



Physical Therapy in the Chronic Pain Program

Less Emphasis More Emphasis Brain Structure **Nervous system Quality of movement Exercise routines Awareness** Several repetitions



Nervous System – When it fires it wires

Fight or Flight
Physical Suffering

- **1** Muscle tension
- **Excited Nerves**
 - Breathing
 - **Pain**

Rest & Digest Recovery

- Muscle tension
- **Excited Nerves**
 - **1** Breathing
 - Pain



The Stress Response

In Fight or Flight, the body releases stress chemicals

Movement (running zebra, shaking bunny) burns up these stress
chemicals





The Stress Response

In modern life, these stress chemicals are not burned off (traffic, phones/email, etc....), so they linger in our system







The Root Of It All

Mind: Body Awareness, Modification, Ease vs Effort

Body: Breathing, Posture, Core, Positioning, Qigong





Body Awareness

What is Mindfulness?

"Mindfulness is awareness that arises through paying attention, on purpose, in the *present moment, non-judgmentally.*"

- Jon Kabat-Zinn



Body Awareness

Why is it important?

- People living in pain become disconnected with their body.
- Noticing and feeling in the present is how we get back into our bodies.
- Understanding that we are human "beings" and not human "doings"

Body Awareness Training

Gathering information with curiosity rather than conclusions or labels





Let's Notice

Notice your breathing right now.



Breathing

How do we breath when we hurt?

Pain programming begins to set this as our **new normal** pattern of breathing.

Fight or Flight
Physical Suffering





Breathing





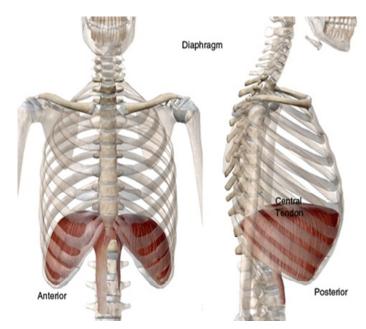
The Diaphragm

The diaphragm is the *primary muscle of respiration*.

It pulls down during inhalation and relaxes back up during exhalation.

What is diaphragmatic breathing?

- Inhale belly rises
- Exhale belly falls





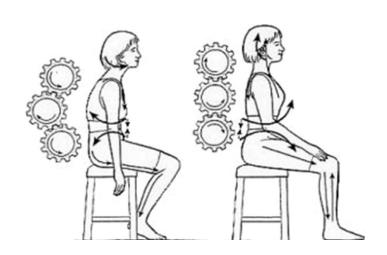
Let's Practice

- Inhale letting your belly rise (without pushing it out)
- Exhale letting your belly fall



Let's Practice

What do you feel sitting in a **slouched** position? What do you feel in a **lengthened** posture?





Recovery is Key

Breathing changes depending on situations or activity as the body adapts.

The key is **recovery**.

Rest & Digest Recovery Muscle tension **Excited Nerves** Breathing **Pain**



Why Diaphragmatic Breathing?

- Reboots the nervous system
- Develops the skill of Body Awareness
- Promotes diaphragmatic breathing in times of recovery



Breath Counting

(Dr. Andrew Weil)

- Gently close your eyes and take a few grounding breaths
- Continue to breathe naturally without trying to influence it
- To begin the exercise, count "one" to yourself as you exhale
- The next time you exhale, count "two," and so on up to "five."
- Then begin a new cycle, counting "one" on the next exhalation.

Exhale...One

Inhale

Exhale...Two

Inhale

Exhale...Three

Inhale

Exhale...Four

Inhale

Exhale...Five

You will know your attention has wandered when you find yourself up to 8, 9, 10



Friendly Reminder



