

KROSS CENTERED CARE

Integrative PT, Health and Wellness

7 Steps to Overcoming Chronic Pain in 66 Days



Welcome. A few notes before getting to the content of this guide:

- 1. This is a guide with general advice on 7 core steps and pain tips that I find myself repeating often to patients to help them recover. Not every section will necessarily be relevant to you.
- 2. Most chronic pain is not life threatening. However, if you have not seen a medical provider for your pain before, it is still important to get a diagnosis and screening to make sure to rule out any rare pathologies.
- 3. You can implement the advice of this guide on your own, but I do recommend working with a medical provider for support and accountability in certain sections (i.e. diet, exercise, etc.).
- 4. The information in this guide has been around for many years. I am taking no credit for any new ideas. This is a summary, a compilation of the program most of my patients go through to see success in their pain recovery. My influences and references are innumerable and I am so thankful for all the number of people I have learned from and grateful to be able to share what I've learned with you.

RECOVERY PLAN

About the Author:

Tawny Kross is a clinical educator, a clinician specializing in chronic pain and a pain coach. She has been working in the field of physical therapy for nearly a decade, practicing at a Veterans hospital in North Carolina, working primarily with Veterans with chronic pain and multiple complex medical conditions. In her clinical journey, in order to better serve her chronic pain population, she has acquired various certifications, including, but not limited to therapeutic pain specialization, clinical hypnosis, functional nutrition for chronic pain and functional dry needling.

Why 66 days? Research shows it takes the average person 66 days to build a new habit.

Pain habits can be difficult — you can choose to form better habits slowly. Pace! Not race!

7 Core Steps

- Understand the Physiology and Psychology of Pain
 - Pain Neuroscience Education
 - Polyvagal Theory
- 2. Discover Your Values and Your Goals
- 3. Nourish Your Nerves With Nutrients
- 4. Support Your Nerves With Sleep
- 5. "Endorphin-ize" Your Nerves With Exercise
- 6. Becalm Your Nerves with Breathwork
- 7. Master Your Nerves With Mindfulness

Introduction

Chronic pain is hard. You know this already—that's why you downloaded this guide.

My intention here is walk you through 7 CORE STEPS that are typically needed in order to overcome your chronic pain as simply as possible.

Each core step CAN be broken into a lot of different parts—that is why there are entire separate industries dedicated to each section.

What I am delivering are the BASIC FOUNDATIONAL RULES in each step for you to understand and follow to help you on your way to success.

If you build the habit of regularly following these guidelines, your brain will start to rewire and you WILL SEE THE CHANGES in your life.

I BELIEVE IN YOU.



Before you begin...

To ensure success on your chronic pain journey:

Bring: Self compassion, curiosity, gratitude, a sense of non-judgment.

<u>Leave</u>: Perfectionism, physical and emotional avoidance, expectations of "where you ought to be."

Be prepared for occasional chronic pain flare-ups along the way. These are very normal in recovery and part of the growth process.

Also, remember, nobody ever starts off being excellent in anything. Any journey in life requires practice and persistence.

Pain Physiology and Psychology

Physically, your nerves are going through a process called "central sensitization" (nociplastic pain). This does NOT mean your nerves are damaged. They are hyper-EXCITABLE. Nerves impact your entire body: fatigue; memory; concentration; depression...

Nerve sensitization is likely if you have one or any of the following:

- Pain lasting long after 6 months
- Pain even at rest
- Pain with gentle daily tasks (walking, standing, positions in sleeping, washing dishes, bending forward and touching your toes, etc.)
- Pain with weather changes
- Pain with anxiety or stress
- In general, pain with non-mechanical (non-movement) based things



Why you need to know this:

- 1. If you believe your chronic pain is due to "damaged parts" (bulging discs, osteoarthritis, torn muscles/tendons/ ligaments, degenerative disc disease...), then you will have a VERY tough time with recovering from this pain until you start to incorporate the concepts of well-researched pain neuroscience.
- 2. If you have chronic pain and know that it ISN'T because you have "damaged parts," arming yourself with knowledge is still important for when those "doubting" moments pop up and scare you from time to time.
- 3. If you have emotional trauma (*note* emotional trauma does not always need to be a huge event), awareness of what is happening to your brain and body is the first step to recovery

Pain Physiology and Psychology

Psychologically, your brain is impacted with chronic pain—it processes pain quite differently. For example, the amygdala, a key player in emotional responses such as fear, aggression, anxiety (for survival's sake), becomes heavily involved. Your brain essentially has a "pain map" or a "pain pattern" that it runs. It then runs it faster and faster, and this pattern can be cued up by multiple things in that map, including emotions (again, the brain does this to be quicker at processing, to better protect you).

With chronic pain, the regulation between AUTONOMIC STATES is NOT well regulated. The path to healing involves:

- 1) being very attuned to these different states in your daily life and why you are in those states.
- 2) establishing pathways to ventral vagal, including use of the "vagal brake" (the connection of the vagus nerve to the heart's pacemaker).
- 3) practice, practice for the brain to rewire things.

Autonomic Nervous System (Polyvagal Theory)

The autonomic nervous system is divided into three branches of the vagus nerve. The three branches are outlined below.

- 1. **Ventral vagal** When the brain senses safety
- a. This part of the nerve is the "Little Mermaid"— it is "part of [the] world" (cue Disney music), involving social connection paired with happy solitude, excitement as well a rest, joy juxtaposed with healthy sadness...
- 2. **Sympathetic** (the fight or flight) When the brain senses a challenge to safety)
 - a. Body is moving into **action** for survival
- 3. **Dorsal vagal** (the freeze response) When the brain thinks sympathetic states are not sufficient
- a. The shutdown. When a T-rex is around, it looks for prey to run and move. The shutdown is an effective survival mechanism, immobilizing or

This guide will give you some basic fundamentals to regulation in the Breathwork and Mindfulness sections.

Pain Physiology and Psychology

Basic Information and Advice to Help Your Brain Feel Safe (the more you know, the more "safe" information you can feed the brain)

- 1. Have a mantra when you have pain, like "Hurt does not equal harm" or "These throbs aren't threats!"
- 2. The number of nerve sensors you have—and therefore, how sensitive that alarm gets—can be decreased based off your brain's understanding of what is going on.
- 3. Your tissues heal really, really well. They only need about 6 months, even for the deepest tissues to fully knit back together.
- 4. Disc material that have "bulged, herniated, leaked, protruded, etc." are often reabsorbed by the body. In fact, the worse the disc "issue," the more likely it is to recover.
- 5. You can have a PERFECT body and experience LOTS of pain. You can have a body that "looks like a hot mess" on imaging and have NO pain: this includes your bone-touching-bone arthritis and what looks like lack of space for the nerves to move through.
- 6. There is a TON of research on this stuff, so if you're thirsty for more (and don't want to dig through material on your own), reach out to a pain neuroscience-informed provider!

The best way to not get lost and overwhelmed in the wilderness is to have a compass and a map. This is also true in chronic pain (Metaphorically, obviously. Don't dig out that compass you got from 6th grade camp).

Scared to set any goals or values?
That's normal! You've had this pain
for awhile. It might feel a little
vulnerable at first.



Discover Your Values and Goals

- 1. To develop a compass and a map that will allow you to measure progress, IDENTIFY what you value in life. Your LIFE VALUES should be GREATER THAN your fear of pain—so "tell me what you want, what you really, really want!"
- 2. Develop SMART (Specific. Measurable. Achievable. Realistic/Relevant. Timely) goals from these values. Start with 1 to 3 goals.
- 3. From the SMART goals, form a series of graduated action-based steps (baby steps are totally fine!) that you're WILLING to take TOWARD these longer term SMART goals (even with pain) that are aimed at your values. Write these down.
- 4. As you make each step occur, you make note of this as well. Track the steps you are taking. These reflect your progress. Having the steps that you've taken written down is very helpful for you to look back on and see what growth you've already made, especially during moments of flare-up.

Discover Your Values and Goals

It IS OKAY to start small and simple! WHEN YOU KEEP IT SIMPLE, YOU'LL ACTUALLY DO IT. The important thing is choosing a small step forward that has the right degree of challenge that teases your system (to adapt) without overwhelming it. That small step forward IS STILL GROWTH. It's still something positively different that is rewiring your brain.

Areas of "Value" include: Health, Leisure, Work, Relationships

Example:

07

My value: I value my health...and I know my ability to regulate my emotions is important to my personal health. I hear yoga, mindfulness and belly breathing are all ways to help with emotional regulation. My goal is to be doing all three by the end of the year.

I'm willing to take the baby step of belly breathing first. I will commit to doing belly breathing (**Specific**) 7 times a day for 30 seconds to a minute (**Measurable**, **Achievable** and **Realistic**), doing this daily in ONE month (**time-based**).

In two months, I will be practicing 10 times a day, and will add in 10 minutes of mindfulness at the end of the day...

Nourish Your Nerves With Nutrients

What we fuel our bodies with can either sensitize nerves or desensitize nerves. Nerves can get hangry if they're not getting what they need!

The research (simplified) follows the Michael Pollan quote from his book, <u>In Defense of Food:</u> "Eat food. Not too much. Mostly plants."

Quick Tips:

- 1. The Mediterranean diet continues to be one of the most well-supported diets as a rule for the general population. For people experiencing chronic pain, the Anti-Inflammatory Diet and Low Glutamate Diet (glutamate excites nerves and we want to calm them down in cases of chronic pain) are very often proposed.
- 2. In general, all successful diets basically eliminate most processed foods and drink, and trend towards "whole foods." They are also very plant-forward or plant-based (including those that are paleo). Plants are heavy with many of the nutrients needed to make happy nerves and many people in chronic pain are missing those nutrients.
- 3. My most common recommendation is to up your servings of fruits + vegetables (combined) to 10 per day and have 2 servings of fatty fish per week.
- 4. For those with clinically diagnosed IBS (~70% of those with fibromyalgia), the low FODMAP diet is recommended, at least for a 6-week trial.
- 5. The most common foods that drive up inflammation are sugar (processed); dairy; gluten corn/GMOS; soy; and egg. If you're looking to see if these play a part in your pain or gut health, the best way to do so is to eliminate them for 30-60 days.

The diet world can be complicated—you can get lost in a sea of fish oil (sea what I did there?), vitamin and mineral supplement recommendations, information about keto, paleo, vegan, etc. People have such strong opinions about it that it's like talking about religion.

Who you are as an individual, taking in your gender, your genetics, your environment, your [...] means that to some extent, there might be need for some <u>professional</u> custom-tweaking to dial into what works best for you as a diet. The tips above ARE a great place to start.

Nourish Your Nerves With Nutrients

In a magical world, we can eat anything we want and we'll never have to worry about the consequences. Actually, I take that back. That's not true at all. Harry Potter was a magical world and Professor Slughorn definitely showcased the adverse effects of a life of gluttony.

Here is a list of great anti-inflammatory foods to start your Nourish Your Nerves journey. Also, don't forget water. Hydrate your body station! To make this journey successful, again, start small and simple. Use those SMART goals we talked about.

Awesome Anti-Inflammatory Foods

1. All leafy greens	10. Almonds
2. Avocado	11. Coconut milk (unsweetened)
3. All the berries (blueberries, strawberries)	12. Coconut yogurt
4. Fish high in Omega-3s (i.e. wild-caught salmon)	13. Organic grass-fed beef
5. Ginger	14. Green tea
6. Turmeric	15. Beets
7. Organic extra virgin olive oil	16. Garlic
8. Organic extra virgin coconut oil	17. Sauerkraut
9. Cruciferous vegetables (kale, broccoli, cauliflower)	18. Basil

Support Your Nerves With Sleep

I don't need to tell you you need sleep. I know you want it badly, but it escapes you better than Houdini escapes a locked box.

You might have heard of a sleep hygiene checklist before. If you haven't, I've outlined one below. The ones highlighted are the ones I see most often that need emphasizing for those with chronic pain.

Sleep Hygiene Checklist:

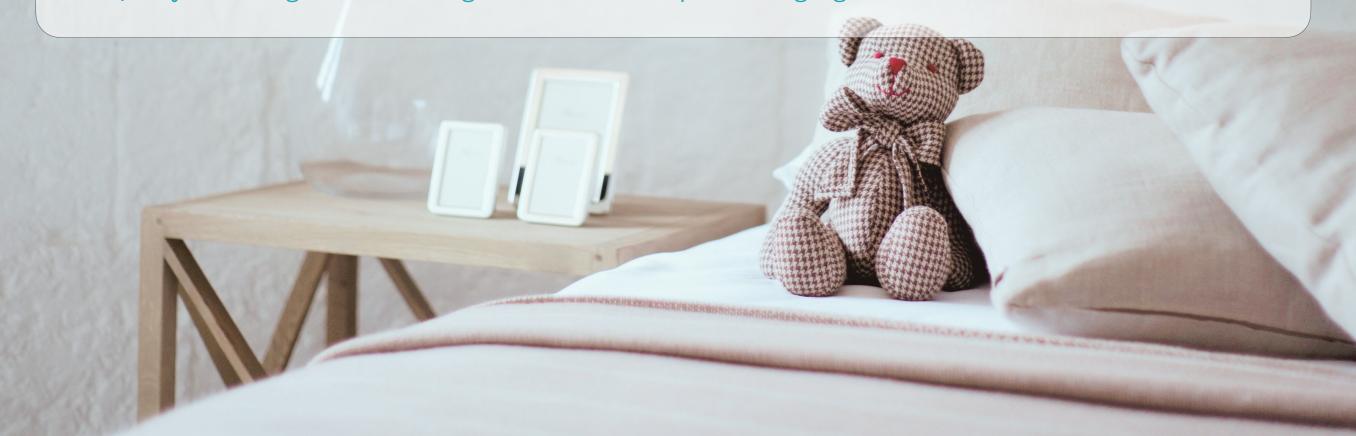
- 1. Set a time to go to bed (before 11 pm).
- 2. Quiet the house.
- 3. Reduce fluid intake in the evening.
- 4. Reduce alcoholic beverages in the late evening.
- 5. Darken and cool the bedroom.
- 6. Remove kids and pets from the bed.
- 7. **Park your ideas** (write down those pressing thoughts that are bound to keep you up on a notepad by your bed) right before you go to bed.
- 8. Relax, meditate, belly breathe or read a book before bed.

- 9. Avoid checking e-mails or messages before bed.
- 10. When the sun goes down, blue light sources (from TV, phones, computers, other lights) should also be minimized.
- 11. Stay in bed (some recommendations say get out of bed if you have not slept for 20+ minutes). If you cannot sleep, close your eyes and relax. Belly breathe (reference breath work section).
- 12. Set a wake time and stay in bed until then.
- 13. Reduce naps.
- 14. Avoid caffeine in the late afternoons or evenings.
- 15. Exercise during the day.

Support Your Nerves With Sleep

Quick Tips:

- 1. Your brain and body love routine. As much as you can schedule, create structure to your day. Plan out and commit to an awake time and bedtime (recommended to be before 11 pm).
- 2. The structure of your day should include at least 30 minutes of aerobic exercise (see exercise section of this guide). Exercise itself creates chemical changes that assist with sleep later on in the day.
- 3. Blue light glasses or goggles should be worn if you continue to expose your eyes to sources of blue light after the sun sets.
- 4. Perhaps more than anything else, you need to find a way to wind down the brain before sleep. Parking your ideas, belly breathing and meditating before bed are important highlights for these reasons.



"Endorphin-ize" Your Nerves With Exercise

The American College of Sports Medicine (ACSM) recommends 2-3 times per week of resistance exercise/strength training and 150 minutes (think 30 minutes x 5 days per week) of aerobic exercise (walking, cycling, running, dancing while you're sitting in a chair—pretty much anything that can be done continuously and steadily can be thought of as aerobic).

Yawn. Now that I've got those boring numbers out of the way, I am going to emphasize ONE THING: The research shows that GENERAL AEROBIC EXERCISE for chronic pain helps many areas of pain. For instance, aerobic exercise is actually one of the cornerstones of fibromyalgia. Aerobic exercise is the type of exercise I will emphasize for the rest of this section.

Why aerobic exercise? Our nerves LOVE blood flow. They're like bloodthirsty vampires. They weigh but a couple of pounds but thirst for about 25% of your blood supply.

"Endorphin-ize" Your Nerves With Exercise

So, how do you exercise with pain?

- 1. **If you are afraid that your hurt = harm**, then it will be important to go back and visit some pain neuroscience education to show you that, with chronic pain, this is rarely the case.
- 2. <u>If you now know that hurt does NOT typically equal harm</u>, then you are ready to exercise (or continue to progress your exercises, if you have already started). **First, pick something you like!** Then, you need to know how to GRADE THE EXPOSURE.
- 3. **Grade the exposure**: You can start as easy as with imagined movement, especially on very painful days when you do not want to turn up your willingness dial to match or surpass the pain intensity dial. Start simple and gently build up towards more movement.
- 4. On days you feel really, really good...you STILL need to make sure you're following the Grade the Exposure Rule. How much have you done the day before? Or the day prior? Are you making too big a leap? Or are things juuuuust right? This will help you prevent the classic chronic pain BOOM and BUST cycle.
- 5. You ARE allowed to tease pain. You are finding a comfortable level of challenge that doesn't "overly threaten" your brain. It's okay that when you exercise, there is some pain afterwards. If things have calmed back down to baseline level pain the next day, you'll know that you've found a good teasing pain pace.
 - a. If you push harder than you're ready to, the brain will want to "overprotect" you some more and will drive more pain signals.
- 6. You ARE allowed to SPREAD the volume. Yes, ideally, you want to do all 30 minutes at once. But the benefits are STILL there if you break up those 30 minutes into 5 minutes sessions spaced throughout the day. Move a little. Rest a little. Nice and easy. At some point, you will notice that you like to move it, move it. More than a little.
- 7. Even though with aerobic exercise, you aren't likely to do anything hugely demanding to the system, <u>end with a</u> <u>little bit of self care to the body at the end of an aerobic exercise bout</u>. On the muscles involved in the exercise, doing gentle stretches for 30 seconds up to a minute holds is an easy way to do some self care.

Becalm Your Nerves With Breathwork

People with chronic pain tend to keep a shallow, chest-and-shoulder breathing pattern. Imagine if you are activating a fight-or-flight state, this type of breathing pattern helps you mobilize energy and is helpful for survival...but NOT helpful for sleep or winding down.

THERE IS <u>NO</u> perfect breathing pattern. It is tailored to YOU. Any intentional, regulated breath practice can activate a state of calm. Breath counting, in general, increases something called heart rate variability (most people find it optimized at a 5-6 second inhale/exhale cycle) and decreases that fight or flight state.

Becalm Your Nerves With Breathwork

The more popular breath methods include:

- 4-7-8 (inhale for 4s, hold for 7s, exhale for 8s)
- 4 x 4 (boxed breathing: inhale for 4s, hold for 4s, exhale for 4s, hold for 4s)
- Symmetrical breathing (i.e. 5 seconds in and 5 seconds out)
- Diaphragmatic breathing (belly breathing)

Quick Tips:

- 1. Belly breathing: Put your hand on your belly, another hand on your chest. Imagine there is a balloon IN your belly. As you inhale, that balloon should expand (belly should rise). As you exhale, your balloon should deflate.
- 2. Slow extended exhalations and resistance breathing activate that "ventral vagal," state we talked about in Polyvagal Theory. If you're matching inhale and exhale pace (i.e. 6 seconds in and 6 seconds out), your system is balancing between ventral-sympathetic.
- 3. Experiment with different breaths each day and jot down how each breathing technique affects you. Once you understand which one works best for you and why, focus on using it.
- 4. Practice often for example, 7 times a day, 2 minutes a time. When it gets easy to do it in a quiet space, you can start practicing in moments that are tougher.

Master Your Nerves With Mindfulness

There are a LOT to mind-body techniques for chronic pain: Tai-chi; mindful yoga; journaling; art; acting/theater; etc.

No need to get overwhelmed—they ALL boil down to being aware and present with self. They all teach ways to allow you to explore and be curious about the truth of what you feel, which is important in healing the emotional trauma that factors into chronic pain.

mindfulness

THE UNIFYING THEME BEHIND ALL THESE TECHNIQUES IS MINDFULNESS.

It is a **good** thing that there are many different techniques, because a technique that jives best with one person isn't always someone else's preferred "flavor." If you choose to use more than one, you're using more ways to rewire the brain!

Master Your Nerves With Mindfulness

Mindfulness in a nutshell: You are DEVELOPING your "OBSERVING" self. This is the part of you that just sees, is present and doesn't react. This is the part of you that can experience pain and emotional turmoil, but not get drawn into the story. This is also the part of you that can see truth, not colored by the beliefs we have about ourselves and other people. It is the part of you that is friends with compassion, self-compassion and gratitude.

The skill of mindfulness CAN be used for meditation alone and making you "feel better" in the moment. However, moving past your pain starts with moving TOWARDS your pain. To move towards physical and emotional pain in order to move BEYOND them, you need the mindfulness skill to be able to pause and notice things as they are, to be present, to soothe the body and to stay grounded.

I'd recommend practicing about 30 minutes **total** a day, whether informally (i.e. while eating; driving; walking) or formally by intentionally sitting and practicing.

On a budget and pretty self-disciplined? My favorite link to point clients to is one on Mindfulness-Based Stress Reduction. It is absolutely free and worth its weight in gold: https://palousemindfulness.com/

SETTING THE STRUCTURE (part 1):

Here's AN EXAMPLE (it's not carved in stone) of a breakdown of the breakdown of the 7 core steps (if you'd like, you can CHOOSE to start working on just ONE habit).

- 1. Understand that while your pain sucks to feel, it is a protective signal and the hurt is not causing any harm. As you move about the day, have little mantras to chant that reinforce these ideas. Set one or two actionable goals (breathing, movement, meditation...) to achieve in the day.
- 2. Wake up in the morning at a set awake time (i.e. 7 AM). Belly breathe for two minutes before you get out of bed.
 - a. If you feel that you are in a place to start thinking or saying so, whether inwardly or outwardly (i.e. in front of a mirror while you brush your teeth), start thanking your brain daily for protecting you (even if the pain it chooses to give you no longer serves a helpful protective purpose). This practice of gratitude is perhaps odd and awkward, but VERY helpful in growing and rewiring the brain.
- 3. Eat a breakfast that will nourish those nerves (i.e. GF-certified steel-cut oatmeal with different types of berries, chia seeds, pumpkin seeds and a nut butter).
- 4. On your commute to work, belly breathe for two minutes.
- 5. Go about your day as normal (work, studying, etc.).

SETTING THE STRUCTURE (page 2):

- 6. Eat a lunch that will nourish those nerves (i.e. roasted mixed vegetables with a honey-glazed wild-caught salmon. If your co-workers stare at you for microwaving fish, you can point them my way).
- 7. Go for a 15-30 minute walk after your lunch and work on mindful meditation while walking.
- 8. Belly breathe for two minutes after lunch and before you get back to work/studying.
- 9. On the commute home, belly breathe for two more minutes.
- 10. Eat a dinner that will again nourish those nerves (i.e. leafy mixed greens salad with berries, nuts, balsamic vinegar and extra virgin olive oil dressing, with grilled, pasture-raised chicken).
- 11. Go for a 15-30 minute walk either before or after dinner.
- 12. Shower before bed (that transition from the heat of the shower to the immediate cooling down of the body is super helpful for priming the body for sleep).
- 13. Have a formal mindful meditation before bed for 10 minutes, or read a good relaxing and calming book (with blue light glasses if you are keeping lights on).
- 14. Any last minute thoughts you have, jot down on the notepad by your bed.
- 15. Lights out at 10:00PM, belly breathe your way to sleep.

Other Helpful Recovery Reading and Resources

- A Free "Recovery Strategy" Workbook: http://www.greglehman.ca/pain-science-workbooks
- Explain Pain (a GREAT book by Lorimer Moseley, a well-known pain scientist)
- https://www.retrainpain.org/ has some free online pain education
- The Body Keeps the Score (an awesome read by Bessel van der Kolk on how the body stores trauma)
- https://palousemindfulness.com/ (referenced in the Mindfulness section; free online 8-week course on Mindfulness Based Stress Reduction)

Still feeling overwhelmed and stumped or want more accountability?

Apply to work with me for 1:1 coaching and you will get ALL the support you need for your pain recovery, your journey back to the active lifestyle you want and the fulfilling quality of life you deserve.

In health and with love, Tawny

