pancreas, adrenal glands*** as well as ***red blood cells*** and **connective tissues** (skin, muscle and joints).

Two types of Autoimmune Disorders:

1. **Organ-specific** (directed at one organ)
2. **Non-organ-specific** (widely spread throughout the body).

Organ-specific autoimmune disorders. . . i

- Insulin-dependent diabetes (Type I) affects the pancreas
- Hashimoto's thyroiditis & Grave's Disease affect the thyroid gland
- Pernicious anemia affects stomach/ B12
- Addison's disease affects adrenal glands
- chronic active hepatitis affecting the liver

Non-organ-specific autoimmune disorders.

- rheumatoid arthritis, multiple sclerosis, lupus and myasthenia gravis

What Conventional Medicine says:

Conventional Treatment

- Most A.I. diseases cannot be treated directly, are treated according to the symptoms
- Corticosteroid drugs, non-steroidal anti-inflammatory drugs (NSAIDs) immunosuppressant drugs such as cyclophosphamide, methotrexate and azathioprine.
- Suppresses the immune response & stops progression of disease.
- Radiation of lymph nodes & removal of diseased cells & harmful molecules in blood.

Preventive Self-Care

- Boost your immunity naturally by altering eating & exercise habits.
- Eat a diet high in fresh vegetables and fruit, **whole grains, (!)** brown rice, low fat dairy products, fish and poultry.
- **A daily multivitamin** should be taken. Exercise daily if possible.

Source: <http://www.healthcentral.com>

What Conventional Medicine says:

Diagnosis

- Medical history & physical exam are performed
- Blood tests, radiological & other studies ordered to rule in or rule out specific autoimmune diseases. Such as those for Rheum. Arthritis, Antibodies, Thyroid tests.

- By the time MD's diagnose Autoimmunity to a specific organ or tissue, the 2nd Stage is/has passed and the disease can no longer be treated with diet and lifestyle changes and begins to be harder to treat with drugs. Stage 3 is permanent.

What to Do About All of This. . .

- *Make Dietary Changes*
- *Remove Toxins from ALL Sources*
- *Detoxification of Body*
- *Get Out and Exercise!*
- *If sitting-get up & move every 20 minutes*
- *Get Fresh Air & Sunshine*
- *Take Good Quality Supplements*
- *Add Enzymes, Antioxidants, Minerals*
- *READ more about this. See References.*

Supplements to Dampen Autoimmunity

In addition to diet & lifestyle changes, Supplements can help TH-3 pathways to reduce inflammation & suppress autoimmunity.

Vitamin D- Lots of T cell receptors in body. Vit D increases Th-3 activity to reduce inflammation, etc

- Check levels w/ serum 25-hydroxy Vit. D test. (50 ng/mL).
- Take 5,000-10,000 IU
- Get sunshine!

Vit. A- helps Vit D. Is an Antioxidant. (Claudia's note)

Glutathione & Supps. that increase it

- Antioxidant made by body
- Improves TH-3 activity in brain, esp.
- Not well absorbed as supplement. Can be taken intravenously, Costs \$\$
- Take Cordyceps, N-Acetylcysteine, gotu kola, milk thistle, L-glutamine and Alpha Lipoic acid to boost glutathione levels.

Resveratrol and Curcumin- Powerful anti-inflammatories. Take in emulsified liquid form. Trial & error for dosage. Need to take enough to make a difference

Source: *Why Isn't My Brain Working?* Pg. 246. Datis Kharrazian

Resources:

- ***Shingles:*** Life Extension Magazine- 9 page article
http://www.lef.org/protocols/infections/herpes_shingles_01.htm#introduction
- ***Essential Oils for Shingles:*** <http://ezinearticles.com/?Natural-Health---Healing-Shingles-With-Essential-Oils&id=1074596> Burton Goldberg's ***Alternative Medicine Definitive Guide*** text
- ***Auto Immune:***
<http://www.aarda.org/autoimmune-information/educational-modules/>
- <http://www.buzzle.com/articles/list-of-autoimmune-diseases.html>
- Kharrazian, Datis, D.C. ***Why Isn't My Brain Working?*** Elephant Press, Carlsbad, CA. 2013.
- Pictures from Bing.com

