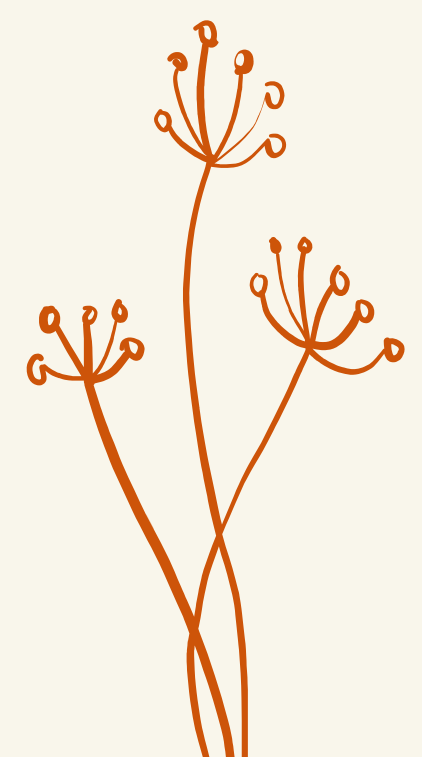




FODMAPs, Food Intolerances, and their Role in Gut and Mental Health

Presented by Jessica Masterson RDN CDN CDCES
December 14, 2023





Learning Objectives

- **Define food allergies, intolerances, and sensitivities:**
 - Clearly differentiate between food allergies, intolerances, and sensitivities, and explain the underlying mechanisms involved in food intolerances and sensitivities.
 - **Identify common food intolerances and sensitivities:**
 - Provide an overview of the most common food intolerances and sensitivities, such as FODMAPs, lactose intolerance, gluten sensitivity, and histamine intolerance and discuss the specific foods or components that trigger these reactions.
 - **Explore the connection between food intolerances and mental health:**
 - Present current research and evidence linking food intolerances and sensitivities to mental health conditions like anxiety, depression, and mood disorders, emphasizing the role of the gut-brain axis.
 - **Discuss the role of inflammation in food intolerances and sensitivities:**
 - Explain how inflammatory processes triggered by certain foods can contribute to both gut and mental health issues and discuss the potential long-term effects on overall well-being
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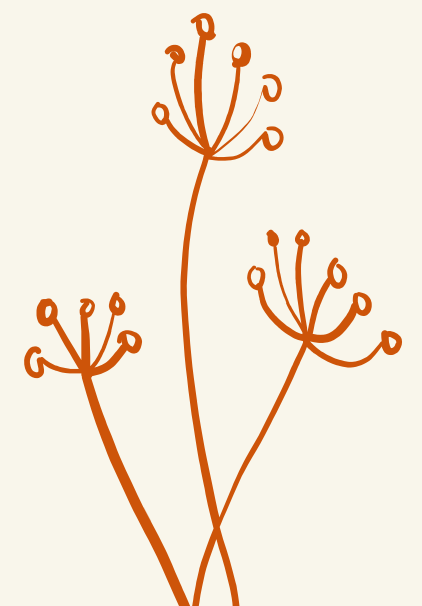
The Problems



Food Allergies

Food Sensitivites

Food Intolerances



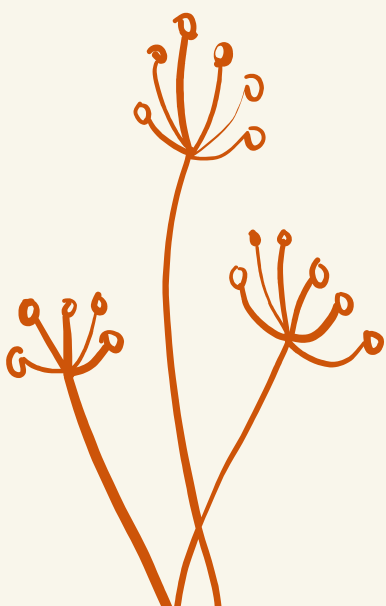


Allergies

Food allergies are adverse reactions triggered by the immune system in response to specific proteins found in certain foods. When someone with a food allergy consumes or comes into contact with the allergen, their immune system mistakenly identifies the protein as harmful and initiates a defensive response.

These reactions can range from mild to severe and may manifest within minutes to a couple of hours after consuming the allergenic food.

Symptoms can vary widely and may include:

1. **Digestive issues**
 2. **Respiratory problems**
 3. **Skin reactions**
 4. **Anaphylaxis**
- 



Food Allergies

Food Sensitivities

Food Intolerances





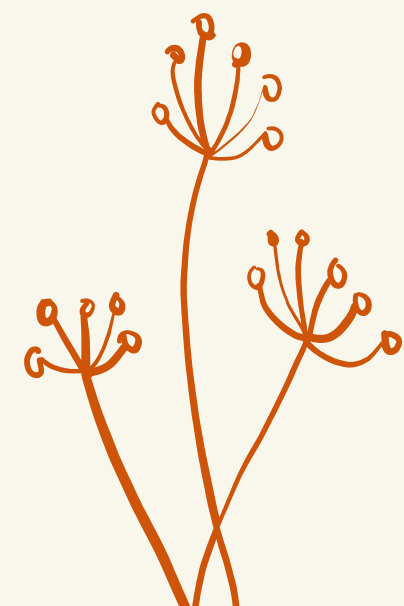
Sensitivites



Food sensitivities are adverse reactions to certain foods that may cause symptoms or discomfort in individuals but do not involve the immune system to the extent seen in food allergies. Unlike food allergies, which trigger an immune response, food sensitivities often involve different mechanisms and can be harder to diagnose due to their varied and sometimes delayed symptoms.

Food sensitivities encompass a range of reactions, including:

1. **Non-immunoglobulin E (IgE) mediated reactions**
2. **Delayed onset reactions**
3. **Irritable Bowel Syndrome (IBS) triggers**



Food Allergies

Food Sensitivites

Food Intolerances



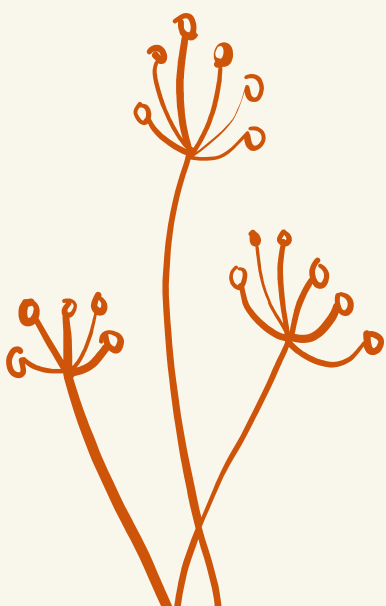


Intolerances



Food intolerances refer to adverse reactions that occur after consuming certain foods but do not involve the immune system. Unlike food allergies, which are immune-mediated responses, food intolerances arise due to difficulties in digesting specific components in food or the body's inability to metabolize certain substances properly. Common types of food intolerances include:

1. **Lactose intolerance**
2. **Non-celiac gluten sensitivity**
3. **Histamine intolerance**
4. **Fructose intolerance**



Food Allergies

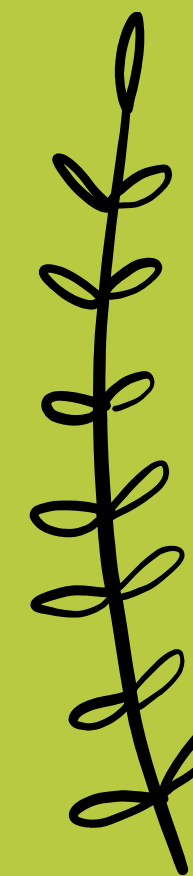
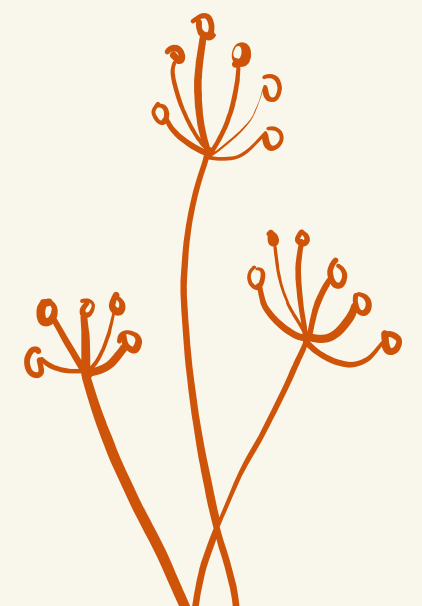
Food Sensitivites

Food Intolerances



The Triggers

(a few of them)



FODMAPS

Gluten

Sucrose

Lactose

Fructose

Histamine

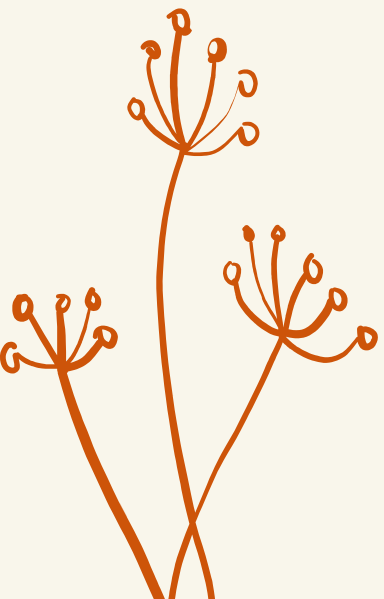
Nightshades

Common Allergens




Common Allergens

- Dairy
- Fish
- Shellfish
- Peanuts
- Tree Nuts
- Wheat
- Soy
- Egg
- Sesame

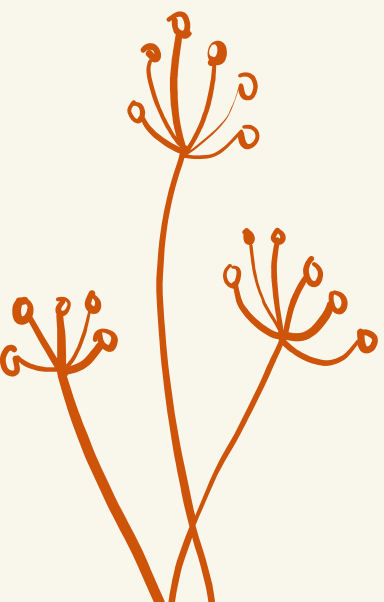




FODMAPS

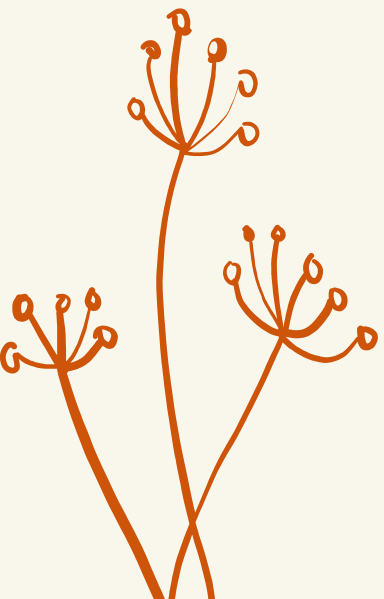


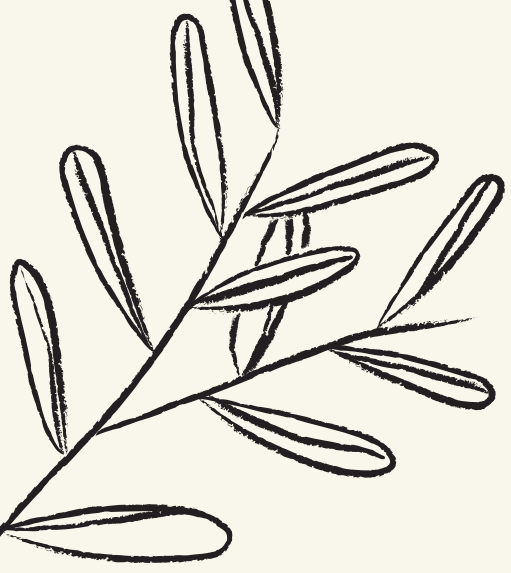
- Fermentable
 - Oligosaccharides
 - Disaccharides
 - Monosaccharides
 - Polyols



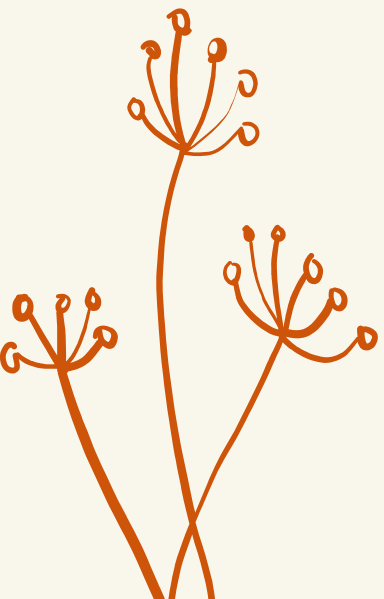


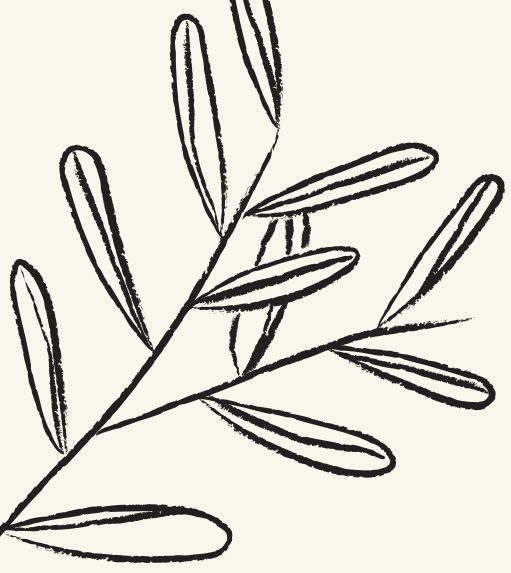
- Lactose
- Sucrose





Gluten





- Histamine
- Nightshades





Gut Health



Mental Health



There is evidence suggesting that food intolerances or sensitivities may have an impact on mental health and contribute to various psychological symptoms

- Inflammation
- Gut-Brain Axis
- Neurotransmitter Imbalance
- Immune System Response
- Symptom Overlap
- Individual Susceptibility





Inflammation


Inflammation is a natural part of the body's immune response to protect against harmful stimuli such as pathogens, injuries, or irritants. It involves the body's white blood cells, immune proteins, and various other substances to fight off infections and initiate healing.

Acute

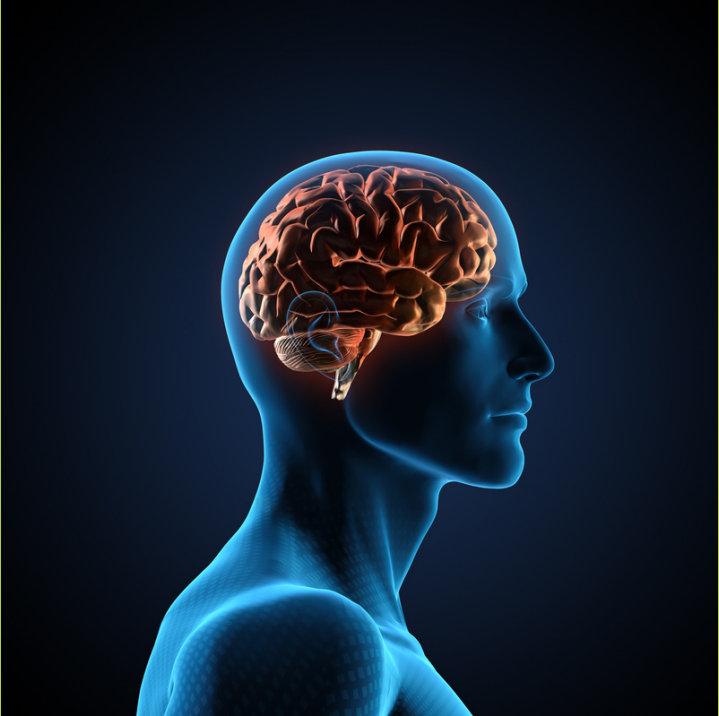
Chronic



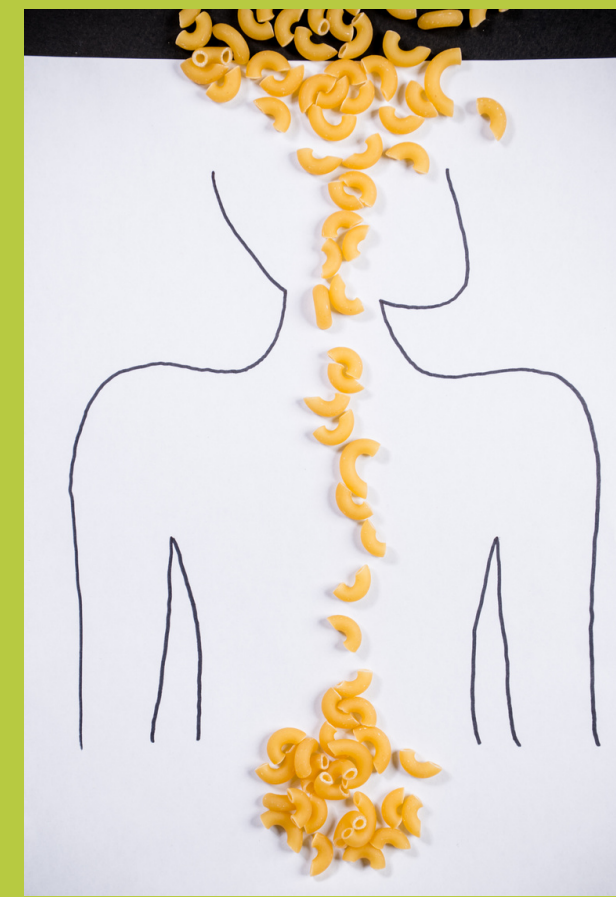
Inflammation

- Immune Response
 - Increased Gut Permeability
 - Activation of Mast Cells
 - Chronic Low-Grade Inflammation
 - Impact on Systemic Health
- 

Gut- Brain Axis



The gut-brain axis is a bidirectional communication system that involves interactions between the gastrointestinal tract (the gut) and the central nervous system (the brain). This connection enables constant communication between the brain and the gut, allowing them to influence each other's function and impact various aspects of health, including digestive processes, immune function, and even emotional well-being.

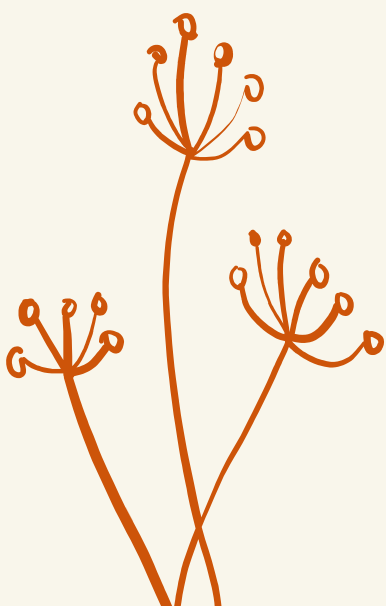


- Nervous System
- Hormones and Neurotransmitters
- Microbiota
- Immune System



Chemical molecules that enable brain activity, from the simplest reflexes to the most complex thoughts and emotions.

Neurotransmitters allow neurons to talk to each other and orchestrate everything from your heartbeat to your happiness.



Neurotransmitters





Vagus nerve:

This major nerve directly connects the gut to the brain, transmitting signals about digestion, inflammation, and nutrient status via neurotransmitters.



Gut microbiota:

These diverse microorganisms produce neurotransmitters and hormones like serotonin, dopamine, and GABA, which impact mood, sleep, digestion and stress.



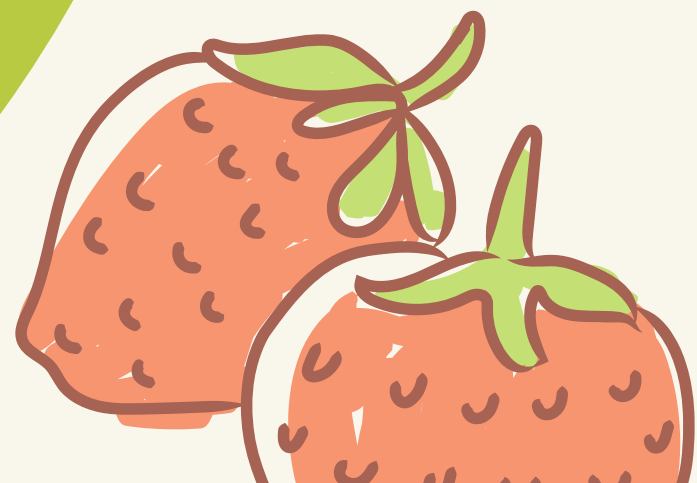


Neurotransmitters






Immune System Response

When the body reacts negatively to certain foods due to intolerances, the immune system can become activated. This immune response might indirectly affect the brain and contribute to symptoms of mental health disorders.





Symptom Overlap



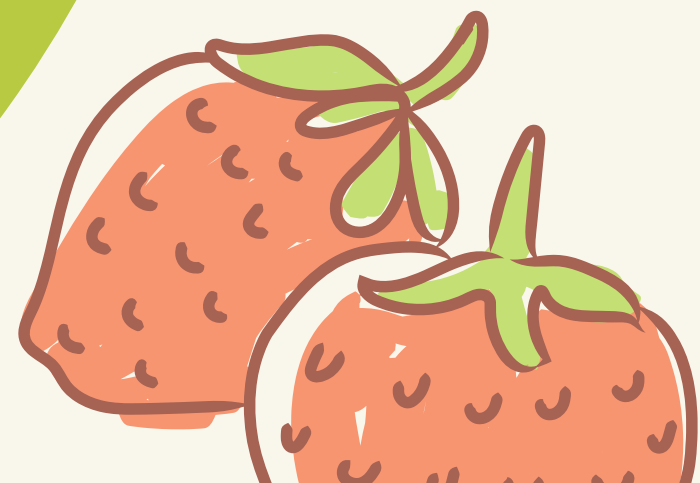
Some symptoms of food intolerances, such as fatigue, headaches, irritability, and brain fog, can mimic or exacerbate symptoms of mental health disorders. This overlap might lead to misdiagnosis or worsen existing mental health conditions.





Individual Susceptibility

Not everyone with food intolerances will experience mental health issues, but some individuals might be more susceptible due to genetic factors, existing health conditions, or the severity of their intolerance.



The background features two large, overlapping, light green curved shapes. In the top-left and top-right corners, there are black line-art illustrations of leafy branches. A larger, similar illustration is centered at the bottom of the page.

What to Do?!

Gut Health



Identify

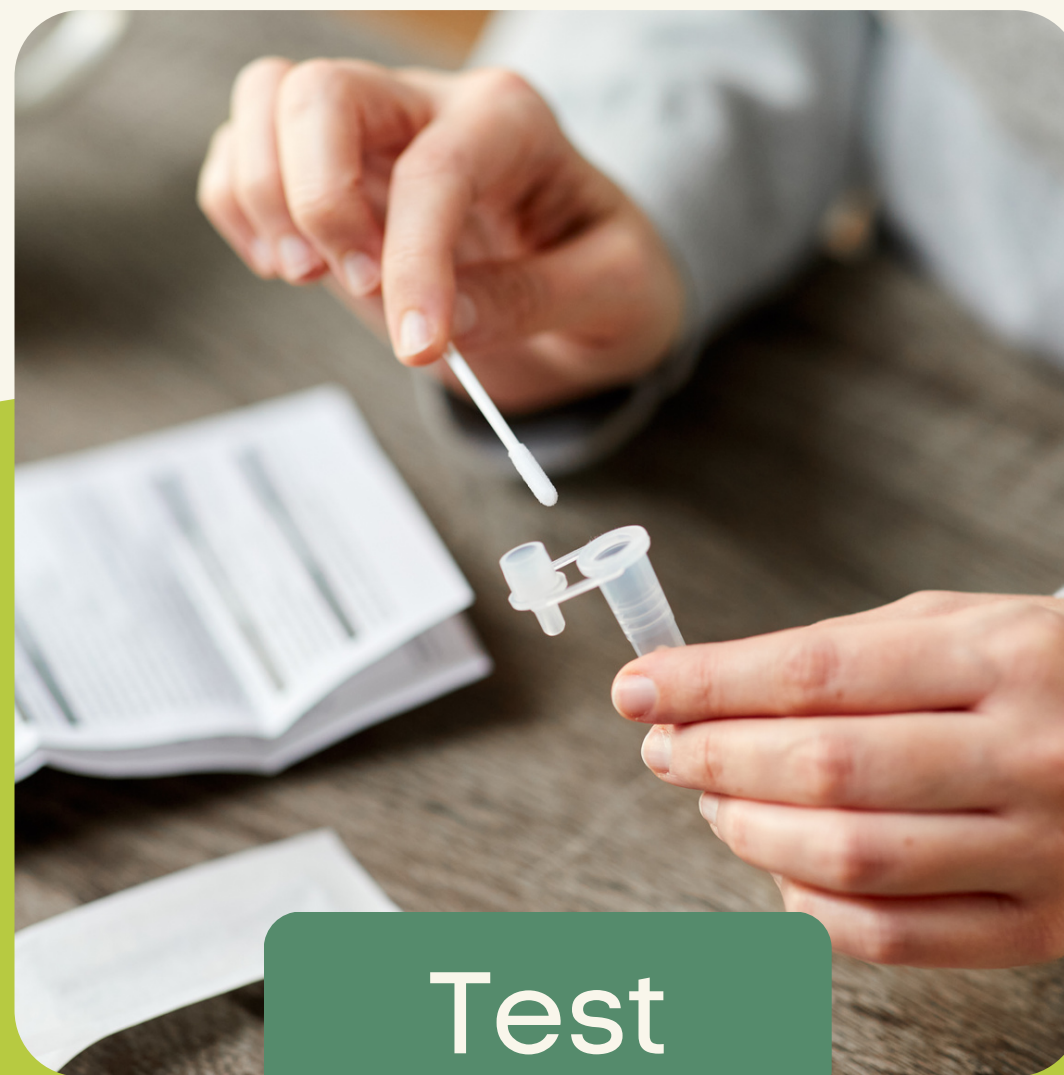


Heal

Identify



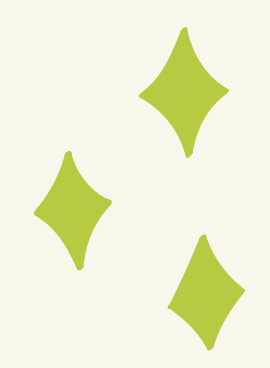
Elimination



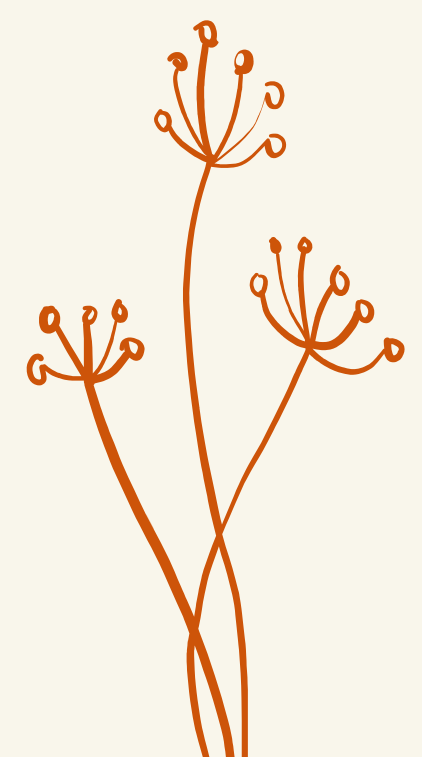
Test



Journal



Identify the trigger





Dairy

- Lactose
- Milk Protein
- FODMAP

Gluten

- Celiac
- Sensitivity
- Type of Wheat
- FODMAP

Wheat

- Allergy
- FODMAP

Pepperoni

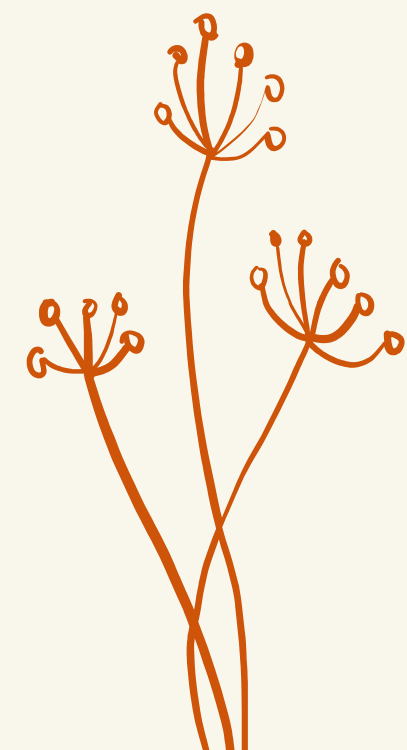
- Nitrates

Tomato

- Nightshades
- Acidic

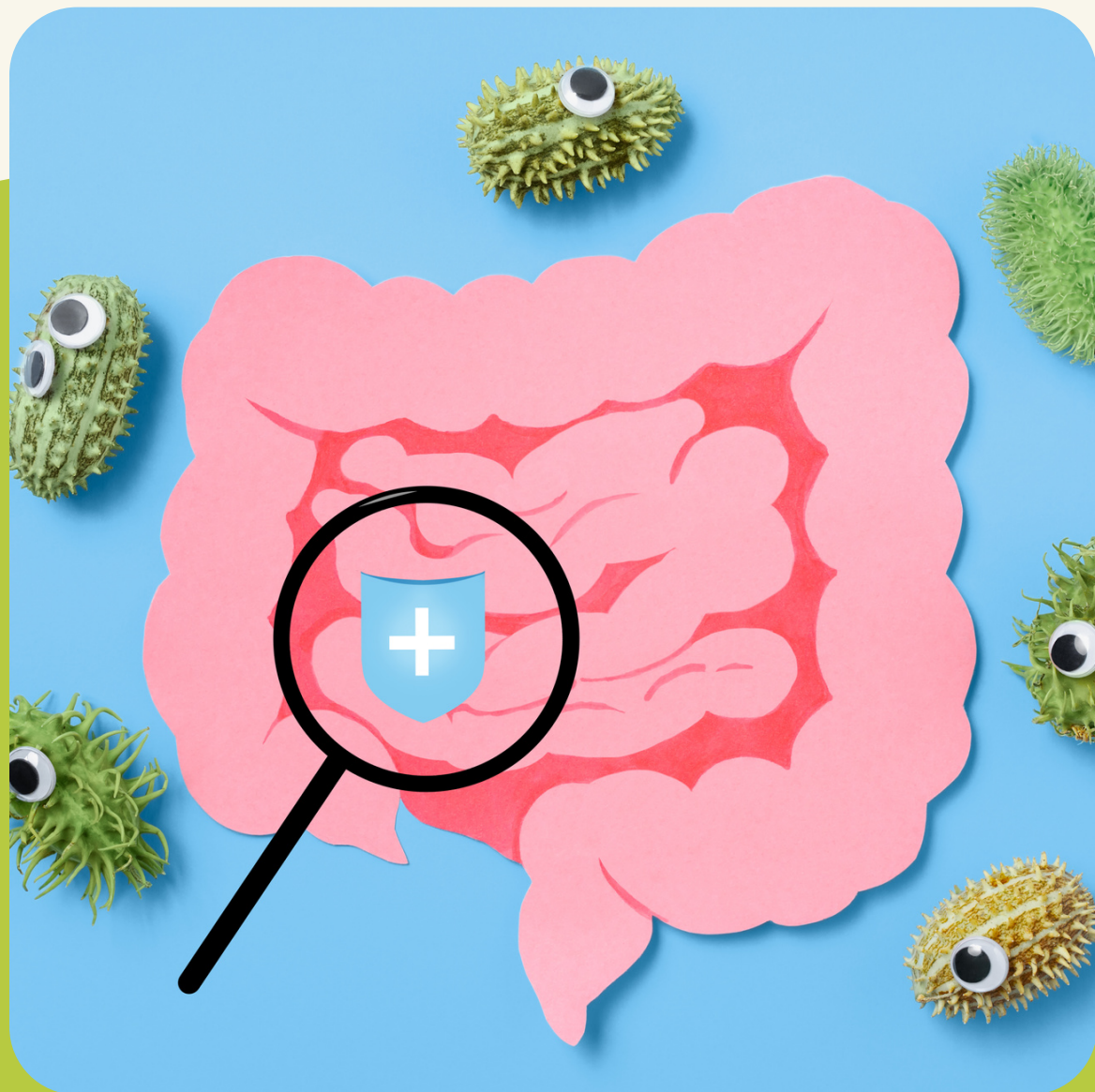
Alcohol

- Beer
- Wheat



Underlying Cause

- SIBO
- Leaky Gut
- Alpha-Gal



Heal

- Healthy Diet
- Pre and Probiotics
- Regular Bowel Movements
- Pelvic Floor Therapy
- Essential Nutrients

Healing the Gut

Hydrate

- Drink plenty of hydrating fluids
- Urine should be clear or light colored (may be bright yellow if taking a multivitamin)
- Urinating 4 to 10 times a day

Healthy Diet

- Focus on lean proteins, heart healthy fats and high fiber foods like fruits, vegetables, whole grains, beans, nuts and seeds
- Limit added sugars and saturated fats
- Make it sustainable

Essential Nutrients

- Omega-3
- Pro and prebiotics
- L-Glutamine
- Vitamin A, D, C
- Zinc
- Choline, Arginine
- Antioxidants

Healing the Gut

Fermented Foods

- Yogurt
- Kefir
- Kombucha
- Natto
- Miso
- Kimchi
- Tempeh
- Pickles
- Sauerkraut

Prebiotics

- Fiber
- Onions
- Garlic
- Bananas
- Fruits and Vegetables

Probiotics

- Consider supplementing

Healing the Gut

Regular Bowel Movements

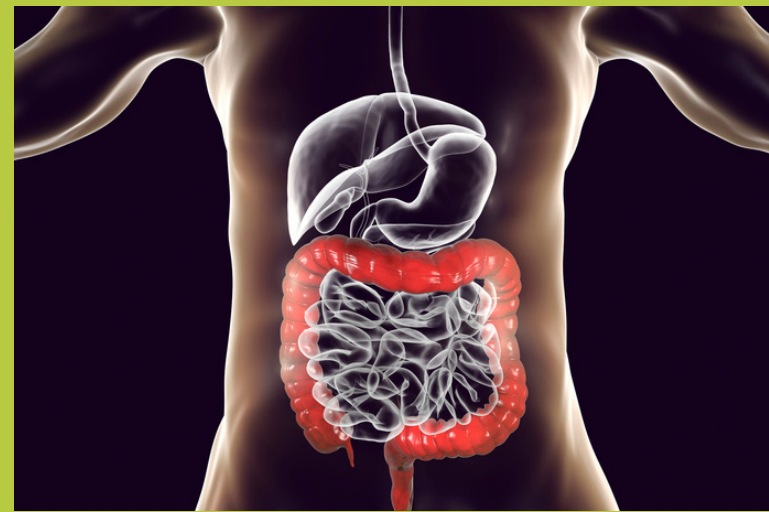
- Normal bowel movements are 3 times a day to every 3 days
- Goal is at least once a day softly formed
- Work to normalize
- Pay attention to personal comfort

Replace

- Digestive Enzymes
- Lactaid
- Surcaid
- Ox Bile
- Digestive Bitters
- Acid Balance

Pelvic Floor Therapy

- Strengthen muscles
- Relax muscles



Gut Health

- Move your body
- Prioritize sleep
- Manage stress
- Connect with nature
- Healthy Diet/Mindful Eating
- Hydrate

Mental Health

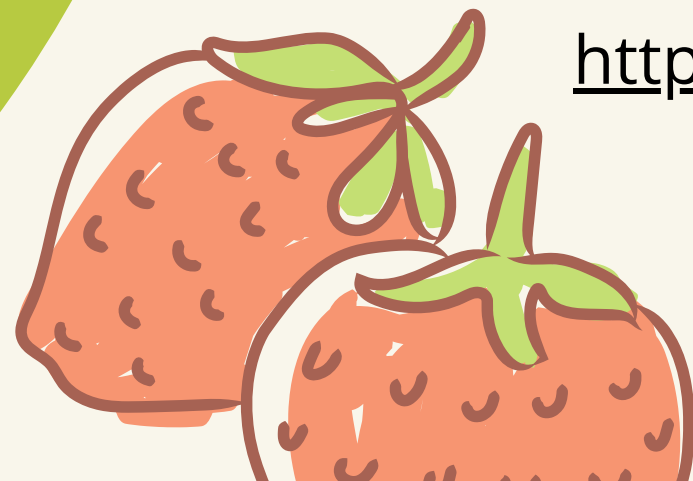




Thank
You!

Resources/More Information

- Call Insurance
- Ask PCP
- Food sensitivity and nutrigenetic testing
- Eatright.org
- Healthline.com
- FARE
- Monash University FODMAP website:
<https://members.monashfodmap.com/>
- International Foundation for Functional Gastrointestinal Disorders: <https://www.universitygi.com/inflammatory-bowel-disease-center-excellence>
- The American College of Gastroenterology:
<https://gastro.org/>



Contact

Jessica Masterson RDN CDN CDCES



jmasterson@wheeler.org



860-224-6340