

# GUT HEALTH Series, Part 4

Don't Worry I've Gut This!  
*Your Road to a Healthy Gut*



THE HOLISTIC  
HEALTH APPROACH



# **DON'T WORRY I'VE GUT THIS!**

- Support Your Gut and Bugs
- Detoxify Your Food Supply
- Enhance Your Gut and Brain Health
- Lifestyle Changes for Long Term Health

# **SUPPORT YOUR GUT AND BUGS**

Understanding digestion and the microbiota

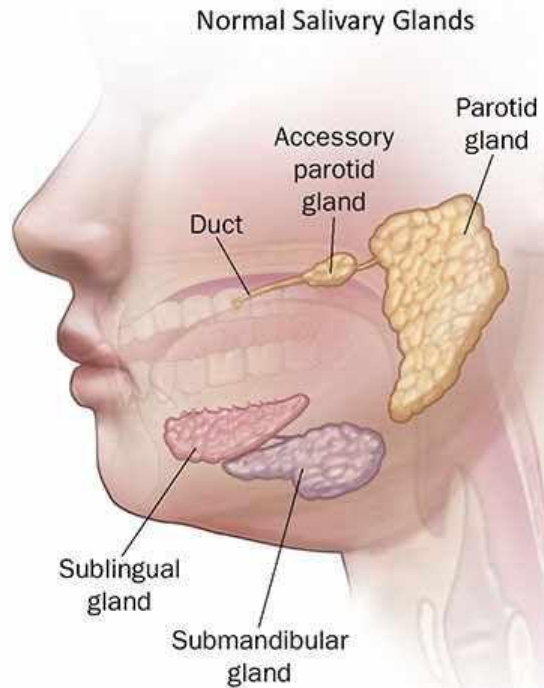
# THE DIGESTIVE PROCESS

## More Than Just Eating and Eliminating

- **Eating** – The beginning of the journey, involving the mouth and the brain.
- **Digestion** – Occurs in the mouth, stomach and small intestine, with help from the liver and pancreas.
- **Secretion** – Occurs throughout the entire digestive tract.
- **Mixing and Propulsion** – Starts in the esophagus and continues through to the end.
- **Absorption** – Involves the small intestine and liver.
- **Assimilation** – The Ultimate goal of the digestive process.
- **Elimination** – The end of the road.



# FIRST PHASE OF DIGESTION



- Functions of the mouth are to mechanically breakdown and liquefy foods, and initiate digestion of carbohydrates/fats.
- Healthy teeth are important for mechanically breaking down chunks of food.
- Chewing releases hormones from the parotid glands which stimulates immune protection.
- Salivary glands produce amylase and lipase.
- Saliva helps buffer acids, protects teeth, reduces inflammation, and assists with swallowing.

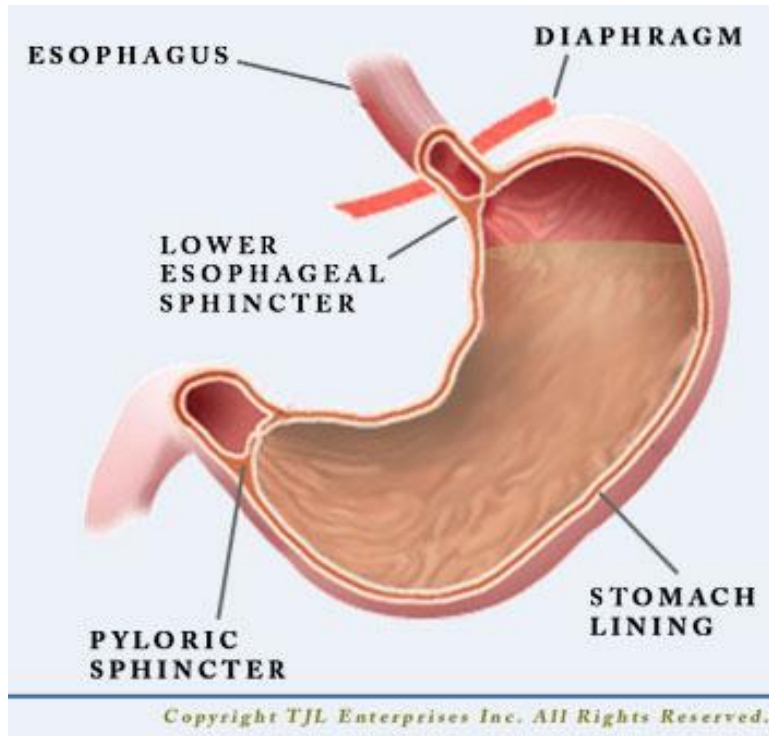
Cephalic Phase of Digestion – Anticipation of food, sight, smell, taste, and memory will stimulate gastric juices.

**Slowing down, enjoying food, and properly chewing can eliminate many digestive issues.**



# THE MOST COMMON CAUSE OF HEARTBURN

Low Stomach Acid and Inability to Breakdown Food



- **GERD** is caused by stomach acid backing up into esophagus.
- Low stomach acid can relax LES and allow HCl to splash up into esophagus.
- Inability to breakdown food prolongs time in the stomach, allowing for gas buildup and upward pressure on the LES forcing it open.
- Consuming antacids or acid blockers can actually make heartburn worse.



# WHY IS THE LIVER SO IMPORTANT?

The liver performs many important functions in the body:

- Regulate most chemical levels in blood
- Produce cholesterol and special proteins to help carry fats throughout the body
- Process all of the blood leaving the digestive tract
- Convert harmful ammonia – a byproduct of protein metabolism – to a safer form, urea
- Regulate blood clotting
- Help the body fight infections
- Store and release glucose to regulate blood sugar levels
- Produce bile, which helps break down fats for absorption and carries waste to be eliminated
- Store Iron
- Metabolize carbohydrates, fats, and proteins into usable forms
- Store many nutrients – glycogen; fatty acids; vitamins A, D, E, K and B12; iron and copper – to provide a constant supply to the body
- Metabolize alcohol and drugs into their inactive metabolites
- Metabolize hormones produced by the body's own glands
- Protect the body from toxins



# DETOX 101 – YOUR ELIMINATION PATHWAYS

- **Detoxification starts in the liver.**

Two phases of liver detoxification - Phases 1 and 2.

- **Phase 1** - Liver filters blood and neutralizes chemical or toxin, or converts it to an intermediate form for Phase 2.
  - Detoxifies compounds such as caffeine, acetaminophen and aspirin
- **Phase 2** - Liver further breaks down chemical or toxin to then be safely excreted from the body.
  - Detoxifies major toxins such as: *Industrial Toxins, Carcinogens, Medications like steroids and morphine, Bacterial Toxins, Heavy Metals like mercury and lead, Phenolics found in plastics, Alcohol*

- Once toxins are detoxified or neutralized, they can be eliminated:

- Passed to the gallbladder in bile for elimination through feces
- Passed to kidneys for elimination through urine
- Eliminated through sweat.



# THE BENEFITS OF BUGS

## Probiotic Bacteria Enhance Health in Many Ways

- Help digest lactose and proteins
- Balance intestinal pH
- Regulate peristalsis and improve diarrhea, constipation and IBS
- Reduce intestinal inflammation
- Protect gums and teeth
- Manufacture vitamins B1, B2, B3, B5, B6, B12 and K
- Manufacture essential fatty acids and short-chain fatty acids
- Increase absorption of minerals
- Prevent infections and food poisoning
- Prevent and alleviate eczema, asthma and allergies
- Break down bacterial toxins and protect against toxic substances
- Have antitumor and anticancer effects
- Prevent and control thrush, vaginal yeast infections and bladder infections
- Activate mucosal-associated lymphoid tissue (MALT)
- Normalize serum cholesterol and triglycerides
- Support healthy blood pressure levels
- Break down and rebuild hormones
- Break down bile acids
- Promote healthy metabolism and weight
- Beneficial for several health conditions



# NUTRITION FOR YOUR GUT AND BUGS



- **Bone Broth** – provides important amino acids, collagen, gelatin, glutamine and minerals that help heal the intestinal lining.
- **Steamed Vegetables** – are full of vitamins and minerals that can reduce inflammation, also easier to digest than raw vegetables.
- **Coconut Oil** – is antimicrobial, antibacterial and anti-inflammatory all beneficial to the gut lining.
- **Wild Caught Fatty Fish** – such as salmon and trout are rich in anti-inflammatory omega 3's and gut healing vitamin D.
- **Non-Dairy Fermented Foods** - such as coconut kefir, sauerkraut and kimchi contain probiotics the will help rebalance the microbiome and reduce inflammation.
- **Targeted Supplementation** – consider probiotics, collagen, L-glutamine, DGL, digestive enzymes, quercetin and aloe vera to support digestion, the gut lining and microbiome.



# DETOXIFY YOUR **FOOD** SUPPLY

The hidden toxins on your plate

# ARTIFICIAL INGREDIENTS

Flavors, colors, sweeteners and preservatives



- **FDA Definition of Artificial Flavor** – “...any substance, the function of which is to impart flavor, which is not derived from a spice, fruit or fruit juice, vegetable or vegetable juice, edible yeast, herb, bark, bud, root, leaf or similar plant material, meat, fish, poultry, eggs, dairy products, or fermentation products thereof.” ***Essentially chemicals from anything inedible (like petroleum) that is then processed to create a flavor.***
- **Food Coloring** – The most common food colorings – Red #40, Yellow #5, Yellow #6 – are derived from petroleum. Many food colorings have been banned over the years. ***All three of these colorings are banned in several European countries because of their carcinogenic compounds, but they are still approved in the U.S.***
- **Artificial Sweeteners** – Sucralose is manufactured by reassembling the sugar molecule into a chlorinated sugar – a chemical in the same class as dry cleaning fluid and DDT. ***Sucralose was originally manufactured as an insecticide.***
- **Preservatives** – Chemicals that prevent food from spoiling. ***Sodium benzoate is considered “moderately toxic by ingestion”, sulfur dioxide is on the EPA Extremely Hazardous Substances List, nitrates convert to a cancer-causing additive when combined with stomach juices.***



# ADVERSE REACTIONS TO ARTIFICIAL FOOD

- Allergic reactions
- Hypersensitivity and hyperactivity
- Compromised immunity
- Damage to gut lining
- Liver inflammation
- Neurological changes including brain damage and seizures
- Fatigue, headaches, nausea, dizziness, chest pain
- Increased risk of cancer



# PESTICIDES



Exposure to pesticides can cause **neurological issues**, including memory loss, loss of coordination, reduced visual ability, altered or uncontrollable mood and general behavior and reduced motor skills.

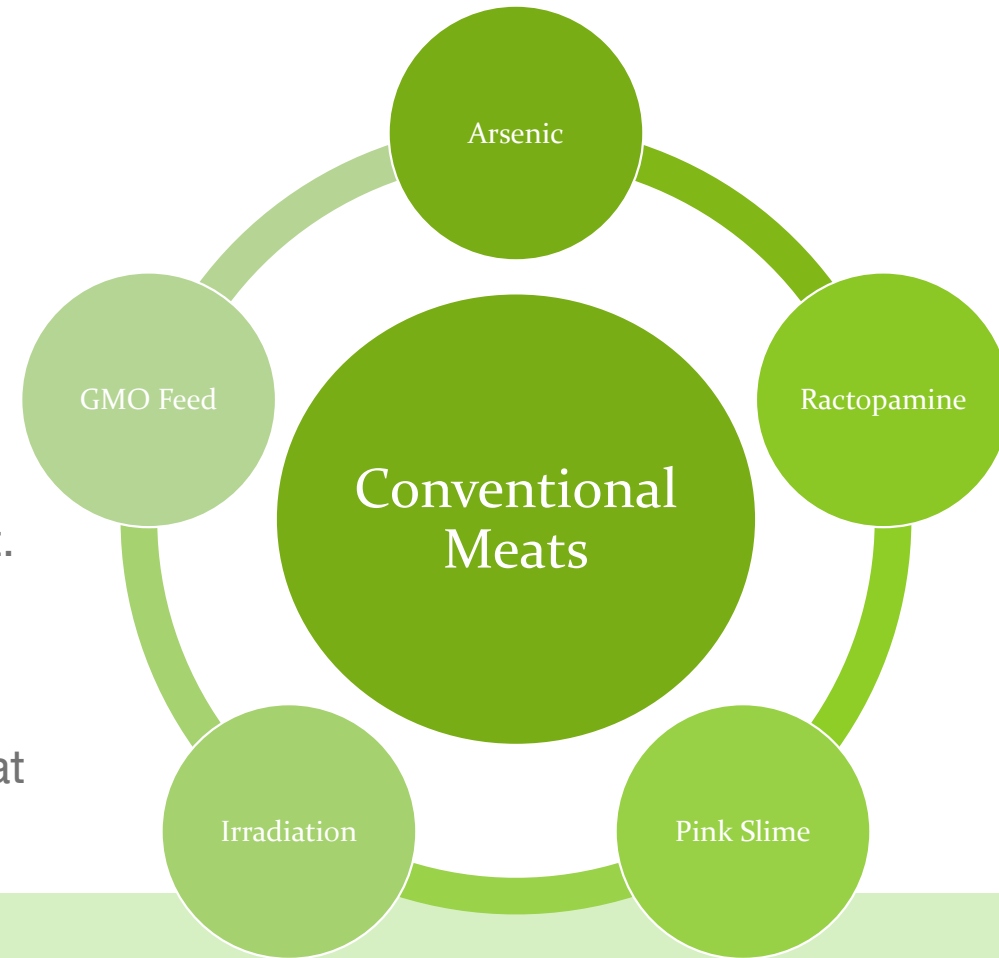
Other health effects include **asthma, allergies, hypersensitivity, cancer, hormone disruption and problems with reproduction.**

- Washing produce reduces pesticide levels but does not completely remove them.
- Some ‘systemic’ pesticides are designed to be absorbed by plants to kill bugs that try to eat them. These will not be removed by washing.
- Pesticide Action Network found roughly  $\frac{3}{4}$  of tested conventional lettuce and broccoli had internal pesticide residues. Systemic pesticides also found in potatoes, strawberries, and sweet peppers.



# MORE THAN YOU BARGAINED FOR

- **Arsenic** – known carcinogen, used in chicken feed to increase weight and improve pigmentation.
- **Ractopamine** – drug fed to hogs to make them grow faster and become leaner. Also approved for use in turkeys and cows. Other countries have banned the import of any U.S. beef or pork with ractopamine.
- **Pink Slime** – processed scraps of beef trimmings and fat, treated with ammonia to kill any bacteria. It is the main type of ground meat schools and many restaurants use.
- **Irradiation** – meant to reduce any potential bacteria on meat. Also reduces levels of vitamins A, D, E, K and thiamine in the meat.
- **GMO Feed** – According to the FDA, more than 95% of animals used for meat and dairy eat GMO crops. We eat what they eat. GMO foods may cause negative effects on liver, kidney, pancreas, reproductive and immune systems.



# SYMPTOMS OF TOXICITY

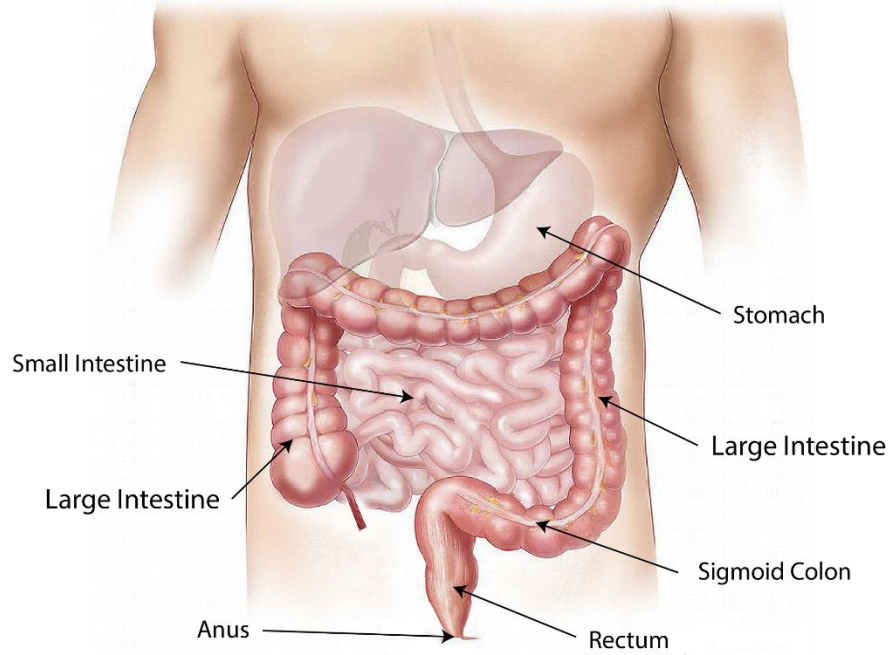
If toxins accumulate, they can lead to health conditions:

- Allergies and Asthma
- Autoimmune diseases such as rheumatoid arthritis and thyroid conditions
- Bone marrow cancers – lymphomas, leukemia
- Chemical sensitivities and extreme sensitivity to odors
- Chronic fatigue
- Cognitive problems, poor memory, brain fog
- Diabetes
- Digestive issues such as bloating, burping, excessive gas, food allergies, diarrhea and abdominal pain
- Fibromyalgia
- Infertility
- Muscle pain, weakness and fatigue
- Numbness and tingling
- Parkinson's
- Persistent infections, colds and flus
- Skin conditions – hives, eczema and itching
- Vertigo
- Low libido
- Difficulty sleeping
- Food cravings
- Weight gain and inability to lose weight



# THE TOXIC TRACT

## Effects on Gut Health



- Consuming more processed and conventional foods decreases nutrient/antioxidant intake leading to **nutrient deficiencies**.
- Toxins and processed foods kill off good bacteria, leading to **gut dysbiosis**.
- Toxins and processed foods cause **chronic inflammation in the digestive tract**.
- Chronic inflammation in the GI tract can **damage the gut lining**.
- **Damage to gut lining leads to leaky gut, food allergies, autoimmune diseases, mental disorders, nutrient deficiencies, gut dysbiosis, inflammation and further damage – a vicious cycle.**



# FAMILY TREE

## Brassica Family...King of Detox



- Kale, Collard Greens, Mustard Greens
- Arugula, Land Cress, Shepard's Purse, Watercress
- Bok Choy, Kohlrabi
- Broccoli, Cauliflower
- Brussels Sprouts
- Cabbage, Chinese Cabbage
- Radish, Daikon Radish
- Rutabaga, Turnip
- Horseradish, Brown and Yellow Mustard Seeds



# OTHER DETOXIFYING FOODS

Add these foods to your detox menu plan:



- **Beets** – increase Phase II detoxification.
- **Pomegranate** – regulates Phase I detoxification.
- **Artichoke** – has liver protective effects.
- **Flax Seeds** – help bind toxins for elimination.
- **Green Tea** – increases both Phases I and II.
- **Cold Water Fish and Flax Seed Oil** – contain essential fatty acids that assist with detoxification.
- **Fresh Fruits and Vegetables** – replenish glutathione, a necessary compound for Phase II.
- **Turmeric** – increases glutathione levels.
- **Free Range Eggs and Meat** – provide high quality amino acids necessary for all detoxification pathways.

# DETOXIFYING HERBS

Cholagogue herbs help stimulate release of bile to enhance the detox process:



- Aloe Vera
- Barberry
- Burdock
- Dandelion
- Ginger
- Goldenseal
- Milk Thistle
- Olive
- Peppermint
- Turmeric
- Wild Yam



# **ENHANCE YOUR GUT AND BRAIN HEALTH**

The effects of stress on your health and happiness

# NUTRITION AND PSYCHOLOGICAL STRESSORS



- **Poor Diet** – Comfort foods; “stuffing” emotions
- **Eating too Fast** – Skipping the cephalic phase of digestion
- **Toxic Beliefs** – “I’m too fat,” “I’m not good enough”
- **Pleasure Deprivation** – Lacking enjoyment with food choices
- **Food Allergies** – Foods that negatively effect brain chemistry
- **Stress** – from work, relationships, finances and Full-Plate Syndrome effect digestion



## PHYSICAL STRESSORS

- **Toxic Environment** – heavy metals, industrial pollutants, plastics, formaldehyde
- **Toxic Foods** – artificial ingredients, processed foods, pesticides, conventional meats, sugars, trans fat
- **Uncontrolled Blood Sugar** – insulin spikes
- **Overtraining** – inadequate rest and recovery
- **Sleep Deprivation** – cortisol issues
- **Injury and/or Illness** – immune response



# HOW STRESS AFFECTS THE BODY

## Stress **DECREASES**

- Nutrient absorption
- Healthy gut flora population
- Digestion and speed of digestion
- Ability to use oxygen
- Calorie burning
- Energy level
- Hormone production
- Muscle mass
- Kidney function
- Immune function

## Stress **INCREASES**

- Nutrient deficiencies
- Cholesterol and heart disease risk
- Salt retention and bloating
- Cortisol levels and fat storage
- Heartburn and risk of ulcers
- Food sensitivities and allergies
- Insulin resistance
- Oxidative stress and aging
- Inflammation
- Risk of infection and disease



# SUGAR

- Sugar has no fiber, vitamins, minerals, proteins, fats or enzymes – it only has empty calories.
- Your body actually needs to use its own stores of nutrients to process sugar.

## **Sugar negatively effects your body in several ways:**

- Compromises your immune system.
- Increases risk of insulin resistance, metabolic syndrome, diabetes, stroke, heart attack and kidney dysfunction.
- Increases wrinkles and speeds up aging.
- *Creates inflammation in the brain leading to depression, anxiety and impaired memory.*
- *Increases systemic inflammation which many lead to arthritis, skin conditions and leaky gut syndrome.*



# GLUTEN AND DAIRY



- Two most common food allergies.
- Allergy or sensitivity can increase inflammation in the body.
- Inflammation can lead to leaky gut and more allergies.

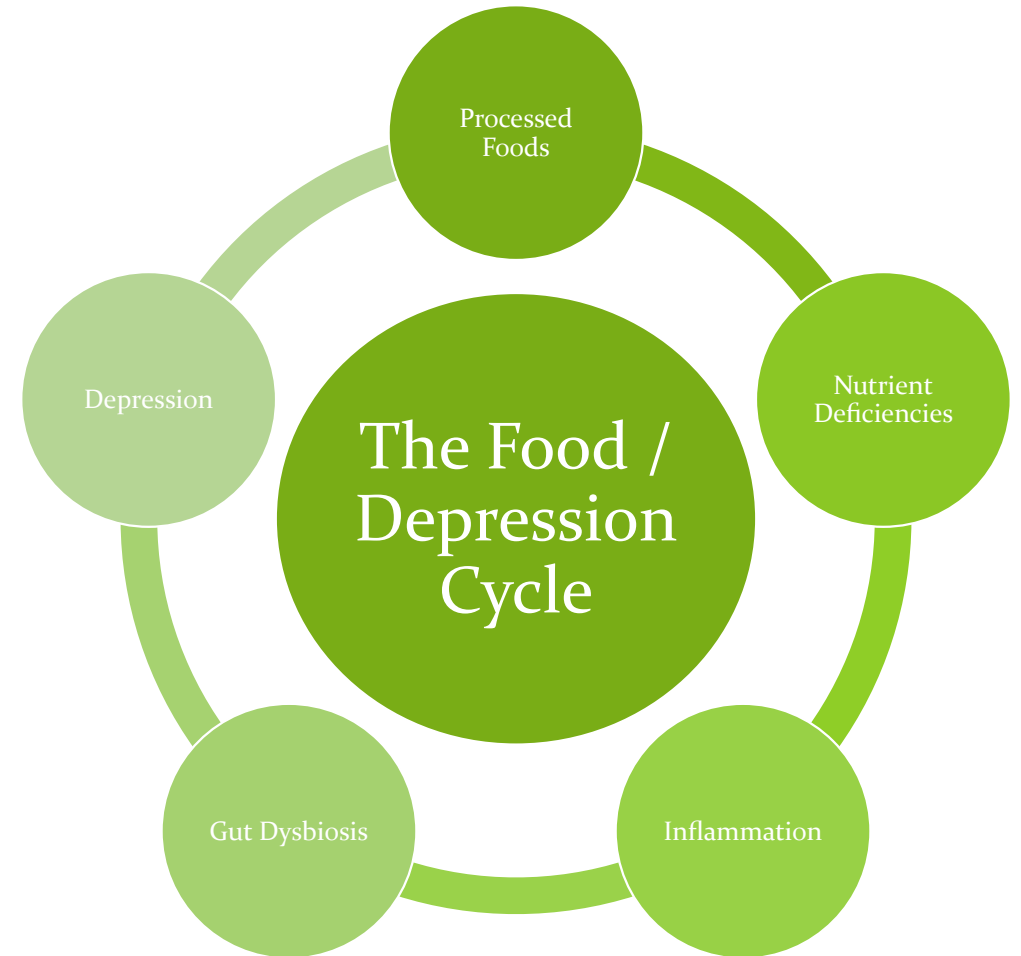
## **Gluten and dairy can be addicting.**

- Caseomorphins from the breakdown of casein
- Gluteomorphins from the breakdown of gluten
- Both are morphine-like opioids that have a sedating and addictive effect on the brain.



# FOOD AFFECTS YOUR HAPPINESS

- **Processed Foods and Sugars** – deplete the body of key nutrients and increase inflammation in the body.
- **Nutrient Deficiencies** – reduce the ability to maintain gut integrity and compromise immunity increasing risk of systemic inflammation.
- **Inflammation** – damages the gut lining, leading to gut dysbiosis and leaky gut.
- **Gut Dysbiosis** – affects the body’s serotonin levels.
- **Decreased Serotonin** – reduces feelings of happiness and increases risk of depression.
- **Depression** – increases cravings for processed foods and sugars.



# NATURAL ANTIDEPRESSANTS

- **The same vitamins, minerals and EFAs important for brain health also assist with mood regulation.**
- **Magnesium** – may help with anxiety.
- **Protein** – provides amino acids necessary for making neurotransmitters, also stabilizes blood sugar.
- **Exercise** – releases endorphins and boosts dopamine and serotonin, calming anxiety and easing depression.
- **Consider targeted supplements**

*5-HTP, St. John's Wort, L-tyrosine, L-theanine, GABA, phosphatidylserine*

**WARNING:** Do NOT take 5-HTP or St. John's Wort together or with an SSRI. Always discuss supplements with your doctor.



# FEEDING THE BRAIN

- **B vitamins (B6, B12, folic acid)** – necessary for production of neurotransmitters and protecting brain function.

*Food Sources: clams and shellfish, wild caught fish (mackerel, herring, sardines, tuna, salmon), crab and lobster, eggs, turkey and chicken, seeds (sunflower, pumpkin, flax), nuts (pistachios, walnuts), beans and lentils, bananas, avocados, asparagus, broccoli and greens*

- **Omega-3 fatty acids** – brain is 60% fat, most of which is DHA. Important for connectivity of brain circuits, energy production in neurons and reducing free radical damage to nervous tissue.

*Food Sources: Flaxseed oil, fish oil, chia seeds, walnuts, wild caught fish, oysters, soybeans (organic)*

- **Consider antioxidant supplements** such as Vitamins A, C, D, E and K; as well as alpha lipoic acid.



# **LIFESTYLE CHANGES FOR LONG TERM HEALTH**

Simple changes to improve gut, brain and overall health

# LIFESTYLE TIPS FOR GUT (AND BRAIN) HEALTH



- **Eat Slowly and Mindfully** – stimulating the cephalic phase enhances digestion and reduces stress.
- **Smell the Roses** – slowing down, thinking positively and reducing your stress load reduces inflammation and improves gut and brain health.
- **Exercise** – movement releases feel-good chemicals as well as aids in digestion.
- **Read Labels** – understand what potential toxic ingredients are hiding in your favorite foods.
- **Determine if you have any potential food allergens** – avoiding hidden food allergies can reduce systemic inflammation and improve gut and brain health.
- **Consider a safe liver detox, such as *The 21-Day Holistic Detox*** – removing stored toxins can greatly improve gut, brain and overall health.



# NUTRITION TIPS FOR GUT (AND BRAIN) HEALTH



- **Eliminate Processed Foods, Sugars, Artificial Ingredients** – removing these foods from your meal plan will greatly reduce your toxin load.
- **Focus on quality whole foods** – organic fruits and vegetables, free-range and organic lean meats, whole unrefined grains, raw nuts and seeds, cold-pressed and unrefined oils provide necessary nutrients for gut and brain health.
- **Consume Fermented Foods** – kefir, kimchi and kombucha help rebalance your microbiome.
- **Consider an elimination diet** – avoid gluten, dairy, corn, soy, eggs and peanuts for 3-6 weeks then slowly reintroduce to determine potential allergy/intolerance.
- **Consider basic supplementation** such as a high quality multi, EFAs and probiotics.
- **Consider targeted supplementation** based on your symptoms and goals.



# RESOURCES

- <https://draxe.com/leaky-gut-diet-treatment/>
- <https://blog.kettleandfire.com/leaky-gut-foods/>
- *Digestive Wellness, 4<sup>th</sup> Ed.*, Elizabeth Lipski, PhD, CCN, CHN
- *The Slow Down Diet*, Marc David
- <https://www.scientificamerican.com/article/gut-feelings-the-second-brain-in-our-gastrointestinal-systems-excerpt/>
- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5146205/>
- <http://www.mayoclinic.org/diseases-conditions/depression/in-depth/antidepressants/art-20046273>
- <https://www.drugs.com/drug-class/ssri-antidepressants.html>
- <https://drjosephalaimo.wordpress.com/2011/06/23/caseomorphins-and-gluteomorphins-%E2%80%93-the-food-opioids/>

*Photos Courtesy of:*

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**THANK YOU**



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