

## STEPS TO CLEAR MYCOTOXINS

Dr. Lara Sayer, MD

<b>FIRST</b>		Remove source of mold (EMMA home testing) Borax (not bleach) helps disinfect areas Eliminate pesticides, herbicides (eat organic as much as possible) Avoid phthalates, BPA, parabens in beauty products Avoid excessive EMF (electronics, Wi-Fi) Limit inflammatory foods (dairy, gluten)
<b>SECOND</b>		Heal leaky gut (Vitamin D, enzyme support, probiotics) Reinforce immune support (IgG immunoglobulin) Encourage elimination (soft stool daily) with soluble/insoluble fiber Hydration (pale urine is best) Reinforce healthy microbiome (berberine, thyme, oil of oregano)
<b>THIRD</b>		Support phase 1 and 2 of detoxification (milk thistle, NAC) Anti-oxidants to alleviate oxidative stress (glutathione) Sauna and Epsom salt baths to encourage sweating Biofilm disruptors (N-Acetyl Cysteine, nattokinase, lauricidin)
<b>FORTH</b>		Binders to capture the toxins and eliminate (charoella, zeolite, activated charcoal, cholestyramine, etc) Continued immune support Continued anti-oxidant use Possible use of LDN (Low Dose Naltrexone)
<b>FIFTH</b>		Balance neural system with vagal nerve enhancement Meditation to downregulate sympathetic overdrive Fish oil (EPA/DHA) and phosphatidyl serine for membranes Deep breathing for increased calm messages to GI system RetrainingTheBrain.com (DNRS) or WakingUp.com
<b>SIXTH</b>		Watch for hidden sources of mold: Peanuts, moldy cheeses, brewer's yeast, beer, alcohol, com, smoked meat, wheat, barley, rye, coffee. (The only non-moldy coffee is Bulletproof or Kickapoo brands) If exposed, take extra dose of L-glutathione and tumeric

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## Functional Medicine

Learn how Functional Medicine is essential for everyone

9% teens are pre-diabetic in 2000  
23% teens are prediabetic in 2008

80% of Americans who take one medication daily

Predicted percentage of US population in 2030 with Chronic Disease: 50%

Shortage of 90,000 doctors by 2025

FUNCTIONAL MEDICINE goes upstream to impact health

REMOVE triggers  
REPLACE deficiencies  
REINNOCULATE healthy microflora  
REPAIR gut lining  
REBALANCE sleep, diet, exercise

INFLAMMATION is your body's response to these triggers

Alzheimer's and Parkinson's (Protein)  
Cancer (Chemotherapy)  
Diabetes and PCOS (Glucose)  
Mood disorders (Protein)  
Atherosclerosis (Lipids)

STOP taking "a pill for an ill"

Common Disease Results: Recurrent infections, eczema, allergies, ADD/ADHD, anxiety, depression, thyroid dysfunction, infertility, chronic fatigue, inflammatory bowel disease, celiac, cancer, atherosclerosis, rheumatoid arthritis, Alzheimer's, MS

Factors: Stress & cortisol, Sugar, Trauma, Inherited genetics, Food allergies, Bacteria & viruses, Toxicity in environment

## How your body learns

(AKA the Inflammation Cascade and your Immune System)

**START** → Leaky Gut → **AWARENESS** → **ACTIVATION** → **HEALING** → **LEARN and PREPARE** → back to START

**AWARENESS:** Neutrophils, Monocytes, Macrophages, Antibodies

**ACTIVATION:** Fibroblasts, Prostaglandins, Leukotrienes

**HEALING:** Fibronectin, EGF, TGFβ, bFGF, PDGF

**80% of your immune cells live in your GI tract**

**Common Disease Results:** Recurrent infections, eczema, allergies, ADD/ADHD, anxiety, depression, thyroid dysfunction, infertility, chronic fatigue, inflammatory bowel disease, celiac, cancer, atherosclerosis, rheumatoid arthritis, Alzheimer's, MS

**LEARN and PREPARE:** Improve cell functions, Adapt immune memory, Efficient (sometimes overactive) future responses

**HEALING:** Growth factor release, Make new proteins, Replace damaged cells

**ACTIVATION:** Plug damaged areas, Close wounds, Attract healing cells

## WHAT IS THE VALUE OF YOUR HEALTH?

**\$24** - Average copay  
**\$37** - Specialty copay  
**\$308** - Out of pocket cost of hospital stay  
**\$393** - Individual premium  
**\$4328** - Deductible (indiv.)  
**\$8352** - Deductible (family)

**\$5.2** - BILLION spent on advertisements for prescription meds (Becker's Hospital Review 2016)

**13 MINUTES** - Average length of family doctor visit (Medscape Physician Compensation 2016)

**52 MINUTES** - Average length of follow up visit for Functional Medicine (Institute of Functional Medicine 2016 report of Physician Practices and Emerging Trends)

**1.0** - ROOT CAUSE MEDICINE: Ideal to optimize health and prevent disease

**REAL VALUE:** Sustainable, Makes life easier, Eye opening, Educational, Group workshops, eLearning & coaching, Impacts community, Innovative & relevant

**"Value" does NOT equate to:** Super-sizing, Cheap price, Cutting corners, Quick time

## The ADHD Brain

**Antecedents:** Genetic inheritance (DRD4, DRD2, NET1, ADRA2B), Maternal Smoking, Low Birth weight, Premature labor, Maternal prescription use (SSRIs, anti-psychotics, anti-asthmatic medications)

**DA = Dopamine:** Important neurotransmitter in brain  
**Rx = Stimulant medications:** Block the breakdown of dopamine

**Oxidative Stress:** Cell damage, Signal changes, inhibits protein function, Inflammation, Leaky Gut

**Free Radicals:** UV radiation, Smoking (secondhand), Pflutans, Immune system-challenges

**EPA and DHA:** Help liver remove connections, Make cell membranes fluid, Anti-inflammatory

**Polyphenols:** Vegetables, fruits, Green Tea, etc.

**Anti-Oxidants:** Vit C, Vit E, CoQ 10, Glutathione, Amino Acids

**Balance your ADHD Brain:**

- Head "leaky gut" so absorption is healthy
- Increase inflammatory foods
- Increase plant foods
- Eat good fats (EPA, DHA)
- Help your body eliminate (via constipation)
- Limit and treat toxic metal exposure
- Practice coping skills (therapy, anger spinnors, etc)
- Correct circadian sleep patterns

**EXPLANATION:**

- Dopamine is the main signal to help with focus
- Those with ADHD have similar predisposing factors (Antecedents)
- ADHD brains are sensitive to oxidative stress and free radicals
- This stress damages the brain's ability to stay healthy
- Stimulant medications (amphetamines) block your body from recycling the used dopamine so you have more dopamine hanging around to help focus
- Even if the diet is rich with vitamins, an untreated leaky gut would prevent proper absorption
- Dopamine is made from Tyrosine, but it needs Mg and Zn
- ADHD brains often lack Mg and Zn, so they don't make enough dopamine
- ADHD brains also require dopamine too quickly because they have excess copper, then, you don't have enough dopamine to keep your focus
- Supplementing with EPA, DHA (fish oil) and a plant-rich diet with polyphenols can help your brain use dopamine better
- Anti-oxidants "vacuum up" the free radicals to protect against oxidative stress

## GROWTH ZONE

**LEARNING ZONE:** Reassess core values and align, Anticipate change, Find a hidden purpose in your day, week, month, or year, Give grace to yourself and others, Cultivate daily peace & gratitude, Offer yourself in service to others, Fuel your body with energy-rich fruits & veggies, Recognize the benefits to the world

**FEAR ZONE:** Hoarding supplies, Blaming politicians, Sharing only scary headlines on social media, Binge eating & excess alcohol, Shaming others, Constantly watching news without breaks, Schedule your worry time, Practice creativity, Marie Kondo your space

**How will you handle the COVID-19 pandemic?**

Keep a curious, open mind  
Practice sitting with uncomfortable feelings  
Build a self-soothing tool kit  
Accept the ebb & flow of productivity  
Explore a new topic that interests you

**COLOR OUTSIDE THE LINES**  
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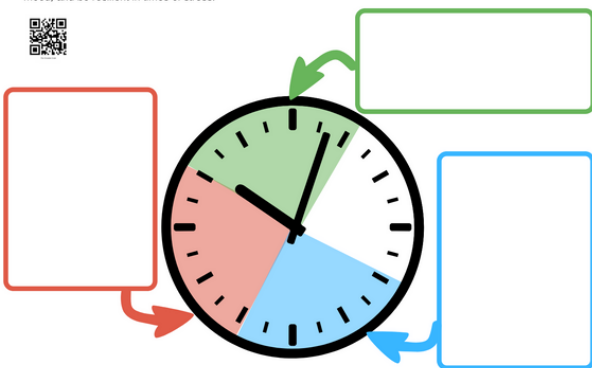
### STRESS AND CORTISOL

- INITIAL STRESS**
  - Ashwagandha (2 - 4 g per day)
  - L-theanine (200 mg as needed up to 1200 mg maximum)
  - 5-Hydroxytryptophan (5-HTP) 100-200 mg 1 hour before bedtime
  - Passion Flower (1 gram three times daily)
  - Valerian root (100-200 mg twice daily)
  - Kava kava (300 mg twice daily)
  - Schisandra (100 mg twice daily)
- HIGH CORTISOL**
  - Ashwagandha (2 - 4 g per day)
  - Rhodiola (200-600 mg per day)
  - Cordyceps (1 gram per day)
  - Siberian ginseng (500 mg twice daily)
  - St. John's wort (300 mg three times daily)
  - Phosphatidyl serine (500-800 mg 1 hour before bedtime)
- LOW CORTISOL**
  - Ashwagandha (2 - 4 g per day)
  - Licorice (100-200 mg twice daily)
  - Cordyceps (1 gram twice daily)
  - Asian ginseng (200-400 mg daily)
  - Rehmannia (400-800 mg daily)
  - Possible DHEA (if deficient)
  - Aggressive circadian rhythm coaching and support

This is intended for **EDUCATIONAL PURPOSES ONLY**. It's strongly recommended that you have accurate diagnosis with testing and that you work with your physician. Like many pharmaceutical grade drugs, side effects can occur with botanical agents. These interactions can cause herb-drug and herb-food or nutrient interactions from mild to life-threatening. **ALWAYS CONSULT A FUNCTIONAL MEDICINE PROVIDER.**

### Connecting to your body's intelligence

We are inherently connected to the world by biological rhythms. The master conductor in our brain (the suprachiasmatic nucleus, SCN) orchestrates all the little clocks in every tissue and organ. Each with their own timing. By entraining ourselves to reset our circadian clock, we can maximize our body's potential to lose weight, balance mood, and be resilient in times of stress!



#### EARLY MORNING

- Most efficient at burning fat
- Best time to exercise (increases beta oxidation of toxins)
- Cortisol sensitivity is lowest
- Best time to take preventative aspirin

#### LATE MORNING

- First meal 4 hours after waking
- Consume your high fatty acids
- Best time to eat fiber for microbiome
- High melatonin production

#### EARLY EVENING

- Best time to take probiotic
- Best time to take hypertension medication
- Last meal eaten 2 hours before bedtime to initiate "fasting" state of gene repair
- Power down electronics and use task lighting
- Calories you eat in late evening have **DOUBLE** the metabolic impact compared to same meal eaten in morning.

#### SLEEP

- 7 hours ideal, in cool room
- Cells repair from oxidative stress
- High melatonin secretion
- Production of specific hormones (brain BDNF, Growth Hormone)
- Fasting at least 12 hours turns on ATP kinase (makes more energy ATP)
- Genes and enzymes turn on when fasting that help cellular homeostasis, insulin sensitivity and liver efficiency
- Don't turn on lights when you wake to use the bathroom!

### Insomnia Help

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**remove** Excessive foods (sugar, glutamate, processed carbs), alcohol (produces acetaldehyde that wakes you later), Electronic devices 1 hour before bed (blue light), Daytime napping (depletes circadian rhythm), Diets (highly restrictive), Caffeine (7-8 hours half-life), WiFi at bedtime, Bed at bed.

**replace** Wine with warm tea (green tea, valerian, chamomile), Herbal medicine (valerian, hops, lemon balm), Oils (lavender or tea tree), Essential oils (lavender), Peppermint (soothing), Dry, fluffy bedding (avoiding wool) with silk liner, Vitamin D (2000 IU daily), Magnesium (200-400 mg daily), Vitamin B (50 mg daily).

**80% of people have trouble sleeping at least once a week**

**repair** Influence by breathing (not cause), Dysfunction glucose (sugar) levels, Mitochondria (low functional mitochondria), Elimination by sweating or again with baths, Highly reactive by using melatonin: open eye, External stimulation with anthropomorphic lighting, Rest, stretch muscles with self-massage or rolling, Get out of bed with 5-HTP (staying before bed), Get out of bed with 5-HTP (staying before bed), Get out of bed with 5-HTP (staying before bed), Get out of bed with 5-HTP (staying before bed).

**rebalance** Daily with regular daily movement, These brain waves to regular meditation, 20 mins of awareness or full awareness, General anxiety with GABA (50mg) as bedtime, Circadian rhythm with 5-HTP (staying before bed), Circadian rhythm with 5-HTP (staying before bed), Parasympathetic nervous system with breath work.

### "What happened?"

This is a checklist of triggers that can have significant impact on your overall wellbeing. Whenever you feel your health has gone "off track" and you're wondering what happened, see if any of these are responsible!

1.0

### Greetings from Hormone World!

Dr. Lara Sawyer

**Cholesterol** → Pregnenolone → Progesterone → 17-OH-Progesterone → Cortisol (Inactive) / Testosterone → Estrone → Estradiol → Estrin

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**Progesterone** balances effects of estrogen by regulating fluid balance, moodiness and PMS symptoms. It decreases risk of cysts and cancer of the uterus, ovaries and breast. Anti-anxiety and calming effect. **DEFICIENCY** is marked by bloating, mood swings, irritability, heavy bleeding, insomnia, anxiety, breast swelling and low sex drive. **EXCESS** is marked by hot flashes, increased glucose tolerance, increased cortisol, decreased blood pressure.

**Cortisol** is the main "stress hormone" responsible for sympathetic nervous system activation. It causes increased blood pressure, increased mental focus, muscle contraction, and inhibits the parasympathetic system (rest and digest). **LOW CORTISOL** is viewed by many as a good thing, but low blood pressure, and intolerance to cold, dizziness, and fatigue. **HIGH CORTISOL** is marked by insomnia, irritability, excitability, weight gain, insulin resistance.

**Estrone** is the weakest hormone" responsible for sympathetic nervous system activation. It does not serve much function, nor does it accumulate much in tissues. **DEFICIENCY** is marked by bloating, mood swings, irritability, heavy bleeding, insomnia, anxiety, breast swelling and low sex drive. **EXCESS** is marked by hot flashes, increased glucose tolerance, increased cortisol, decreased blood pressure.

**Estradiol** is the most familiar estrogen (Premarin is an example of synthetic estradiol). It supports uterine lining, vaginal health, bone strength, and neurological health/cognition. **DEFICIENCY** is marked by hot flashes, increased glucose tolerance, increased cortisol, decreased blood pressure.

**Estrin** is the weakest estrogen. It does help support genital atrophy and skin elasticity. **DEFICIENCY** is marked by hot flashes, increased glucose tolerance, increased cortisol, decreased blood pressure.

### YOUR SEASONAL AFFECTIVE DISORDER

#### ACTION PLAN

**EMBRACE NATURE.** Bring greenery inside with potted plants or lush artwork. Studies show those who have more foliage in their homes have lower blood pressure.

**WATER FLOW** improves cell signaling for neurotransmission and helps eliminate toxins.
 

- Drink 8-10 glasses per day
- Soak in a sauna weekly

**EVERYONE NEEDS LIGHT** because it stimulates serotonin and regulates rhythm.
 

- I will get my light exposure by walking outside daily
- Using full spectrum UV lamp

**LOWER your intake of inflammatory foods** (sugar, gluten, sugar)
 

- I will watch out for these foods:

**MOVE YOUR BODY** to help detoxify and nourish your cells.
 

- Get a massage
- Go for a walk
- 5 minute body stretch
- Yoga

**HAVE THE RIGHT GEAR** and you can enjoy winter's beauty!
 

- I will need to buy:

**ALCOHOL & SAD** Dysfunction is made after each sip, and its depressive effects last for 3-5 days in the brain. Avoiding altogether is best.
 

- I will:

**GRAVITY JOURNALING** has been shown to decrease cortisol 27%.
 

- I will journal (write one) before bed / at breakfast

**RETAIN YOUR BRAIN** to learn new ways of thinking and behavior. It takes practice, but it's worth it!
 

- I will try:

**SUGGESTED SUPPLEMENTS**

- Magnesium (200 mg)
- Vitamin D (50,000 IU)
- Probiotic (50-100 billion)
- DHEA/FAA tab (2 grams)
- Vitamin B Complex
- 5-HTP (100-200 mg at bedtime)

### The Cell DANGER Response

The cell danger response is a natural process by which our mitochondria protect and defend themselves and our bodies from threats such as infections, toxins, physical and psychological stress, and other environmental stressors. It's the way we heal after an injury.

1. Our cells respond to multiple triggers. They all "ring the same bell," but instead of completing the cycle of healing to return to normal, the alarm can get "stuck" on and will impact cellular functioning. Our cells alert their previous resources to try and heal from an internal "fire" that is no longer a threat.
 

- CGD (Right (beta))
- CGD (Left (gamma))
- CGD (Freeze (alpha))

2. Stress is caused by a prolonged biological REACTION to the injury, but not necessarily the specific initial agent of insult. This results in enhancing the cell's resources to generate function, leading to:
 

- Damaged membranes
- Damaged proteins
- Altered enzymes
- Epigenetic changes
- Tissue damage
- Hormonal shifts

3. Eventually, these deep cellular signs of inflammation will cluster to form patterns of recognizable symptoms and diagnoses such as:
 

- Chronic Fatigue
- Autoimmune disease
- Fibromyalgia
- Cortisol/hormonal imbalance
- Glutathione imbalance (Type 2 DM, metabolic syndrome)
- SIBIT (collagenase problems)
- and many more

## Even **NORMAL** levels of glucose can affect your body!

Don't fall into the trap, thinking sugar (glucose) isn't a problem until you have the official diagnosis of Diabetes! See how even normal levels of glucose quickly becomes the **main driver for all inflammation and disease**:

### SKIN

- Sugar is incorporated into the proteins
- This increases glycation products
- Collagen is thinned and wrinkles increase with premature aging

### BRAIN

- Sugar causes dopamine high and crash
- Disrupts ability to clearly focus
- Reverses brain circuitry (fluctuating moods)
- Increases dementia by inhibiting proper "clean up" enzymes in the brain
- Sleep circadian rhythm is impaired

### HEART

- Sugar inflames lining of arteries
- Existing plaques get "sticky"
- Increases resting pulse and BP

### KIDNEYS and ADRENALS

- Sugar damages the delicate filtration system
- Causes fluid retention and swelling
- Increased adrenal cortisol production causes more symptoms of stress

### GENITALS

- Sugar impairs blood flow to organs
- Directly affects ability for erection or pelvic arousal
- Encourages growth of STIs

### GI TRACT

- Sugar increases "leaky" membranes
- Causes improper absorption of food
- Poisons the important bacterial microbiome
- Worsens general inflammation

### JOINTS and NERVES

- Glucose pumps inflammatory cytokines into your blood stream
- This inflames the joint lining, causing increased pain
- Electrical transmission across nerve endings is decreased
- Numbness and pain develop

### IMMUNE SYSTEM

- Sugar increases the underlying inflammation in autoimmune disease
- Symptoms will occur in existing disease
- Glucose encourages growth of cancer cells, viruses, yeast, and other pathogens
- Sugar causes your DNA (genes) to make more mistakes when replicating

**Rx to stabilize glucose levels:**

- Choose foods low in glycemic (sugar) value
- Fill your plate with fiber, greens
- Balance your stress and cortisol levels
- Feed your gut and maintain microbiome environment
- Avoid artificial sweeteners (they cause similar stimulation of insulin)
- Work with a Functional Medicine doctor!

## Meet Your Mitochondria

**OXYGEN**  
**FATS**  
**CARBS**  
**PROTEINS**

**ENERGY! (ATP)**

### INFLAMMATION AND OXIDATIVE STRESS: TURNS ON TNF alpha & NF-kB

Gut bacteria (microbiome)  
Increasing age  
Lipid peroxidases  
Damaged DNA (8 OH-Deoxyguanosine)  
Free Radicals  
UV light  
Elevated HbA1c  
Organophosphates  
Heavy Metal toxicity  
Cooking methods (burned food)

**ANTI-OXIDANTS, ANTI-INFLAMMATORY: TURNS ON NRF-2**

Gut bacteria (microbiome)  
riboflavin  
niacin  
L-carnitine  
CoQ 10  
Alpha Lipoic Acid  
Vitamin C, K, and E  
Phosphatidyl Choline  
Glutathione  
Iron, Magnesium  
Acetyl CoA  
Flavonoids, Garlic  
Broccoli, Green Tea  
Curcumin, Cinnamon  
Trans-Resveratrol  
Ginkgo Biloba

**ATP**

## Alcohol: the Ultimate Body Bully

Your liver is a conveyor belt "factory" that processes things for elimination. Alcohol "cuts in line" and forces your liver to process this first, causing other things to remain in your body longer, creating damage!

As a result, you'll have more oxidative stress than your non-drinking friends. The cellular "rust" will age you more quickly, achy joints, brain fog, hardened arteries, and skin sagginess/wrinkles.

**1** Dopamine gives you the instant warm, fuzzy "feel good" emotion. It doesn't last long in your body, so you crave another sip soon.

**2** After the first sip, your brain produces dopamine and dynorphin.

**3** Dynorphin affects your body much longer. It blocks the receptors in your brain that make you feel excited, so you'll feel anxious and depressed instead. With frequent drinking (even small amounts), you're still recovering from the last dynorphin production. Soon, you'll find that nothing seems "fun" any more without that brief dopamine hit.

**4 Rethink your drink**

You can help diminish the damage that alcohol does to your body by drinking plenty of water, eating a meal with fats and proteins (carbohydrates and alcohol together will spike your insulin levels, causing more inflammation) and choosing a beverage that has some beneficial qualities:

Worst			Best		
Liqueurs	Sweet wines	Rum	Champagne	White wine	Red wine
Sweet mixed drinks	Cognac	Gin	Beer		
	Whisky	Vodka			

## Understanding Fatty Acids

**OMEGA 3**  
ALA (Rate Limiting (alcohol and age blocks))  
EPA  
DHA

**OMEGA 6**  
LA  
GLA  
AA

Less Inflammatory Eicosanoids  
More Inflammatory Eicosanoids

**OMEGA 6 : OMEGA 3 RATIO**  
Current population average is 16:1 (ideal is as close to 1:1)

- 3:1 suppressed inflammation in Rheumatoid Arthritis
- 2.5:1 reduced rectal cell proliferation in those with rectal cancer
- 5:1 had beneficial effects on asthma (10:1 did not)
- 4:1 associated with 70% decrease in mortality with CVD

## Beauty is BEYOND skin deep

### SKIN BASICS

As we age, we lose elasticity of our supportive collagen underneath the surface. Sun damage, smoking and inflammation accelerates this process. Topical anti-aging creams are minimally effective. Keeping your skin plump from the "inside out" will help create a smoother appearance and faster wrinkles. Aim for drinking 8 glasses of water per day (urine is pale yellow), eat a diet rich in vegetables and fruits, wear protective SPF, and limit your intake of sugar and alcohol to keep your skin glowing.

### COLLAGEN

You can support the dense network of collagen underneath your skin by making sure your supplement contains at least 500 mg of Type 1 collagen with mucopolysaccharides (this is the "glue" to hold the matrix together). Also look for bioactive collagen peptides (at least 5 grams daily) to help promote synthesis of Type I collagen at a LOW molecular weight for complete absorption and transport.

### L-GLUTATHIONE

In the normal process of aging, our levels of glutathione drop. Glutathione is the "master anti-oxidant" and helps take care of the toxic reactive oxygen species we create daily. (It basically cleans the internal "rust" of our cells.) When we supplement with glutathione, we help our skin remain brighter by preventing melanin generation (melanin is the pigment in your skin). Taking 250 mg orally for 4 weeks resulted in a statistically significant improvement in skin texture, brightness, and appearance of wrinkles.

*Clinical, Cosmetic and Investigational Dermatology Volume 2017 30 147-152*

**Try the 30 day Challenge!**

- Take baseline photo without makeup
- Drink extra water daily
- Every morning: take 250 mg L-Glutathione and one scoop of Collagen
- Repeat photo in 30 days in same location, lighting and without makeup

## The PTSD of HORMONES

**P**roduction  
**T**ransport  
**S**ensitivity  
**D**estruction

**Hormones are produced**  
**Hormones travel on a carrier**  
**Cells are sensitive to hormone**  
**Hormones are destroyed**

**PRODUCTION**

- Xenestrogens (soyins)
- Genetic (SNP)
- Prescription medications
- Sleep (circadian rhythm)
- Food type
- Inflammation status
- Stress
- Stress (cortisol)
- Microbiome (gut bacteria)
- Obesity (increased aromatase)
- Age
- Thyroid abnormalities

**TRANSPORT**

- SHBG (Sex Hormone Binding Globulin)
- THBG (Thyroid Hormone Binding Globulin)
- Albumin (protein)
- Hormonal contraceptive pills
- Other endocrine problems
- Diet (vegetarian increases SHBG)
- Hydration status

**SENSITIVITY**

- Hyperglycemia (insulin resistance)
- Chronic inflammation (stress, sugar, caffeine)
- Exercise
- Xenestrogens (soyins that act like estrogens)
- Prescription medications
- Vitamin status (CoQ10, Magnesium, Vit D, Vit A)
- Cellular membrane fluidity (fatty acids EPA/DHA)
- Mononutrient deficiency
- Diet (soluble fiber)
- Alcohol use
- Age
- Gut bacterial or yeast overgrowth

**DESTROY**

Each of these steps can influence the effect of hormones in your body. Working with a functional medicine provider can help uncover blind spots that aren't typically evaluated with conventional testing.

# For Best Surgical Outcome

## CAUTION

Be careful to avoid nutraceuticals that interfere with blood clotting 1 week before your surgical date:

- Bromelain
- Ginger
- Garlic
- EPADNA
- Tumeric
- Quercetin
- Green Tea

## RECOMMENDED

**Probiotics:** 50-100 cfu daily to help the integrity of the gut lining, offset effects of antibiotics, and lower inflammation

**N-Acetyl Cysteine:** 500 mg twice daily to help raise anti-oxidant glutathione levels (helps clear toxins from anesthesia)

**Vitamin D:** 5000 IU daily to upregulate genetic expression of immune boosting cytokines

**Collagen:** bioactive peptides that increase regeneration of type II collagen and connective tissue

**Multi-Vitamin:** to replenish zinc, vit C and methylated B, and magnesium that you'll deplete in the healing process



## EVERY DAY

**Drink water**

- Warm water with lemon is absorbed easiest
- Drink often to keep urine a pale yellow color

**Help your body eliminate stool**

- Walk every few hours (if allowed by surgeon)
- Soluble and insoluble fiber (20 grams each)
- Gentle stretching and heat to low back

**Make healthy food choices**

- 80% greens at every meal
- Avoid sugar and processed carbs
- No alcohol, minimal to no caffeine

**Practice good sleep hygiene**

- Keep routine sleep/wake cycles
- Turn off electronics 1 hour before bedtime
- Warm shower with cool bedroom
- White noise machine
- Meditation and deep breathing
- Consider melatonin (up to 3 mg each)
- Avoid stress triggers (news, too many vitamins)

REMEMBER to discuss any supplements with your surgeon BEFORE initiating these recommendations!!!

# What's your grade?

<b>A</b>	<ul style="list-style-type: none"> <li>MSQ score under 20</li> <li>Doesn't drink or smoke at all.</li> <li>Very active, rarely misses a day</li> <li>Regular breaks for solitude, mindfulness</li> </ul>	<ul style="list-style-type: none"> <li>Sleeps well, wakes up rested</li> <li>Has tremendous relationships</li> <li>Makes time for hobbies</li> <li>Mostly eats plant-based foods</li> </ul>
<b>B</b>	<ul style="list-style-type: none"> <li>MSQ score from 25-50</li> <li>Only drinks or smokes every few weeks</li> <li>Regular exercise, almost daily</li> <li>Occasional time for mindfulness</li> </ul>	<ul style="list-style-type: none"> <li>Sleeps fairly well, sometimes tired</li> <li>Relationships are satisfying</li> <li>Occasional time for hobbies</li> <li>Mostly eats vegetables, chicken, fish</li> </ul>
<b>C</b>	<ul style="list-style-type: none"> <li>MSQ score between 51-79</li> <li>Infrequent smoking/drinking (1 out of 7 days)</li> <li>Enjoys exercising/moving (twice a week)</li> <li>Rarely takes time for mindfulness</li> </ul>	<ul style="list-style-type: none"> <li>Sleeps poorly, wakes frequently</li> <li>Relationships are missing, chaotic</li> <li>Doesn't remember hobbies</li> <li>Eats red meat, dairy, sugar</li> </ul>
<b>D</b>	<ul style="list-style-type: none"> <li>MSQ score between 80-119</li> <li>Occasional smoking/drinking (3 out of 7 days)</li> <li>Participates in rare exercise (once a week)</li> <li>Does not have any time alone, feels stressed</li> </ul>	<ul style="list-style-type: none"> <li>Sleeps fitfully, never enough</li> <li>Doesn't feel connected to others</li> <li>Has no hobbies</li> <li>Mostly eats processed foods</li> </ul>
<b>F</b>	<ul style="list-style-type: none"> <li>MSQ score over 120</li> <li>Smoking/drinking regularly (5 out of 7 days)</li> <li>Does not participate in exercise at all</li> <li>Does not have any time alone, feels stressed</li> </ul>	<ul style="list-style-type: none"> <li>Chaotic sleep patterns. Uses aids</li> <li>Isolated, no tribe or family</li> <li>No interests or hobbies to explore</li> <li>Eats daily sugar, dairy, processed foods, fats, soda. Rare vegetables</li> </ul>

Your grade will fluctuate throughout your life, it's just a moment in time.

# Inflammatory Risk Score

<b>1 point</b> for each	<ul style="list-style-type: none"> <li>Eats red meat 3 times/week</li> <li>Less than 3 servings of veggies per day</li> <li>Restless, fitful sleep (indicates poor sleep quality)</li> <li>No regular quiet time (journaling, prayer, meditation)</li> <li>Keeps electronic devices in bedroom while sleeping (exposure to EMF)</li> <li>Drinks over 7 servings of alcohol per week (alcohol is sugar)</li> <li>Bowel habits are unpredictable, irregular (indicates poor elimination)</li> <li>Has diagnosis of depression or anxiety</li> <li>Regular air travel across time zones</li> </ul>	Total: <input type="text"/>
<b>2 points</b> for each	<ul style="list-style-type: none"> <li>Sedentary job without routine exercise (independent risk factor for cancer)</li> <li>Current smoker (nicotine, marijuana) which affects gut health and inflammation</li> <li>Avoids most vegetables. (greens have anti-inflammatory effects)</li> <li>Overweight (indicates high imbalance of hormones)</li> <li>Regular sugar intake (soda, candy, sweets) that triggers dopamine in brain</li> <li>High blood pressure (indicating "high idle" hormones like renin)</li> <li>Relationship stress (increases cortisol and glucose levels)</li> <li>Eats fast food more than once-per-week (processed foods elevate inflammation)</li> <li>Regular exposure to chemical fumes (carpet cleaners, nail polish, gasoline)</li> <li>History of tick borne illness</li> </ul>	Total: <input type="text"/>
<b>3 points</b> for each	<ul style="list-style-type: none"> <li>Elevated CRP or ESR on blood work (proof of existing inflammation)</li> <li>High cholesterol (indicates high risk for "sludging" of your arteries)</li> <li>Heart attack (obvious need to decrease inflammation in your body)</li> <li>Type 2 Diabetes or "borderline diabetes" (evidence of inability to pull sugar into your cells appropriately)</li> <li>Elevated white blood cells on lab work (indicates inflammation)</li> <li>Autoimmune disease diagnosis (your body is already mounting response)</li> <li>Personal history of cancer (high risk of other inflammatory diseases)</li> <li>Increased waist-to-hip ratio (indicates central adipose tissue and cortisol)</li> </ul>	Total: <input type="text"/>



GRAND TOTAL:

# User Manual for your Brain

- ↑ = these things INCREASE levels
- ↓ = these things DECREASE levels

## DOPAMINE

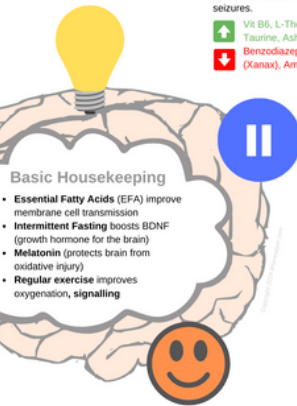
- Motivation neurotransmitter
- Cognition and motivation
- Imbalance causes hallucinations, paranoia, ADHD, fatigue
- ↑ Tyrosine, exercise, meditation
- ↓ Magnesium deficiency, sugar imbalance

## GABA

- Inhibitory neurotransmitter
- Imbalance causes anxiety, seizures
- ↑ Vit B6, L-Theanine, Taurine, Ashwaganda
- ↓ Benzodiazepines (Xanax), Ambien

## GLUTAMATE

- Excitatory neurotransmitter
- Involved in learning and neuroplasticity
- Imbalance noted with migraines, bipolar, epilepsy, ALS
- ↑ B6 deficiency, stress, MSG
- ↓ Taurine, L-Theanine, CoQ10, Valerian, Zinc



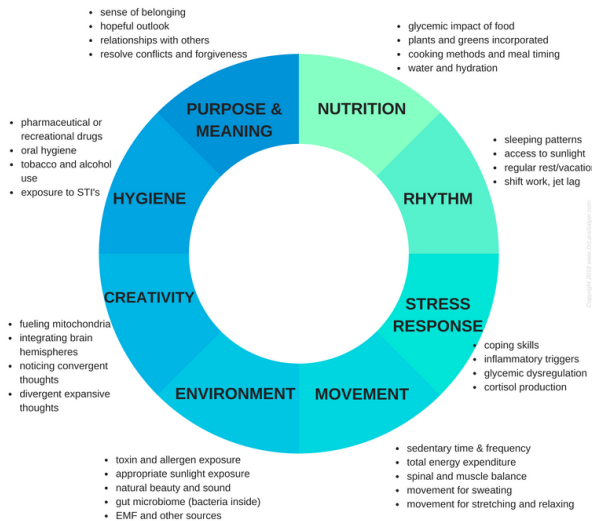
## ACTH

- Produced by pituitary
- Increases cortisol production in adrenals
- ↑ Sleep deficit, caffeine, Cordyceps, Panax ginseng, insulin
- ↓ Meditation, Ashwaganda, L-theanine, Valerian, magnesium

## SEROTONIN

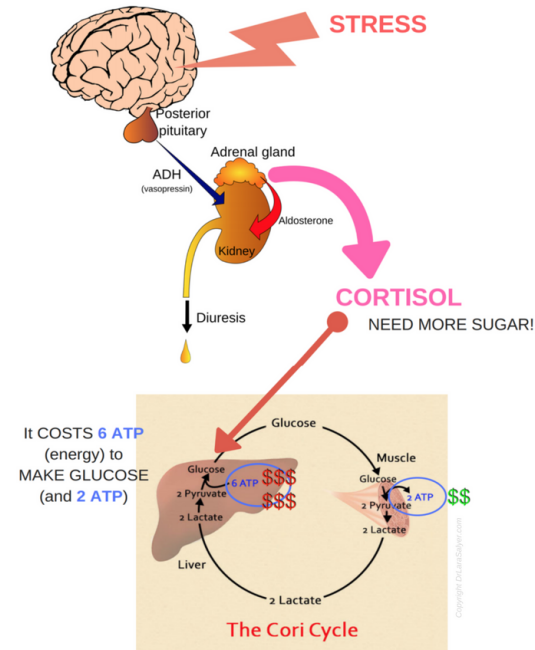
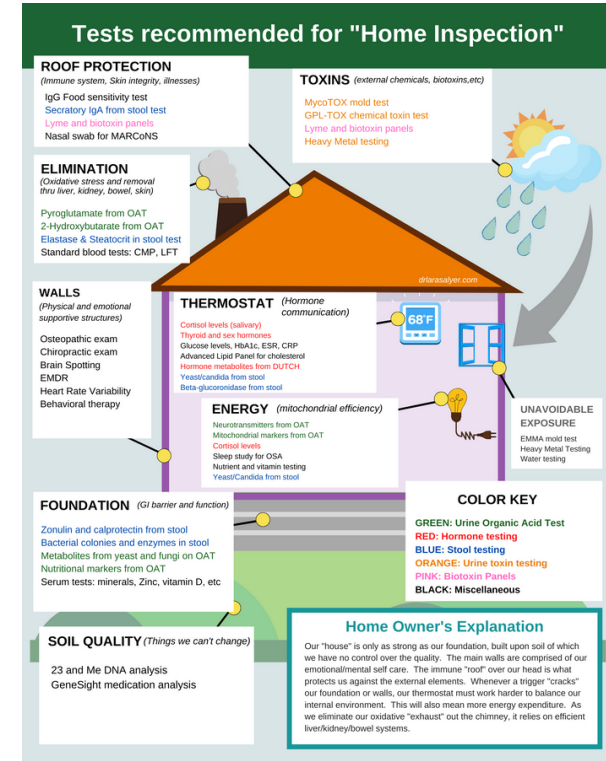
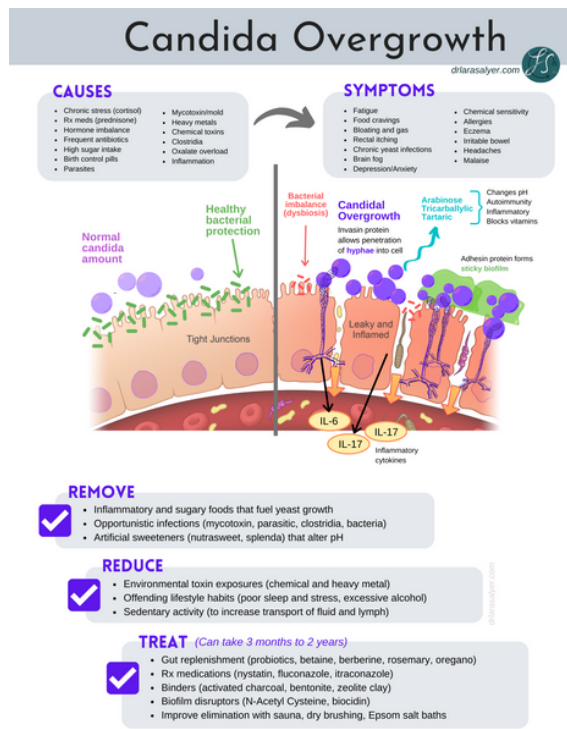
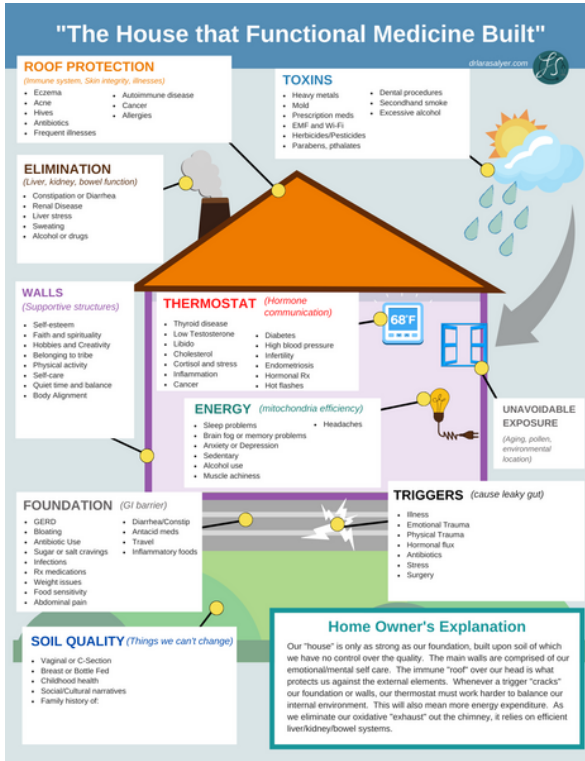
- Mood neurotransmitter
- Involved in stabilizing happiness, wellbeing, alertness
- Imbalance causes anxiety, OCD, depression
- ↑ Tryptophan, 5HTP
- ↓ Alcohol, statin medication, artificial sweeteners

# 8 key ingredients to well rounded health

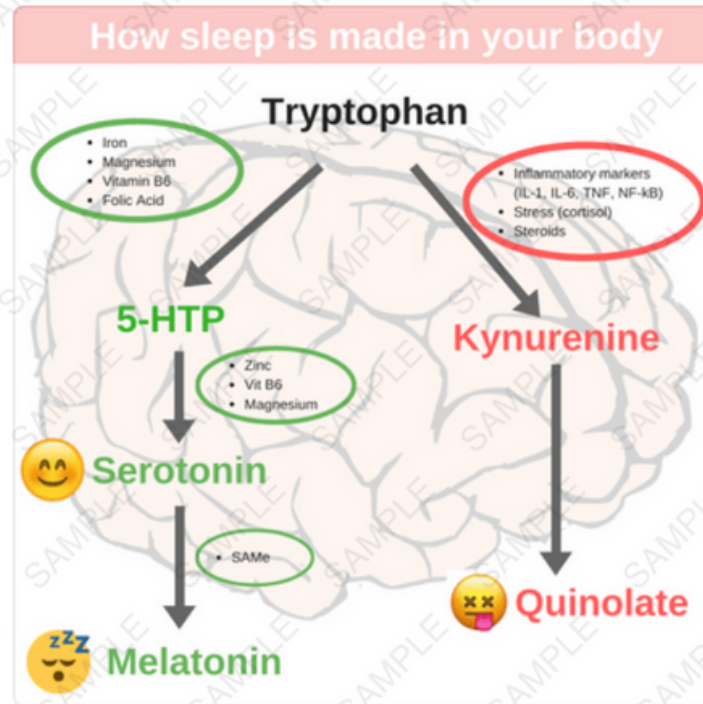


# Health Innate Manifesto

- Vibrant health is innate in all of us.**  
*We can nurture this or inhibit this through our daily choices.*
- Education is the new black.**  
*Understanding your body's signals and learning how to translate them into better choices is more effective than just "taking another prescription."*
- What you aren't changing, you are choosing.**  
*Whether it's toxic food, dysfunctional relationships, or poor self-care, you have the ability to change your life with the right tools.*
- Your only diagnosis is your name.**  
*Diabetic. Hypertensive. Insomniac. These labels might be useful to steer your treatment plan, but they do not define your health potential.*
- Growth is not linear--it's an upward spiral.**  
*Progress is measured in self-reflection and attainable goals. Set backs are expected, and we can achieve our best reality with proper support.*
- Silver bullets only work for werewolves.**  
*You cannot singularly build your best life by following the latest fad pyramid scheme, the current superfood trend, the perfect vitamin/prescription, or popular exercise routine.*
- Invest in yourself and you will never depreciate in value.**  
*Cultivating your mental and physical health sends a ripple effect onto your family, children, coworkers, and community. You -- and the rest of the world -- deserves the Best You.*
- More threads weave a stronger tapestry.**  
*Your state of dis-ease is improved with more collaborators on board: conventional (MD/DO), functional medicine, complimentary (acupuncture, massage), behavioral therapy, and nutrition coaching (RN).*



This is why chronically stressed people have **NO ENERGY** and **elevated glucose** (sugar) which increases risk of diabetes.



## Healing Your Leaky Gut

**Digestive Enzymes**

Ensures proper pH for proper breakdown of protein and fat to provide complete digestion and elimination in stomach and small intestines.

**High dose probiotics**

100+ cfu of six bacterial strains that activate over 1700 genes that help the integrity of the gut lining, lower inflammation, and restore balance.

