



# Empowered Relief<sup>®</sup>

Train your brain away from pain

Restoring Hope and *Freedom*  
**Mary Free Bed**  
Rehabilitation Hospital



**Eric Lake, LLP, CADC**  
**Certified Instructor**

# Empowered Relief<sup>®</sup> Disclaimer

- Empowered Relief<sup>®</sup> should not replace a medical evaluation.
- Empowered Relief<sup>®</sup> is educational and informational and does not represent medical treatment.
- Empowered Relief<sup>®</sup> is interactive and includes participant Q&A (at participants discretion).
- Empowered Relief<sup>®</sup> is an educational class and attendance does NOT establish a therapist-client (or treating) relationship with the instructor.



**Stanford**  
M E D I C I N E



National Center for  
Complementary and  
Integrative Health

This class is an evidence-based pain treatment.

Developed by pain psychology scientists at  
Stanford University.

Delivered internationally.





**You are not alone!**





# GOALS

- You will learn about how pain is processed in the brain and how to best manage it
- Learn simple skills that you can use everyday
- Create your personalized plan for long-term relief



# Rate your stress

0 – 10



# Rate your muscle tension

0 - 10





# Stress Response

Short breaths

Tense muscles

Anxious thoughts

Heart rate increases

Blood vessels constrict

**Activates your Sympathetic Nervous System**



# Stress Responses

The things you observe in your body are markers of things you cannot observe.

**Activates your Sympathetic Nervous System**



# Biochemical Response

- Cortisol
- Adrenaline
- Inflammatory markers



# Stress Response

Short breaths

Tense muscles

Anxious thoughts

Heart rate increases

Blood vessels constrict

**Activates your Sympathetic Nervous System**





# Pain Response

Short breaths

Tense muscles

Anxious thoughts

Heart rate increases

Blood vessels constrict

**Activates your Sympathetic Nervous System**





# PAIN



# Pain

The things you observe in your body  
are markers of things you cannot observe.



# Pain

The things you observe in your body are markers of things you cannot observe.





# Stress AND Pain

Short breaths

Tight muscles

Anxious thoughts

Heart rate increases

Blood vessels constrict

**Activate your Sympathetic Nervous System**





**You learn best when relaxed**



**Rate Your Stress: 0 - 10**

**Rate Your Muscle Tension: 0 - 10**



# The Relaxation Response

Breathing slows  
Heart rate slows  
Blood vessels widen  
Muscles relax  
Mind is calmed

Activates parasympathetic nervous system



# The Relaxation Response

The things you observe in your body  
are markers of the things you cannot observe.



# The Relaxation Response

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Activates parasympathetic nervous system



# The Antidote to Stress / Pain Responses:

## Calm your nervous system



# Opposites

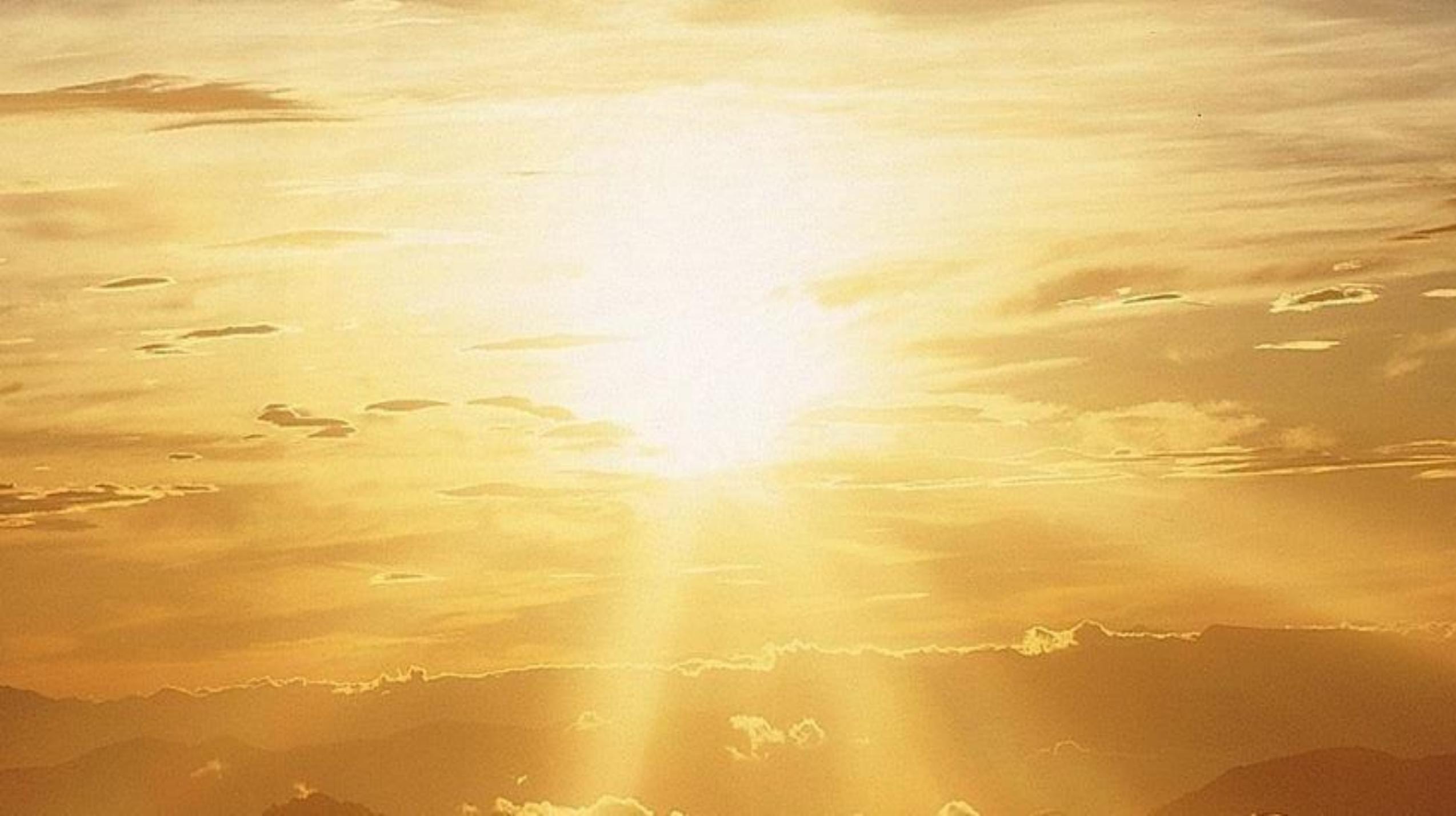
**Pain  
Response**

**Relaxation  
Response**



Your breath is your gateway  
to the relaxation response





What is pain?





International Association for the Study of Pain

**IASP**

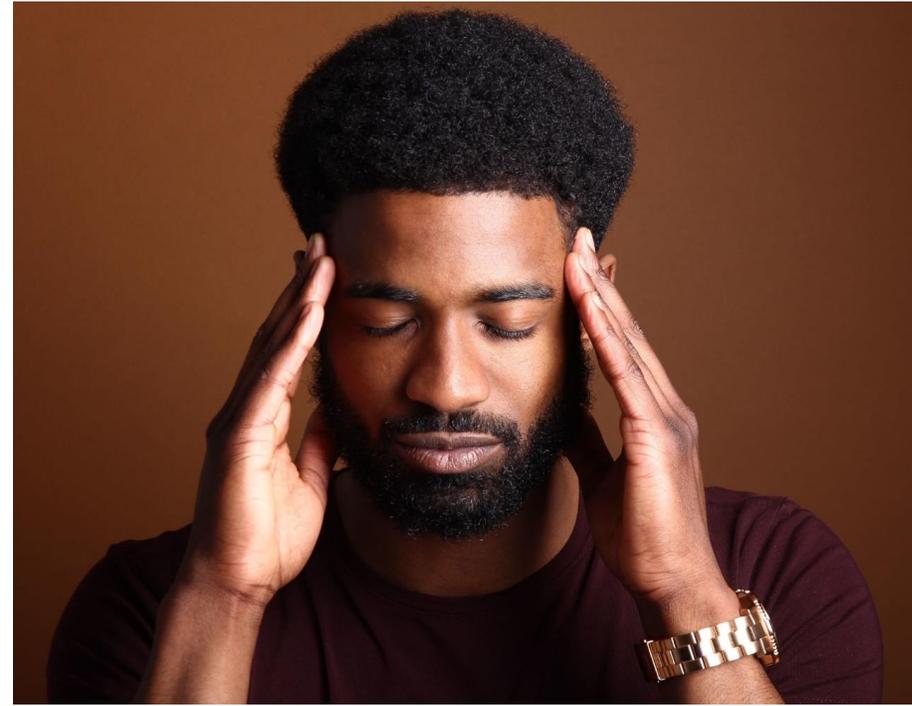
*Working together for pain relief*

Pain Definition:  
A negative sensory **and emotional experience**

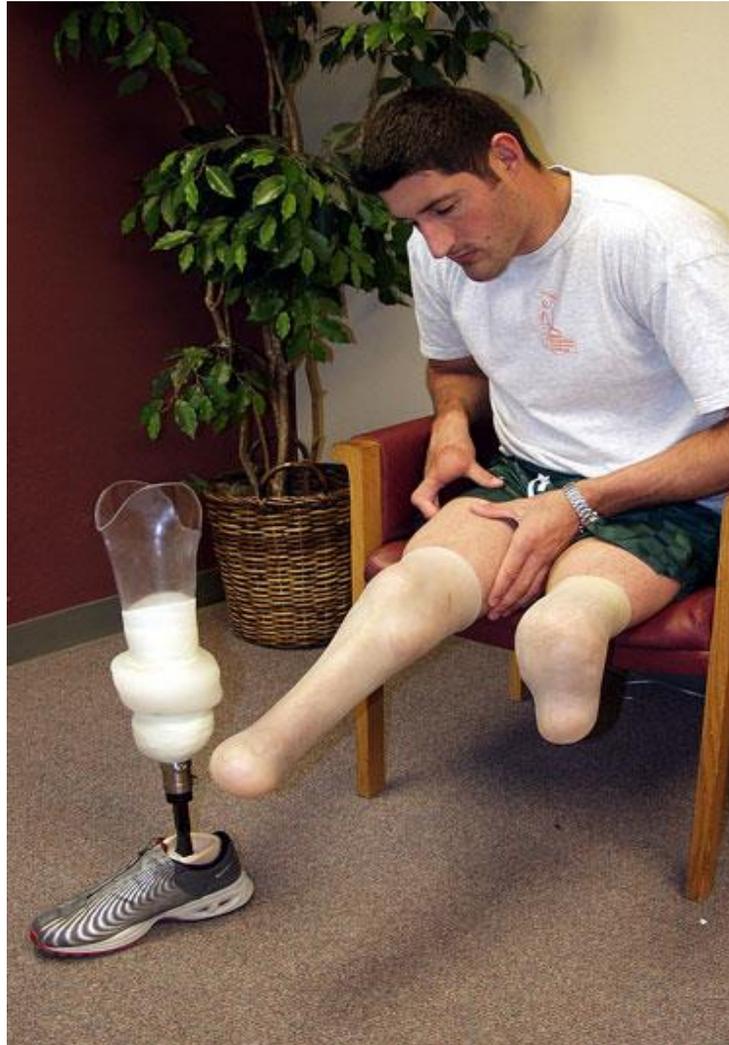


# How & Why?

All pain is processed in the brain



You don't even need your **body**  
to feel pain !





# Your Brain

- processes pain
- processes emotions

Sadness, anxiety, worry, fear

It turns out that these emotions worsen pain



# Why Your Mind Matters for Pain Relief



# Some Basics

- Your pain is real
- ALL pain is real
- Pain causes your body to react and try to “protect” you
- Pain triggers distressing thoughts
- Thoughts can amplify pain



# Take Stock of Your Pain Thoughts: Score Your Form



# Pain Survey

In the past 7 days, how often did you have the following thought when you were in pain?

1	2	3	4	5
Never	Rarely	Sometimes	Often	Always

**Rate each item with a number...**

\_\_\_\_\_ My pain is more than I can manage.

\_\_\_\_\_ Because of my pain, I will never be happy again.

\_\_\_\_\_ Because of my pain, my life is terrible.

\_\_\_\_\_ My life will only get worse because of my pain.

In the past 7 days, how often ...?

\_\_\_\_\_ Did you keep thinking about how much it hurts?

\_\_\_\_\_ Did you have trouble thinking of anything other than your pain?

# Unhelpful Pain Mindset (coping)



# Interpreting Your Total Score

Lower scores are better because it means you have less distress and more control.

**Unhelpful Pain Mindset** is understandable, it happens automatically, and it worsens pain.



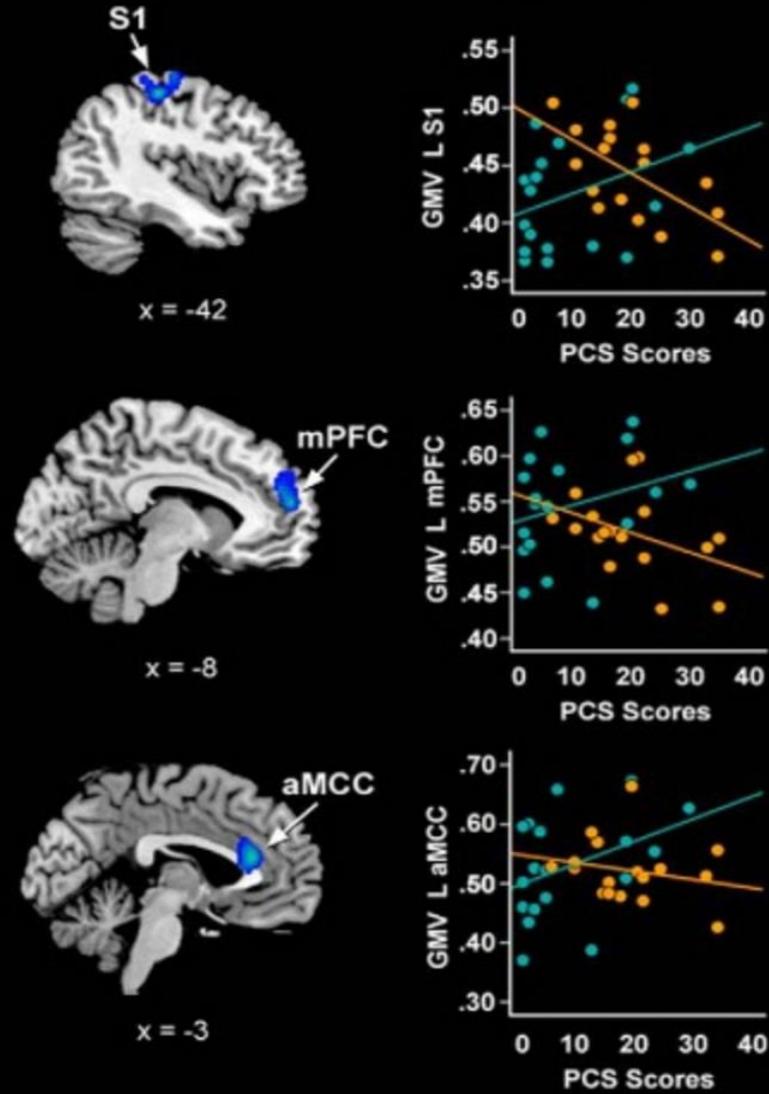
# Unhelpful pain mindset

- Greater pain intensity<sup>1</sup>
- More opioids<sup>2</sup>
- Pain treatment is less effective<sup>3</sup>
- Longer hospital stays<sup>4</sup>
- More likely to develop chronic pain after surgery<sup>5,6</sup>

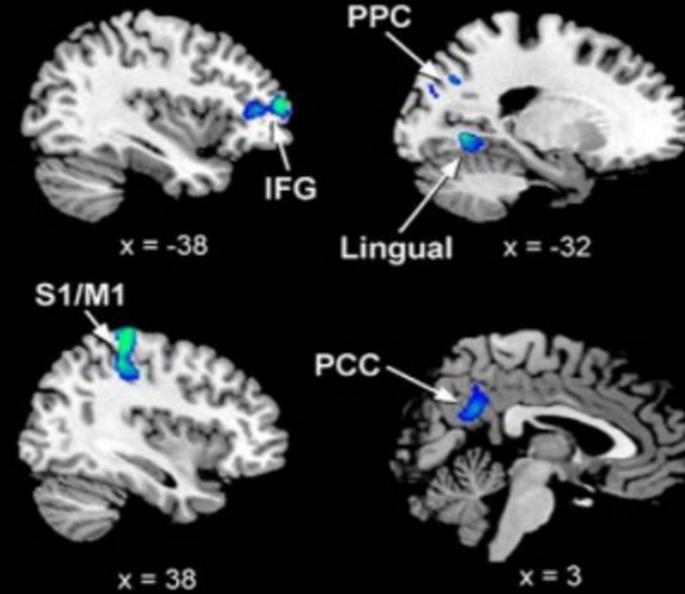
1. Severeijns R, Vlaeyen JW, van den Hout MA, Weber WE. Pain catastrophizing predicts pain intensity, disability, and psychological distress independent of the level of physical impairment. *Clin J Pain*. Jun 2001;17(2):165-172.
2. Weissman-Fogel I, Sprecher E, Pud D. Effects of catastrophizing on pain perception and pain modulation. *Exp Brain Res* 2008;186(1):79-85.
3. Jensen MP, Turner JA, Romano JM. Changes in beliefs, catastrophizing, and coping are associated with improvement in multidisciplinary pain treatment. *J Consult Clin Psychol* 2001;69(4):655-662.
4. Jensen MK, Thomsen AB, Hojsted J. 10-year follow-up of chronic non-malignant pain patients: opioid use, health related quality of life and health care utilization. *Eur J Pain* 2006;10(5):423-433.
5. Pavlin DJ, Sullivan MJ, Freund PR, Roesen K. Catastrophizing: a risk factor for postsurgical pain. *Clin J Pain* 2005; 21(1):83-90.
6. Khan RS, Ahmed K, Blakeway E, Skapinakis P, Nihoyannopoulos L, Macleod K, et al. Catastrophizing: a predictive factor for post-operative pain. *Am J Surg* 2011; 201(1):122-31.



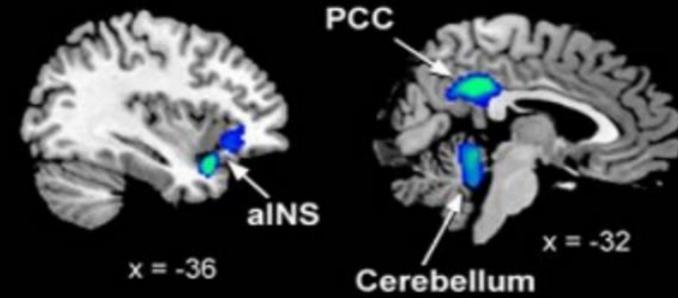
## B Group x Pain Catastrophizing



## D Migraine Attack Frequency



## E Migraine Pain Intensity



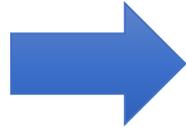


Focusing on pain, worry, and feeling  
helpless about pain.....











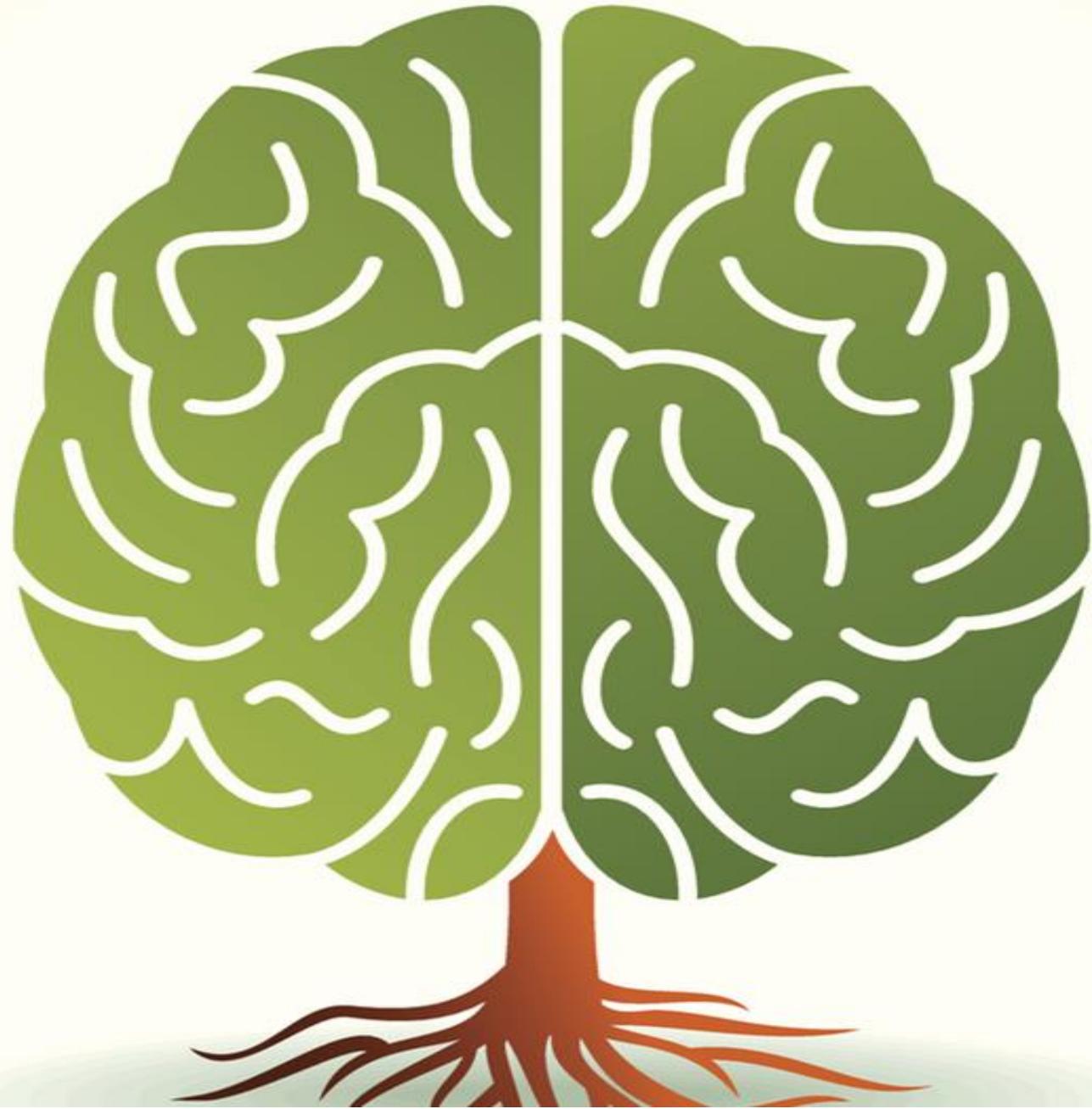
## **The Good News:**

Unhelpful Pain Mindset  
is Treatable

## **The Solution:**

**Train Your Brain  
Away From Pain**

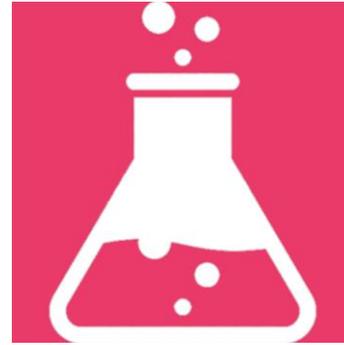




**Replace old patterns with new ones that shape your nervous system towards relief**



# The Formula



- **Identify** your unhelpful pain thoughts and mindset
- **Interrupt** the thought pattern as soon as you notice it



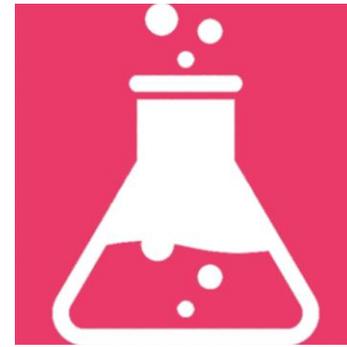
# The Formula



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# The Formula



- **Identify** your unhelpful pain thoughts and mindset
- **Interrupt** the thought pattern as soon as you notice it

**3 Skills**



# Interrupting the unhelpful thought pattern

~ find neutral ~

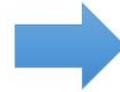


# CHANGE THE CHANNEL

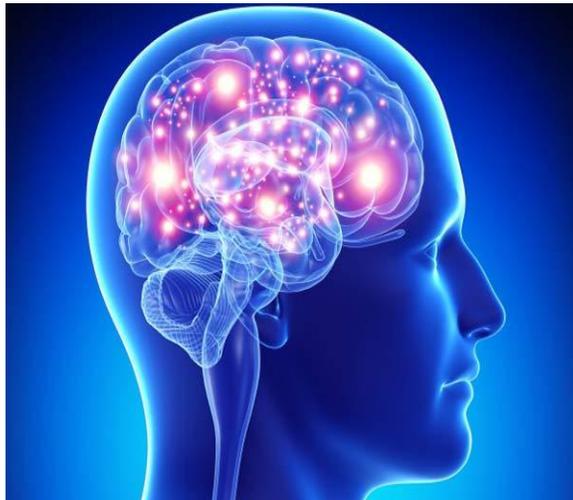


# Skill #1

## Use the Relaxation Response



Breathing slows  
Heart rate slows  
Blood vessels widen  
Muscles relax  
**Mind is calmed**



**Dampens pain processing  
in your nervous system**



# Binaural Technology





# Binaural Technology



# Practicing this **NEW PATTERN** allows you to

- Recondition your mind and body
- Weaken unhelpful brain patterns that worsen pain
- Strengthen positive brain patterns that give relief
- Develop confidence that you can control your experience
- From a place of calmness, make better choices

... this means better self-care !

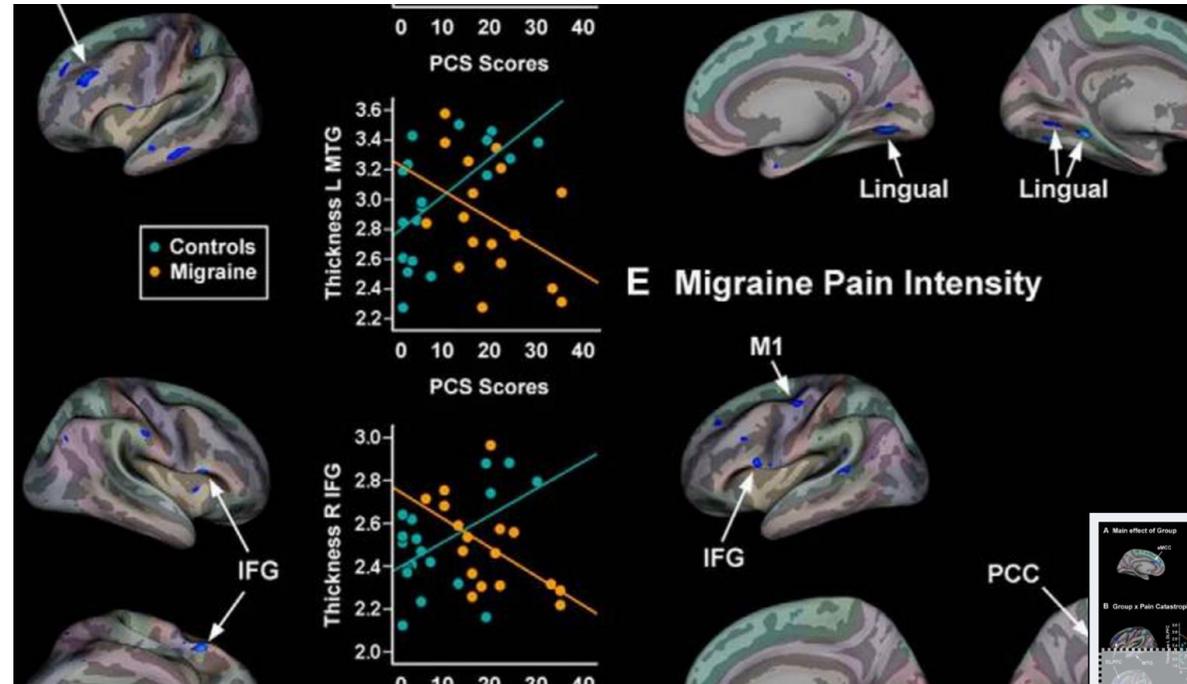


# Tips for Use

- **OFTEN. More = Better !!!**
- Begin with scheduled times
- Begin using the RR when your pain is low
- Set aside 20+ minutes
- Quiet space
- Use a privacy sign if need be



# Trust that it is working!



Training your brain away from pain is a process that unfolds over time. Know that you are rewiring your nervous system.





# My Plan for Empowered Relief®

## Step 1: REGULAR USE OF THE RELAXATION RESPONSE

I will listen to the **Binaural Relaxation Audiofile** and calm my nervous system:

1  2  3  times/day

Time(s) of day I will practice: \_\_\_\_\_



## Step 2: REFRAME UNHELPFUL PAIN MINDSET

Unhelpful Pain Thoughts I Have  
(e.g., “it’s never going to get better!”):



1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

My Helpful Reframes (e. g., use “best friend talk”)

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_



## Step 3: MY SELF-SOOTHING ACTIONS FOR RIGHT NOW

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_



- The Relaxation Response calms my nervous system, dampens pain processing, stops distress, and steers my mind and body toward comfort and control!
- Interrupting my negative thought patterns will train my brain away from pain.
- **Regular practice** of these 3 steps will shape my brain and body towards relief.
- I can review the class slides whenever I would like a refresher on the material.
- Above all, I am kind to myself. ❤️



# Begin Your Personalized Plan: STEP 1

1. Decide how often you will use the audio file
2. Decide when you will use it
3. Keep track of your use

## Step 1: REGULAR USE OF THE RELAXATION RESPONSE

I will listen to the **Binaural Relaxation Audiofile** and calm my nervous system:

1  2  3  times/day

Time(s) of day I will practice: \_\_\_\_\_



# Why Keep Track?

- So you know if you are meeting your goal
- To ensure a therapeutic dose of relaxation “medicine”
- To connect your results to your behavior



# Can you think of any barriers?



Are there other ways to change  
the channel in your brain??



# YES!

*Change the channel in your brain by  
shifting your THOUGHTS.*



# Take Stock of Your Thoughts



# THOUGHTS

1. Practice positive or neutral interpretations. This will STOP unhelpful pain mindset.

“Of course I’m tired; I didn’t sleep well. But I can scale back and still accomplish things today.”

2. Use self-talk that holds *positive expectation*. This will STOP unhelpful pain mindset.

“It’s going to get better.”



## Skill #2

- **Practice a New Inner Dialog**

What would you tell your **best friend** in this situation? Become your own best friend and speak to yourself that way.



## Skill #2

- **Practice a New Inner Dialog**

What would you tell your **best friend** in this situation? Become your own

- best friend and speak to yourself that way.
- Interrupts unhelpful patterns
- Creates positive, supportive thought patterns



**And it calms your nervous system**



# Practicing positive inner dialog

Interrupts the unhelpful patterns

Creates positive, supportive thought patterns



# Reframing Your Thoughts

## UNHELPFUL THOUGHT

“I feel terrible and it’s only going to get worse! I’m going to have to call in and miss my meeting and my boss will be angry.”

## ~ reframe ~ CALMING, SUPPORTIVE THOUGHT

“It’s always worse in the morning, and I always get through it. I’m going to call the office and buy myself 30 extra minutes so I can relax and take care of myself. If I absolutely must reschedule the meeting I will, but chances are this will work out, especially if I keep calm and positive.”



# Let's Practice!

## Step 2: REFRAME UNHELPFUL PAIN MINDSET

Unhelpful Pain Thoughts I Have  
(e.g., "it's never going to get better!"):



1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

My Helpful Reframes (e. g., use "best friend talk")



1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_



Are there other ways to change  
the channel in your brain??



## YES! Skill #3

### Self-Soothing Actions

Interrupt unhelpful thoughts and emotions by doing something nurturing... something calming....  
Something kind for yourself

*Like what*

?



# Small Positive Actions

Take a moment to slow down

Fix a cup of tea

Make a support call to a friend

Lightly stretch

Journal for a moment

Use a mantra (e.g., “In this moment, I am ok”)

Take a warm bath

Sit in nature for 5-10 minutes



# Step 3 on your Personalized Plan

Create your self-soothing action list now

- Ways to help yourself come to neutral
- Ways to shift your energy into being proactive
- Ways to calm and nurture
- You may have different lists for different settings

Step 3: MY SELF-SOOTHING ACTIONS FOR RIGHT NOW

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_



# Use your self-soothing action list

- Keep it handy
- Pull it out when you need it
- Begin working down the list

Set yourself up for success by completing your whole personalized plan now.



## Your Personalized Plan: Skills & Tools

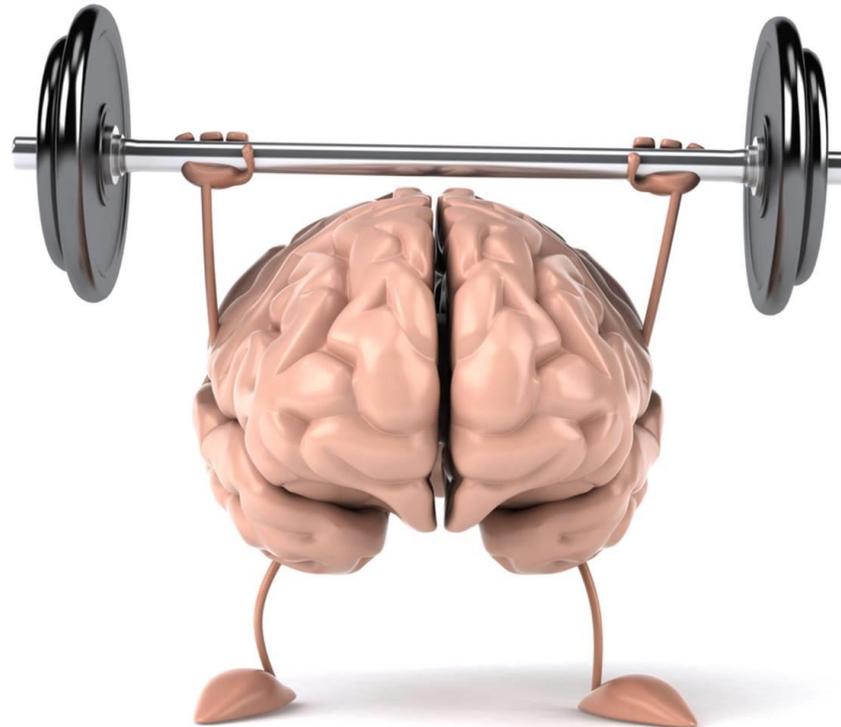
- (1) Deep Breathing to calm the nervous system
- (2) Relaxation Audiofile
- (3) Neutral and positive self-talk (thought reframes)
- (4) Your pain relief list of self-soothing actions

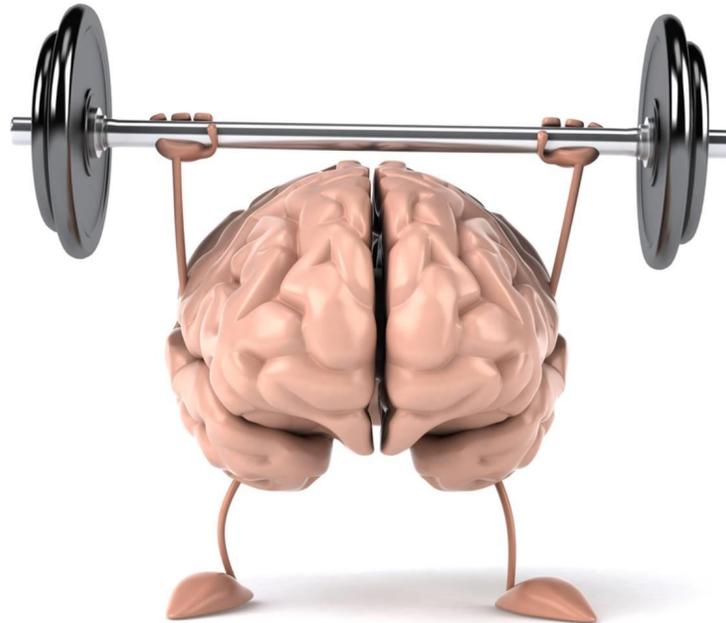
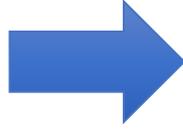
Train your brain away from pain  
Shape your nervous system toward relief



# Shaping your nervous system toward relief

- Increases prefrontal gray matter in patients with chronic pain (Seminowicz, J Pain, 2013). Function and STRUCTURE of the brain is altered!







# Empowered Relief<sup>®</sup> was similar to 8-session CBT for improving:

- Pain intensity
- Pain interference
- Pain catastrophizing

## Secondary outcomes:

- Pain self-efficacy
- Pain bothersomeness
- Sleep disturbance
- Depression
- Anxiety
- Fatigue

## Study Details:

- Chronic low back pain study (N=263)
- Half had 2+ chronic pain conditions
- ***Results at 3 months post-treatment***



Darnall BD et al. JAMA Network Open. 2021;4(8):e2113401.



# SUMMARY



- Your natural reactions to pain set you up for more pain
- Unhelpful pain mindset literally grows pain in your brain but **you now know how to put down the gasoline can!**
- Train your brain away from pain by using your skills DAILY
- Stick with your plan for 3 months to allow full brain changes
- Frequent practice of the relaxation response trains your mind and body away from pain and towards comfort and control

**THIS is Empowered Relief!**



# What you stand to gain

- Greater comfort
- Less distress
- Better control over mind and body
- Better symptom management
- Peace
- Less medication
- Improved quality of life



**Congratulations for Investing  
in Your Wellbeing**

**Thank You for attending  
Empowered Relief!**



# Mary Free Bed Pain Rehabilitation

- Empowered Relief
- Self Management and Rehabilitation Training (SMART) Program
  - The smart program as designed to help you manage pain more effectively long-term. Group sessions focus on education and skill building in a supportive environment with others with chronic pain.
  - 8 weeks, provided virtually
- Interdisciplinary Pain Rehabilitation Program
  - Intensive interdisciplinary care ( physical therapy, occupational therapy, pain psychology, medical care) providing a comprehensive functional rehabilitation approach to address chronic pain conditions
- Individual services based on need

Restoring Hope and *Freedom*  
**Mary Free Bed**  
Rehabilitation Hospital

# Binaural Audio Instructions

## See Binaural Audio App Instructions Handout

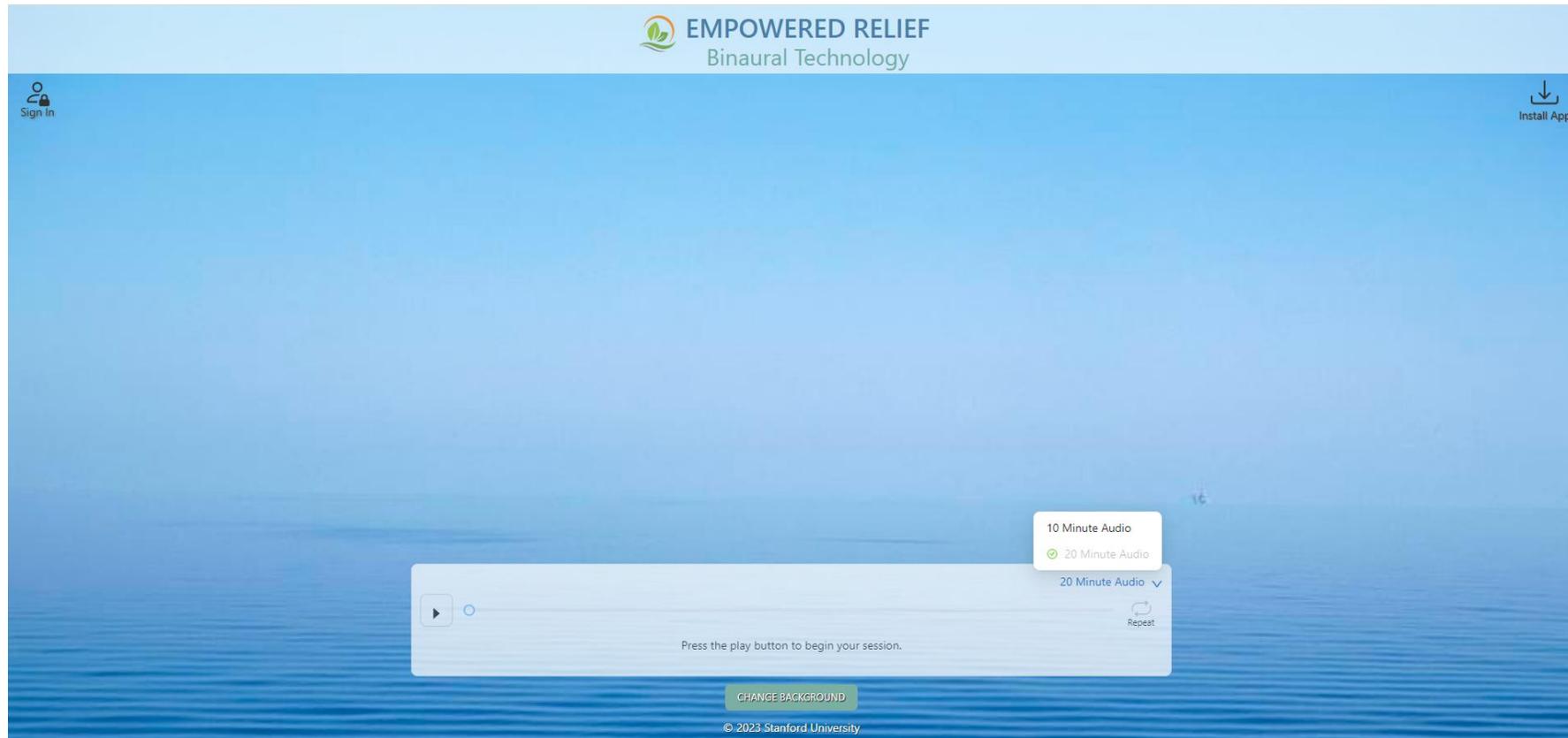
Access the same Empowered Relief binaural audio at either of these locations:

- <https://empoweredrelief.stanford.edu/binaural-relaxation> (Webpage)
- <https://calmtool.med.stanford.edu/> (Calm Tool App)

You can download the Calm Tool as an app onto your smartphone or other device. Once downloaded, you will have an icon on your phone so you can easily access it. You may also press the play button to start streaming the audio.

# Calm Tool App Walkthrough

Go to: [calmtool.med.stanford.edu](https://calmtool.med.stanford.edu)

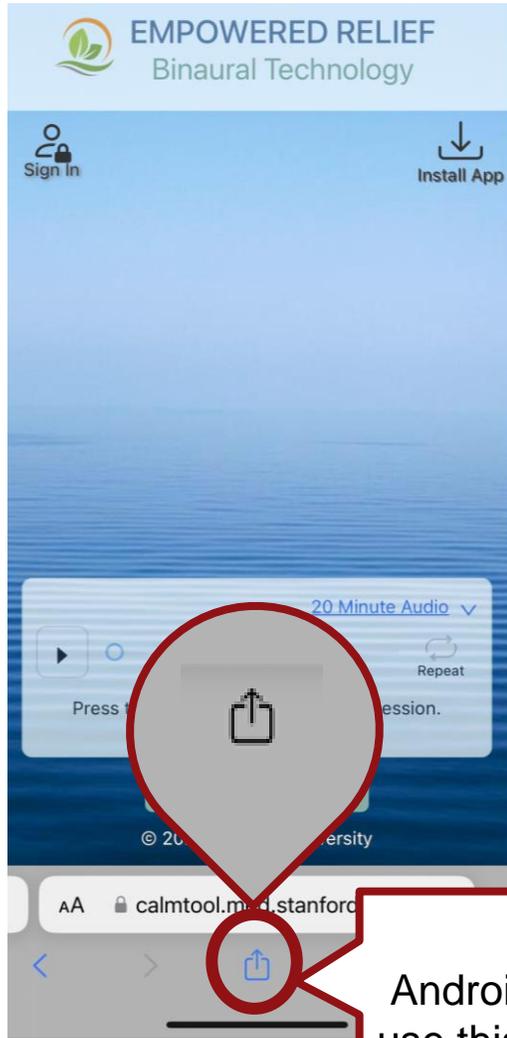


Select the menu icon

Choose 'Add to Home Screen'

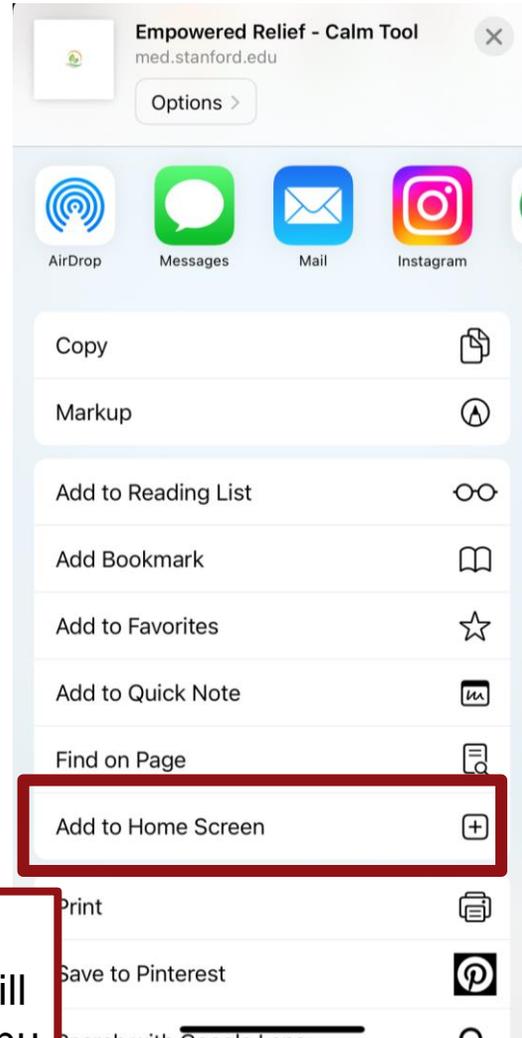
Select 'Add'

The app will appear on your phone

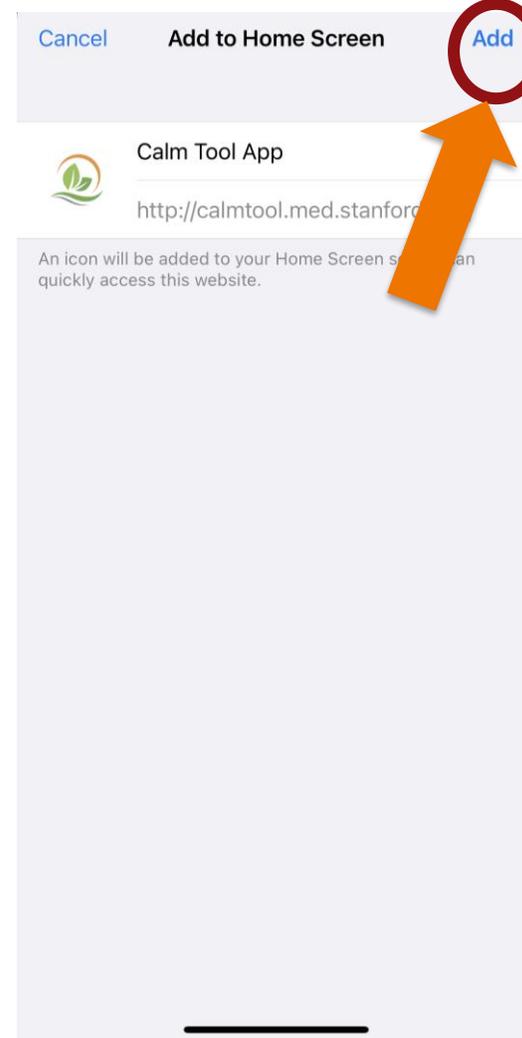


Step 1

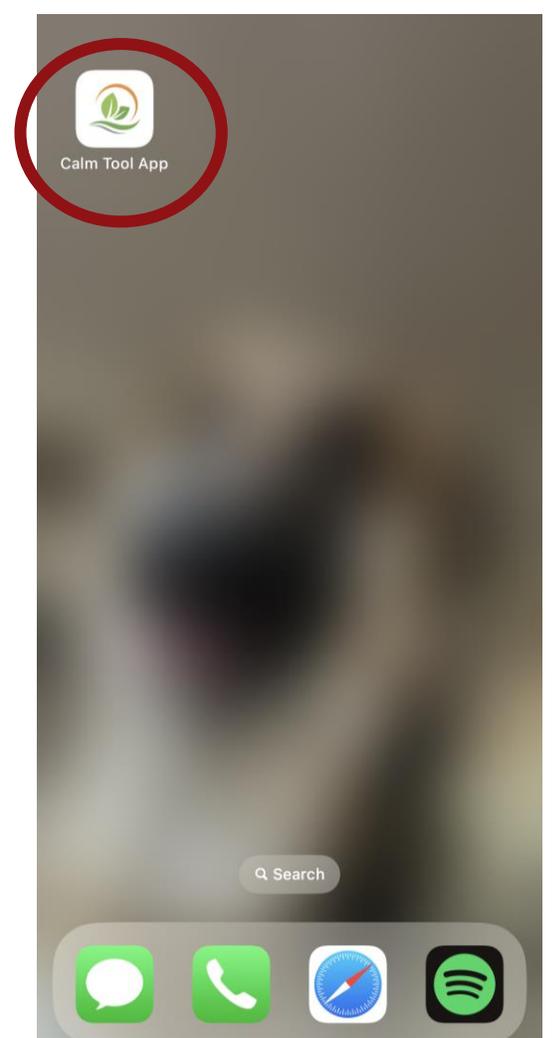
Androids will use this menu icon:

Step 2

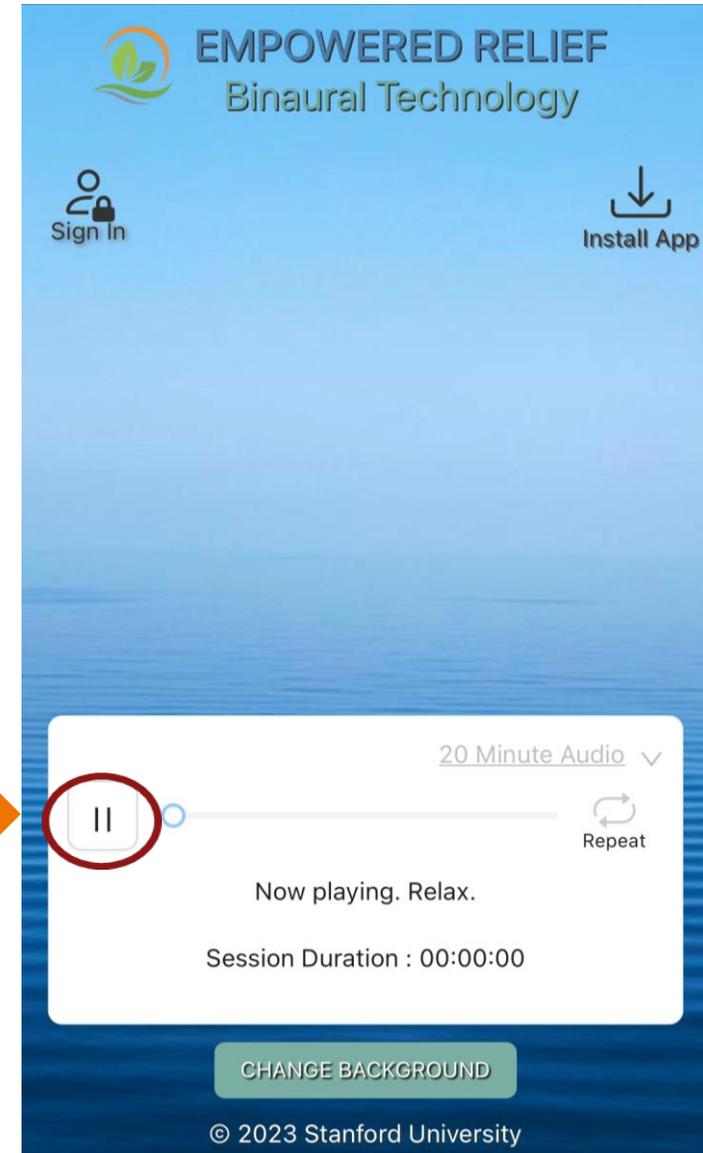
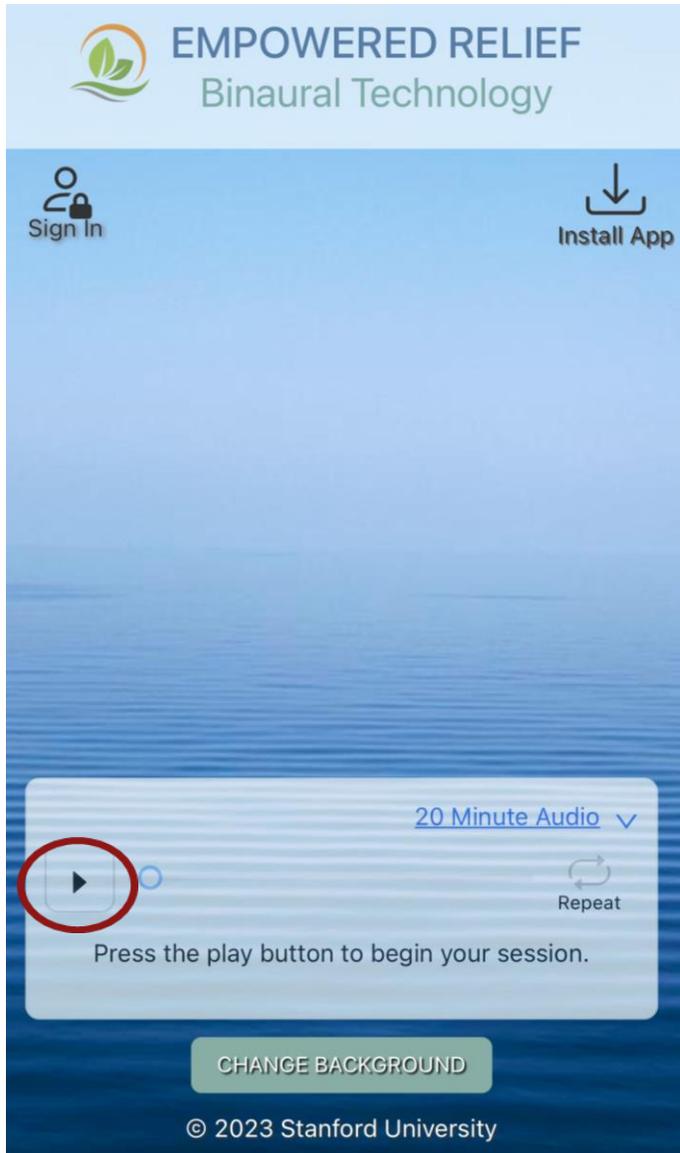


Step 3

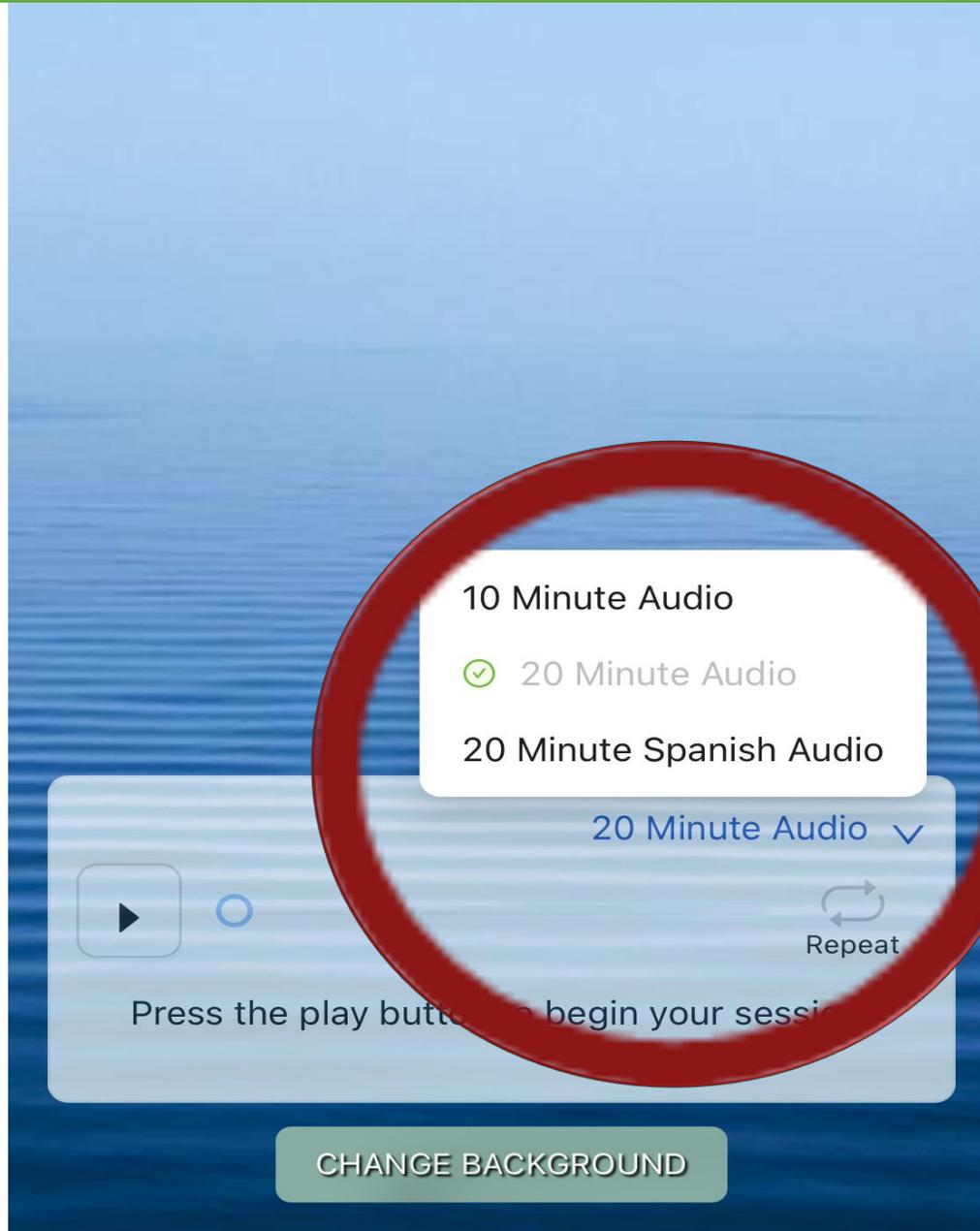


Step 4

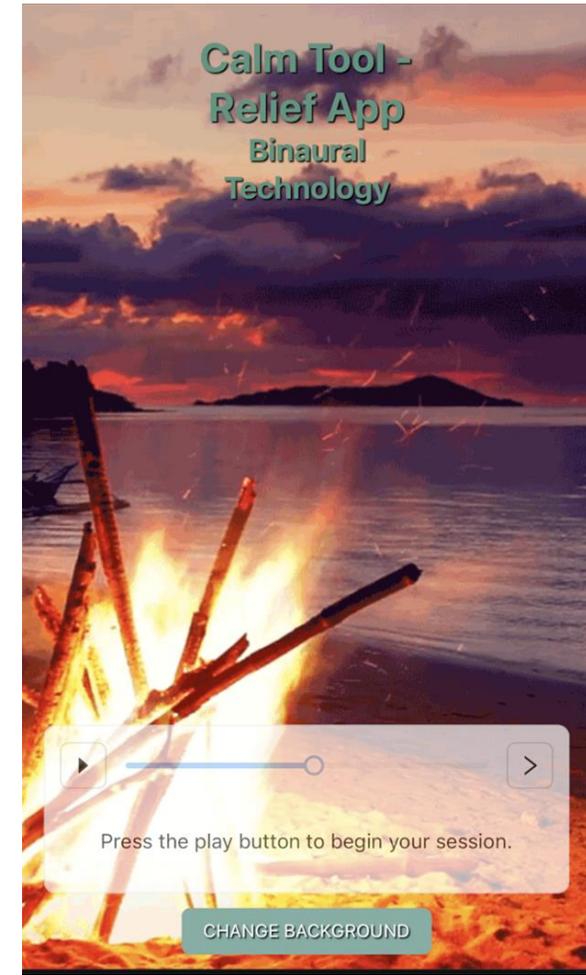
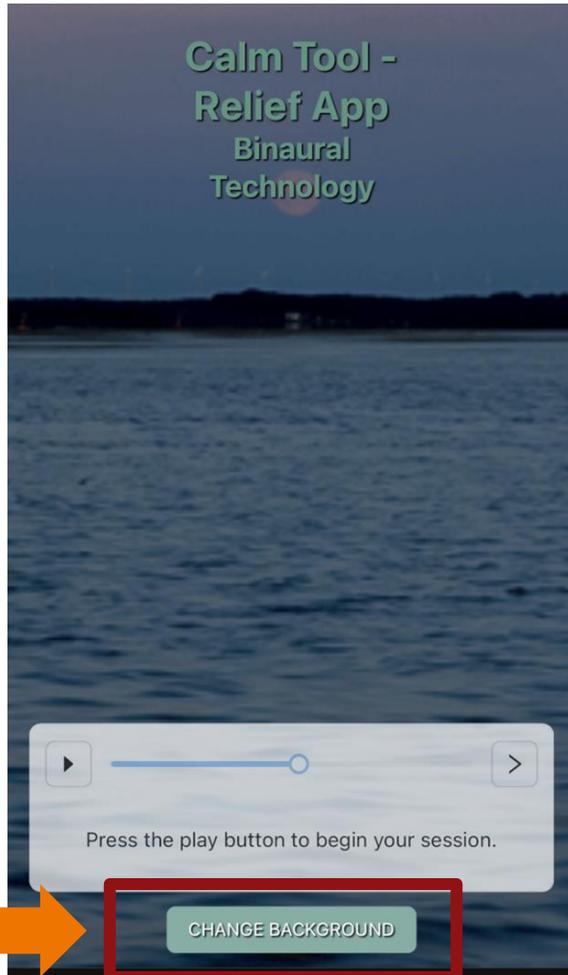
# Play and pause the audio recording



# Change or repeat the track



# Choose different backgrounds



Any type of listening device can work!

