

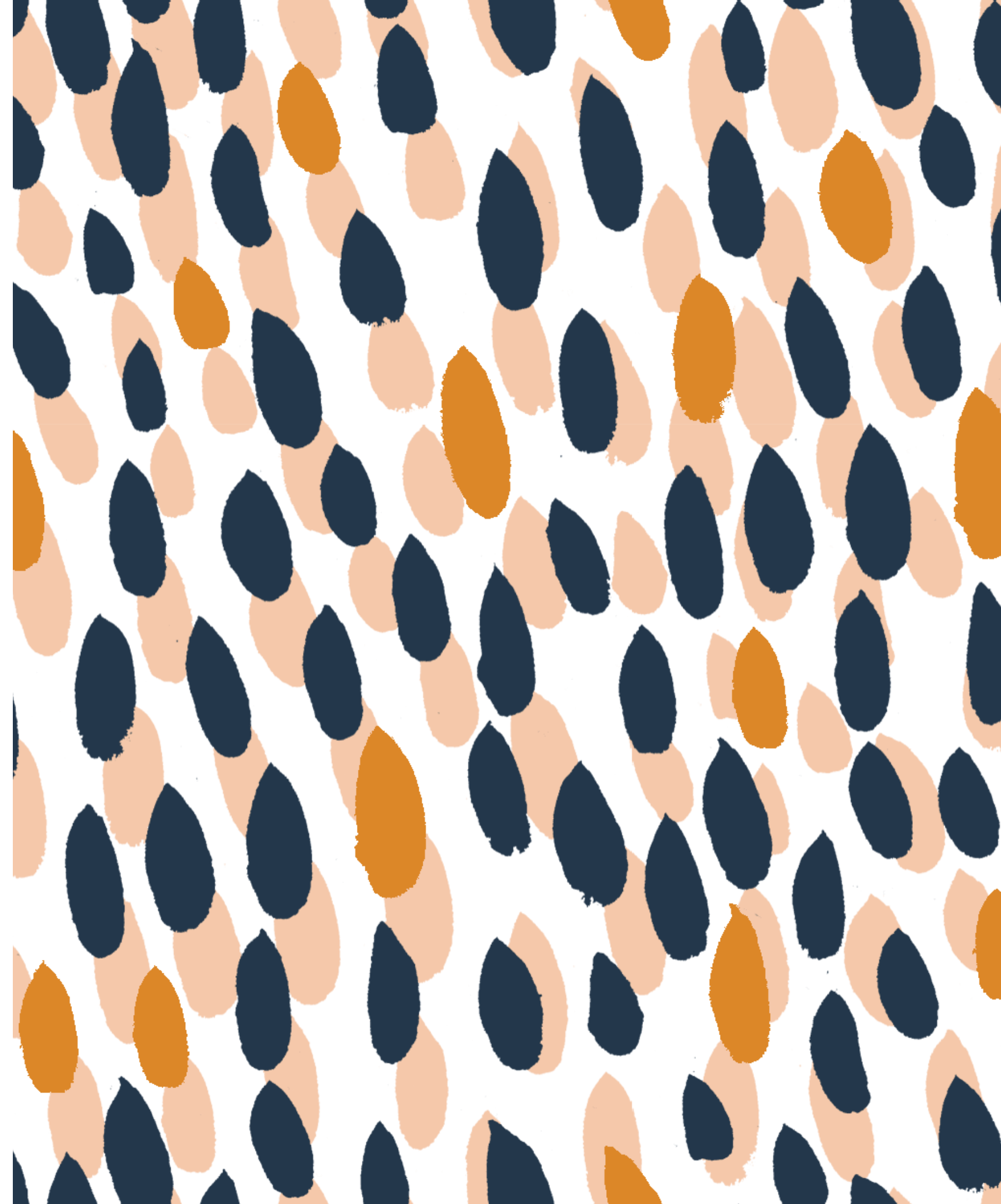
Module 5: The Nervous System & Circadian Rhythm





Nervous System Regulation

The “root cause to all root
causes”



What is **stress**?

- Any change!
 - positive or negative
- Our society normalizes many things that actually contribute to our **stress load**
 - Lack of sleep
 - Putting work/others first
 - Prioritize our kids' needs before our own
 - Skipping meals
 - Chronic dieting



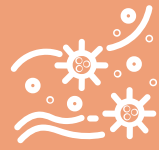
Common Forms

VS.

Sneaky Forms

- Emotional stress:
 - grief
 - overwhelm
 - depression/anxiety
 - burnout
- Physical stress:
 - not getting enough sleep
 - intense workout

- BS imbalances (undereating and/or overexercising; skipping meals, not enough protein, not enough fiber)
- Go-go-go/nonstop lifestyle
- Gut infection (seen on GI MAP)
- Impaired digestion(seen on GI MAP)
- Suppressed gut immune system (seen on GI MAP)
- Inflammation
- Overly demanding job
- healthy/toxic relationship



Decreased Saliva

sympathetic state (“fight or flight”) decreases saliva production (first stage of chemical digestion, especially carb foods)



Stomach

increased cortisol and other hormones degrade the mucus barrier that protects against ulcers, plus it lowers stomach acid over time



Pancreas & Gallbladder

decreases pancreatic secretions, like insulin, enzymes, etc. This impacts BS balance and digestion



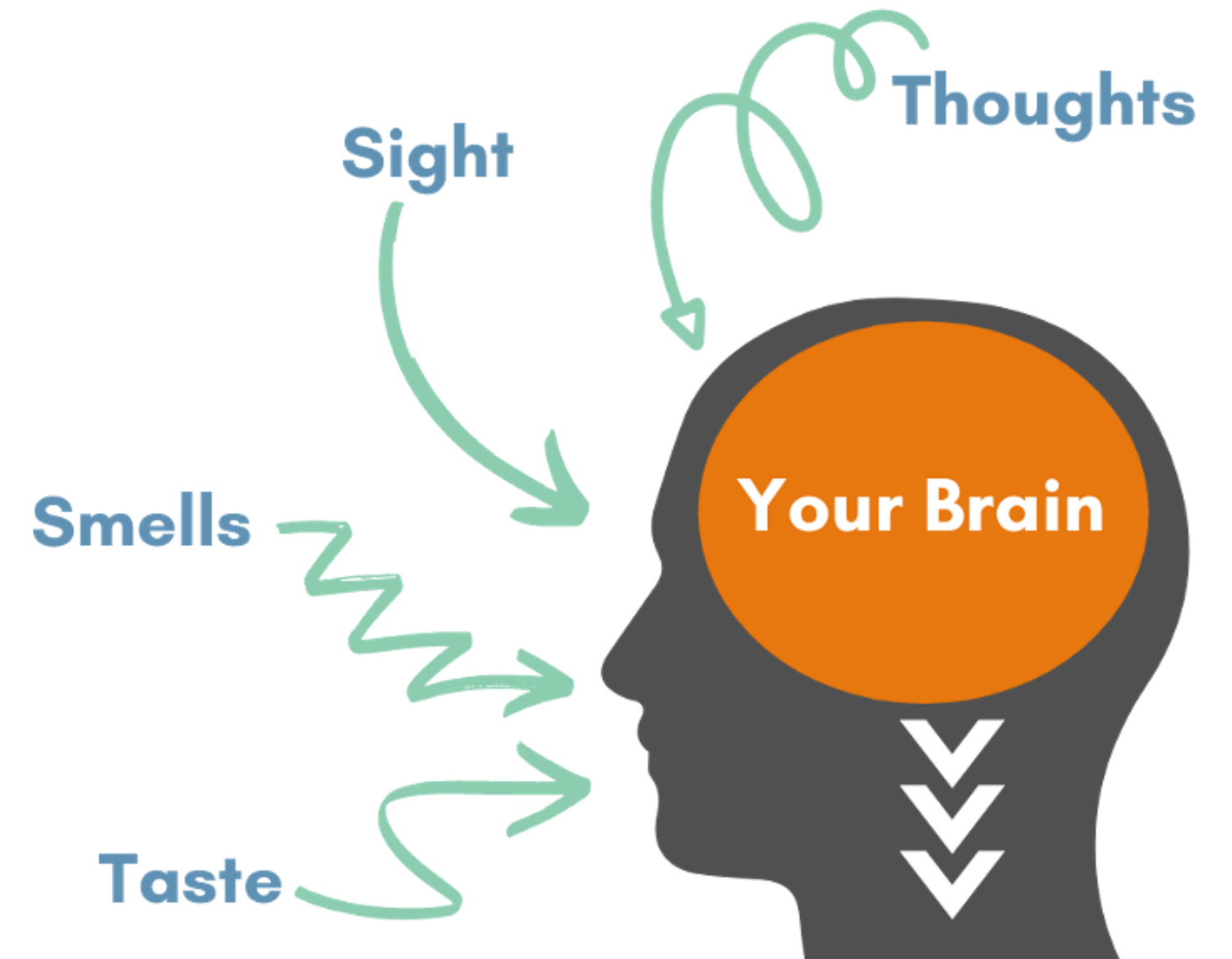
Small Intestine

increased intestinal permeability (“leaky gut”), decreased motility

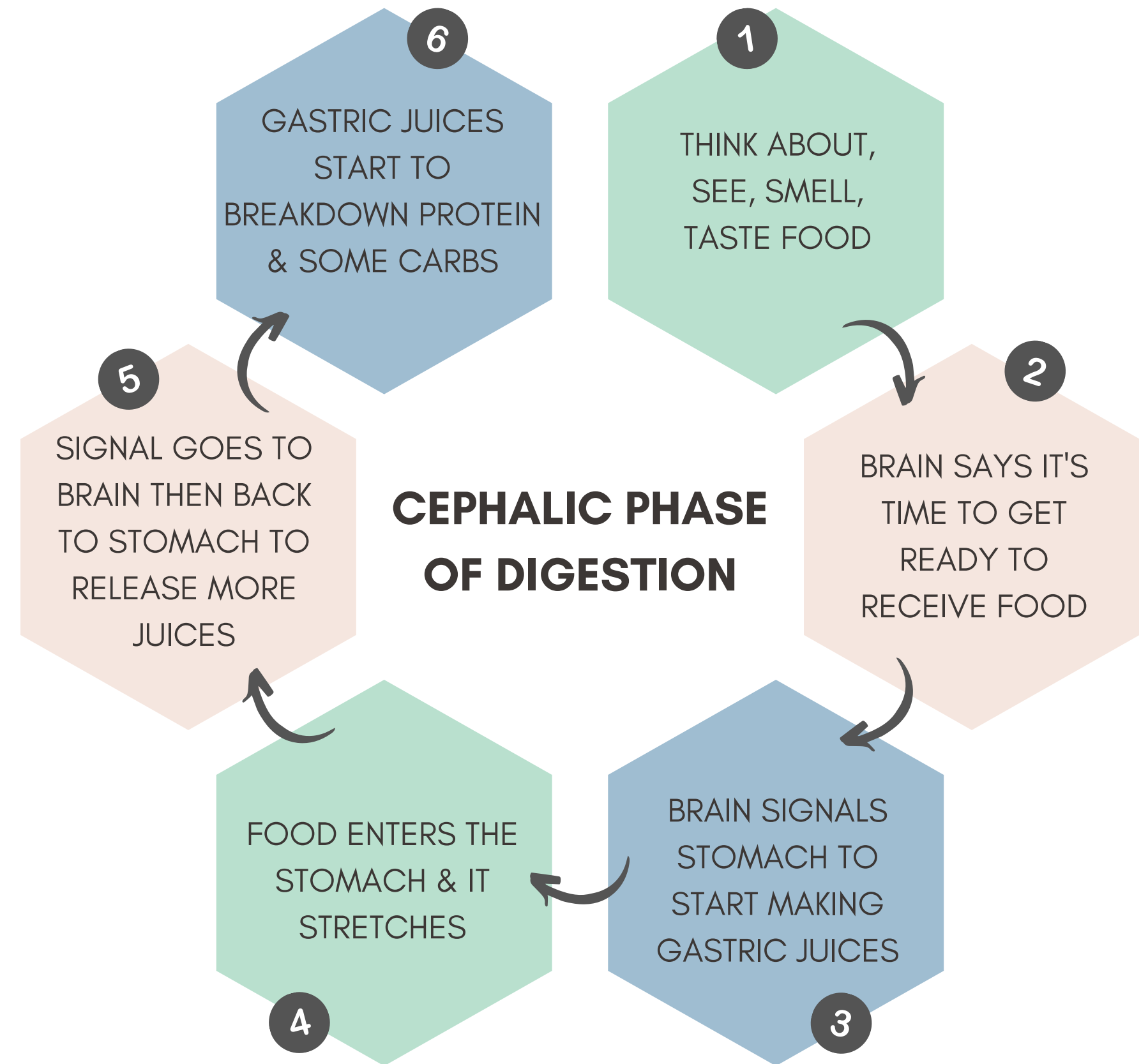
Chronic Stress & Digestion

The **Cephalic** Phase

- Occurs before food ever touches your lips
- Often overlooked
- Results from the thought, sight, smell, and taste of food
 - The hungrier you are the stronger the response

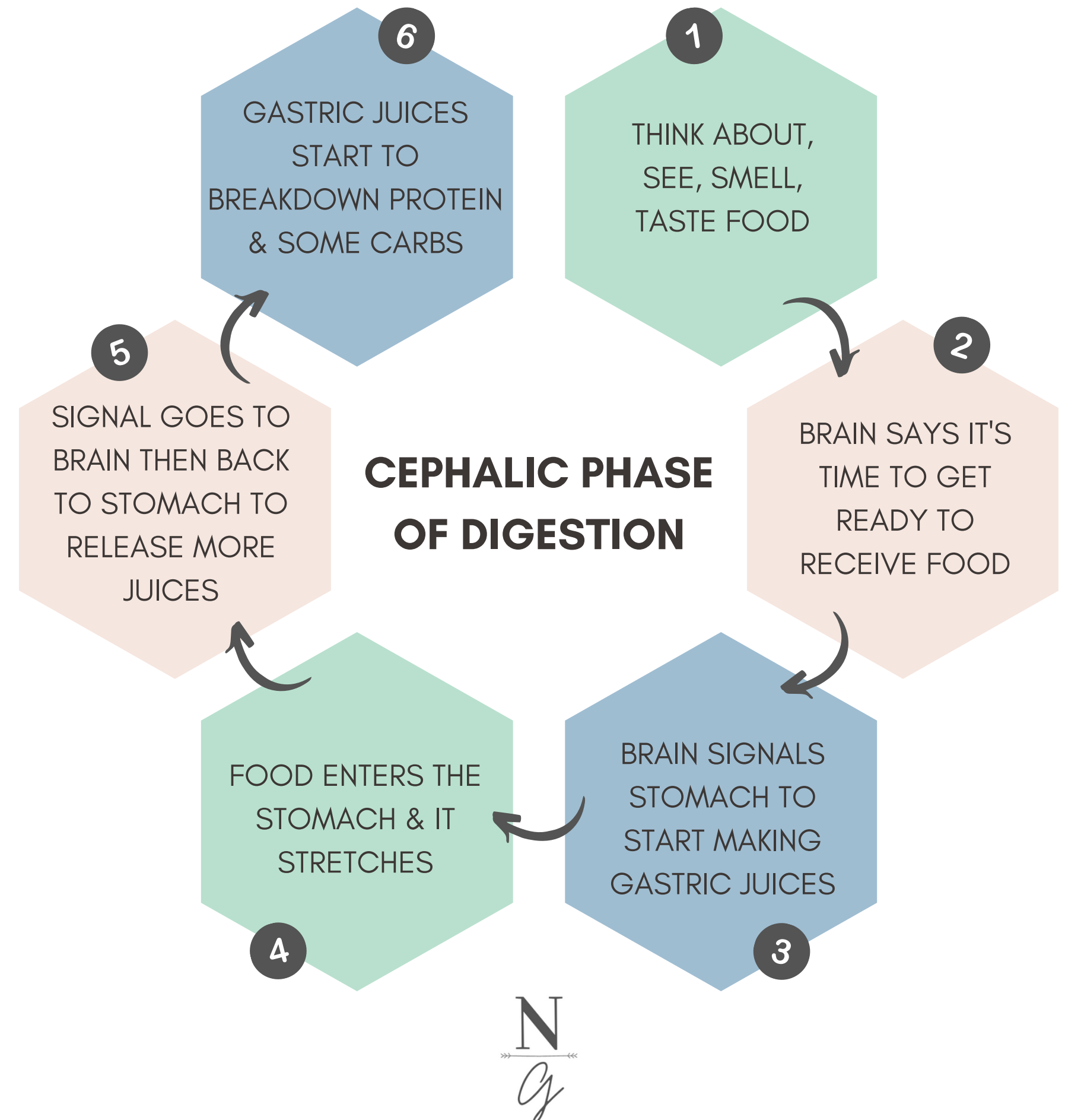


Chain of Events

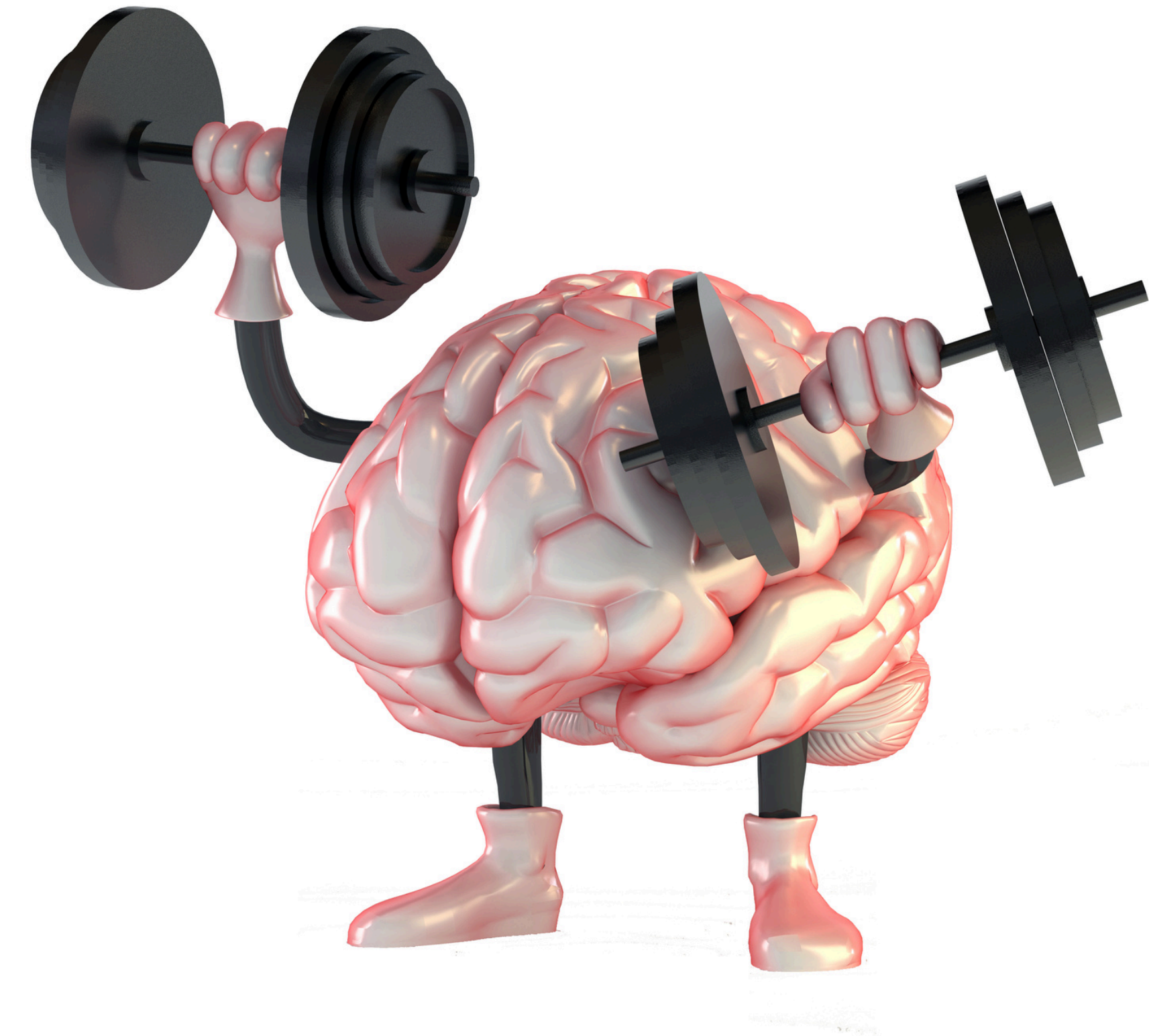


Why you **can't skip** this phase

- These steps won't happen if you're not in your "rest and digest" nervous system
- Creates a top-down effect
- Everything else becomes harder down the line
 - Remember the domino analogy
- Leads to malabsorption and nutrient deficiencies
- Mealtimes and food becomes less enjoyable
- Digestive issues become part of everyday life



What can you do about it?



Neuroplasticity

Definition: “the ability of the brain to form and reorganize synaptic connections, especially in response to learning, experience or following injury.”

In other words...

The process of teaching the brain that it can change.

Neuroplasticity

We are naturally wired to be negative and stressed

- self-protection mechanism
- evolutionary keeps us stuck in “fight or flight” / negative behavior patterns

But there’s good news!

We can create new pathways in the brain by shifting focus away from what’s holding us back (i.e. our symptoms) and towards the progress we’re making

Stress management strategies

- What relaxes you?
- How can you incorporate fun, laughter, joy into your day?
- Balance blood sugars:
 - protects stress hormones and thyroid
- Don't let food be another source of stress
 - mix prepared foods and whole/fresh foods
 - frozen veggies
 - meal kits

BOX BREATHING



06

CLOSE YOUR MOUTH, INHALE
THROUGH YOUR MOUTH TO
THE COUNT OF 6

HOLD FOR A COUNT OF 4

04

06

EXHALE THROUGH YOUR
NOSE TO THE COUNT OF 6

HOLD FOR A COUNT OF 4

04

Start with meals

Meal Hygiene (i.e. HOW you eat)

- At least 20 minutes for meals
- Chew to an applesauce-like consistency
- 4–5 rounds of box breathing or 4–7–8 breathing
- Limit liquids during meals (dilutes stomach acid)
- Limit distractions while eating

Additional **resources**

- Nervous system retraining:
 - Nerva App – hypnotherapy
 - Gupta Program
 - offers free 28 day mini course
 - 21 Day Tune Up
 - also has free YouTube videos
 - Vital Side with Lindsay Mitchell
 - Free seven day trial
 - also has a podcast Rewire
 - Nervous System School
 - HeartMath – free
 - The Workout Witch

Gut–Brain Connection

The vagus nerve

– Recap!

- Main communication pathway between the gut and the brain
- Essential role in motility and stress tolerance
- Weakens with chronic stress/nervous dysregulation
- Can strengthen your vagal tone with stress management and simple exercises
 - overtime, this will increase the body's tolerance to stress overall





Strengthening the vagus nerve

Step 1: intentional stress management

Step 2: incorporate vagal nerve exercises into your daily routine

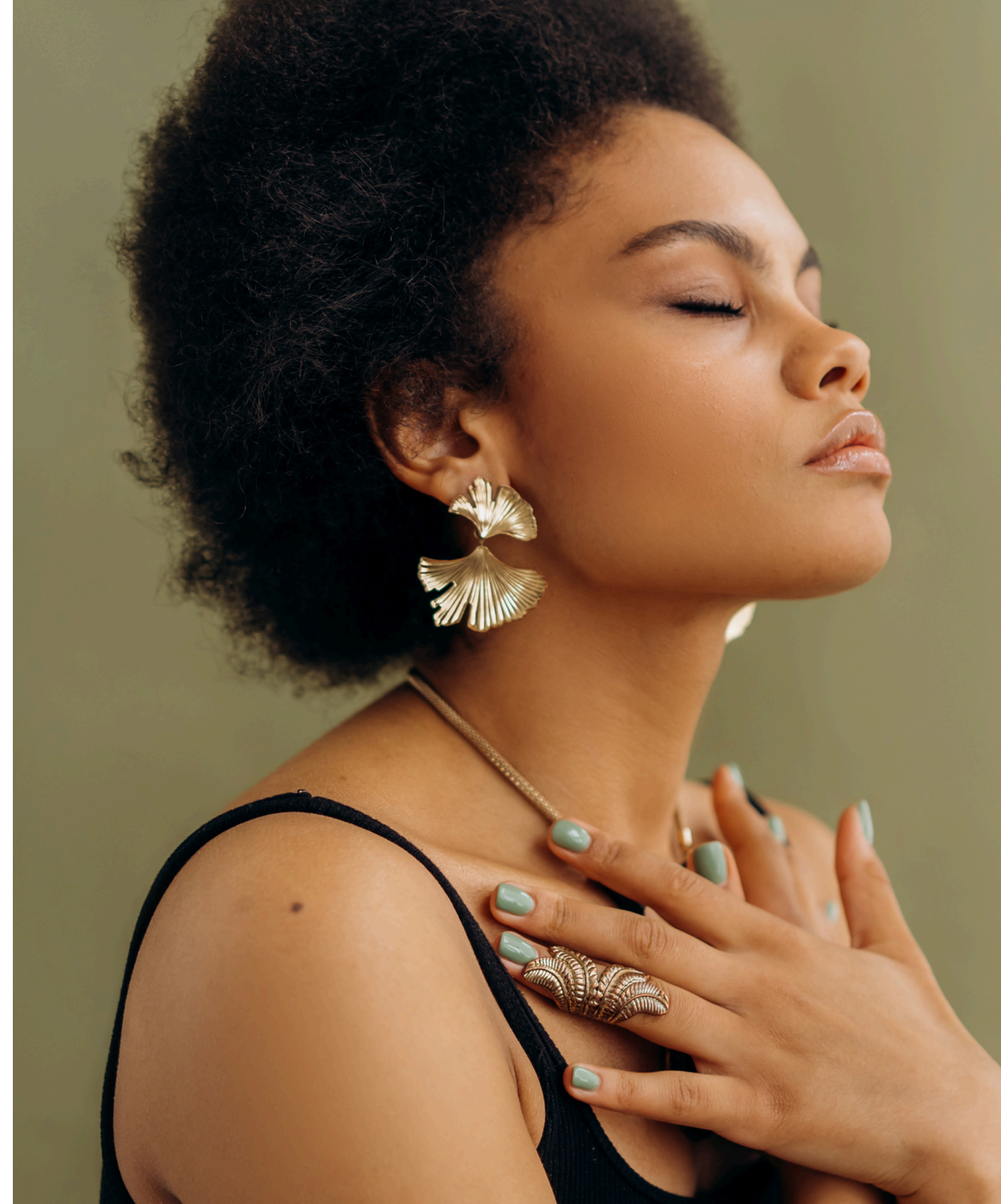
- Gargling activates the muscles in the back of the throat
 - Gargle 2–3 times a day for 2–3 minutes with water
 - Aggressively until feeling more moisture or tearing
 - Do this prior to meals
- Singing or humming





Strengthening the vagus nerve

- Reduce gut inflammation
 - What this course is all about!
- Manage blood sugars
- Gentle movement daily
- Mindfulness and meditation
- Breathwork
 - Deep diaphragmatic breathing
 - Box breathing
 - 4-7-8 breathing



Supplements

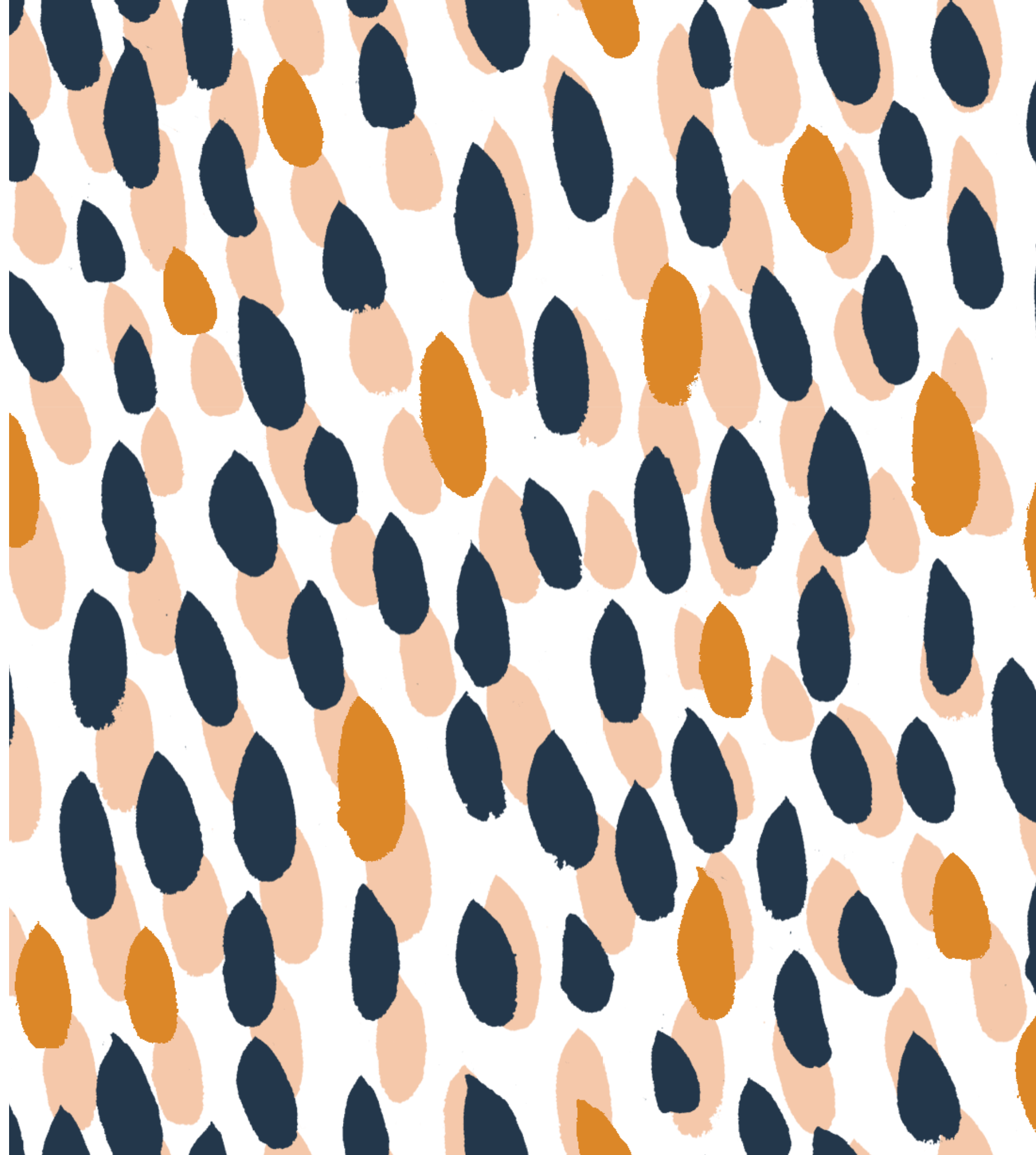
- Lion's Mane – repairs nerve damage from food poisoning
- Calming herbs:
 - ashwagandha
 - camomile
 - lavender

See Product Recommendations handout for specific products/brands.



Circadian Rhythm

The Basics

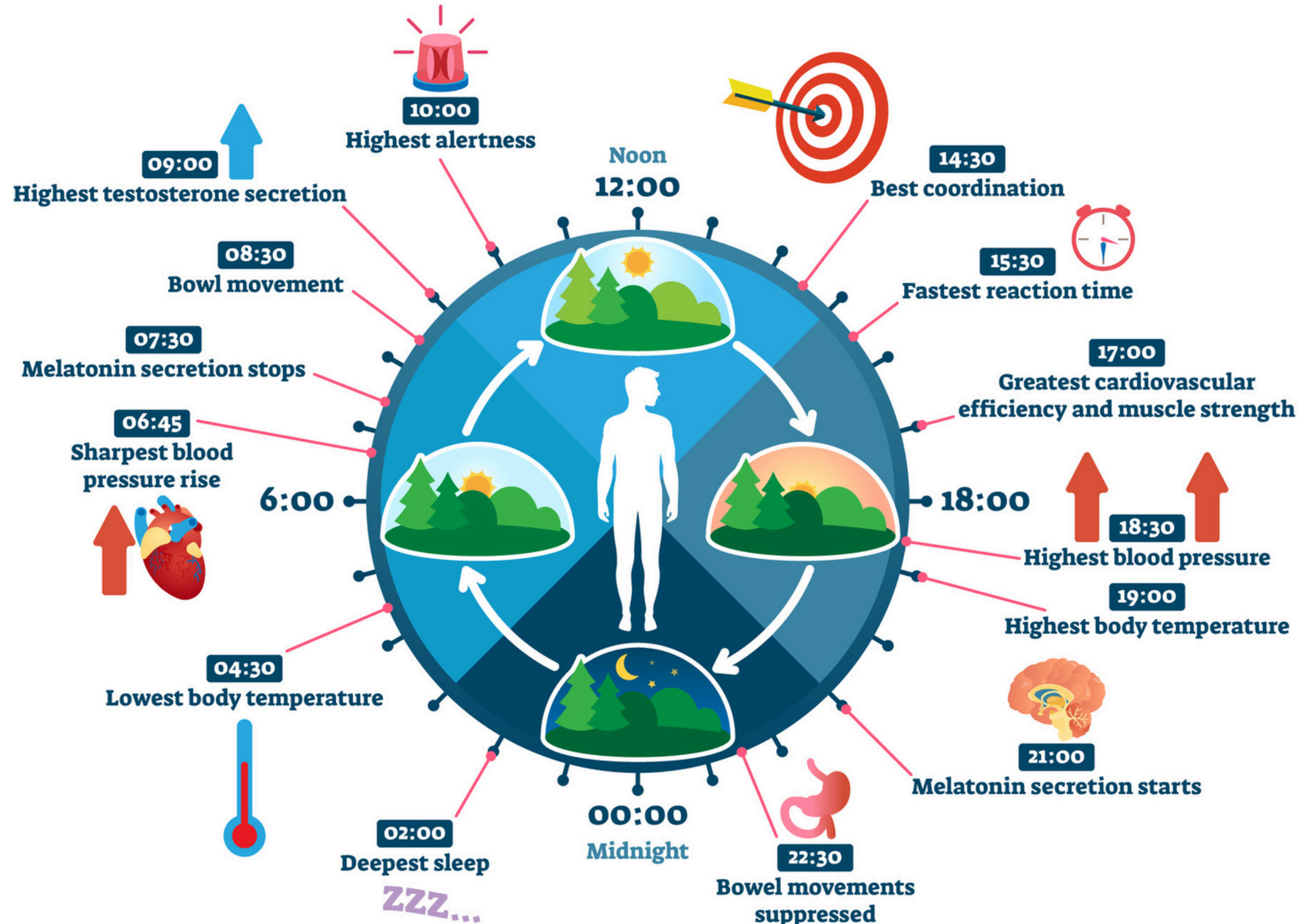


What is **circadian** rhythm?

- A natural, internal process that regulates the physical, mental, and behavior changes that occur in all living organisms
- 24 hour cycle
- Impacts our sleep patterns, hormone release, appetite and digestion, and body temperature
- Preprogramed into our body and naturally adjusts
 - i.e. produce melatonin in the evening and cortisol in the morning
- Disrupting this natural cycle leads to not feeling our best and can add to our stress load



CIRCADIAN RHYTHM



Impact on the gut

Regulates digestion, hormone production, metabolism, and energy production

- Daytime:
 - produce more digestive secretions
 - promotes “good” bacteria, enzymes, and hormones for effective digestion & absorption
 - type of light exposure impacts BS balance
 - blue light affects insulin production
- Nighttime:
 - produce melatonin
 - detox
 - tissue repair
 - gut bacteria to support detox



Tips:

- Don't skip breakfast!
- Get 5 min of morning daylight on your face outside (no windows, glasses, or contacts)
 - signals it's time to get going
- Get 20 min of daylight in your eyes mid-day
- Spend 5 min outside at dusk/sunset
 - signals that it's time to wind down and produce melatonin
- Wear orange, blue light (light bulbs also have blue light) blocking glasses whenever it's dark outside



Homework



Write 2–3 SMART Goals:

- **SMART = Specific; Measurable; Attainable; Relative; Timely**
- Can be focused on the next 2 weeks, the rest of the program, or even longer term.
- Meet yourself where you are at – What is REALISTIC for you
- Recommend writing one that's short-term, one that's medium-term, and one that's long-term.
- As soon as you accomplish one and feel confident in the results or continuing the new practice, write a new one!
- Feeling accomplished and celebrating your wins along the way puts you in a positive mindset that will propel your healing journey forward. Never underestimate the power of the so-called “small wins”!

Examples:

1. I will take the Baking Soda Test on Tuesday, Wednesday, & Thursday of this week.
2. I will have 2 eggs with my oatmeal each morning to make my breakfast balanced.
3. I will eat lunch away from my desk at least 3 days this coming week.



Homework

Take 10–25 minutes to reflect on the following journal prompt:

- Take a look at the barriers to accomplishing your transformation in Module 1. What is one possible solution you've learned here that will help you break down at least one of those barriers?
- Identify at least 2 new ways you've been able to move in the right direction.
 - These can be anything from “I was able to add 2 new plants to my diet this week” to “I've had a complete BM 4 days this week”

