

# Approaching Chronic Pain with GRRRACE

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Gundersen Health System

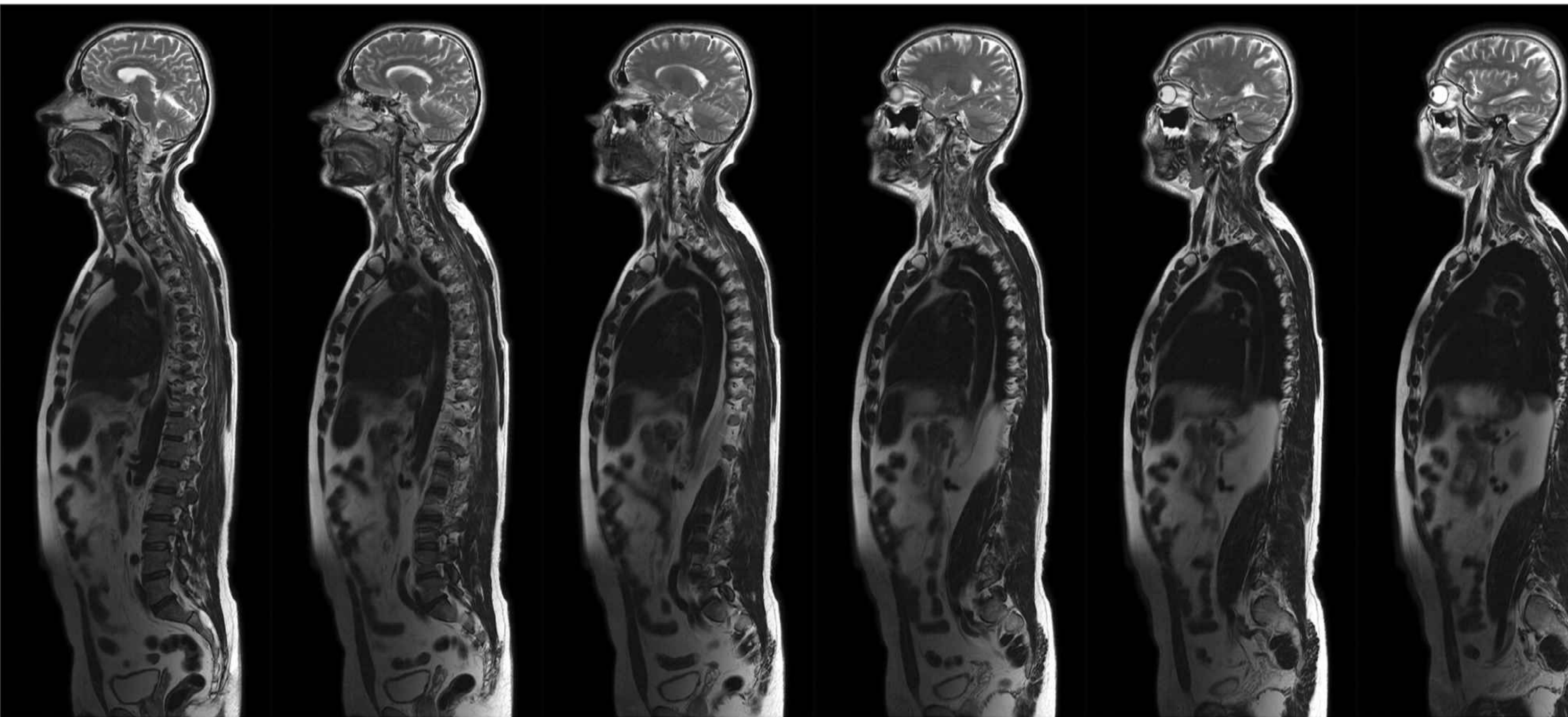
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**Table 2: Age-specific prevalence estimates of degenerative spine imaging findings in asymptomatic patients<sup>a</sup>**

Imaging Finding	Age (yr)						
	20	30	40	50	60	70	80
Disk degeneration	37%	52%	68%	80%	88%	93%	96%
Disk signal loss	17%	33%	54%	73%	86%	94%	97%
Disk height loss	24%	34%	45%	56%	67%	76%	84%
Disk bulge	30%	40%	50%	60%	69%	77%	84%
Disk protrusion	29%	31%	33%	36%	38%	40%	43%
Annular fissure	19%	20%	22%	23%	25%	27%	29%
Facet degeneration	4%	9%	18%	32%	50%	69%	83%
Spondylolisthesis	3%	5%	8%	14%	23%	35%	50%

<sup>a</sup> Prevalence rates estimated with a generalized linear mixed-effects model for the age-specific prevalence estimate (binomial outcome) clustering on study and adjusting for the midpoint of each reported age interval of the study.





## Objectives:

1. Review Pain Theory
2. Recommendations for self management of Chronic Pain
3. Resources



# Pain Theory

- Gate Control Theory
- Neuromatrix Theory

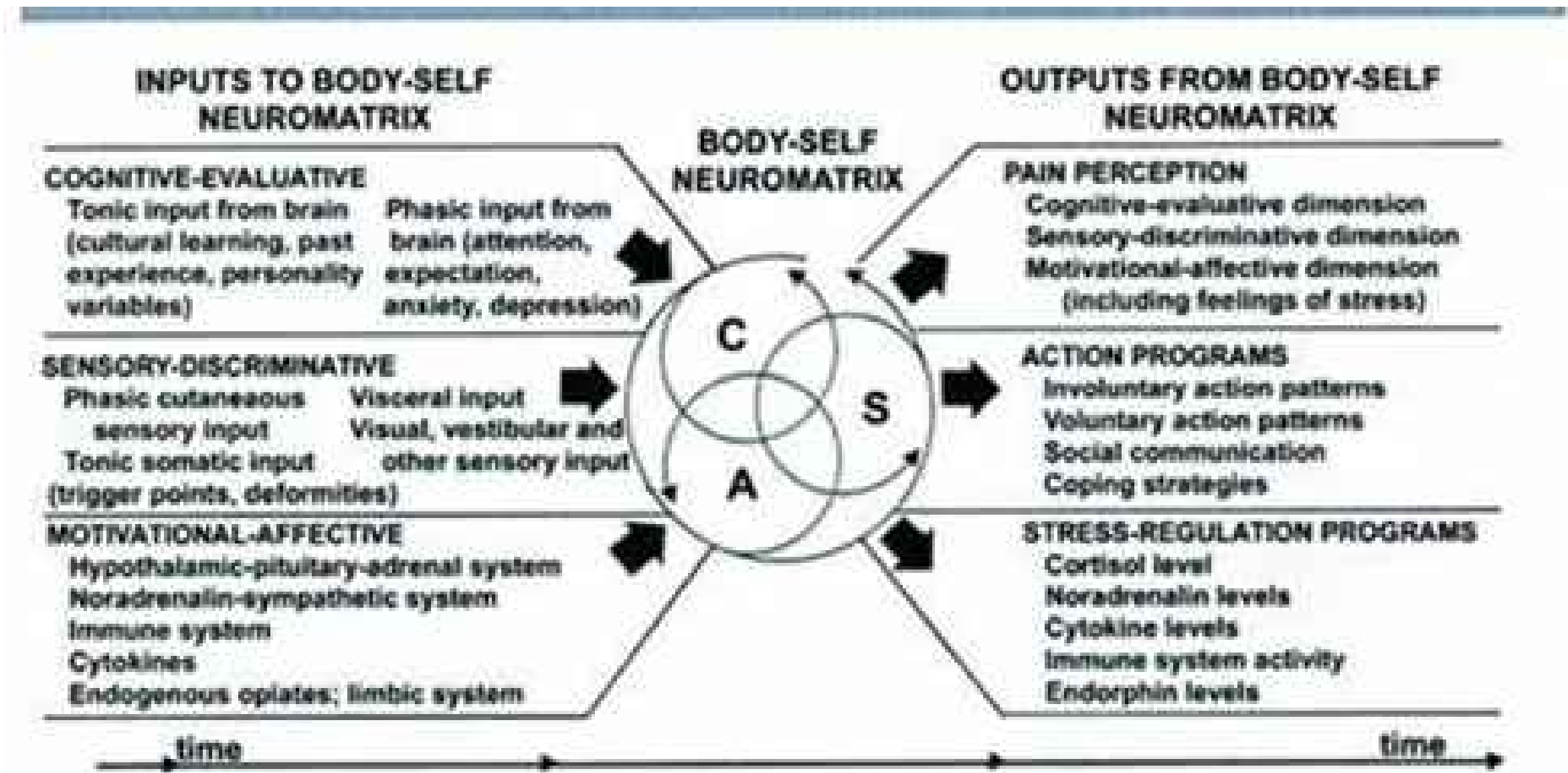
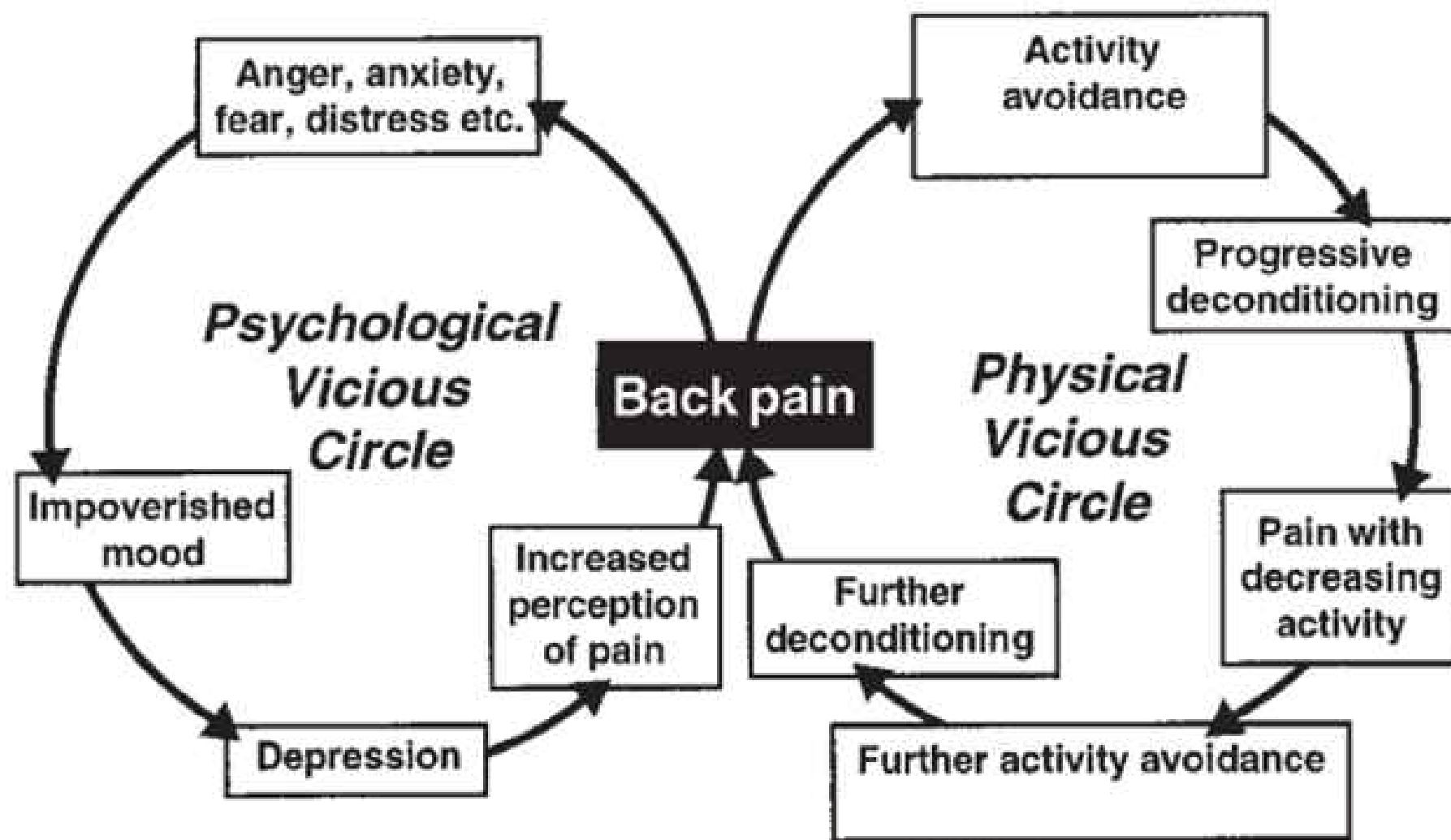


Figure 1. Factors that contribute to the patterns of activity generated by the body-self neuromatrix, which comprises sensory, affective, and cognitive neuromodules. The output patterns from the neuromatrix produce the multiple dimensions of pain experience as well as concurrent homeostatic and behavioral responses.





Source: Cooper, Booker, Spanswick 2003

# A Vicious Cycle: Chronic Pain & Symptoms

Common Symptoms with Chronic Pain

- Ineffective breathing
- Fatigue
- Sleep Problems
- Depression
- Anger
- Stress
- Memory Problems

Source: Healthy Living With Chronic Pain 2015





EXPERT OPINION:

**There is no pill (or  
easy fix) for all of  
this.**



EXPERT OPINION:

# APPROACH CHRONIC PAIN WITH GRRRACE

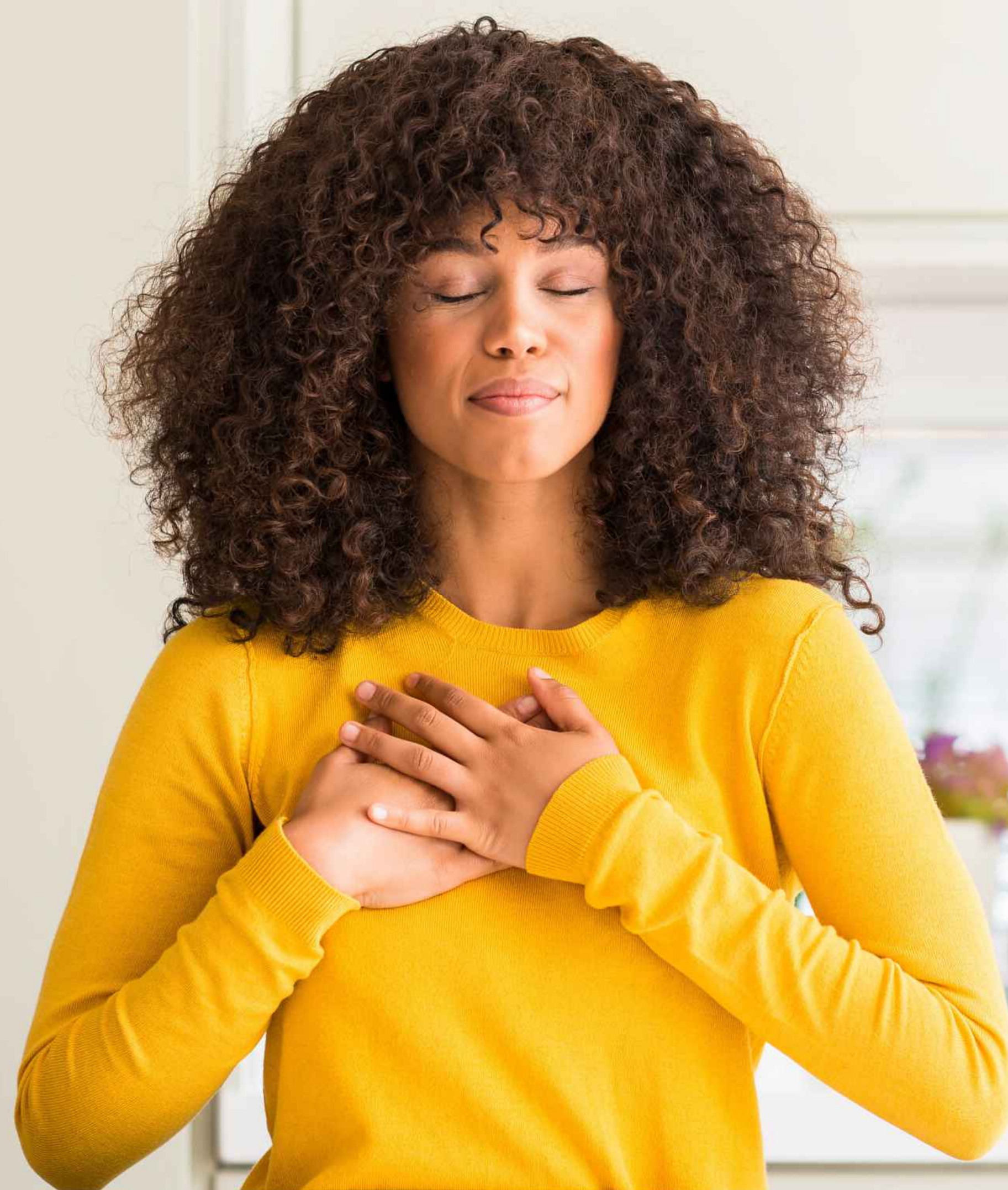
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**G** r a t i t u d e

**R**  
**R**  
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**G**  
**Rest**

**R**  
**R**  
**A**  
**C**  
**E**

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# G Rest

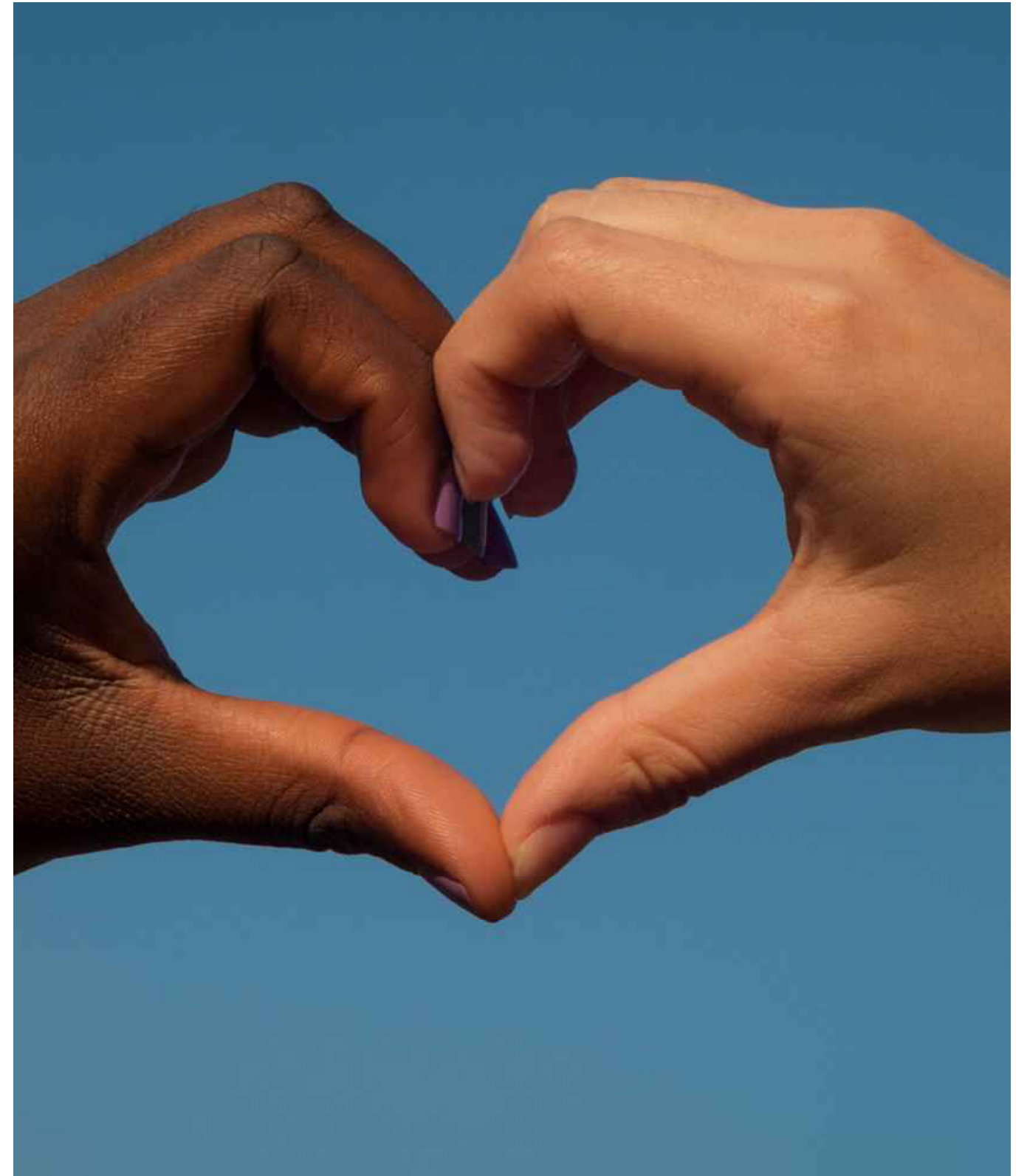
# R R A C E

- Focus the mind on a repetitive phrase word, breath, or action
- Adopt a passive attitude toward the thoughts that go through one's head



**G  
R  
R  
A  
C  
E**

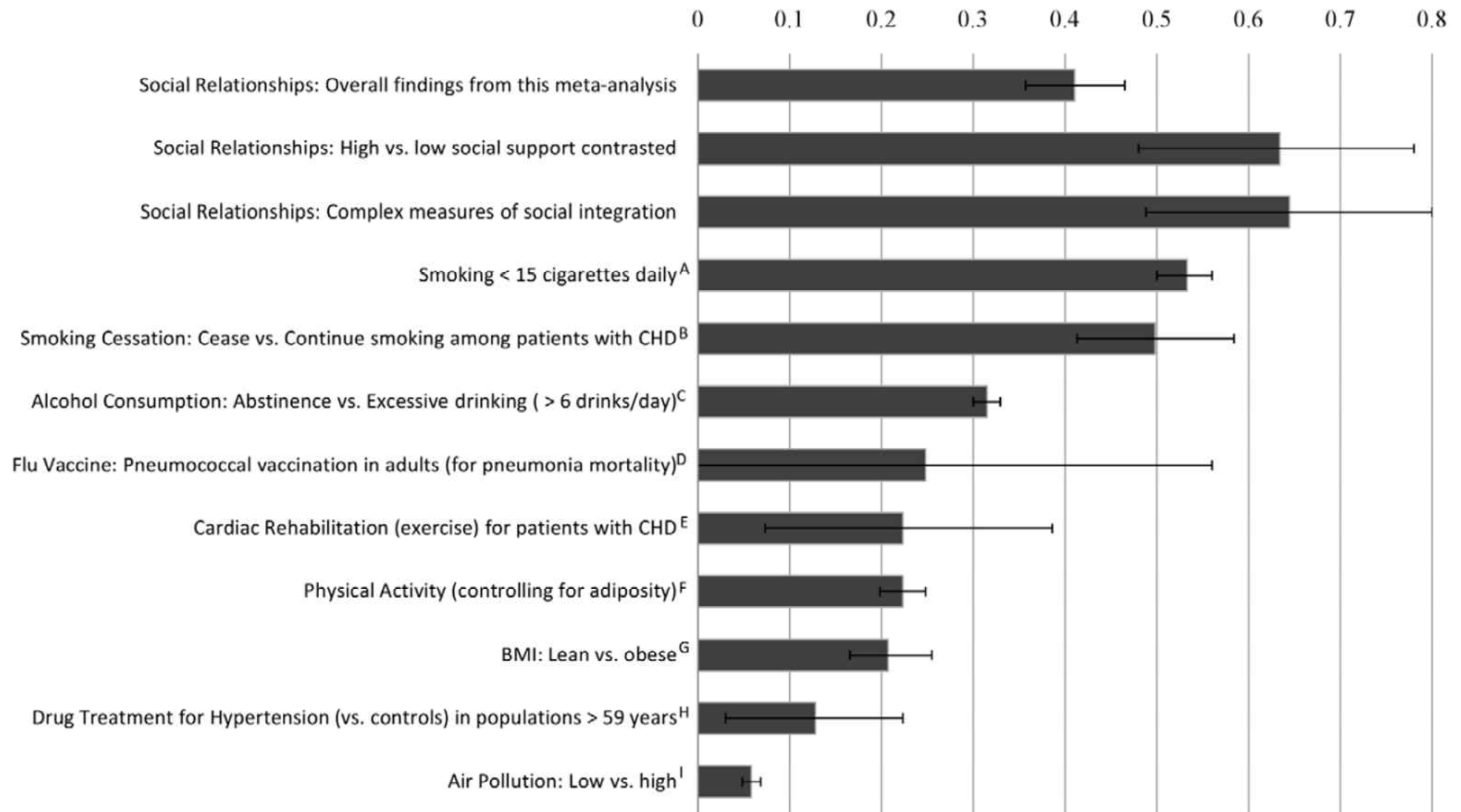
**R**elationships



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# G R R R A C E



**Figure 6. Comparison of odds (lnOR) of decreased mortality across several conditions associated with mortality.** Note: Effect size of zero indicates no effect. The effect sizes were estimated from meta analyses: ; A = Shavelle, Paculdo, Strauss, and Kush, 2008 [205]; B = Critchley and Capewell, 2003 [206]; C = Holman, English, Milne, and Winter, 1996 [207]; D = Fine, Smith, Carson, Meffe, Sankey, Weissfeld, Detsky, and Kapoor, 1994 [208]; E = Taylor, Brown, Ebrahim, Jolliffe, Noorani, Rees et al., 2004 [209]; F, G = Katzmarzyk, Janssen, and Ardern, 2003 [210]; H = Insua, Sacks, Lau, Lau, Reitman, Pagano, and Chalmers, 1994 [211]; I = Schwartz, 1994 [212].

Source: Holt Lunstad 2010



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**Reasonable**

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**G  
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**Acceptance**

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**Acceptance**

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**"We must accept the aspects of pain that you cannot change, including all of the difficult thoughts, feelings, and bodily sensations that come with it... Acceptance allows you to open a space where you can commit to acting in ways that make you feel vital and energized".**

**~Dahl, et. al.**

***Living Beyond Your Pain***

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**Exercise**

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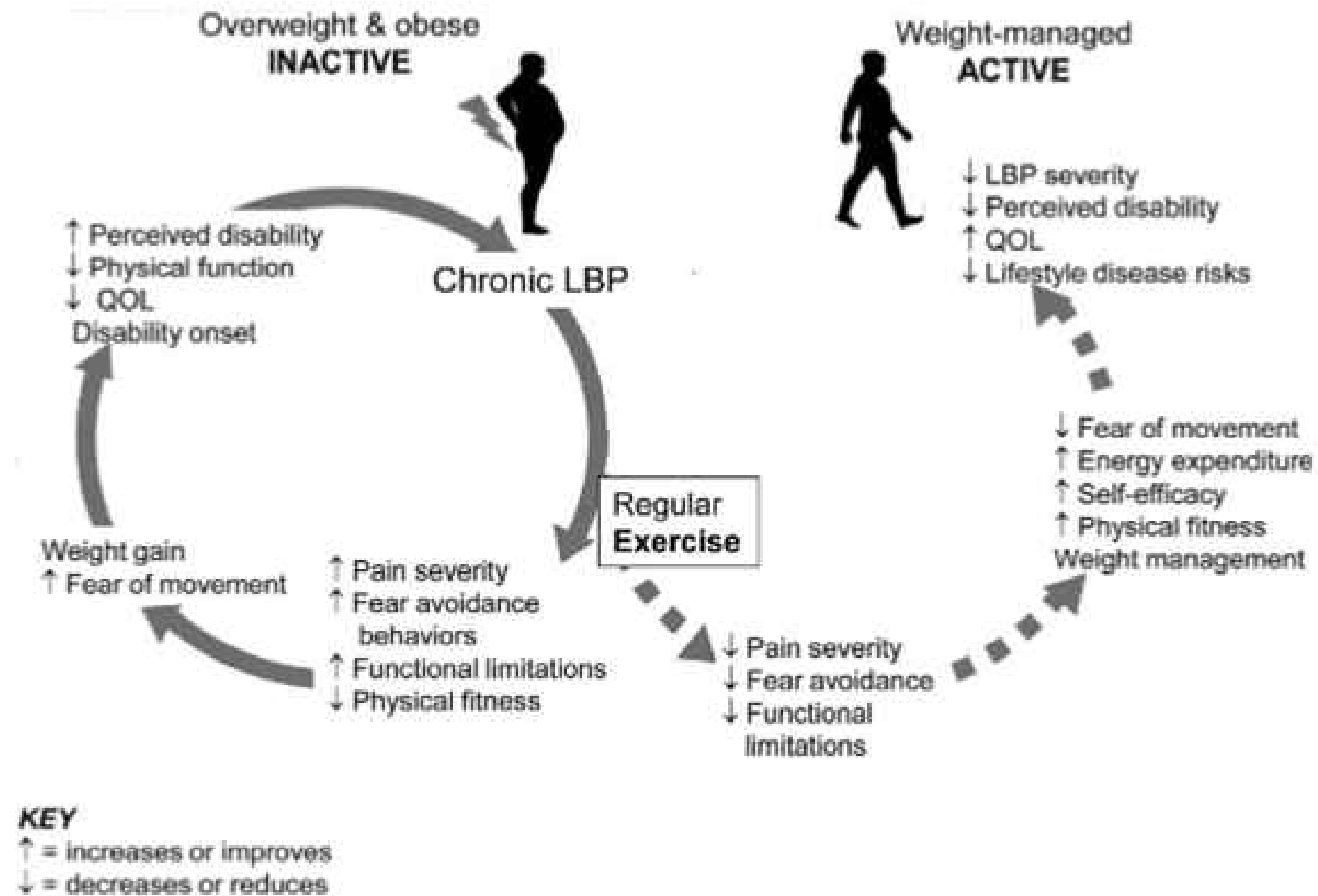
**"The weakest and oldest among us can become some sort of athlete, but only the strongest can survive as spectators. Only the hardest can withstand the perils of inertia, inactivity, and immobility."  
--Bland & Cooper, 1984**





# G R R R R A C

# Exercise



Source: Wasser, et al. Exercise benefits for chronic low back pain in overweight and obese individuals, *PMR*, 2017

# G R R R A C

# Exercise

	<b>Aerobic (AX)</b> 2 studies (n = 298)	<b>Resistance (RX)</b> 4 studies (n = 365)	<b>Aquatic (AQU)</b> 3 studies (n = 155)	<b>Pilates &amp; Yoga</b> 7 studies (n = 533)
Pain severity	↑↑	↑↑↑	↑↑↑	↑↑↑
Perceived Disability	↑↑↑	↑↑↑	↑↑↑	↑↑↑
Quality of Life	↑	↑↑	↑↑↑	↑
Functionality	↑↑	↑↑	↑↑↑	↑↑↑
Fitness	Not Reported	↓ BF%/ ↑ BW	↓ BF%	Not Reported
Fear avoidance beliefs; pain catastrophizing	↑↑	↑↑↑	Not reported	Not reported

Outcome measure improvements from baseline: ↑- 0-10% improvement; ↑↑- 10-30% improvement; ↑↑↑- >30% improvement. Fitness measures are included body composition changes.

Source: Wasser, et al. Exercise benefits for chronic low back pain in overweight and obese individuals, *PMR*, 2017



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“The world as we have created it is a process of our thinking. It cannot be changed without changing our thinking.”  
— Albert Einstein

“Yesterday I was clever, so I wanted to change the world. Today I am wise, so I am changing myself.”— Rumi



# G R R R A C E

Gratitude

Rest

Relationships

Reasonable

Acceptance

Change

Exercise



# Resources:

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Free audio downloads of guided relaxation exercises

*A Clinically Tested, Effective Program  
to Take Back Your Life from Pain*

Over  
200,000  
in Print

# Managing Pain Before It Manages You

**Learn How to:**

- Reduce pain with proven mind–body techniques
- Decrease discomfort, depression, and distress
- Be more active with less pain
- Use medications wisely
- Enjoy life again

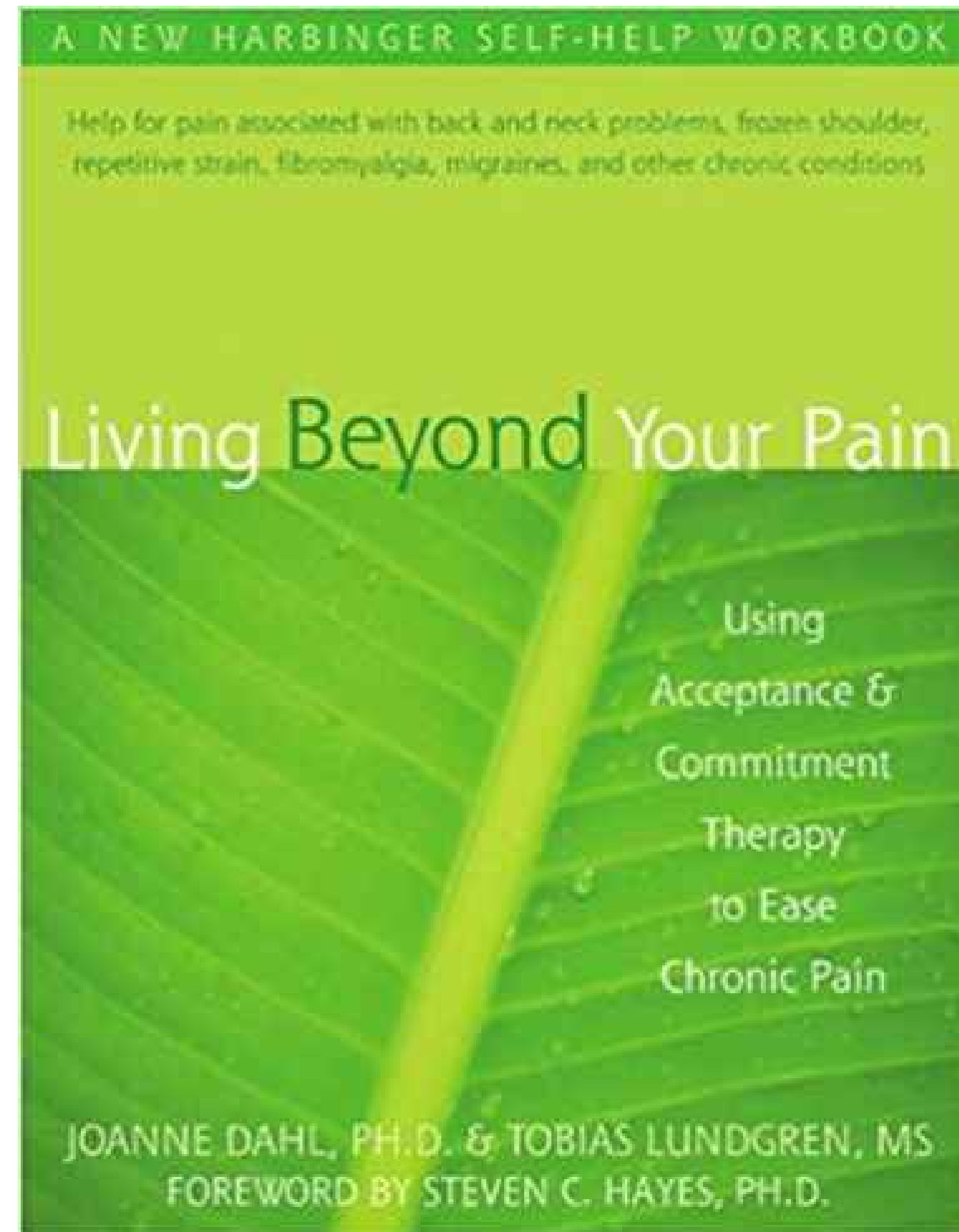
**Fourth Edition**

Margaret A. Caudill, MD, PhD, MPH



# Resources:

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# Resources:



gundersenhealth.org/health-wellness/healthy-living-workshops/

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- Stay Informed, Stay Engaged

### Improve your well-being with help of Healthy Living workshops

Living well can feel like a challenge sometimes. The good news is that it is never too late to take control of your health. To help, Gundersen Health System offers a variety of workshops focused on setting goals, learning coping techniques and finding support through like-minded community members.

#### Healthy Living with Chronic Pain

Discover a lifetime of new options for managing pain during this six-week workshop. The program focuses on helping you feel better, take control of your pain and get you back to doing the things you enjoy.

This program does not replace your existing treatments as prescribed by your doctor, but it does complement your medical care plan. It is not intended to be a solution for addiction to pain medication.

Through Healthy Living with Chronic Pain, you build self-confidence in your ability to manage your pain and learn:

- Strategies for understanding and managing pain
- Short-term goal setting
- Gentle movement and stretching exercises
- Mind and body connection
- Relaxation techniques
- Stress and depression management
- Communicating effectively with family, friends and your medical team

### Upcoming Events

Feb 20 Thur	Powerful Tools for Caregivers 10:00 AM - 11:30 AM
Feb 24 Mon	Healthy Living with Chronic Pain 9:30 AM - 12:00 PM
Apr 6 Mon	Healthy Living with Chronic Pain 5:00 PM - 7:30 PM
Apr 13 Mon	Babysitting Class 8:00 AM - 1:00 PM
Apr 14 Tue	Healthy Living with Diabetes 9:00 AM - 11:30 AM

[More Events](#)

Erin Ma

<https://www.gundersenhealth.org/health-wellness/healthy-living-workshops/>



# Resources:

The screenshot shows a web browser window with the URL [gundersenhealth.org/healthy-living-center/classes-programs/physical-activity-nutrition-care/dig-deep/](https://www.gundersenhealth.org/healthy-living-center/classes-programs/physical-activity-nutrition-care/dig-deep/). The page header includes the logo for the Healthy Living Center at Gundersen Health System and a search bar. The breadcrumb trail reads: Home > Classes, Programs & Services > Physical Activity and Nutrition Care > Dig DEEP (Diet and Exercise to Ease Pain). The main content area features a green box for "Physical Activity and Nutrition Care" and a "Patient Stories" section with two links: "Finding a new path forward at the Healthy Living Center" and "Family LEAP Program: 'This is an investment in us!'". The central focus is the "Dig DEEP (Diet and Exercise to Ease Pain)" program, which is circled in red. Below the title is a description: "An innovative program aimed at decreasing chronic pain and improving function in adults who are overweight or obese." To the right is a "Contact Us" button with a link to "Connect with Dig DEEP". At the bottom is a video player showing a group of people in a classroom setting, with the title "Gundersen's Dig DEEP (Diet and Exercise to Ease Pai..." and options to "Watch later" and "Share".



<https://www.gundersenhealth.org/healthy-living-center/classes-programs/physical-activity-nutrition-care/dig-deep/>



"Pain is an opinion on the organism's state of health rather than a mere reflective response to an injury."

VS RAMACHANDRAN