

Module 2: What is a "root cause"?

And how to identify yours



The digestive system works like a chain of dominos



VS. **Conventional Approach: Root Cause Approach:**

- Focus is only on addressing/relieving symptoms
- Treatment plan can feel like "whacka-mole" as symptoms evolve/change
- Relief can come faster (but not always)
- Relief is often short-term

- Relief is long-term



• Focus is on figuring out WHY these symptoms are happening • Client/patient feels empowered to troubleshoot symptoms as they evolve • Relief can take more time



4 Main root causes

1. Stress imbalances



- 2. Low stomach acid/mineral
- 3. Altered gut motility
- 4. Suppressed/activated gut
 - immune system

Deep Dive Into the 4 Main Root Causes





- A protective mechanism
 - Designed to give you the energy to escape the proverbial "bear"
- Not always negative
- Not always obvious
- Any CHANGE
 - Includes mental, emotional, and physical
 - stress
 - We deal with stress in many forms all day
 - long!



What is stress?



"Normal" stress

- Adrenal Glands:
 - Sit on top of kidneys
 - - DHEA, & adrenaline
 - you
- Works well for dealing with stress in the short-term • "fight or flight"



- Release important hormones: cortisol,
- Meant help you adapt to stressors around



When it goes wrong

- Long-term/Chronic
 - Our bodies are not equipped to handle
 - chronic, long-term stress
 - Adrenal glands cannot keep up
 - Get burned out
 - Leads to feeling anxious and nervous
 - all the time
- Other side effects:
 - Insomnia (or "tired by wired")
 - Fatigue
 - Depression
 - Irritability
 - High blood sugar





How this happens

- Stimulation overload
- Technology + screens
- To do lists that never end
- Running from event to event
- Over committing yourself
- Constant noise
- Not dealing with past trauma
- etc.





Why we care

- When our bodies are in a state of stress, our digestion slows
 Body is not physiologically setup to digest effectively
- Energy is pulled away from digestion & put towards essential functions
 - Essential functions = heart, lungs, brain
- Chronic st altered \rightarrow



- Chronic stress \rightarrow digestive process will be
 - altered \rightarrow bloating & other symptoms



How stress impacts digestion

- Inhibits saliva production
- Decreases stomach acid release
- Inhibits release of digestive enzymes
- Slows gut motility
- Changes the microbial diversity of your gut
- Increases blood sugar levels
- Changes immune function

© 2005 Pearson Prentice Hall, Inc.

SYMPATHETIC NERVES "Fight or flight"

Dilate pupils

Inhibit salivation

Increase heartbeat

Relax airways

Inhibit activity of stomach

Stimulate release of glucose; inhibit gallbladder

Inhibit activity of intestines

Secrete epinephrine and norepinephrine

Relax bladder

Promote ejaculation and vaginal contraction

SNEAKY FORMS OF STRESS

Altered Gut Motility

What is motility?

- How quickly food & waste moves through your system
- Regulates your ability to have a COMPLETE bowel movement
- Too fast → loose stool/diarrhea; undigested food; >3 BMs in a day
- Too slow → constipation; <1 complete BM/day; reflux; incomplete emptying
 - You SHOULD feel relieved after a BM!

Gut-Brain connection

- Motility is controlled by the Vagus Nerve
 - The messaging pathwaybetween the gut & the brain
- Issues with motility arise when this connection become weak – aka poor vagal tone
- A wide variety of things can cause poor vagal tone

Poor vagal tone

- What causes it?
 - Inflammation (blood sugar imbalances, gut infection, dysbiosis, etc.)
 - History of food poisoning (nerve damage)
 - History of head injury/concussion
 - Intestinal permeability (i.e. "Leaky gut")
 - Chronic stress pulls blood flow, nutrients and resources AWAY from the gut → slows down motility

Slow vs. fast motility

- Slow:
 - Incomplete emptying
 - Wake up with heavy, bloated stomach
- Fast:
 - high stress situations trigger BM

Low stomach acid/ mineral imbalances

Mineral imbalances

- "Spark plugs" for all metabolic processes
- Can't make them
- Imbalances are a symptoms, like:
 - \circ low energy
 - digestive issues
 - trouble sleeping
 - \circ hormone imbalances
 - period problems
 - anemia
 - infertility
 - And so much more...
- Stress of any form \rightarrow faster mineral depletion

• Imbalances are a common start to many

Low stomach acid

Mineral/Stomach Acid Connection: • Need sodium, zinc, iron, and chloride in order to make stomach acid (aka HCL) • Need magnesium (Mg) to help facilitate the whole process of making HCL

Stress's Role: • Depleted minerals means not enough to make adequate HCL

• Important early stage of digestion • Provides protection against any pathogens entering the body through the mouth • Levels naturally decrease with age

acid

- Ridges in nails
- Food in stool
- Nausea
- Reflux
- Upset stomach
- Burning in stomach

Signs of low stomach

• Feeling full all the time • Broken capillaries in cheeks and nose

• Bad breath (can be related to H. Pylori)

Common triggers

- stress)

• Stress (we deplete essential minerals for making stomach acid - like Mg) • Chronic alcohol use – lowers secretion • Chronic undereating (nutrient deficiencies +

• PPIs (proton pump inhibitors – reflux meds)

Low stomach acid & reflux

- Stomach won't empty & allow food to move to next stage of digestion until it fills with enough HCL
- The longer food sits in stomach the more fermentation & gas build up
- Gas can cause pressure on upper GI & force it to open
- Stomach contents/HCL will enter esophagus

Getting off PPIs

- support
- There is symptom relief available that doesn't lower HCL levels

- Possible if done SLOWLY & with doctor

Why we care

- digestion

- - - function

• Stomach acid is one of the earliest stages of

• Important element of the immune system • Increases risk for helicobacter pylori (h.pylori) • stomach ulcers/gastritis

• stomach cancer

• Sets the stage for the rest of the process

• Interferes with pancreatic and gallbladder

• Increases risk for SIBO/dysbiosis and mineral deficiencies

• How to tell is stomach acid is low? • Baking Soda Test • Symptom tracking

Suppressed/activated gut immune system

Role of the gut immune system

- Do you feel like you have symptoms regardless of what you eat, regardless of what you eat, regardless of what you try, and there are no clear patterns?
- Constantly getting sick?
- Skin reactions, mucus congestion, slow metabolism, brain fog, fatigue, depression, chronic pain?

Role of the gut immune system

- Protect against pathogens like bacteria and other foreign invaders
- What's included in the gut immune system:
 - $\circ~$ Stomach acid
 - Probiotic bacteria
 - Bile
 - A healthy, thick gut mucosal layer (the inner layer of the entire GI tract that protects the gut lining and where our food is absorbed in the SI)

Suppressed gut immune system

• Causes:

- $\circ~$ chronic inflammation
- $\circ~$ chronic stress
- not getting the nutrients needed to support the immune system (vitamin A, vitamin D)
- \circ gut infection
- other illness or autoimmune condition, etc.

Activated gut immune system

- Causes:
 - $\circ~$ an active infection
 - $\circ~$ other illness or autoimmune condition,
 - coming into contact with something you're allergic to

Gut permeability

- AKA "Leaky Gut"
- Unhealthy gut mucosal layer
- Allows undigested food particles to get through
- The body reacts to foreign substances outside the gut → leads to symptoms
- Body releases histamines for protection (means immune system is in overdrive) → food sensitivities

Food sensitivities

• Can look like:

- Gut reactions bloat, gas, bowel changes, etc.
- $\circ~$ Skin reactions
- Mucus congestion
- Brain fog
- $\circ~$ Slow metabolism
- Fatigue
- \circ Depression
- \circ Chronic pain

Food sensitivities

• To resolve this, we need to:

- Intentionally work on addressing stress
- \circ Rebalance minerals
- Support with digestive enzymes, bile flow support, etc. (depends on the person and is IDed with additional testing - VIP)
- Repair gut lining
- Support a healthy and diverse gut bacterial population

Mixed

Homework

Start keeping track of your food intake using the **Food Tracking Worksheet** for the duration of this program.

This sheet will help you see if you are meeting your daily **protein**, **fiber**, and **fluid** goals, which are foundational for healthy digestion.

If you're not meeting these goals, tt will also give you tips on how to get there.

Homework

• Take the **Baking Soda Test** (at least 3-5 days; don't have to be consecutive) and share your results.

• Journal Prompt:

- What is the main transformation you would like to accomplish after completing this course?
- What are your top three barriers to accomplishing that transformation right now?

