



Jamieson Health Center

Healthy Brain. Healthy Body. Healthy Families.



Godly Strategies for Immune Resilience

Calvary Gardening Ministry
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This health talk is to provide interested individuals with important health related information and to provide them the opportunity to hear about the views, recommendations and experiences of our holistic clinic, Jamieson Health Center, and other holistic health practitioners in the field.

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What we will cover



- The immune challenge
- God's commands
- Understanding the immune system
- Our body, heart, mind and spirit work together
- Godly strategies to build a strong and resilient immune system
- Which foods and botanicals to grow
- In conclusion



The Immune Challenge



- New epidemics – new viruses
- Antibiotic resistant bacteria: TB, MRSA, VRE,
 - The more antibiotics you use, the more resistance you get
 - Antibiotic resistant genes get transferred between bacteria
 - US is one of the highest users of antibiotics in the world, especially in agriculture
- No new antibiotics
 - high costs/long lead times
 - few drug makers want to invest in drugs for short term use
- Antibiotic induced changes in the human gut flora
 - Epidemic of clostridium perfringens (diarrhea, abdominal pain)
- We are approaching a crisis point with infection control



The Immune Challenge



Dr Margaret Chan, Director General of WHO, in 2012:

“A post-antibiotic era means, in effect, an end to modern medicine as we know it. Things as common as Strep. Throat or a child scratched knee could once again kill. We are losing our first-line antimicrobials. Replacement treatments are more costly, more toxic, need much longer durations of treatment, and may require treatment in intensive care units”



The Immune Challenge



- Rise of atopic allergies – e.g. anaphylaxis to peanuts
- Rise of many autoimmune diseases – when your immune system attacks its own tissues
 - Type 1 diabetes – pancreas
 - Celiac's Disease – lining of the gut
 - Hashimoto's - thyroid
 - Rheumatoid Arthritis - joints
 - Lupus – joints/kidneys/organs
 - Psoriasis – skin
 - Ankylosing spondylitis - joints and ligaments of the spine
 - Sjogren's – glands that make moisture in mouth, eyes, etc.



How do we as Christians respond? God's commands



- Mark 12:30

Love the Lord your God with all your heart and with all your soul and with all your **mind and with all your strength.**

- To be able to love Him with all our mind and strength, we need to have a healthy brain and body.

- 1 Cor 6:19-20

Do you not know that **your bodies are temples of the Holy Spirit, who is in you, whom you have received from God? You are not your own; you were bought at a price. Therefore honor God with your bodies.**

- We honor God with our bodies by keeping ourselves strong & healthy



Strong, healthy bodies have Immune Resilience



- Resilience: “the capacity to withstand or to recover quickly from difficulties; toughness.”
- How can we build healthy immune systems to prevent any type of infection or overcome infections quickly?
- How can we be strong?



Our immune system

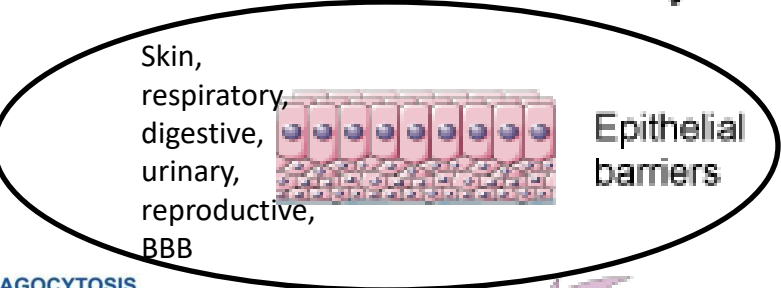


An army in the White Blood Cells

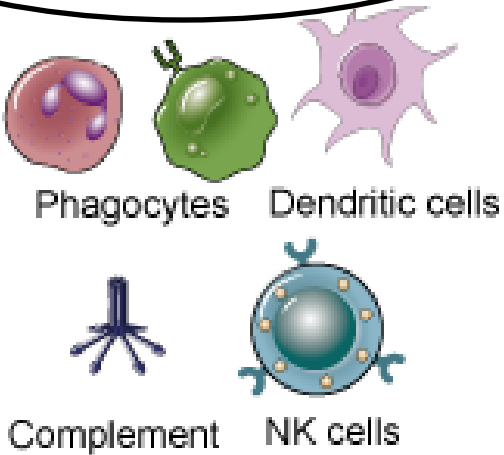
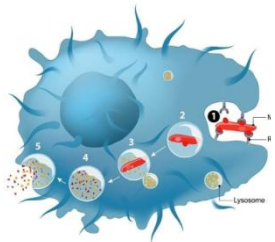
Immediate general response - soldiers

Delayed specific response - marines

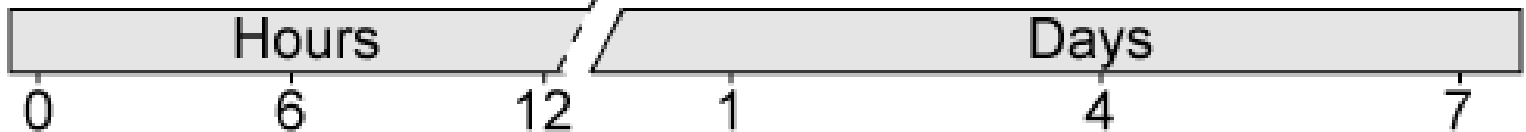
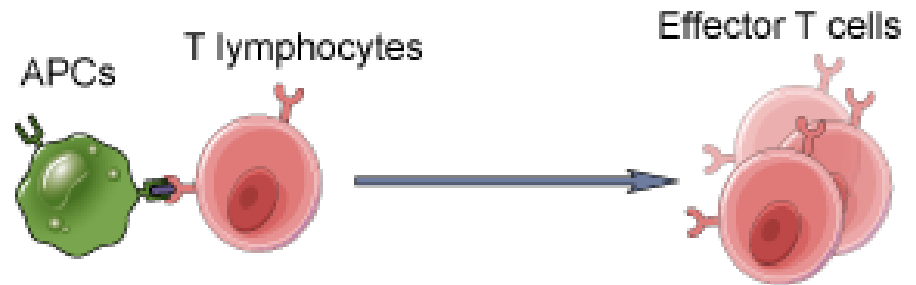
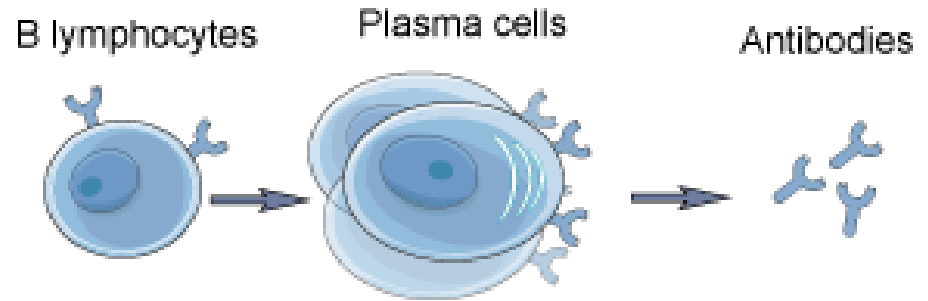
Innate immunity



PHAGOCYTOSIS



Adaptive immunity



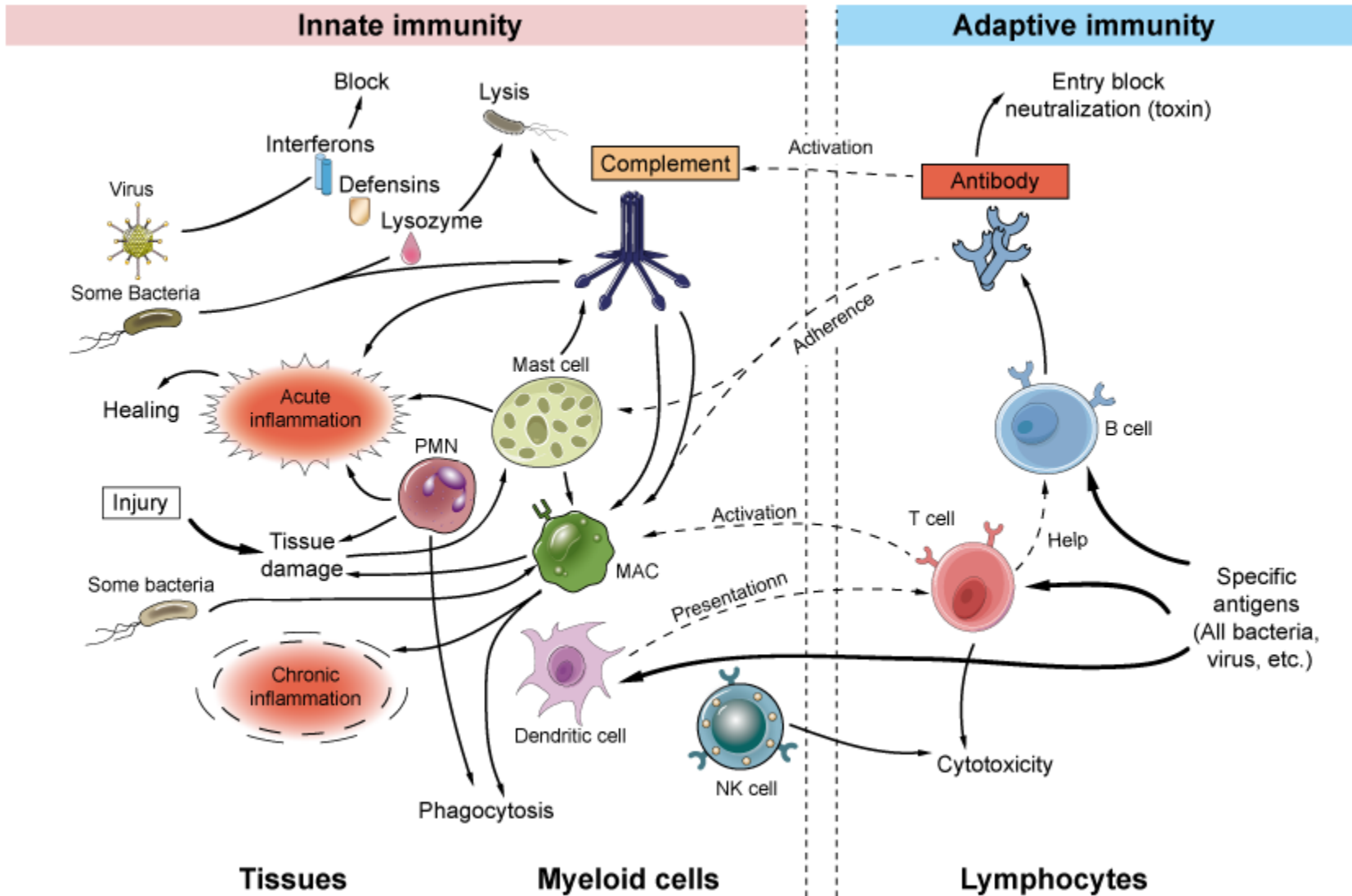
Time after infection



Our immune system

created/matured in

Bone Marrow, Thymus, Spleen, Liver





ACE study

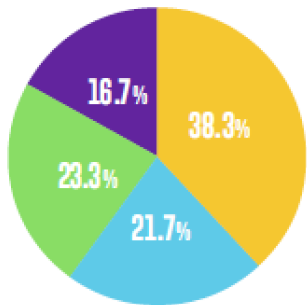
Adverse Childhood Experiences



KEY FINDINGS

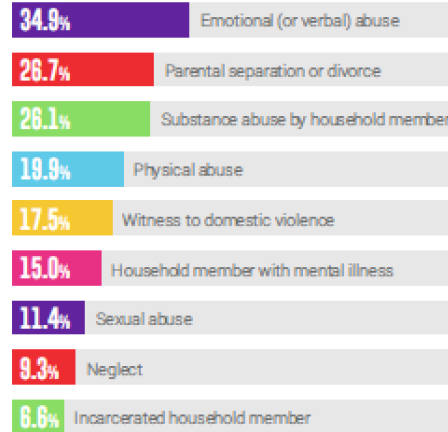
In California, **61.7%** of adults have experienced at least one ACE and **one in six**, or 16.7%, have experienced four or more ACEs. The most common ACE among California adults is emotional (or verbal) abuse.

■ 4 or more ACEs
 ■ 2 to 3 ACEs
 ■ 1 ACE
 ■ 0 ACEs



Prevalence of number of ACEs among California adults

Most common ACEs among California Adults



Most common ACEs among California adults

The ACE (Adverse Childhood Experience) Study

Conducted by the US Center for Disease Control & Kaiser Permanente

17,000 PARTICIPANTS SURVEYED

Female Participants:
 13% emotional abuse
 27% physical abuse
 24.7% sexual abuse

Male Participants:
 7.6% emotional abuse
 29.9% physical abuse
 16% sexual abuse



The ACE Study Findings
 suggest that certain experiences are major risk factors for the leading causes of illness and death as well as poor quality of life in the United States.

It is critical to understand how some of the worst health and social problems in our nation can arise as a consequence of adverse childhood experiences.

Realizing these connections is likely to improve efforts towards prevention and recovery.





ACE study

Adverse Childhood Experiences



ACE Study Findings: American Academy of Pediatrics (Shonkoff & Garner, 2012)

The long term health consequences of toxic stress are profound:

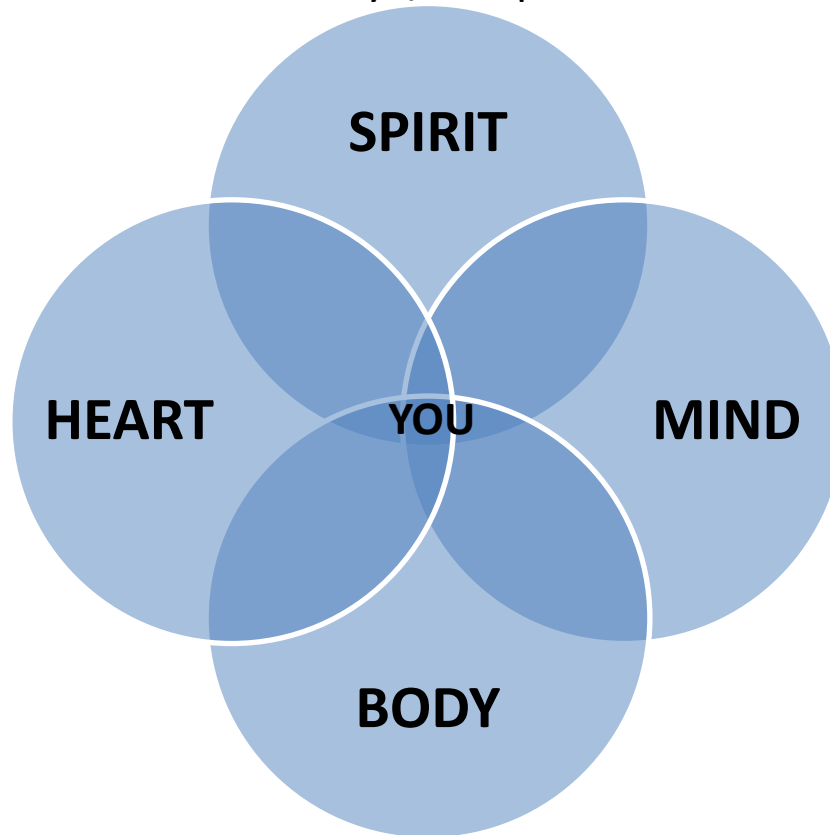
- Diminished Immune Function
- Inflammatory Process
- Neural Excitotoxicity
- Telomere Shortening- Early Aging
- Abnormal Fat Deposits
- Arterial Degradation



We are body, heart, mind & spirit



RELATIONSHIP WITH GOD, JESUS, HOLY SPIRIT
 Salvation, Identity, Acceptance, Assurance,
 Worth, Value, Safety, Security, Discipline,
 Perseverance, Character
Prayer/Worship



EMOTIONS
 Relationship with others
 Love
 Joy
 Peace
 Laughter
Fellowship

THOUGHTS (Phil 4:8)
 Will
 Fruits of the Spirit: love, joy, peace,
 patience, kindness, goodness,
 faithfulness, gentleness, self-control
Reading His Word

THE TEMPLE OF GOD
 BODY & BRAIN
 Physiology
Immune System
Sleep, rest, exercise & diet



We are body, heart, mind & spirit



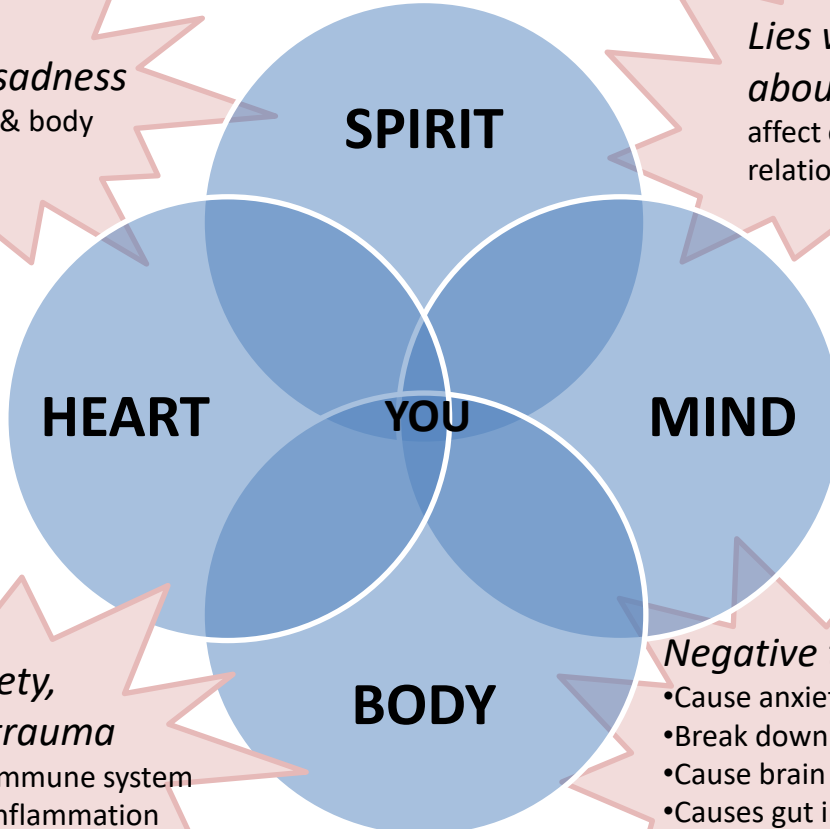
RELATIONSHIP WITH GOD, JESUS, HOLY SPIRIT

Salvation, Identity, Acceptance, Assurance,
Worth, Value, Safety, Security, Discipline,
Perseverance, Character

Prayer/Worship

Depression, sadness
affects our spirit & body

Lies we believe
about ourselves
affect our spirit & our
relationship with God



EMOTIONS
Relationship with others
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THOUGHTS (Phil 4:8)
Will
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patience, kindness, goodness,
faithfulness, gentleness, self-control
Reading His Word

Stress, anxiety,
emotional trauma
•Breaks down immune system
•Causes brain inflammation
•Causes gut inflammation

Negative thoughts
•Cause anxiety, depression
•Break down immune system
•Cause brain inflammation
•Causes gut inflammation

THE TEMPLE OF GOD
BODY & BRAIN
Physiology

Immune System
Sleep, rest, exercise & diet

The Body Keeps the Score – Brain, mind
& body in the healing of trauma
By Bessel van der Kolk



Let's follow Godly strategies



- Godly strategies that enhance immune system function and build immune resilience:
 - Prayer/Worship (Spirit)
 - Reading His Word (Mind)
 - Fellowship (Heart)
 - Rest & sleep (Body)
 - Exercise (Body)
 - Healthy Diet, Nutritional & Botanical support (Body)



#1 Prayer/Worship

“Abide in Me, and I in you”

- John 15:4

Abide in me, and I in you. As the branch cannot bear fruit of itself, except it **abide** in the vine; no more can ye, except ye **abide** in me.

- Psalm 55:22

Cast your burden on the LORD, And **He shall sustain you**; He shall never permit the righteous to be moved.

- Psalm 94:19

In the multitude of my anxieties within me, **Your comforts delight my soul.**

- 1 Thessalonians 5:16-18

¹⁶ Rejoice always, ¹⁷ **pray without ceasing**, ¹⁸ in everything give thanks; for this is the will of God in Christ Jesus for you.

Prayer/Worship:

- Opioids are released that prime and activate immune system cells
- Integrates emotional trauma
- Reduces your anxiety & depression
- Boosts your immune system



#2 Read His Word

- Hebrews 4:12
For the word of God *is* living and powerful, and sharper than any two-edged sword, piercing even to the **division of soul and spirit**, and **of joints and marrow**, and is a **discerner of the thoughts and intents of the heart**.
- Psalm 119:50
This *is* my comfort in my affliction, For **Your word has given me life**.
- Philippians 4:8
Finally, brothers and sisters, whatever is true, whatever is noble, whatever is right, whatever is pure, whatever is lovely, whatever is admirable—if anything is excellent or praiseworthy—**think about** such things.
- Romans 10:17:
So then faith *comes* by hearing, and **hearing by the word of God**.
- Romans 12:2
And do not be conformed to this world, but **be transformed by the renewing of your mind**, that you may prove what *is* that good and acceptable and perfect will of God.

Reading His Word:

- Changes your spirit
- Changes your mindset
- Changes your heart
- Changes your physiology
- Reduces your anxiety & depression
- Reducing stress boosts your immune system by reducing inflammation



#3 Fellowship



- Hebrews 10:24-25:
And let us consider one another in order to stir up love and good works, ²⁵ not forsaking the assembling of ourselves together, as *is* the manner of some, but exhorting *one another*, and so much the more as you see the Day approaching.
- Galatians 6:2:
Bear one another's **burdens**, and so fulfill the law of Christ.
- 2 Corinthians 1:4:
who **comforts** us in all our tribulation, that we may be able to **comfort** those who are in any trouble, with the **comfort** with which we ourselves are **comforted** by God.
- 1 Thessalonians 5:11:
therefore **comfort** each other and edify one another, just as you also are doing.
- Proverbs 12:25
Anxiety in the **heart** of man causes depression, But a good word makes it glad.
- Proverbs 14:30
A sound **heart** *is* life to the body, But envy *is* rottenness to the bones.

Fellowship, laughing, crying:

- Has profound physiological effects on the human body boosting your immune system:
 - increase “feel good” opioids, which prime and activate immune system cells
 - Increase T-cells, Natural killer cells, regulatory T cells



#4 Rest

- Exodus 34:21

Six days you shall labor, but **on the seventh day you shall rest**; even during the plowing season and harvest you must rest.

- Hebrews 4: 9-10

⁹There remains therefore a rest for the people of God. ¹⁰**For he who has entered His rest has himself also ceased from his works as God *did* from His**



#4 Rest

- Take a day off from work – observe the Sabbath
 - Reduces stress and restores your immune system
 - Helps your body and brain recover
- Deep & restful sleep increases immune system cells:
 - White Blood Cell (WBC) count
 - Lymphocytes
 - T cells & Natural Killer Cells – primed by melatonin
- Healthy sleep hygiene - Early to bed, dark/cool room
- Can't stay asleep – often a blood sugar issue: hypoglycemia
 - Eat regular meals
 - Liver support – liver can't convert glycogen into glucose during the night, epinephrin/norepinephrin is released to raise cortisol to break down protein instead & you wake up
 - Eat something when you wake up during the night
- Take nap during the day to enhance your immune system



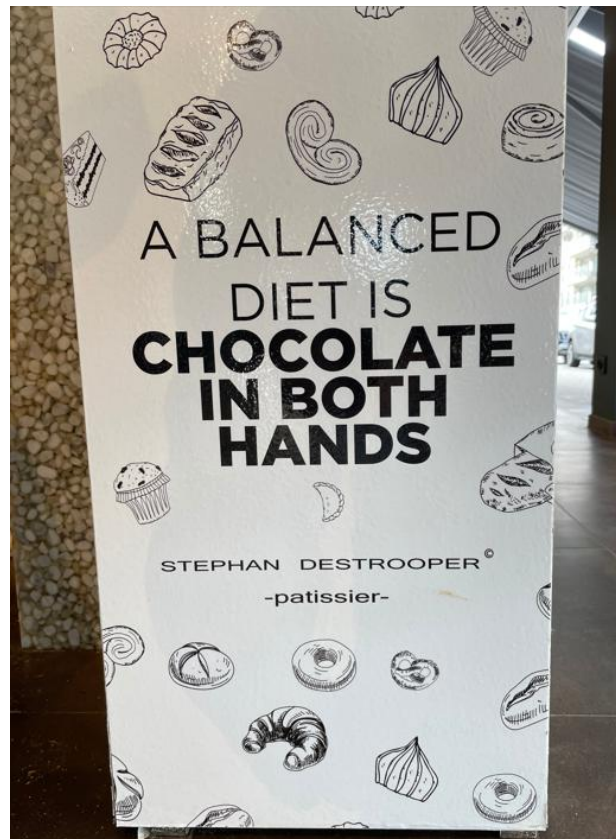
#5 Exercise

- Immune system relies on effective communication of messengers throughout your body. When a macrophage detects a pathogen, it sends messenger proteins to the entire body. It needs to let the immune system know that it needs to make antibodies, T cells need to be turned on, Natural Killer cells need to come in and deal with this infection
- Communication requires proper blood flow, circulation, and lymphatic exchange of fluids, which is dependent on movement & motion, which is why exercise is so important
 - Exercise that increases your heart rate enhances blood flow and circulation exchange.
 - Pumping, moving and contracting your muscles makes the fluids of the lymphatic system move throughout your body
- Exercise releases opioids, which will activate and build immune function cells
 - T cells, Natural Killer cells, B cells, improving overall immunity
- If you are sick, it is still beneficial to go for a brisk walk or just walk around inside your home, depending on how you feel



#6 Diet

- Avoid Immune System Destroyers
- Embrace Immune System Boosters





How to improve immunity?

Avoid Immune System destroyers



Avoid Inflammatory Foods – the foods that God didn't create

- Avoid all fried & processed foods
- Avoid partially hydrogenated oils – from food in bags & boxes
- Avoid all toxins
- Avoid pesticides & glyphosate (esp. in bread), no GMOs
- Eliminate processed sugar & concentrated sugars from your diet
- Avoid floury carbohydrate rich foods causing insulin surges
- Avoid pro-inflammatory proteins esp. in case of autoimmunity



Avoid bad fats & toxins



Avoid all toxins

- glutamates
- nitrates
- aspartame
- artificial coloring
- high fructose corn syrup
- The ingredients you can't pronounce...

➤ **Your immune system needs to get rid of them all!**

Avoid Transfats creating Free Radicals

- Fried foods, commercial cakes, pies, cookies, pastries, crackers, bread, doughnuts, chips, pretzels, snack foods including granola bars, breaded foods, French fries, pizza, peanut butter, non-dairy creamers, margarine, whipped dessert toppings, packaged puddings, veggie-burgers, frozen waffles, high-fiber breakfast meals and salad dressings
- Any food item in bags & boxes containing “shortening” or “partially hydrogenated oil”
- Small amounts of trans fats are labeled as “0”g
 - 0.49 grams of trans fat per serving allowed (usually a teaspoon)
- Poly-Unsaturated fats (PUFAs):
 - vegetable and seed oils such as corn, cotton seed, sunflower, soybean, grape seed, ... are volatile
 - Most restaurants fry foods in oil blends containing trans fats.

➤ **Free Radicals deplete your antioxidant reserves in your immune system**

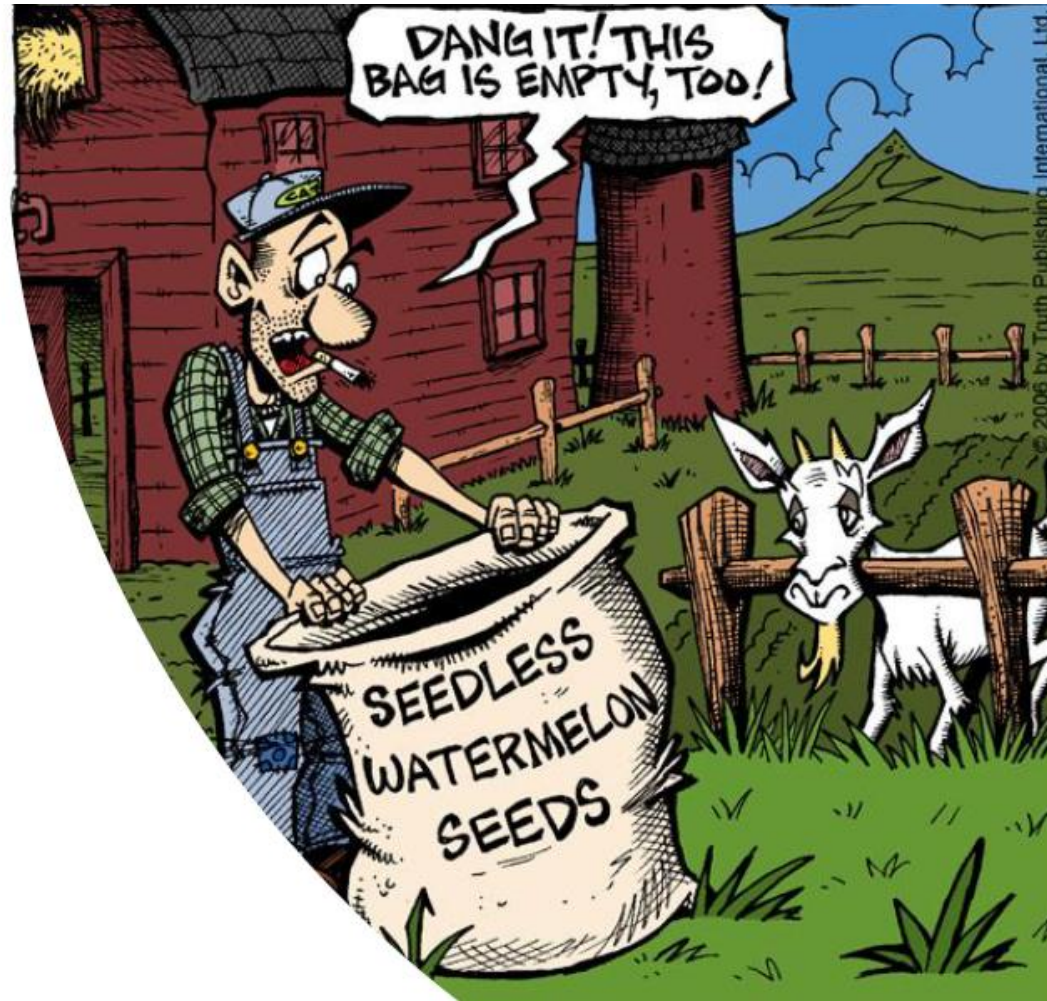


Avoid Pesticides



Pesticides

- With pesticide use and exposure, and review of pesticides altering the immune system, this article shows data from four groups of patients at the Environmental Health Center - Dallas, and two case reports are presented. These data not only revealed pesticides in most patient populations around the world, but also 81% out of 107 patients with initial exposure had depressed levels of T- and B-cells. There was a significantly greater frequency of several abnormal immune parameters in 40 proven chemically sensitive patients with more than two organochlorine pesticides than in 20 patients with less than two. Six patients showed improvement of various T- and B-cell parameters as pesticides cleared from the bodies.





Avoid GMOs & glyphosate



Foods Contaminated with Glyphosate

GMO foods modified to tolerate Glyphosate	Foods in Which Glyphosate is Used as a Dessicant
Corn	Wheat
Soy	Barley
Cotton	Rice
Canola	Sweet Potatoes
Alfalfa	Canola
Zucchini & yellow squash	Cotton
Apples	Beans
Potatoes, Burbank Russet	Peas
	Sugar Cane
	Sugar Beet

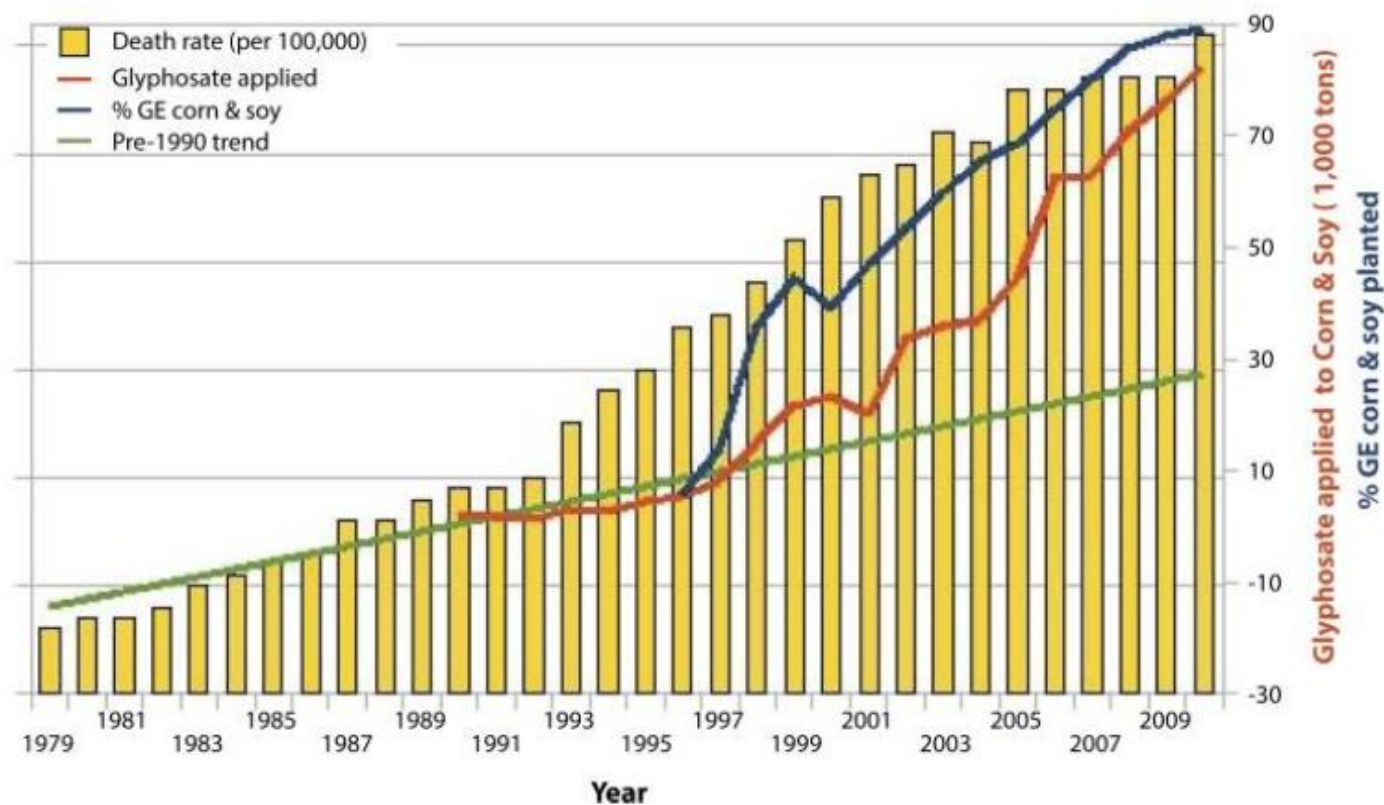
- Glyphosate breaks down your first lines of immune defense
- Glyphosate causes leaky gut, brain, lungs, skin



Glyphosate correlations



Deaths from Parkinson's Disease plotted against glyphosate use on corn and soy



Deaths from Parkinson's disease (ICD G20 & 332.0) plotted against glyphosate use on corn & soy ($R=0.9006$, $p \leq 5.063e-07$) and % GE corn & soy planted ($R=0.9676$, $p \leq 2.714e-06$). Sources: USDA:NASS; CDC. (Figure courtesy of Nancy Swanson).



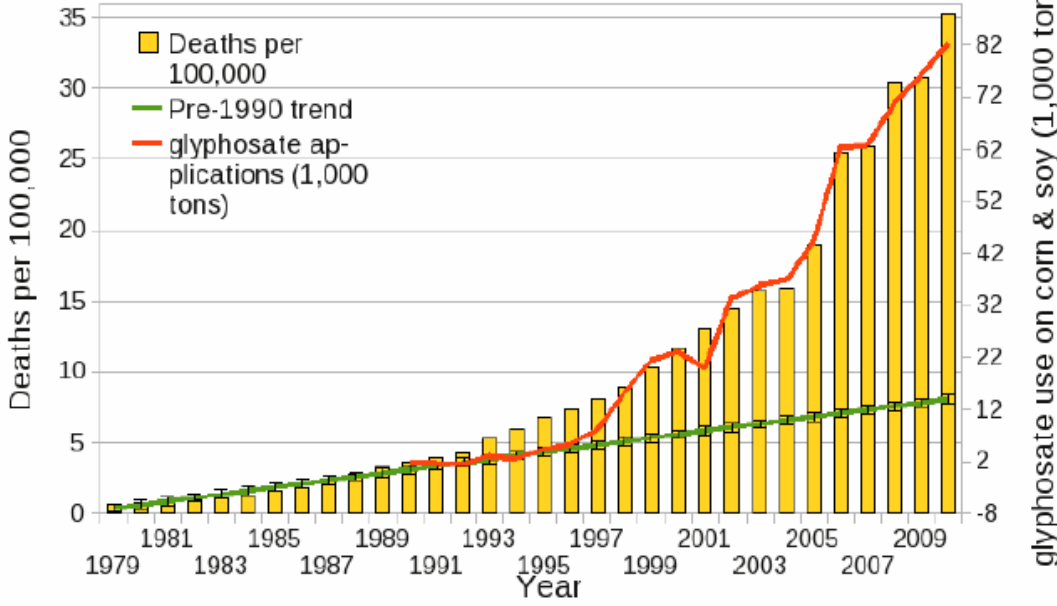
Glyphosate correlations

Deaths from Senile Dementia plotted against glyphosate use on corn and soy

Abstract

A huge increase in the incidence and prevalence of chronic diseases has been reported in the United States (US) over the last 20 years. Similar increases have been seen globally. The herbicide glyphosate was introduced in 1974 and its use is accelerating with the advent of herbicide-tolerant genetically engineered (GE) crops. Evidence is mounting that glyphosate interferes with many metabolic processes in plants and animals and glyphosate residues have been detected in both. Glyphosate disrupts the endocrine system and the balance of gut bacteria, it damages DNA and is a driver of mutations that lead to cancer. In the present study, US government databases were searched for GE crop data, glyphosate application data and disease epidemiological data. Correlation analyses were then performed on a total of 22 diseases in these time-series data sets. The Pearson correlation coefficients are highly significant ($< 10^{-5}$) between glyphosate applications and hypertension ($R = 0.923$), stroke ($R = 0.925$), diabetes prevalence ($R = 0.971$), diabetes incidence ($R = 0.935$), obesity ($R = 0.962$), lipoprotein metabolism disorder ($R = 0.973$), Alzheimer's ($R = 0.917$), senile dementia ($R = 0.994$), Parkinson's ($R = 0.875$), multiple sclerosis ($R = 0.828$), autism ($R = 0.989$), inflammatory bowel disease ($R = 0.938$), intestinal infections ($R = 0.974$), end stage renal disease ($R = 0.975$), acute kidney failure ($R = 0.978$), cancers of the thyroid ($R = 0.988$), liver ($R = 0.960$), bladder ($R = 0.981$), pancreas ($R = 0.918$), kidney ($R = 0.973$) and myeloid leukaemia ($R = 0.878$). The Pearson correlation coefficients are highly significant ($< 10^{-5}$) between the percentage of GE corn and soy planted in the US and hypertension ($R = 0.961$), stroke ($R = 0.983$), diabetes prevalence ($R = 0.983$), diabetes incidence ($R = 0.955$), obesity ($R = 0.962$), lipoprotein metabolism disorder ($R = 0.955$), Alzheimer's ($R = 0.937$), Parkinson's ($R = 0.952$), multiple sclerosis ($R = 0.876$), hepatitis C ($R = 0.946$), end stage renal disease ($R = 0.958$), acute kidney failure ($R = 0.967$), cancers of the thyroid ($R = 0.938$), liver ($R = 0.911$), bladder ($R = 0.945$), pancreas ($R = 0.841$), kidney ($R = 0.940$) and myeloid leukaemia ($R = 0.889$). The significance and strength of the correlations show that the effects of glyphosate and GE crops on human health should be further investigated.

($R = 0.9933$, $p \leq 1.947e-09$) sources: USDA:NASS; CDC





Avoid sugar & high glycemic foods

- Eliminate processed sugar & concentrated sugars from your diet
 - concentrated fruit juices, candy bars, sweets, sodas, pastries, etc
- Avoid high glycemic foods
 - Starches, Bread, Rice
 - Potatoes Pasta, ...

Why?

- Rollercoaster blood sugar levels:
 - Trigger stressful cortisol spikes to make your liver store excess glucose as fat, affecting your adrenals and HPA axis.
 - Affect your memory areas in your brain (hippocampus)
 - Rollercoaster mood swings (temporal lobes)
- NAFLD (non-alcoholic fatty liver disease)
- Cardiovascular issues
- Yeast infections
- Inflammation
- Hijack your immune system





SUGAR FROM HEAD-TO-TOE

What the Sweet Stuff Does to Your Body



EYES
Glaucoma &
Blindness

BRAIN
Dementia &
Memory Loss

FACE
Premature Aging
& Wrinkles

HEART
Heart Disease

LIVER
Fatty Liver
Disease

BOWELS
Cancer & IBS

URINE
Overactive
Bladder

VAGINA
Yeast Infections

LEGS
Gout & Swelling



Sugar hijacks your immune system



- Studies have shown that eating 75 to 100 grams of a sugar solution can suppress the body's immune responses. This is about 20 teaspoons of sugar or the amount contained in two 12oz sodas
- Simple sugars, including glucose, table sugar, fructose and honey caused a 50% drop in the ability of white blood cells to engulf bacteria.
- The immune suppression was most noticeable between 1 and 2 hours post ingestion but the effect was still evident 5 hours after ingestion
- What are the practical implications?

Role of sugars in human neutrophilic phagocytosis,

Sanchez Albert, Reeser J.L., Lau H.S., Yahiku P.Y., Willard R.E., McMillan P.J., Cho S.Y., Magie A.R., Register U.D.

<https://www.sciencedirect.com/science/article/abs/pii/S0002916523334178>

Dr. Eric Berg – Effects of sugar on the immune system video: <https://www.youtube.com/watch?v=mqd-MdtES4s>



Avoid Pro-Inflammatory Foods



- Grains (gluten)
 - Gluten sensitivity – [Read Jamieson Health Center Newsletter February 2011](#) -
- Dairy esp. A1 milk (casein)
- Corn (zein)
- Vegetables from the nightshade family (solanine)
 - Eggplants
 - Peppers
 - Tomatoes
 - Potatoes



COMMON SYMPTOMS OF GLUTEN SENSITIVITY

Musculoskeletal



- Joint Pain
- Fatigue
- Bruising
- Cramping

Dermatological



- Skin Rash
- Acne
- Rosacea
- Eczema

Digestive



- Bloating
- Gas
- Constipation
- Diarrhea
- Food Sensitivities

Neurological



- Brain Fog
- Migraine
- Depression
- Alzheimers
- Dementia

Reproductive



- Hormone Imbalance
- Fertility Issues
- Intensified PMS



Hidden Gluten Food List

condiments	vegan hot dogs	alcohol
gravy	veggie burgers	french fries
soy sauce	seasoned rice	imitation seafood
deli meats	milkshakes	salad dressing
cheese	candy	corn and rice
taco seasoning	energy bars	cereals
sausage	specialty coffees	restaurant eggs
	wine coolers	bouillon cubes





Why go gluten-free



- You will become a healthier person physically, emotionally and cognitively.
- More vitality, more energy, more strength, more joy, more brain power, focus, and attention.
- Less moods swings, anxiety, depression, aggression, rage, negative rumination.
- Less pain.
- It's a mindset, not a diet



How to improve immunity?

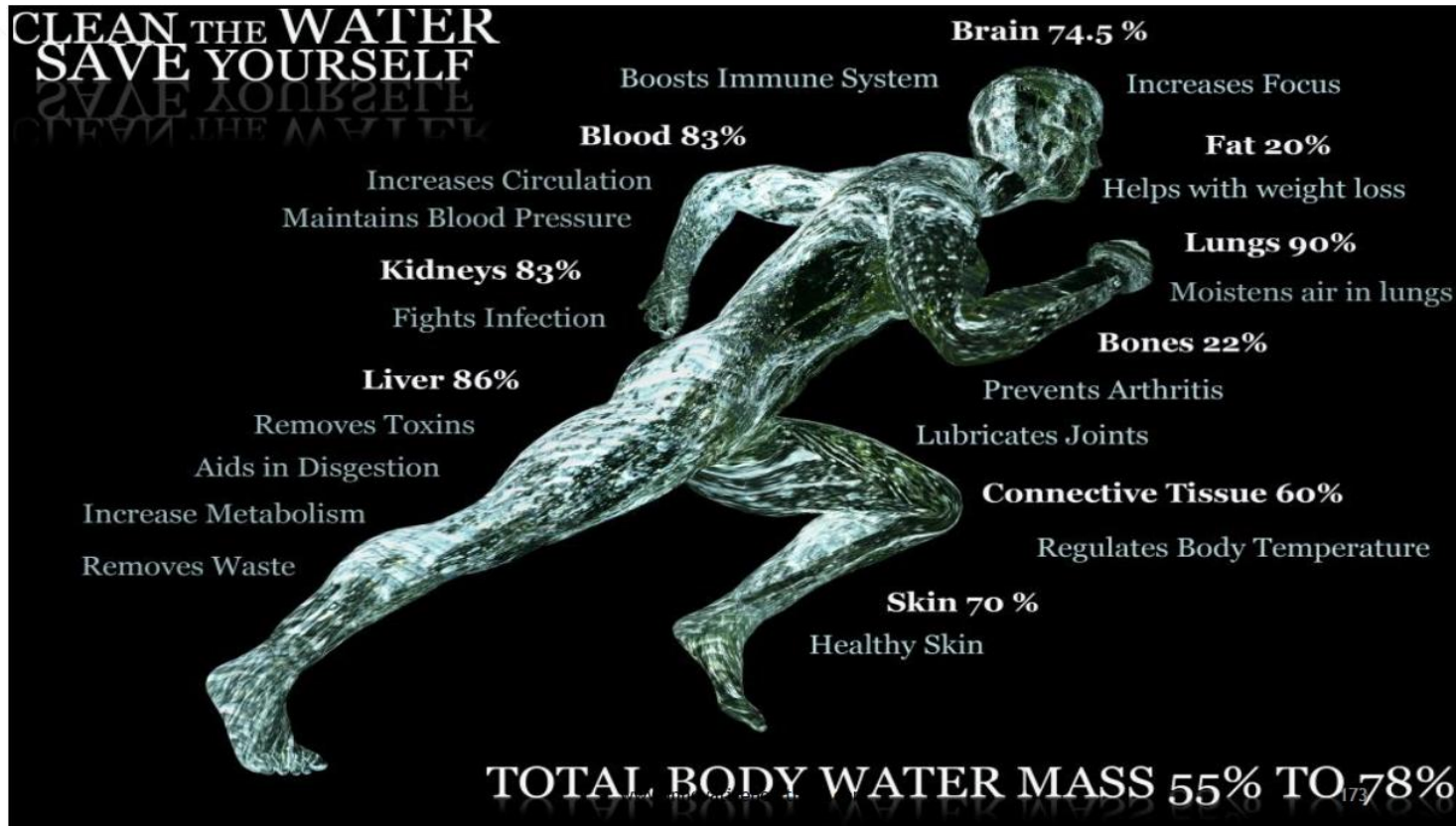


Embrace Immune System Boosters

- Proper hydration – drink plenty of water
- Maintain healthy, stable blood sugar levels
 - Eat regular meals of healthy fats, healthy protein and organic vegetables
 - Avoid blood sugar swings causing cortisol spikes, which stress your adrenals & hijack your immune system
- Eat a variety of foods, especially vegetables & fruit in a rainbow of colors for a healthy microbiome
- Eat enough protein
- Add healthy fats to your diet



#1 Drink plenty of water



- Proper hydration – drink plenty of water
 - 1oz per lb of body weight per day or more during sickness
 - Use filtered, reverse osmosis or natural spring water
 - Dehydration makes you prone for infections
 - lymphatic system is not communicating properly with different immune messengers throughout your body
 - Alcohol, coffee, tea can dehydrate you



#2 Eat a variety of vegetables & fruit in a rainbow of colors



- Rich in antioxidants improving immune function
- Veggies high in sulfur also support liver detoxification
- Diversify your microbiome (healthy balanced gut bacteria)
- **EAT ORGANIC**

- High sulfur vegetables: onion, garlic, leeks, asparagus, cruciferous vegetables like Brussels sprouts, radishes, broccoli, cauliflower, kale.
- Try new vegetables: Broccoli, cauliflower, sweet potatoes, Brussels sprouts, kale, mustard greens, Swiss chard, radishes, lettuces, spinach, carrots, celery, Belgian endives, green beans, peas, beets, okra, leeks, bok choy, cabbage (green, red), onion, garlic, zucchini, yellow squash, butternut squash, spaghetti squash, artichoke, mushrooms, asparagus, ...
- Eat low glycemic fruit: blue berries, blackberries, raspberries, cherries, oranges, lemons, melons, apples, pears, grapes, peaches, plums, strawberries,...



Antioxidants

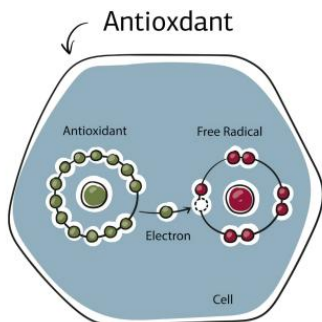


Free radicals

- Byproduct of our biochemical processes
- In foods such as transfats, PUFAs (vegetable/seed oils)
- Cause oxidative damage of our cells which:
 - Accelerate aging, damage or mutate cells, break down tissue, cause activation of harmful genes within DNA, and overload our immune system.

Antioxidants

- Reduce oxidative stress
- Bind with free radicals
- Reduce aging
- In many fruits, vegetables and herbs



Glutathione:

- Master antioxidant
- Body recycles glutathione
- In colostrum
- Whey protein and NAC as precursors
- Milk thistle (silymarin) increases glutathione production
- Important for optimal immune function

Which veggies are cruciferous?



High in sulfur for optimal Liver function & detoxification
High in antioxidants to support immune function



#3 Eat enough healthy protein



Deut 12:15-16 vs. Acts 10:9

- Eat .7 to 1g protein per lb of body weight per day is a good baseline
 - Grass-fed beef
 - Pastured chicken, turkey
 - Lamb
 - Wild caught fish
 - Pasture-raised eggs
- Animal protein is the best & complete source
- Organ meat is the most nutritious food.
- Important for building immune cells
- Help with immune response to viruses
- Regulates inflammation
- Important in liver detoxification and fat removal from the liver
- Precursor to amino acids (to make NT, hormones)



#4 Eat plenty of healthy fats



Add healthy fats to your diet

- Saturated fats: butter, cream, coconut oil, MCT oil, palm oil, raw nuts, avocado, lard, tallow
- Mono-unsaturated fats – olive oil
- Fish contains unsaturated fats
 - EPA/DHA, also vitamin D
 - wild salmon, tuna, sardines, mackerel, eel, cod

Immune system benefits

- Helps maintain healthy, stable blood sugar levels
- Reduces inflammation
- Very important for brain health



How to improve immunity?



90% of your immune system in gut

- Eat diverse foods to build a diverse microbiome with a variety of bacteria (more good than bad)
- Eat organic
- Avoid sweets & starchy foods
- Herbal Gut Antimicrobials
 - Garlic – allicin releasing preparations
 - French Tarragon
 - Wormwood
 - Berberine from Barberry
 - Pau D'Arco
 - Essential oils from herbs with thymol activity:
 - Oregano
 - Clove
 - Thyme

Oreganum Vulgare (European) is highly anti-microbial, anti-fungal & anti-parasitic





How to improve immunity? Embrace Antiviral Foods & Herbs



Foods

- Garlic
- Ginger
- Citrus & vitamin packed foods
- Yogurt/kefir
- Blueberries
- Apples
- Ginseng
- Tomatoes
- Wild salmon
- Dark chocolate (75% plus)
- Broccoli
- Olive oil
- Green tea
- Spinach
- Eggs
- Apple Cider Vinegar
- Lemon Juice

Herbs

- Elderberry
- Echinacea
- Calendula
- Garlic
- Astragalus
- Cat's Claw
- Ginger
- Licorice Root
- Goldenseal
- Green Tea
- Olive leaf
- Pau d'Arco
- Oregano Oil
- Prickly Ash Bark
- Oregon grape
- St. John's Wort

CoQ10 :

creates viral resistance by strengthening our cell walls – important during times of virulence



How to improve immunity?



Embrace Anti-Bacterial Foods & Herbs

Foods

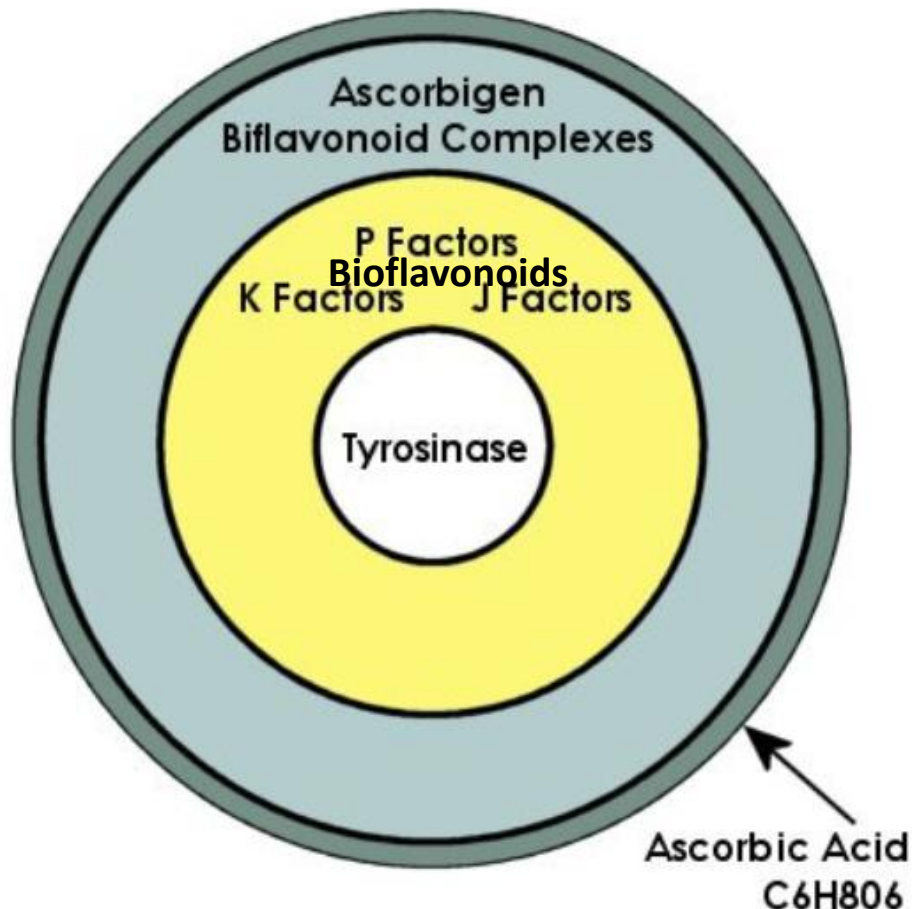
- Garlic
- Ginger
- Turmeric
- Lemon
- Onion
- Pineapple
- Horseradish
- Cabbage
- Papayas
- Rutabaga
- Grapefruit
- Chili pepper
- Broccoli
- Coconut
- Cranberries
- Cinnamon
- Fermented foods
- Carrots
- Oranges
- Pomegranate
- Honey

Herbs

- Garlic
- Ginger
- Echinacea
- Goldenseal
- Clove
- Oregano
- Cloves
- Thyme
- Sage
- Basil
- Rosemary
- Peppermint
- Spearmint
- Eucalyptus
- Elderberry
- Berberine
- Oregon grape
- Tea tree
- Neem



How to improve immunity? Whole Food Nutritional Support

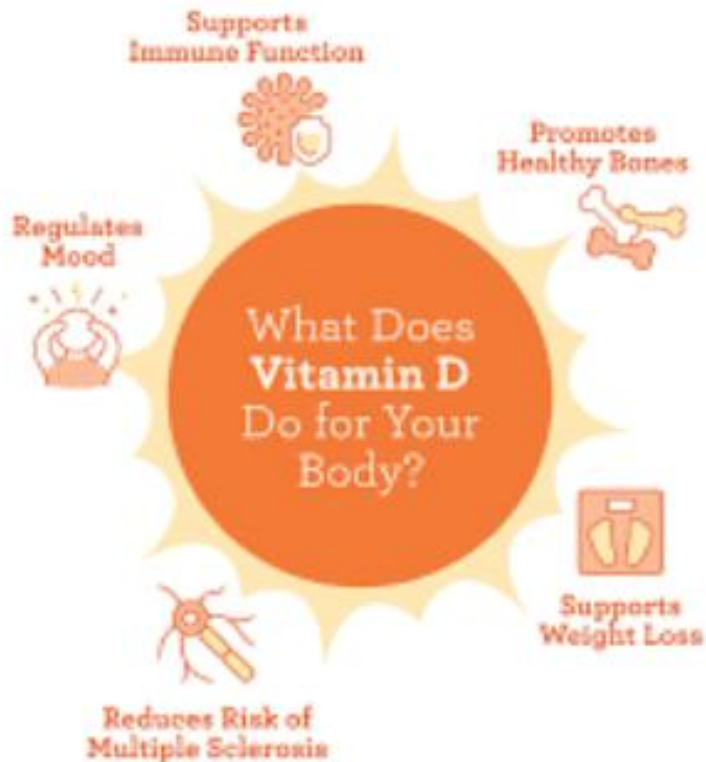


Vitamin C

- increases Natural Killer cell activity
- Vitamin C is NOT Ascorbic Acid
- Understand the difference between vitamins made in a lab and whole foods/whole food supplements.
- God created our foods with all necessary co-factors so our bodies can activate, metabolize & absorb its nutrients.
- Chemically produced vitamins from corn syrup or crude oil cause other deficiencies downstream as the body borrows from its own co-factors to absorb them.
- Sources of high vitamin C content:
 - Camu, citrus, kiwi, liver, peppers
- More info on whole food supplements:
<https://ivcjournal.com/whole-food-vitamins/>



How to improve immunity? Nutritional Support



- Vitamin D (5,000IU daily)
 - from the sun by God’s design...
 - In Cod liver oil
- NHANES 2003-2006 data shows that nearly 100% of all Americans two years and older are below the estimated average requirement
- Use synergistically with Vitamin K and Calcium
 - Vitamin D loads the blood with Calcium
 - Calcium tracks down pathogens
 - Vitamin K guides Calcium into the bone, and prevents Calcium from absorption into the organs, arteries, and heart



In case of infection



Echinacea purpurea & Echinacea angustifolia root



- Echinacea angustifolia and E. purpurea root in combination contain alkylamides that mimic anandamide and inhibit FAAH, reducing inflammation, pain
- Alkylamides mimic endocannabinoids (Anandamide)
 - Bind strongly to CB2 receptors from the immune system outside the CNS
 - Weak affinity for CB1 receptors, found in the CNS, modulating behavior
 - Interact with other receptors involved in nervous, endocrine & Immune system regulation
- Echinacea is very spicy and should tingle on your tongue



Andrographis paniculata



- Infections and infestations
- Shown to inhibit HIV in vitro
- Primarily a liver herb - choleric and hepatoprotective
- Protective action against Carbon tetrachloride induced hepatic toxicity, with a greater affect than Milk Thistle
- Used for dysentery and enteritis
- Dosage is key - 6 g whole herb daily for acute conditions

MH Andrographis Complex includes Andrographis , Echinacea Purp., Eleuthero



Astragalus Membranaceus



- A.k.a. Milk Vetch Root
- Raises vitality, stops debilitating sweating, promotes healing and tissue regeneration
- Potentiates IL-2, enhances NK
- Improves the responses of Lymphocytes and Monocytes
- Protects cells against endotoxins
- Demonstrates hepatoprotective effects following chemically induced liver injury
- Increases the production of SOD
- Increased IgA and IgG in nasal secretions
- Increased the proliferation of splenocytes
- Protected myocardial cells against Coxsackie B
- Demonstrated cardiostimulant effects, particularly in heart failure

MH Astragalus Complex includes Astragalus, Echinacea Aug, Holy Basil



Turmeric - *Curcuma longa*

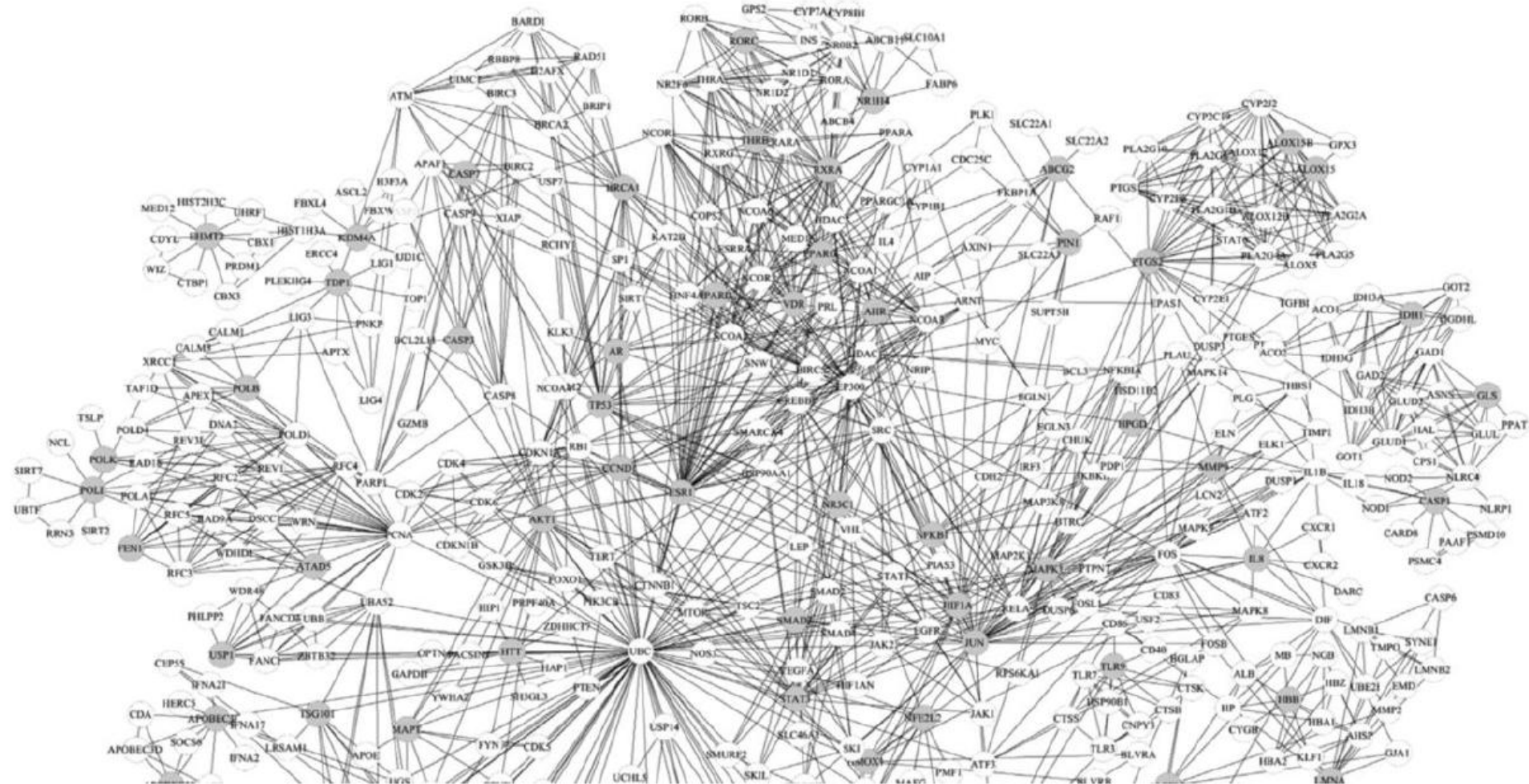


Use with fenugreek and black pepper to increase bioavailability

- Many applications:
 - Inflammation
 - Depression
 - Pre-diabetes
 - Cardiovascular issues
 - Chronic inflammation of aorta
 - Pain, swelling, ...
 - PPI replacement for heartburn
 - PMS
 - Blood purifier
 - Skin
- Enhancing curcumin bioavailability: CGM is a patented formulation of curcumin (40%) with fenugreek (60%)
- Increased distribution of free curcuminoids to heart, liver, kidney, spleen, **and in particular, to the brain, up to 245 time more**



Curcumin modulates many biochemical pathways in our body



GanY, Zheng S, BaakJP et al. *ActaPharm Sin B.*2015 Nov; **5(6): 590-595. PMID: 26713275**



What foods & botanicals should we grow for a healthy immune system?



Garlic	10	Broccoli	2	Andograpis	1	French Tarragon	1
Ginger	7	Cat's Claw	2	Apple Cider Vinegar	1	Grapefruit	1
Olive oil/leaf	6	Cayenne	2	Apples	1	Honey	1
Oregano	6	Chinese wormwood (sweet - artemesinin)	2	Basil	1	Horseradish	1
Turmeric	6	Cinnamon	2	Black cumin seed	1	Medicinal mushrooms	1
Clove	5	Citrus	2	Black walnut	1	Myrrh	1
Berberine	4	Fish (sardines, salmon, herring, mackerel)	2	Blueberries	1	Oranges	1
Coconut	4	Black walnut, green hulls	2	Bone broth	1	Peppermint	1
Echinacea	4	Green tea	2	Butcher's broom	1	Pomegranate	1
Goldenseal	4	Lemon	2	Cabbage	1	Prickly Ash Bark	1
Onion	4	Licorice	2	Carrots	1	Rosemary	1
Papaya	4	Neem	2	Chili pepper	1	Sage	1
Pau d'Arco	4	Oregon grape	2	Cranberries	1	Seaweed	1
Astragalus	3	Pineapple	2	Cucumber seeds	1	Spinach	1
Calendula	3	Pumkin seeds	2	Dark chocolate (75% plus)	1	Tomatoes	1
Elderberry	3	Rutabaga	2	Diatomaceous earth	1	Vitamin E	1
Fermented foods	3	Spearmint	2	Eggs	1	Walnuts	1
Thyme	3	St. John's Wort	2	Eucalyptus	1	Yogurt/kefir	1
		Sunflower seeds	2	Figs	1	Zinc	1
		Tea tree	2	Flaxseed	1		
		Wormwood (bitter)	2				



Resources



<http://www.jamiesonhealthcenter.com/archive.htm>

- Healthy Gluten-Free, low glycemic recipes:
 - <http://www.jamiesonhealthcenter.com/diet.htm>
- My Thanksgiving Paleo Recipes (use monk fruit instead of xylitol)
 - <http://www.jamiesonhealthcenter.com/Paleo-recipes-for-Thanksgiving.htm>
- Sugar, the bitter Truth
 - Newsletter: <http://www.jamiesonhealthcenter.com/Jamieson%20Health%20Center%20Newsletter%20June%202010.htm>
 - Video: Sugar , the Bitter Truth, Robert Lustig, UCSF <https://www.youtube.com/watch?v=dBnniua6-oM>
- The Truth about Wheat & Gluten:
 - <http://www.jamiesonhealthcenter.com/Jamieson%20Health%20Center%20Newsletter%20Feb%202011.htm>
- Gluten, the modern day Morphine
 - <http://www.jamiesonhealthcenter.com/Jamieson%20Health%20Center%20Newsletter%20-%20Gluten%20The%20Modern%20Day%20Morphine%20Nov%202013.htm>
- The Truth about Fats
 - <http://www.jamiesonhealthcenter.com/Jamieson%20Health%20Center%20Newsletter%20July%202010.htm>
- Transfats: Poison in our Foods
 - <http://www.jamiesonhealthcenter.com/Jamieson%20Health%20Center%20Newsletter%20August%202010.htm>
 - Mary Enig – The Oiling of America: <https://www.westonaprice.org/oiling-of-america-in-new-york/#gsc.tab=0>
- Inflammation, the silent killer
 - <http://www.jamiesonhealthcenter.com/Jamieson%20Health%20Center%20Newsletter%20-%20Inflammation%20The%20Silent%20Killer%20June%20%202012.htm>
- Is Leaky Gut causing your chronic issues
 - <http://www.jamiesonhealthcenter.com/Jamieson%20Health%20Center%20Newsletter%20April%202011.htm>
- Autoimmune Disease on the Rise
- <http://www.jamiesonhealthcenter.com/Jamieson%20Health%20Center%20Newsletter%20Nov%202010.htm>



In conclusion

- “The Spirit of the LORD *is* upon Me, Because He has anointed Me To preach the gospel to *the* poor; He has sent Me to heal the **brokenhearted**, To proclaim liberty to *the* captives And recovery of sight to *the* blind, To set at liberty those who are oppressed” - Jesus Christ, Luke 4:18
- “Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”, WHO 1948
- “Let Food be Thy Medicine and Medicine be thy Food”, Hippocrates
- “We are what we repeatedly do; excellence, then, is not an act, but a habit “ – Aristotle



Questions?