

CHRONICALLY MISUNDERSTOOD PODCAST

Your hEDS **LIVING GUIDE**

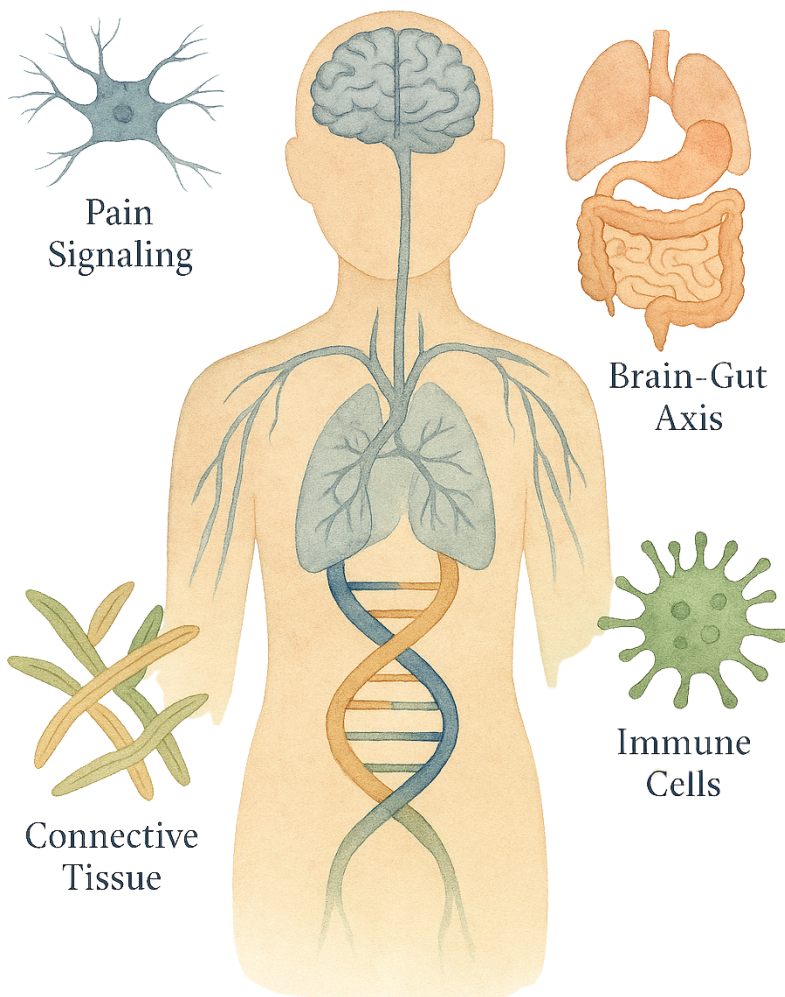


BRANCH COLLECTIVE WELLNESS

THE SCIENCE IS CATCHING UP

A 2025 genome-wide study of over 1,800 people with hypermobile Ehlers-Danlos syndrome (hEDS) finally revealed the first genetic clues to this condition. Researchers found two key regions—one near a gene called *ACKR3*, which affects how the nervous and immune systems communicate, and another involving *SLC39A13*, important for connective tissue development. The findings show that hEDS is not caused by one faulty gene, but by a network of small genetic changes influencing how nerves, immune cells, and connective tissues interact. This helps explain why symptoms can affect so many systems—pain, fatigue, digestion, mood, and more—and points to hEDS as a neuroimmune-connective tissue condition rather than just a collagen disorder.

The hEDS Map: What's going on inside



Key Takeaways

hEDS is a Whole-System Condition

- What happens in hEDS isn't limited to joints or collagen — it's a communication issue between your nervous system, immune system, and connective tissues.
- When these systems miscommunicate, you feel it everywhere: pain, fatigue, brain fog, gut trouble, inflammation, and anxiety are all connected parts of the same story.

Regulation, Not Perfection, is the Goal

- Because hEDS involves system-wide dysregulation, healing isn't about "fixing" one part — it's about gently teaching your body to communicate more clearly.
- Small, steady inputs (like nervous system support, anti-inflammatory nutrition, and pacing movement) help bring stability and reduce chaos.

THE NEUROIMMUNE LOOP

The Neuroimmune Loop shows how stress, pain, and inflammation continuously signal between the brain, nerves, immune system, muscles, gut, and heart—creating a self-perpetuating cycle that keeps the body stuck in survival mode until regulation begins.

Autonomic Ripple Effect

- Blood vessel and heart rhythm changes cause dizziness, palpitations, and POTS-like symptoms.
- These shifts signal danger back to the brain, restarting the cycle.

Communication Breakdown

- Stress and inflammation slow digestion and disrupt the microbiome.
- Gut-brain signals amplify fatigue, anxiety, and nutrient depletion.

Tension & Fatigue

- Muscles tighten to protect unstable joints, creating micro-strain and soreness.
- Constricted blood flow & inflammation lead to heaviness and energy loss.

Stress or Overload

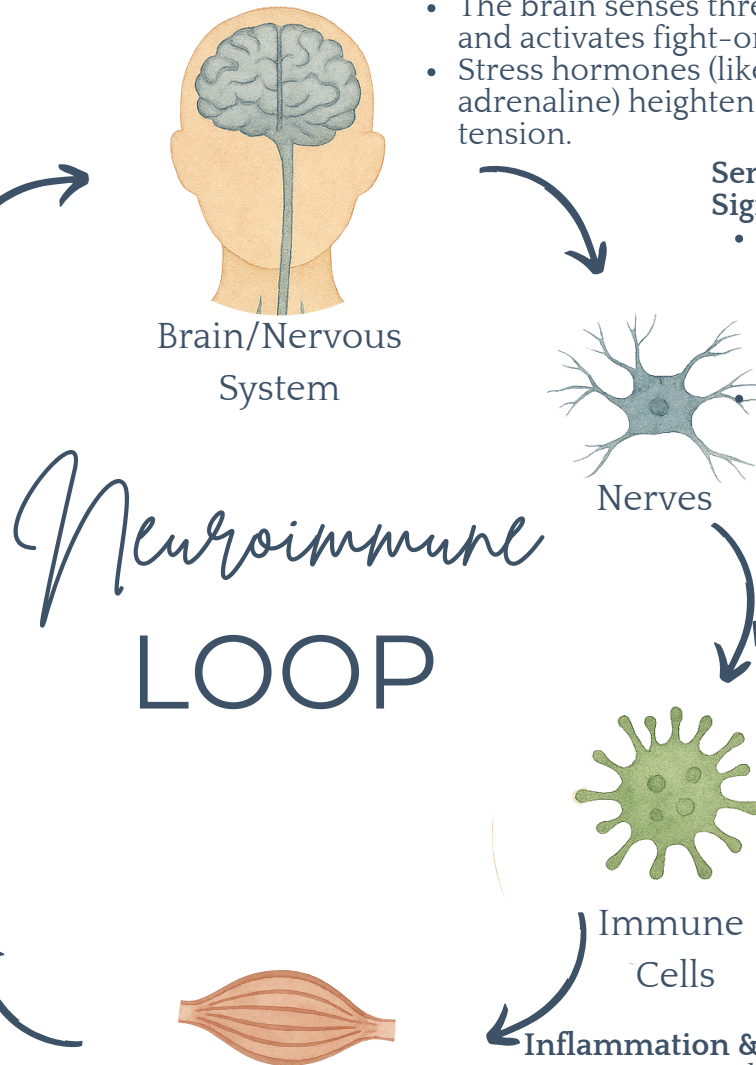
- The brain senses threat or imbalance and activates fight-or-flight mode.
- Stress hormones (like cortisol and adrenaline) heighten alertness and tension.

Sensitization & Signaling

- Nerves amplify pain and danger signals, even when no injury is present.
- Autonomic nerves alter blood flow, heart rate, and digestion to prioritize survival.

Inflammation & Reactivity

- Nerve signals trigger immune cells to release cytokines and histamine.
- Inflammation increases pain sensitivity and fuels fatigue and swelling.



Loop Breakers

- Calm the nervous system - vagus nerve support, grounding
- Reduce inflammation - nutrition, hydration, and rest
- Stabilize tissue - strength, pacing, and gentle consistency
- Support mitochondria - rhythm, restorative movement, and energy repair

Your body isn't attacking you – it's trying to protect you on repeat. The goal isn't to stop the signals, but to teach your body when to stand down.

The Science Behind Sensitivity

WHAT RESEARCHERS FOUND

For the first time, scientists have identified genetic regions linked to hEDS, showing that it is not caused by one faulty collagen gene but by a network of changes that affect how your body's systems communicate.

One of these regions, near a gene called ACKR3, helps control how nerves and immune cells talk to each other. This connection helps explain chronic pain, fatigue, and sensitivity.

Another, SLC39A13, influences zinc transport and connective tissue repair, linking nutrient metabolism to tissue integrity.

Together, these findings show that hEDS involves a neuroimmune-connective tissue network - the same communication web that influences digestion, inflammation, mood, and circulation.

THE BIG PICTURE

hEDS is not just a connective tissue issue - it's a communication issue between systems.

Your nerves, immune cells, and connective tissues are in constant conversation. When that communication becomes too loud or too reactive, your body experiences pain, fatigue, inflammation, or instability.

The goal is not to silence your body - it's to help the conversation become balanced again.

These findings suggest that hEDS symptoms are not caused by weakness or deconditioning. They come from how your body's systems communicate and respond to stress.

WHAT IT MEANS FOR YOU

Nervous System

- Pain and stress signals stay "on"
- Heightened sensitivity to noise, light, or movement

Immune System

- Inflammatory and histamine overactivation
- MCAS symptoms, fatigue, post-illness flares

Connective Tissue

- Weakened collagen and structural repair
- Joint instability, muscle tension, slow healing

Autonomic System

- Dysregulated communication between nerves and circulation
- Dizziness, temperature changes, rapid heart rate

Gut-Brain Axis

- Nerve-immune cross-talk in digestion
- IBS symptoms, bloating, nausea, food sensitivities

WHY THIS MATTERS

- This research validates the lived experience of people with hEDS.
- It shifts the focus from "stretchy joints" to whole-body regulation.
- It points toward future treatments that target nerve-immune signaling, not just collagen.

This guide is your first step toward turning knowledge into action and support

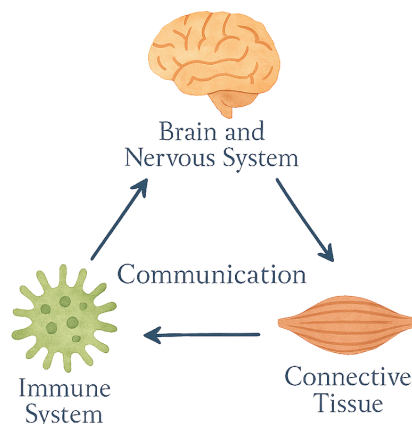
Connecting the Dots

FROM SCIENCE TO DAILY LIFE

The 2025 hEDS genetics study showed that this condition isn't caused by one faulty gene — it's a network of changes that affect how the nervous, immune, and connective tissue systems communicate.

When that communication falters, the body sends mixed signals that show up as pain, fatigue, inflammation, gut issues, or anxiety — all different expressions of the same imbalance.

Each foundation in this guide supports those communication pathways — gently teaching your systems to work together again.



NERVOUS SYSTEM REGULATION	Overactive stress signaling sends danger messages through the vagus nerve, amplifying pain and inflammation	Calming practices like breathwork, grounding, gentle sensory input quiet those signals and restore communication between brain and body
IMMUNE & INFLAMMATORY BALANCE	Chronic stress and misfiring immune messages trigger cytokine release, histamine reactivity, and fatigue	Anti-inflammatory foods, steady meals, and adequate protein provide raw materials and rhythm for repair
CONNECTIVE TISSUE & MUSCULAR SUPPORT	Impaired zinc and collagen pathways weaken structural integrity and slow recovery	Nutrients like vitamin C, zinc, copper, and protein strengthen tissue repair and reduce micro-strain on joints
ENERGY & METABOLIC SUPPORT	Dysregulated mitochondria and circulation lead to fatigue, dizziness, and brain fog	Rest cycles, hydration, and pacing movement rebuild metabolic flexibility and reduce crashes



Key Takeaway

Science shows why your daily rhythms matter — regulation, nourishment, and rest aren't extras; they're how your body learns to communicate clearly again.

These next pages turn the science into practice — simple ways to help your systems talk, repair, and find balance.

CHRONICALLY MISUNDERSTOOD PODCAST

3 PILLARS OF SYSTEM SUPPORT

Your body is always communicating.

These three pillars translate the study's findings into clear ways to support that communication—through nourishment, regulation, and rhythm.

Each page that follows builds on these foundations to help your body send and receive messages more clearly.

PILLAR 1 - NOURISH THE MESSENGERS

Focus: Connective tissue, collagen, and cellular nutrition

Goal: Feed the cells that build and repair your structure

When fibroblasts, mast cells, and nerves don't get the nutrients they need, messages between systems become distorted. Providing steady fuel and key cofactors helps rebuild clear communication.

How to support it:

- Prioritize protein and collagen nutrients (vitamin C, zinc, copper, glycine, lysine, proline)
- Balance blood sugar and electrolytes for steady signaling
- Support mast-cell balance with magnesium and B6

See your Connective Tissue Support Menu and Nourishment Tracker.

PILLAR 2 - REGULATE THE WIRING

Focus: Nervous system and autonomic balance

Goal: Recalibrate how your body processes safety, stress, and rest

hEDS research shows dysregulated nervous-system signaling and reduced vagal tone. By restoring rhythm and predictability, we help the body shift out of survival mode and into repair.

How to support it:

- Gentle vagal stimulation (humming, slow breathing, Pulsetto)
- Consistent meals, sleep, and routines
- Restorative movement to retrain blood-flow responses

See your Regulation Toolkit and Calm Wheel for practical exercises.

PILLAR 3 - REDUCE OVERLOAD

Focus: Sensory, immune, and environmental input

Goal: Quiet background noise so your body can interpret signals accurately

With more sensitive nerve endings and mast-cell activity, hEDS bodies receive too much input. Reducing load helps your system focus on what truly matters.

How to support it:

- Identify and limit triggers (histamine, mold, fragrances)
- Simplify sensory input – light, sound, temperature
- Build recovery breaks and rest without guilt

Use your Energy Tracker and Flare Forecast Planner to map patterns.

When you nourish the messengers, regulate the wiring, and reduce overload, you are teaching your body to communicate clearly again.

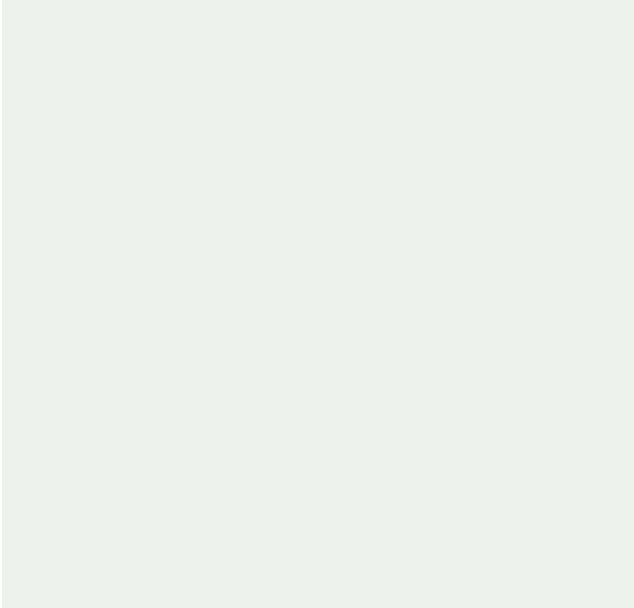
CHRONICALLY MISUNDERSTOOD PODCAST

MY REGULATION TOOLKIT

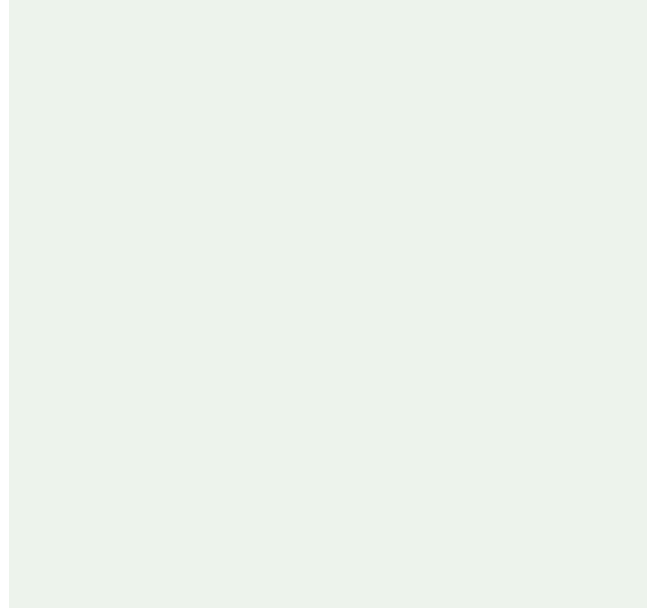
NERVOUS SYSTEM REGULATION

What helps my body feel calm right away? What overstimulates me quickly? Where can I build short rest moments into my day?

WHAT CALMS ME



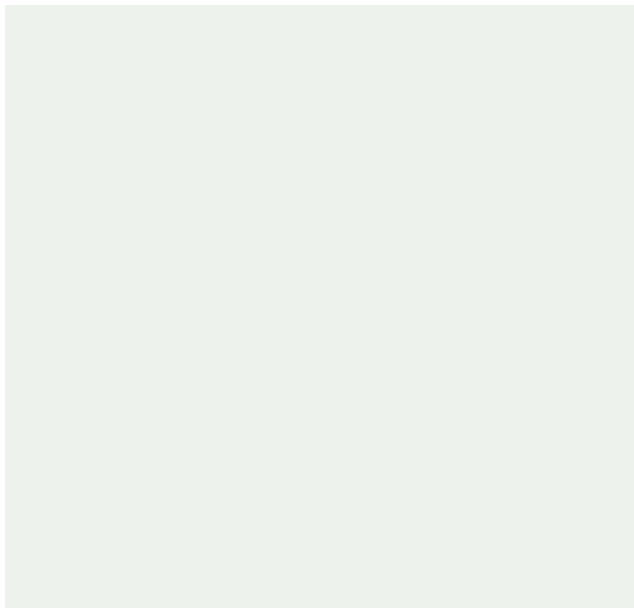
WHAT OVERLOADS ME



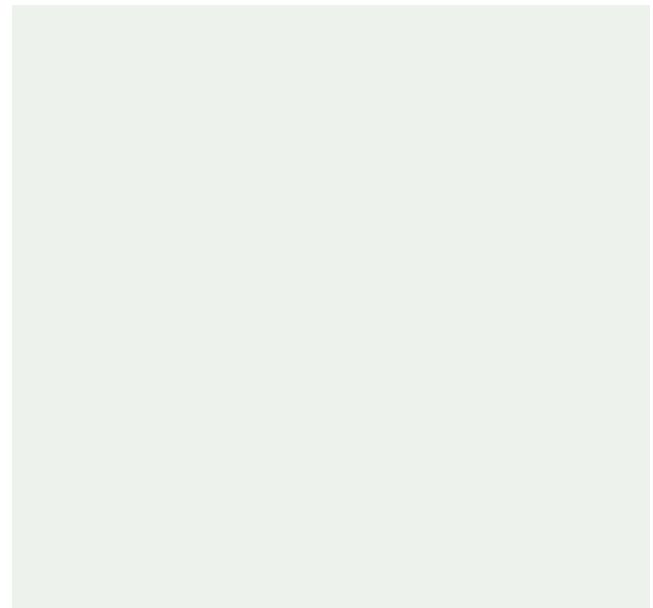
IMMUNE & INFLAMMATORY BALANCE

Foods or habits that soothe inflammation in my body. Things that trigger flares - like certain foods, sleep loss, or stress. What's one supportive, anti-inflammatory ritual I can do daily?

WHAT SUPPORTS ME



WHAT TRIGGERS ME



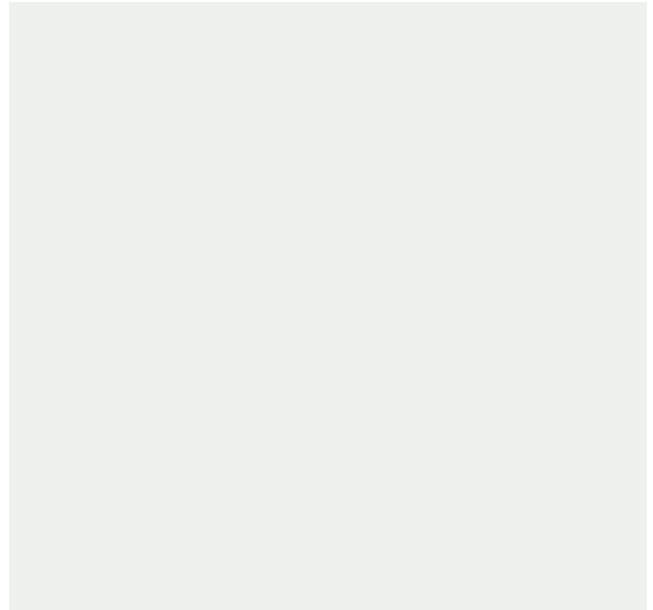
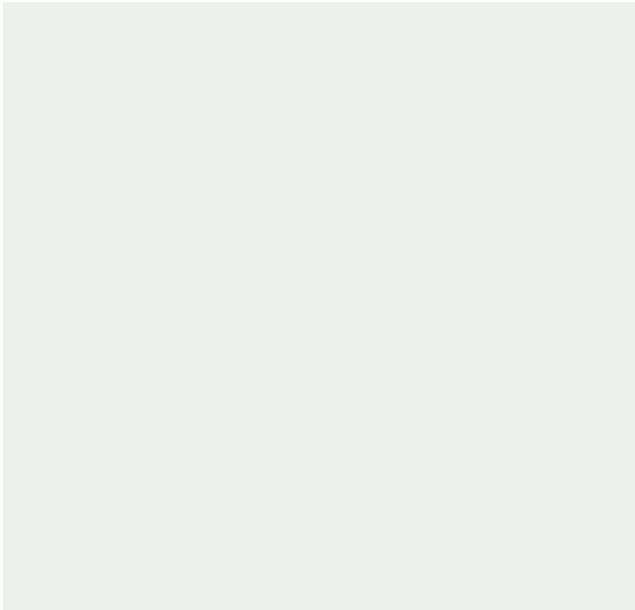
MY REGULATION TOOLKIT

CONNECTIVE TISSUE & MUSCULAR SUPPORT

Movements that help me feel supported and strong. Activities that cause joint pain or fatigue. How can I improve posture or build micro-strength safely?

WHAT STRENGTHENS ME

WHAT STRAINS ME

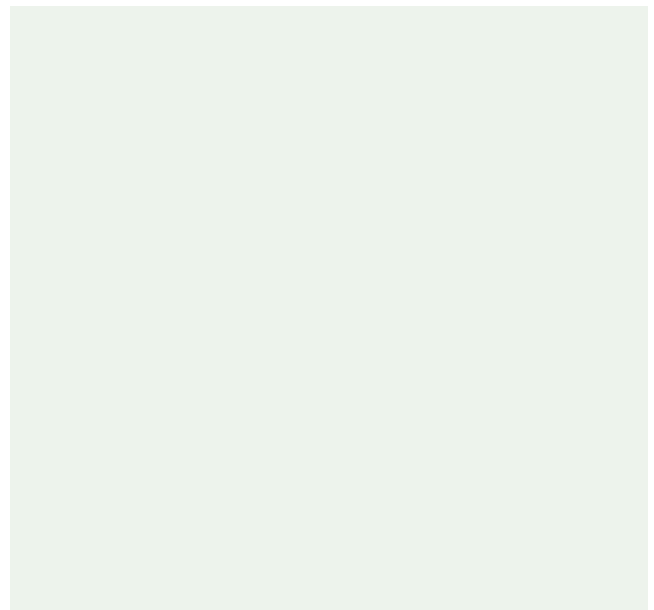
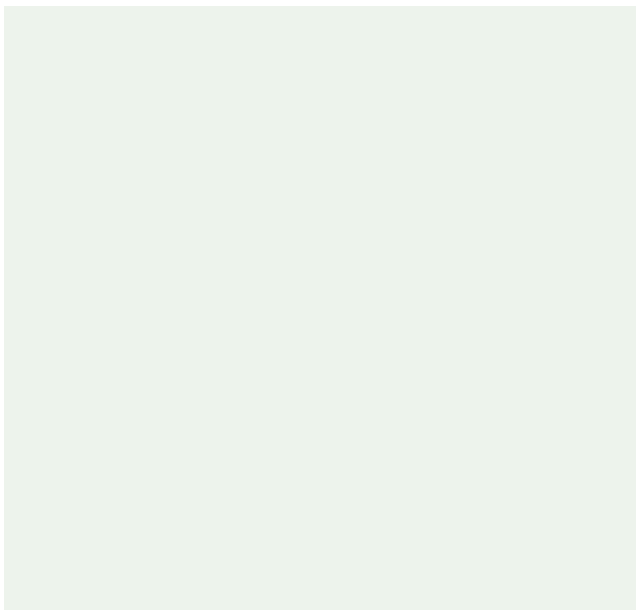


ENERGY & METABOLIC SUPPORT

What restores my energy best (physical, emotional, mental)? What drains my energy most? How can I schedule gentle recovery between energy outputs?

WHAT RECHARGES ME

WHAT DEPLETES ME

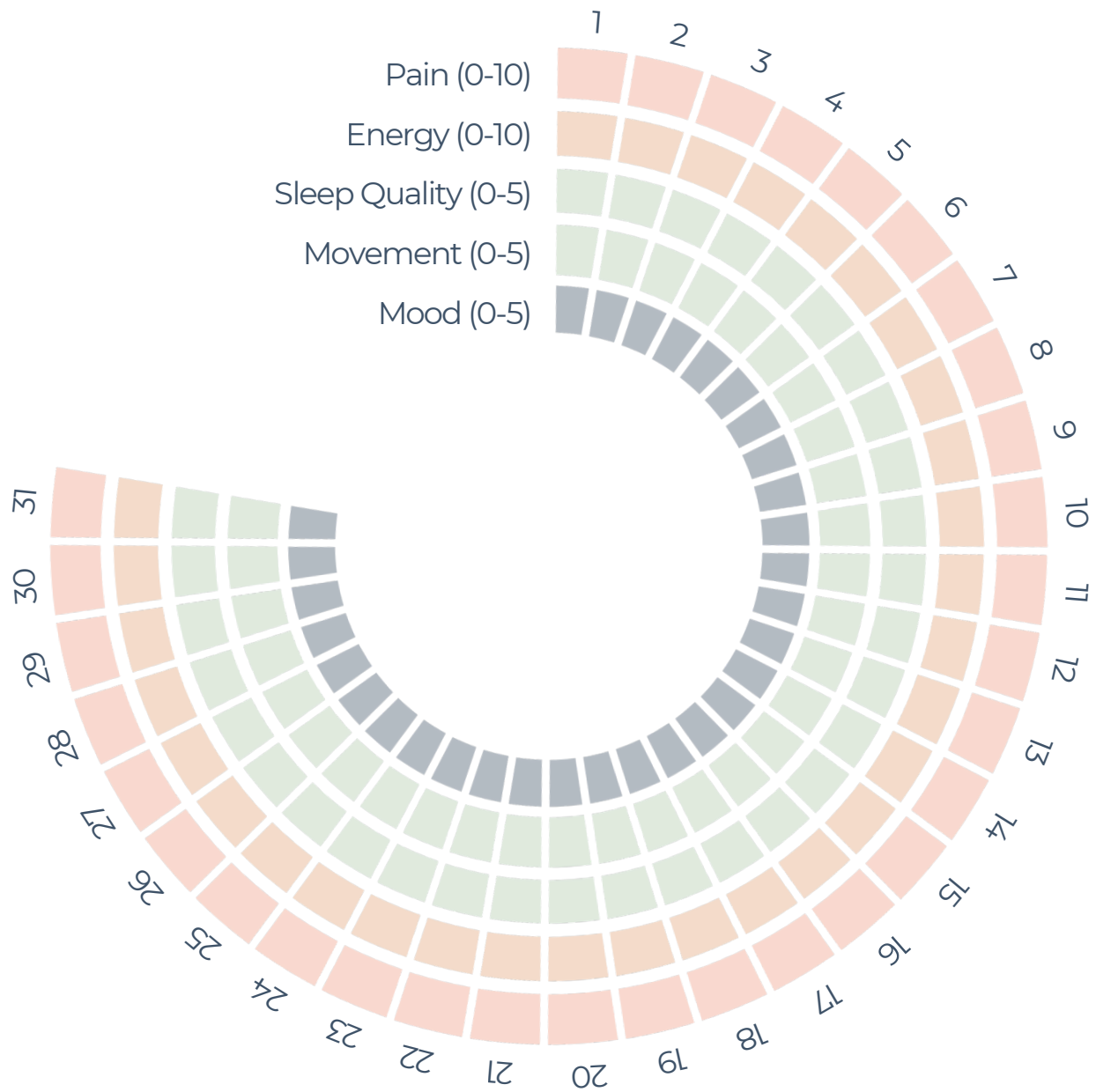


Regulation doesn't mean perfection.
It means choosing patterns that tell your body: you're safe now.

CHRONICALLY MISUNDERSTOOD PODCAST

PAIN & ENERGY TRACKER

Track your body's rhythms - not to control them, but to understand what they're telling you.



Notes or Patterns

PAIN & ENERGY SCATTER PLOT TRACKER

Each day, mark one dot for your pain (vertical axis) and energy (horizontal axis): use blue for baseline days, gold for balanced or good days, and red for flare days—watch how your body's patterns take shape over time.

**LOW ENERGY &
HIGH PAIN**

**HIGH ENERGY &
HIGH PAIN**

**LOW ENERGY &
LOW PAIN**

**HIGH ENERGY &
LOW PAIN**

This chart isn't about success or failure. It's a visual story of how your body responds to daily life - and how awareness can guide gentler choices.

CONNECTIVE TISSUE SUPPORT MENU

NUTRIENT	WHY IT MATTERS	FOOD SOURCES	OPTIONAL SUPPORT
Vitamin C	Builds and repairs collagen	Citrus, bell peppers, kiwi, strawberries	Vitamin C powder or liposomal C
Zinc	Aids tissue healing and immune repair	Pumpkin seeds, beef, chickpeas	Zinc glycinate or zinc carnosine
Protein	Provides amino acids for muscle & connective tissue	Beef, chicken, fish, eggs, collagen peptides	Collagen powder or protein shakes
Copper	Supports collagen cross-linking & elasticity	Cashews, dark chocolate, shellfish	Trace mineral supplement
Manganese	Helps activate collagen-producing enzymes	Pineapple, oats (if tolerated), leafy greens	Multimineral support
Silica	Strengthens connective tissue and hair/skin	Cucumber, bell pepper, oats	Bamboo or horsetail extract
Magnesium	Calms muscle tension and supports repair	Greens, nuts, dark chocolate	Magnesium glycinate or topical magnesium
Omega-3s	Reduces inflammation in tissue	Salmon, chia seeds, flax	Fish oil or algae oil supplement

REGULATION MENU

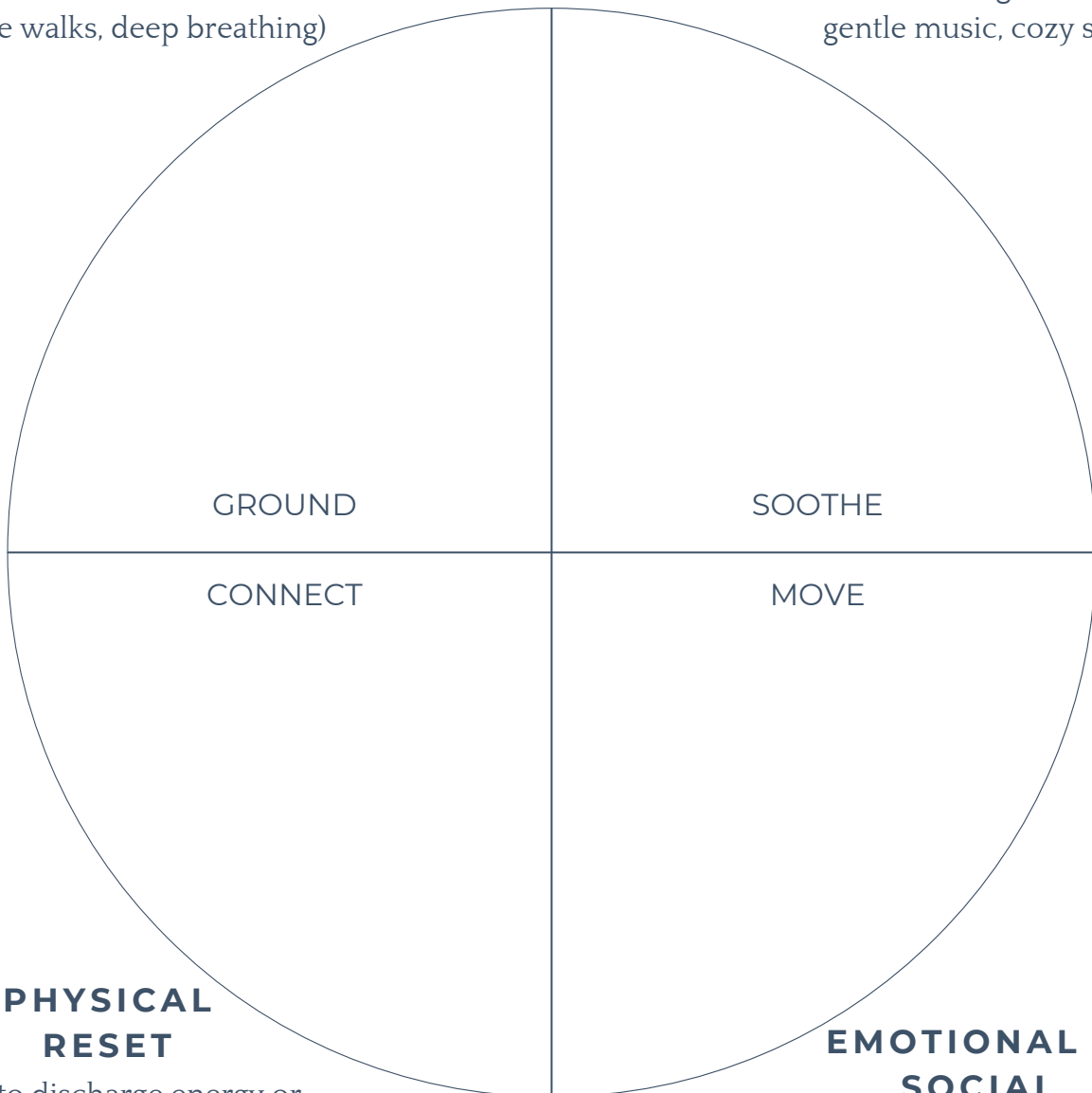
Your body has many ways to return to calm. Each section of the Calm Wheel—Ground, Soothe, Move, Connect—represents a different path back to balance. Add or highlight the practices that help you feel safe and settled, and star the ones you want to try next.

SENSORY + ENVIRONMENTAL

Things that help you feel anchored in the moment
(weighted blanket, soft textures, nature walks, deep breathing)

COMFORT + SAFETY

Gentle rituals that calm your body's chemistry
(warm tea, magnesium bath, gentle music, cozy space)



PHYSICAL RESET

Ways to discharge energy or tension
(wall Pilates, stretching, shaking, vibration plate, walking)

EMOTIONAL + SOCIAL

Ways to co-regulate with others
(safe conversation, laughter, hugs, journaling, pet cuddles)

There's no single way to regulate — every path back to calm counts.

CHRONICALLY MISUNDERSTOOD PODCAST

FLARE-UP FORECAST PLANNER

Track your body like you'd track the weather.

Each week, note your early warning signs, likely triggers, and gentle supports to stay ahead of flares. The goal isn't perfection—it's prevention and peace.

WEEK 1

EARLY SIGNS	POSSIBLE TRIGGERS	SUPPORT PLAN

WEEK 2

EARLY SIGNS	POSSIBLE TRIGGERS	SUPPORT PLAN

WEEK 3

EARLY SIGNS	POSSIBLE TRIGGERS	SUPPORT PLAN

WEEK 4

EARLY SIGNS	POSSIBLE TRIGGERS	SUPPORT PLAN

Color-code your weeks to spot trends.

Blue - Stable Yellow - Caution Red - Flare

GENTLE MOVEMENT MATRIX

MOVEMENT TYPE	PURPOSE	WHEN TO CHOOSE	HOW IT FEELS
Grounding gentle stretching, slow breathwork, grounding walk	Calm & stabilize nervous system	When anxious, dizzy, or overstimulated	Centered, safe
Mobility wall Pilates, yoga, light dynamic stretching	Maintain joint flexibility	When stiff or tense	Loosened, light
Strength resistance bands, bodyweight work, light weights	Support joints & connective tissue	On stable, medium-energy days	Supported, strong
Cardio walking, recumbent bike, dancing	Improve circulation & stamina	When energy allows steady movement	Warm, clear-headed
Recovery restorative yoga, lymph drainage, sauna, stretching	Promote repair & regulation	After activity or flare	Rested, calm
Alignment & Posture short stacking exercises, gentle core activation, pelvic tilts, posture resets	Rebalance structure & reduce compensation patterns	When you feel uneven, unstable, or tight after sitting or flares	Balanced, upright, integrated
Flow & Expression freeform dancing, qigong, gentle rebounder	Encourage joy, coordination, and nervous system release	When you have creative energy or want to move emotion gently	Fluid, connected, uplifted

SUPPORT CIRCLE MAP

Healing happens in connection. Use this page to map the people, places, and practices that help you feel grounded and supported when things get hard.



PERSONAL SUPPORTS

- Partner, family, pets, daily ritual

PROFESSIONAL SUPPORTS

- healthcare providers, therapists, nutritionists, coaches

COMMUNITY SUPPORTS

- online groups, local friends, faith, nature, creative outlets

- Who helps me feel safe when I'm overwhelmed?
- Which spaces or routines bring me calm or comfort?
- What professional or creative supports do I rely on most?
- Where do I want to strengthen connection or create clear boundaries?

CHRONICALLY MISUNDERSTOOD PODCAST

REFLECTION: WHAT I'VE LEARNED ABOUT MY BODY

You've been listening to your body. Here's what it's been trying to tell you.

**WHAT PATTERNS HAVE I NOTICED IN MY ENERGY,
PAIN, OR MOOD?**

**WHAT HELPS ME FEEL SAFEST AND MOST
SUPPORTED IN MY BODY?**

**WHICH SUPPORTS OR ROUTINES MAKE THE BIGGEST
DIFFERENCE DAY TO DAY?**

**WHAT'S ONE SMALL CHANGE I WANT TO KEEP
PRACTICING?**

**WHAT WOULD I SAY TO MY BODY IN GRATITUDE OR
ENCOURAGEMENT?**

You are not too fragile – you are exquisitely sensitive,
living in a body that requires care most people never
have to think about.

Your body has been protecting you the best way it
knows how.

What you've learned here isn't just information; it's a
new way of relating to yourself – one built on
understanding instead of frustration.

Some bodies need softer routines, longer rest, and
more gentleness.

That isn't weakness. It's wisdom.

Keep choosing regulation, nourishment, and care –
not because you need fixing, but because you are
listening to the language of your body.

NEXT STEPS



LISTEN TO THE FULL PODCAST EPISODE – “BEYOND THE
JOINTS: WHAT NEW HYPERMOBILITY RESEARCH REVEALS
ABOUT THE WHOLE BODY”



READY FOR MORE SUPPORT?
BRANCHCOLLECTIVELWELLNESS.COM
CALL OR TEXT: 949-312-1190



STAY CONNECTED + SHARE YOUR STORY
@CHRONICALLY_MISUNDERSTOOD_POD

SCOPE & Disclaimer

The information in this guide is for general informational and educational purposes only. It is not intended to diagnose, treat, cure, or prevent any disease and should not be relied upon as a substitute for professional medical advice.

As a Functional Nutritional Therapy Practitioner (FNTTP), my role is to help you support your body's natural ability to heal through foundational nutrition and lifestyle practices.

All recommendations are general and meant to encourage awareness, not to replace individualized care.

Please consult your licensed healthcare provider before making any changes to your diet, supplements, or medications. Remember — this work is about understanding your body, not replacing your medical care.

COPYRIGHT

© 2025 Branch Collective Wellness. All rights reserved.

No portion of this publication may be copied, shared, or distributed in any format without express written permission. You may print or download one copy for personal, non-commercial use only, provided that all copyright and proprietary notices remain intact.

Chronically Misunderstood Podcast
Branch Collective Wellness



MEET THE AUTHOR

LAURA LEE, FNTP



Hi, I'm Laura Lee, Functional Nutritional Therapy Practitioner and group program coach at Branch Collective Wellness and host of the Chronically Misunderstood podcast.

I help people with chronic illness, hypermobility, and sensitivity rebuild stability through nourishment, rhythm, and nervous-system care.

At Branch Collective Wellness, we turn complex science into practical steps for real life – helping you understand your body and support it with clarity, not overwhelm.

WE OFFER

PERSONALIZED COACHING WITH TERA 1:1 Nutritional Therapy Sessions

- Deep, individualized support to uncover root causes, balance systems, and create a personalized plan.
- Includes timeline mapping, functional assessments, and customized foundational support.

GROUP LEARNING WITH LAURA Programs + Group Coaching

- Step-by-step education and accountability in a small, supportive group.
- Learn to nourish, regulate, and rebuild your foundation with guided tools and community.

DIY TOOLS

Meal Plans, Digital Products, and Free Resources

- Self-paced tools designed for real life – from meal planning and trackers to this hEDS Living Guide.
- Perfect for those who prefer flexible learning or want to start building foundations on their own.

CHRONICALLY MISUNDERSTOOD PODCAST