





Empowered Relief™
Train your brain away from pain




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This class is an evidence-based pain treatment.

Developed by pain psychology scientists at Stanford University.


Delivered internationally.



2



You are not alone!



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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



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Rate your stress

0 – 10



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Rate your muscle tension

0 - 10



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Stress Response

Short breaths
Tense muscles
Anxious thoughts
Heart rate increases
Blood vessels constrict

Activates your Sympathetic Nervous System



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Stress Responses

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

Activates your Sympathetic Nervous System



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Biochemical Response

- Cortisol
- Adrenaline
- Inflammatory markers



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Stress Response

Short breaths
Tense muscles
Anxious thoughts
Heart rate increases
Blood vessels constrict

Activates your Sympathetic Nervous System



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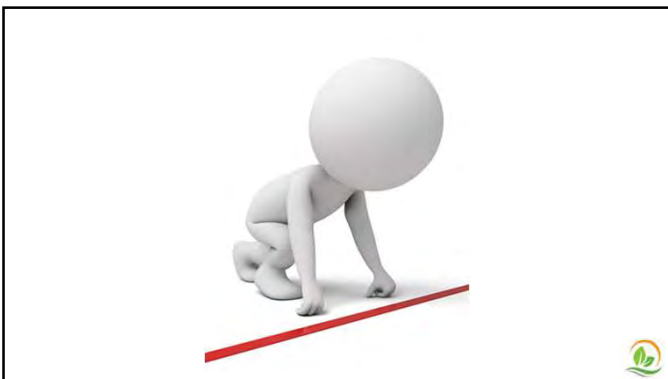
Pain Response

- Short breaths
- Tense muscles
- Anxious thoughts
- Heart rate increases
- Blood vessels constrict

Activates your Sympathetic Nervous System



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PAIN



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Pain

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



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Pain

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



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Stress AND Pain

Short breaths
Tight muscles
Anxious thoughts
Heart rate increases
Blood vessels constrict

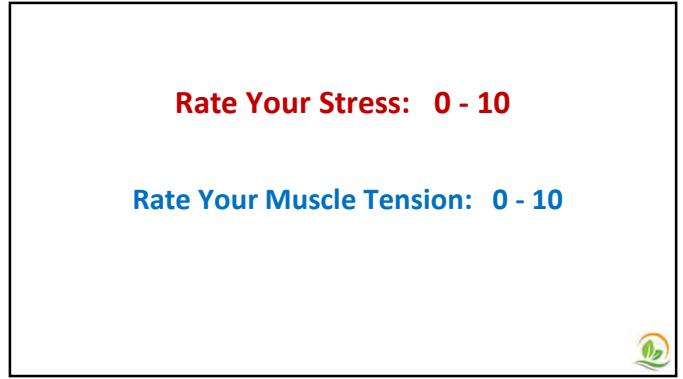
Activate your Sympathetic Nervous System



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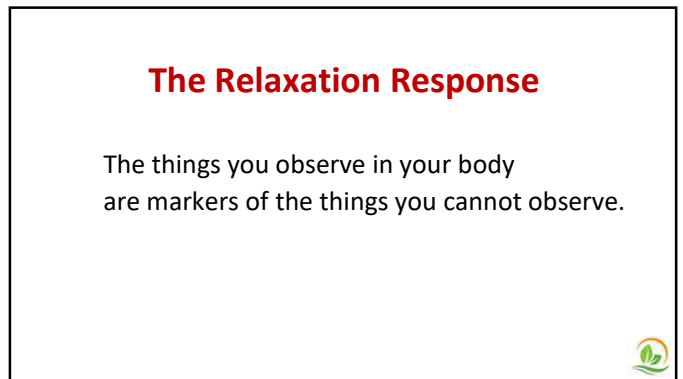
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The Relaxation Response

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

Activates parasympathetic nervous system



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The Antidote to Stress / Pain Responses:

Calm your nervous system




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Opposites



Pain Response **Relaxation Response**

|-----|



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Your breath is your gateway to the relaxation response





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What is pain?



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Pain Definition: A sensory and emotional experience



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How & Why?
All pain is processed in the brain



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



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Your Brain

- processes pain
- processes emotions

Sadness, anxiety, worry, fear

It turns out that these emotions worsen pain

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Why Your Mind Matters for Pain Relief



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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

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Take Stock of Your Pain Thoughts: Score Your Form



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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?

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Unhelpful Pain Mindset (coping)



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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.



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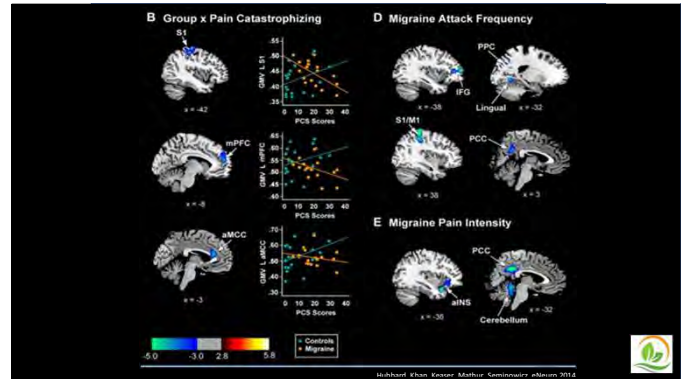
Unhelpful pain mindset

- Greater pain intensity¹
- More opioids²
- Pain treatment is less effective³
- Longer hospital stays⁴
- More likely to develop chronic pain after surgery^{5,6}

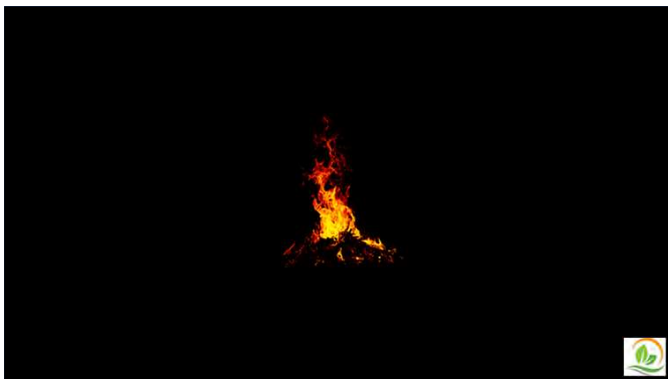
1. Severeijns R, Vlaeyen JW, van den Hout MA, Weber WE. Pain catastrophizing predicts pain intensity, disability, and psychological distress independent of the level of physical impairment. *Clin J Pain*. Jun 2002;17(2):165-172.
2. Weissman-Fogel I, Sprecher E, Pud D. Effects of catastrophizing on pain 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, Thomann AB, Hoisted L. 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, Roosen K. Catastrophizing: a risk factor for postsurgical pain. *Clin J Pain* 2005; 21(1):88-90.
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.



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



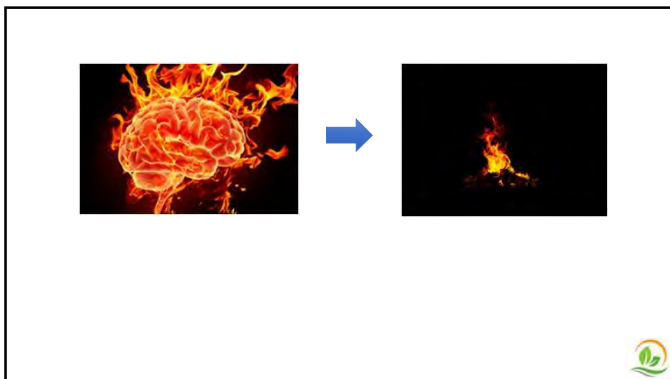
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The Good News:
Unhelpful Pain Mindset
is Treatable

The Solution:
**Train Your Brain
Away From Pain**




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The Formula 


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




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The Formula 

- **Identify** your unhelpful pain thoughts and mindset
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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



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Interrupting the unhelpful thought pattern
~ find neutral ~



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CHANGE THE CHANNEL



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Skill #1

Use the Relaxation Response




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





**Dampens pain processing
in your nervous system**



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Binaural Technology





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Binaural Technology




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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 !



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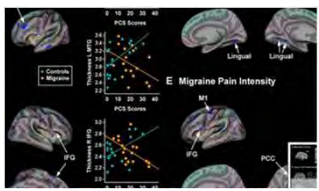
Tips for Use

- **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




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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.



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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., use "it's never going to get better!")

1. _____
2. _____
3. _____

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

1. _____
2. _____
3. _____

- page 1 -

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 unhelpful 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 ♡

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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



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Can you think of any barriers?



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



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YES!

Change the channel in your brain by shifting your THOUGHTS.



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Take Stock of Your Thoughts



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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."



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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.



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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

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Practicing positive inner dialog

Interrupts the unhelpful patterns
Creates positive, supportive thought patterns

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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."

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Let's Practice!

Step 2: REFRAME UNHELPFUL PAIN MINDSET

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

1. _____
2. _____
3. _____

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



1. _____
2. _____
3. _____





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


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YES! Skill #3

Self-Soothing Actions

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



Like what ?



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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

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Step 3 on your Personalized Plan

- 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

Create your self-soothing action list now

Step 3: My Self-Soothing Actions for Right Now

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____




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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.



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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



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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!



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Empowered Relief was similar to 8-session CBT for improving:

- Pain intensity
- Pain interference
- Pain catastrophizing

Study Details:

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

Secondary outcomes:

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



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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
- Frequent practice of the relaxation response trains your mind and body away from pain and towards comfort and control

THIS is Empowered Relief!



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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



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**Congratulations for Investing
in Your Wellbeing**

**Thank You for attending
Empowered Relief!**



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Binaural Audio Instructions

(See Binaural Audio App Instructions handout)

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

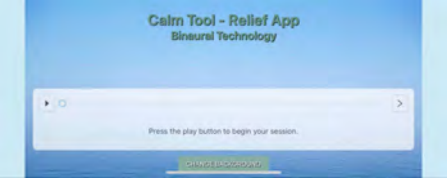
- <https://empoweredrelief.stanford.edu/binaural-relaxation> (Downloadable file)
- <https://calmtool.med.stanford.edu/home> (Calm Tool App)

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.

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Binaural Audio App Walkthrough


Go to: <https://calmtool.med.stanford.edu/>



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Add Calm Tool to your home screen

Select the menu icon




Step 1

Choose 'Add to Home Screen'




Step 2

Select 'Add'



Step 3

The app will appear on your phone

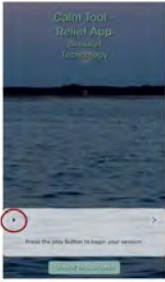


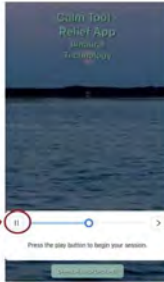
Step 4

Androids will use this menu icon.

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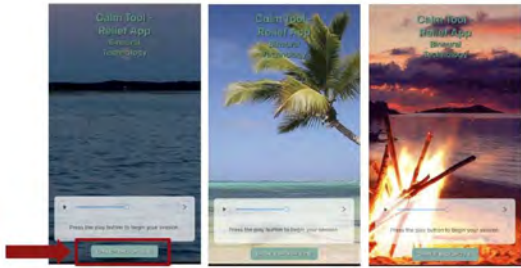
Play and pause the audio recording





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Choose different backgrounds



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