

# THE CORTISOL, HIGH BLOOD SUGAR, INFLAMMATION & WEIGHT GAIN CONNECTION

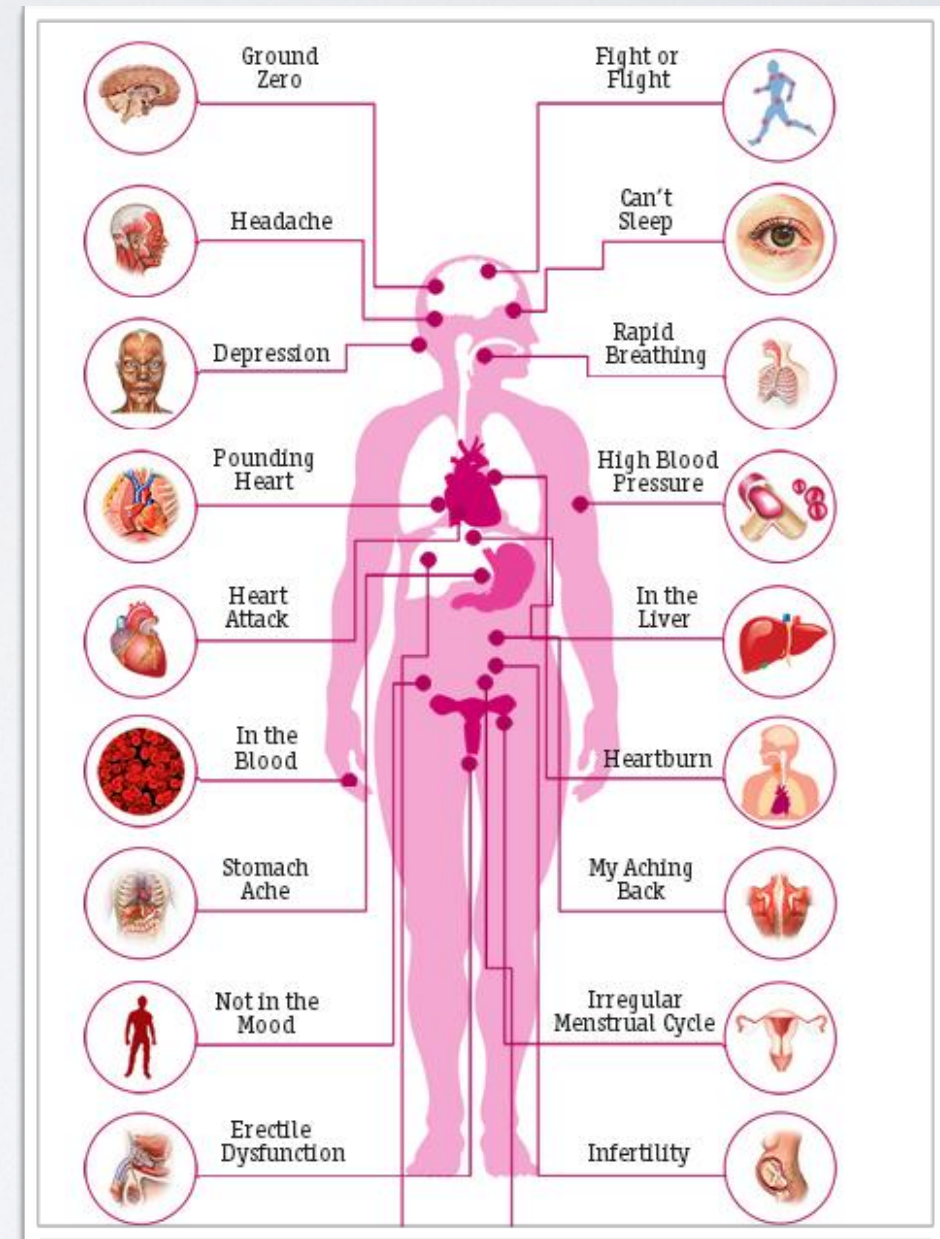
By Dr. Stephen Cabral



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# IT'S TIME TO DISCOVER HOW:

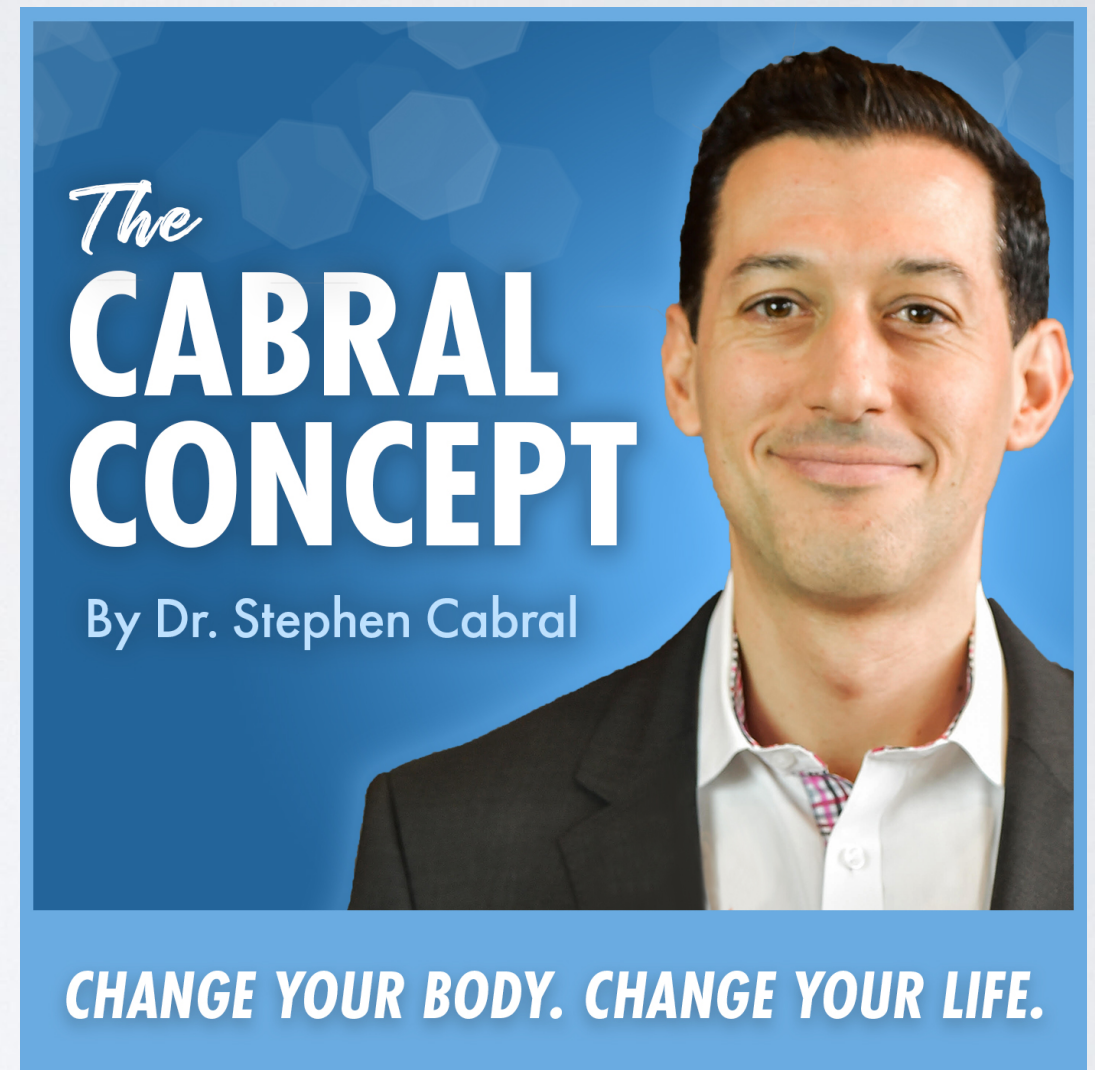
- Stress causes inflammation and sets off the “dis-ease cycle”
- Losing weight has much more to do beyond calories in versus calories out
- Chronic low carb dieting can be disastrous in the long-run
- Stress affects metabolic hormones and lowers metabolism rate





# MY BACKGROUND

- Life-altering illnesses at 17 years old
- Given no hope for recovery
- Finally found my answers
- Went back to school & interned all over the world to discover what “medicine was the best”
- Over 250,000 appointments completed
- One of the largest virtual Functional Medicine practices in the world
- Now teach close to 1,000 health coaches & practitioners in the Integrative Health Practitioner course & certification



# SLIDE DOWNLOADS

[StephenCabral.com/BRMI](http://StephenCabral.com/BRMI)

# QUESTIONS

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# LET'S GET STARTED



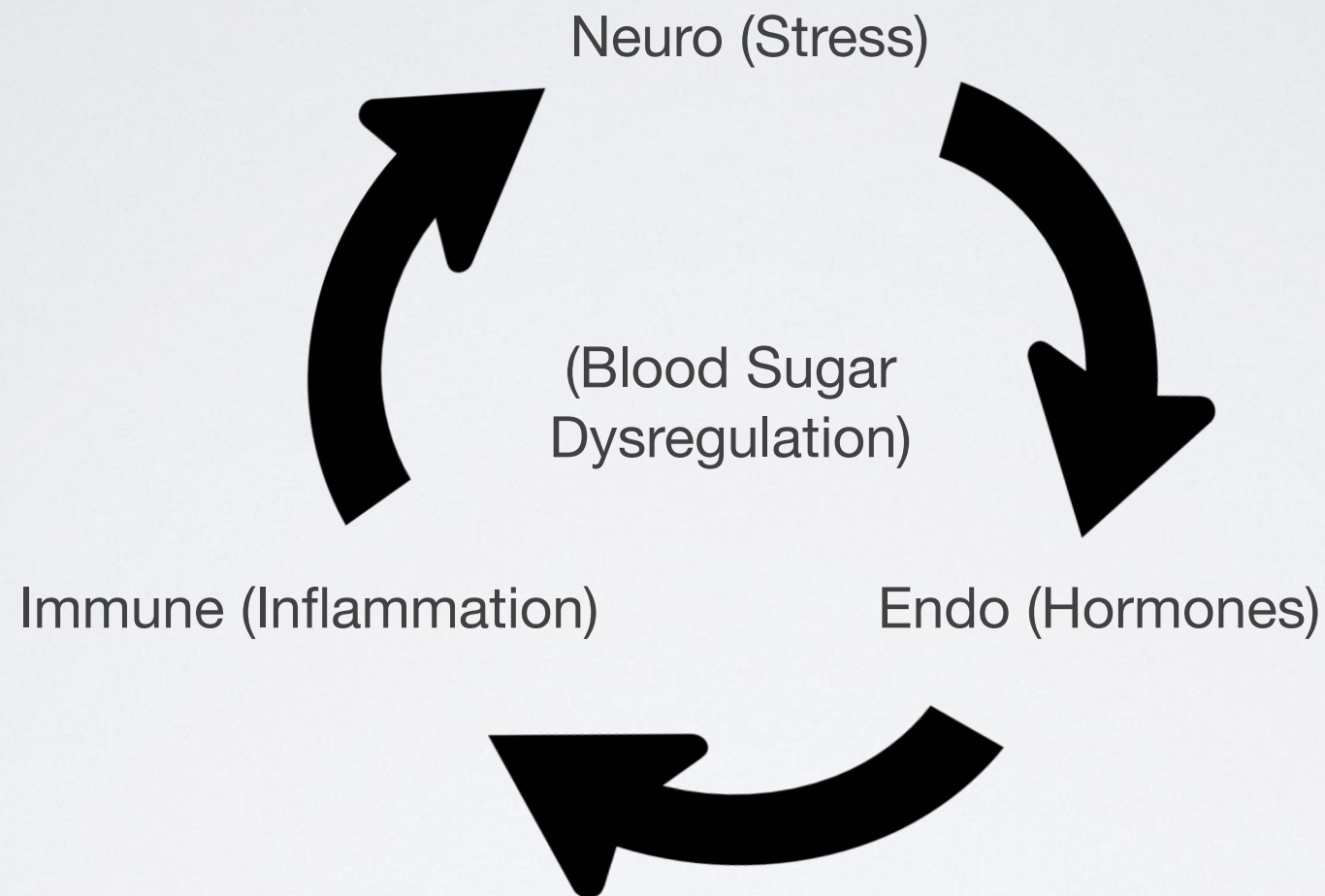
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# HOW STRESS CAUSES INFLAMMATION & WEIGHT GAIN DESPITE DIET



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# NEUROENDOIMMUNOLOGY



How the nervous system effects the endocrine (hormones) system which then effects the immune (inflammation) system



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# YOUR NERVOUS SYSTEM

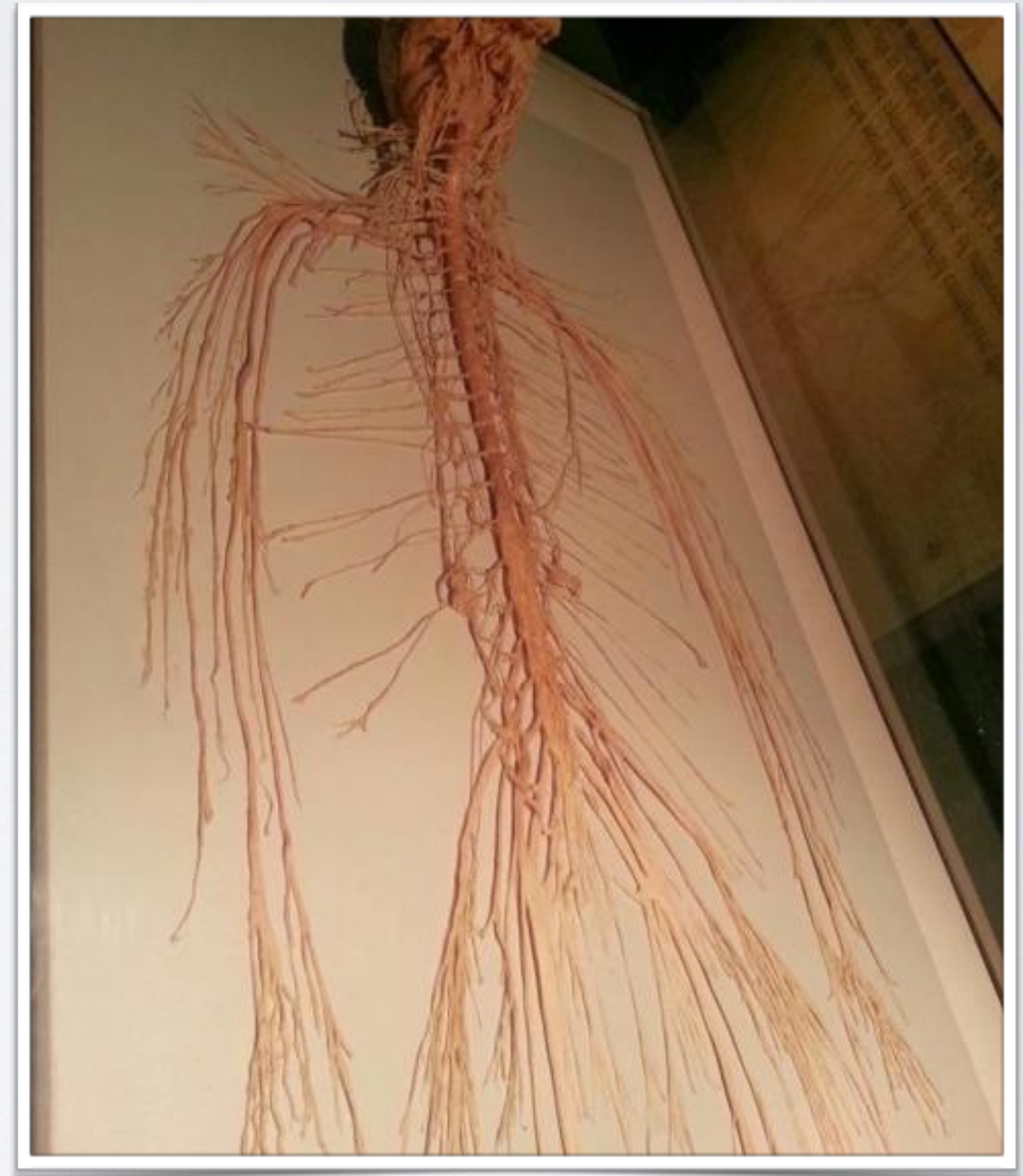


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# YOUR BODY IS WIRED

- Proprioceptors provide external feedback
- Internal feedback loops can trigger the Autonomic Nervous System (ANS) for Fight/Flight or Rest/Relax
- Stress is stimulated in the Fight/Flight which triggers the Sympathetic Nervous System



# 2 BRANCHES OF THE A.N.S.

- **Sympathetic Nervous System**

- Stress
- Catabolism (breakdown)
- Blood sugar dysregulation
- Hormone dysregulation
- Immune dysregulation
- Speeds up aging process
- Lowering of digestion, libido, memory, and drive/ambition
- Increases anxiety, overwhelm, irritability and worry

- **Parasympathetic Nervous System**

- Rest
- Repair (anabolism)
- Burn body fat
- Lowers stress hormones
- Increase anti-aging hormones
- Boosts immune system
- Allows for proper detoxification
- Strong digestion
- Calms mind and body



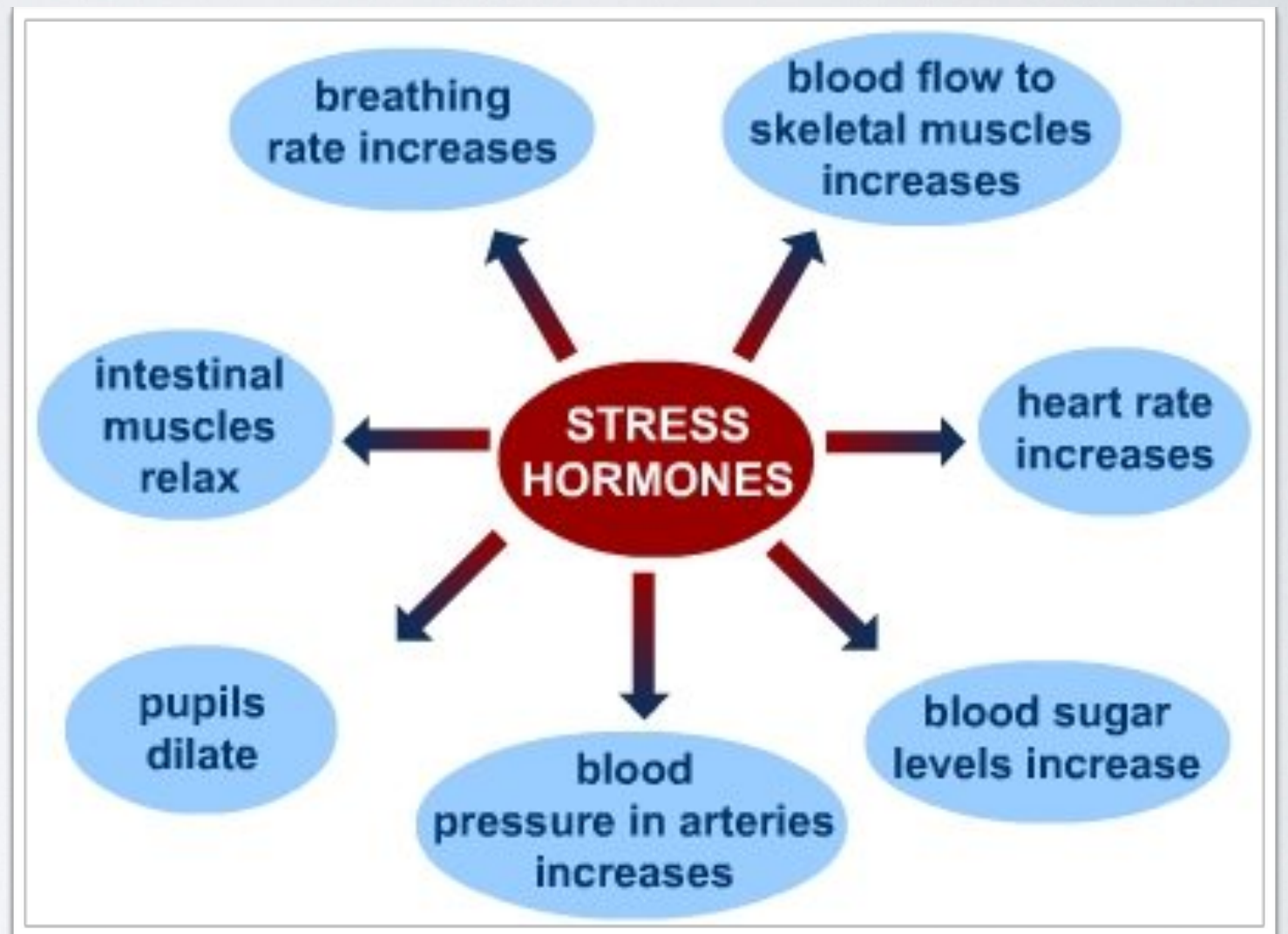
# YOUR ENDOCRINE (HORMONE) SYSTEM



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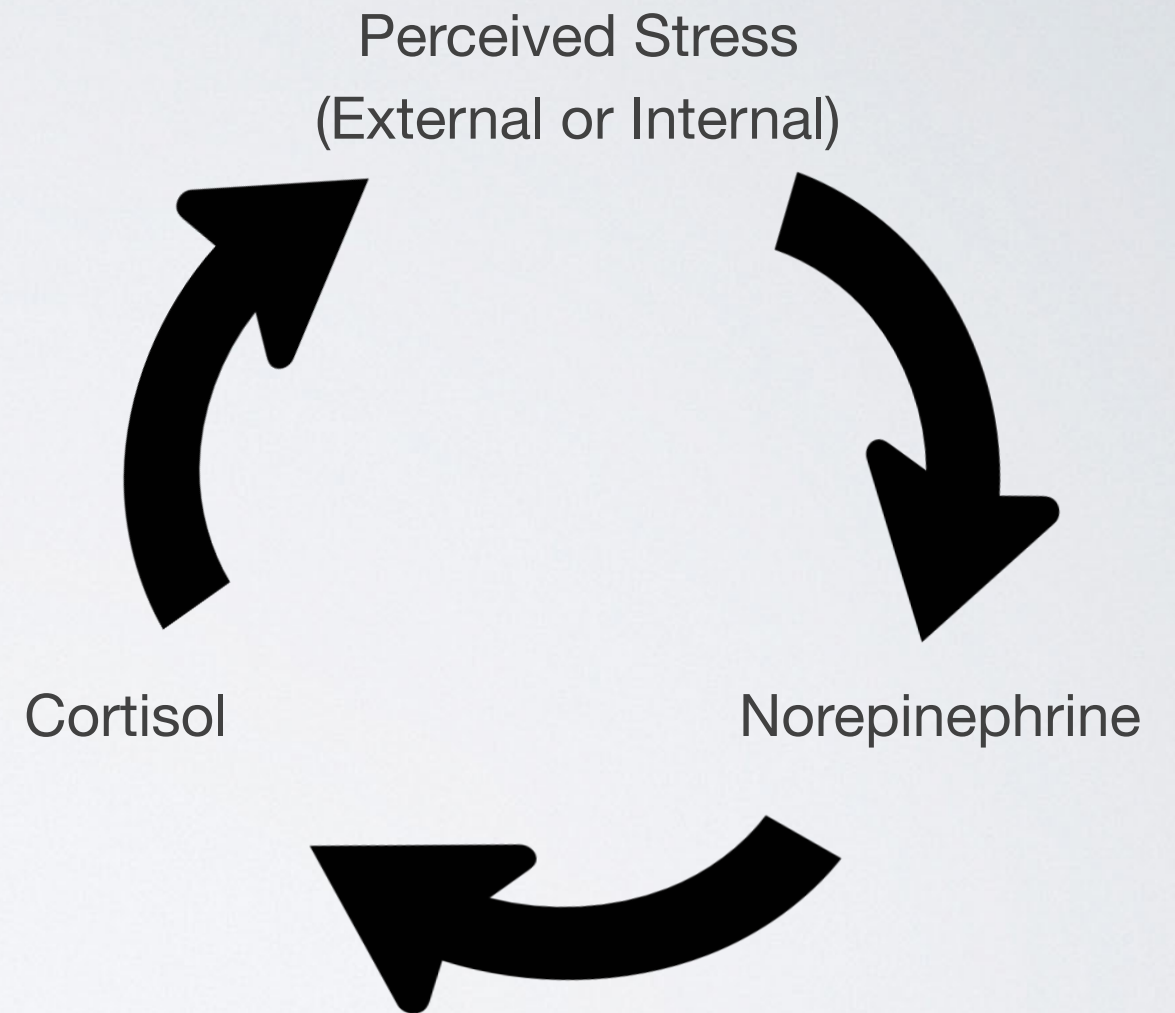
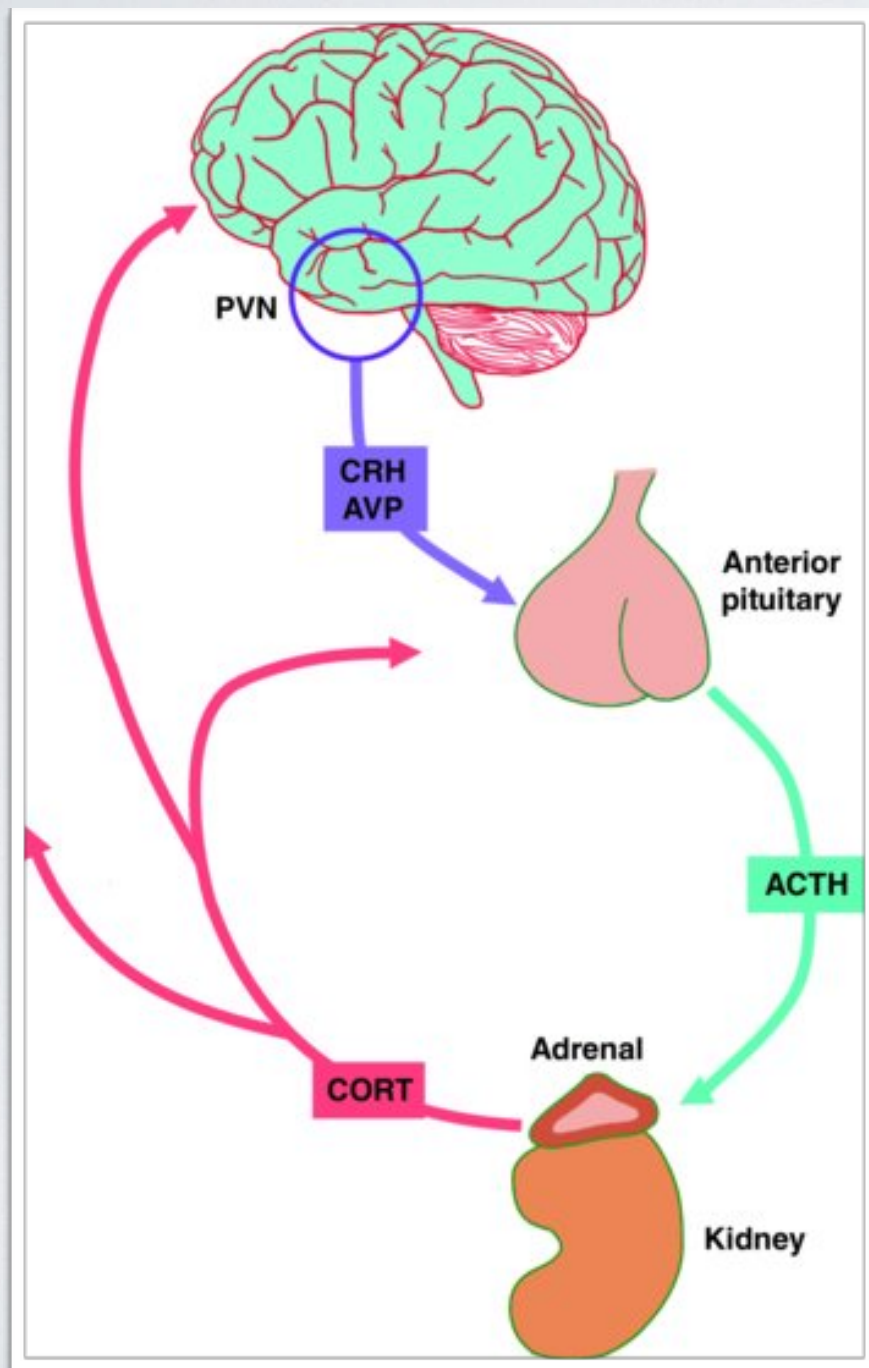
# WHAT CAUSES STRESS?

- Work/Life/Emotions
- GI Digestive Imbalances
- Toxins
- Heavy Metals
- Viruses
- Adipose Tissue (fat stores)

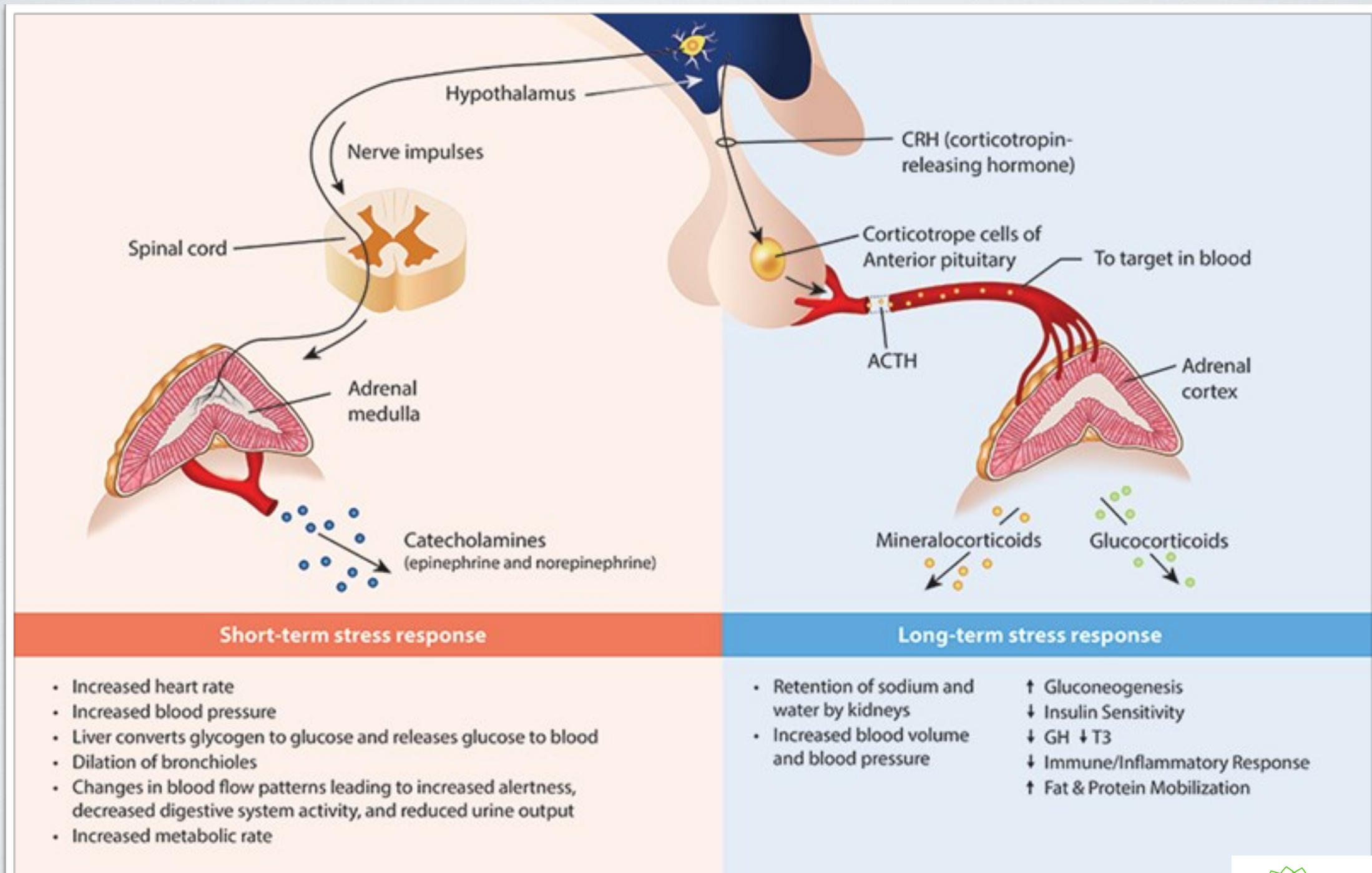




# STRESS RESPONSE



# SHORT & LONG TERM STRESS





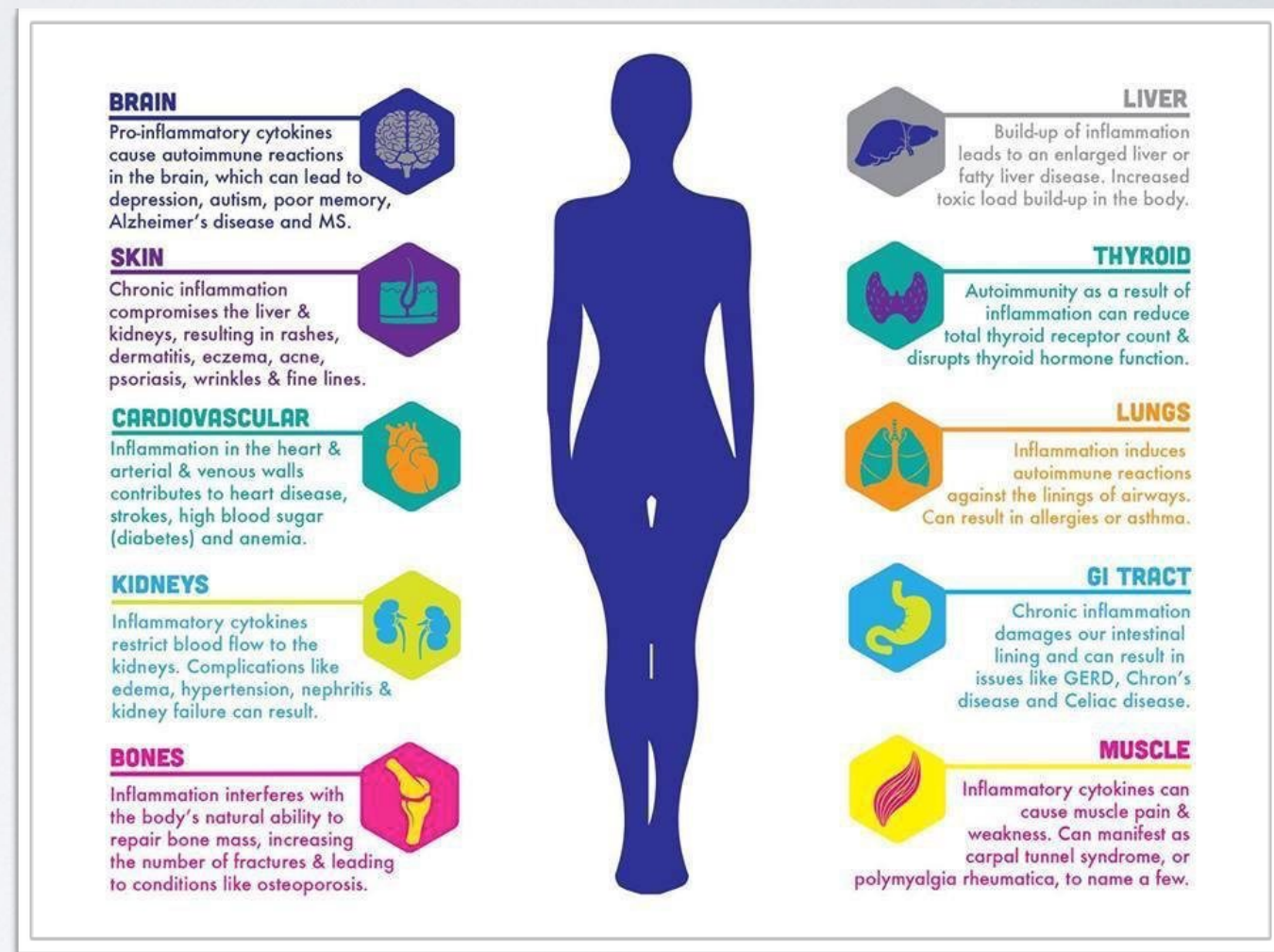
# YOUR IMMUNE SYSTEM



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# YOUR BODY UNDER STRESS

- Lowering of SIgA
- Lowering of DHEA
- Increase in pro-inflammatory cytokines (inflames body during repair/attack process)
- Stress depletes essential minerals and vitamins needed for dynamic equilibrium
- Stress leads to increases in blood sugar which leads to increased insulin response which leads to inflammation
  - Insulin stimulates the release of interleukin-6 (IL-6) - Th2 Cytokine
  - Interleukin-6 (IL-6) stimulates more stress response (cortisol) and the cycle repeats!

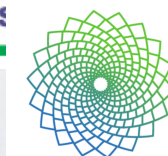
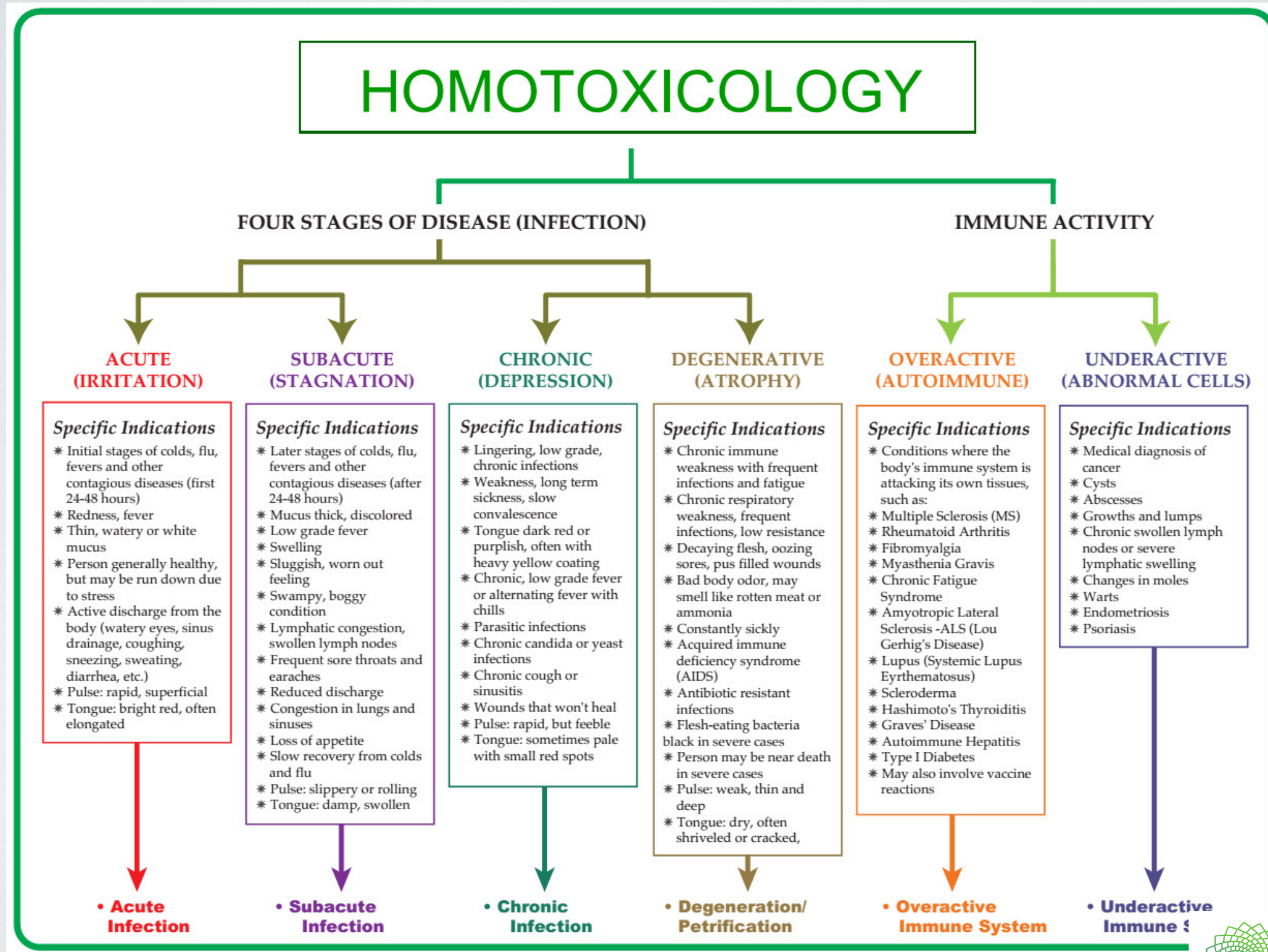


The effects of inflammation on the immune system

\*Podcast: [StephenCabral.com/1166](http://StephenCabral.com/1166)



# 6 PHASES OF DISEASE



# HOW WEIGHT GAIN OCCURS FROM STRESS



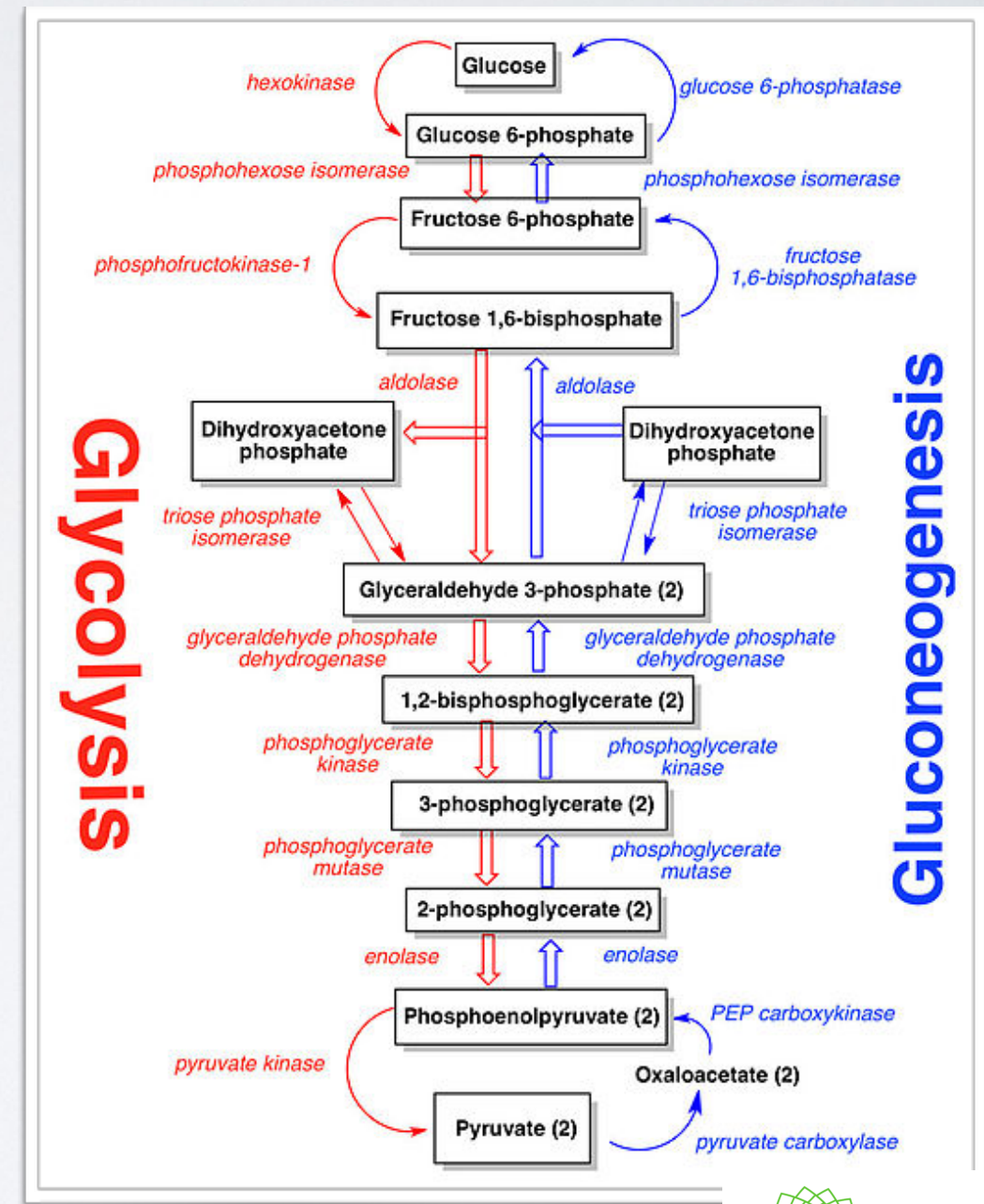
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# CHRONIC STRESS CAN CAUSE WEIGHT GAIN

- Stress causes fight/flight
- Fight/Flight causes an increase in available glucose in the blood stream
- No activity is needed to use this glucose and it is restored or increases adipose tissue (and results in inflammation & water retention due to rise in aldosterone)
- The bigger factor is long-term hormonal/metabolic reduction

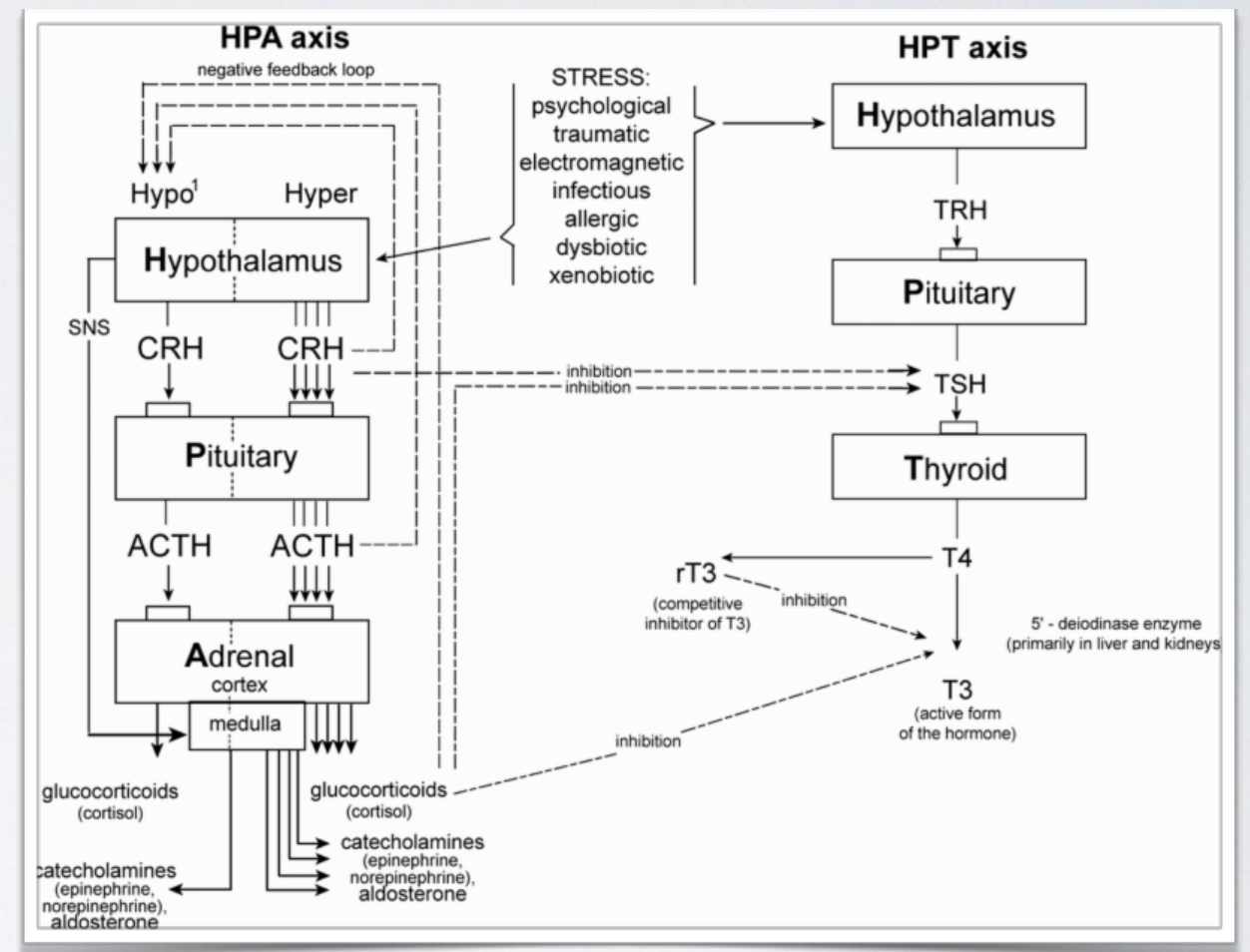
\*Podcast: [StephenCabral.com/957](http://StephenCabral.com/957)



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# BEYOND BLOOD SUGAR

- Cortisol (insulin) will increase belly fat storage
- Chronic stress leads to estrogen dominance by way of lower progesterone
  - This leads to a host of mood, skin, hair & weight issues (hips) in women (& men)
- Hypothyroidism (low thyroid/.5-2mU/L)
- Lowering of testosterone in men
- Depletion of vitamin & mineral reserves





THIS IS WHY WHAT YOU EAT  
MATTERS, BUT FOR SOME  
PATIENTS/CLIENTS IT'S NOT  
JUST ABOUT CALORIES IN/  
CALORIES OUT (MACROS)



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AND ALTHOUGH EATING  
WHOLE HEALTHY FOODS IS  
ESSENTIAL, IT DOES NOT FIX  
THE STRESS RESPONSE



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# HOW TO FIX THE PROBLEM



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1ST CHECK TO SEE IF THIS IS  
HAPPENING IN YOUR BODY



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# OPTION 1: BASIC TESTING

- Resting HR (50-69BPM) (Oximeter)
- Waking body temperature (98.0-98.8°)
- Waking & before bed blood pressure (110/120-70/80)
- Heart Rate Variability (>59?)
- (AM) Fasting blood sugar (70-95 mg/dL) (Glucometer)
  - Post-Workout/Coffee/Stressor Blood Sugar



# OPTION 2: FM TESTING

- May complete these labs at home or with your local health practitioner
- For stress these are the top 3 labs:
  - Thyroid Adrenal Hormone (saliva & dried blood spot card)
  - Organic Acids Test (mitochondrial function, ketones, gut function, detox, neurotransmitter metabolites, and vitamin levels)
  - Hair Tissue Mineral Analysis (electrolyte balance, mineral levels, heavy metals)

\* All At-Home Labs Available at [EquilibriumNutrition.com](http://EquilibriumNutrition.com)





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I HOPE YOU ENJOYED THE  
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# CONTACT

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