

# **Deep Breathing & Grounding Techniques**

Workshop Notes  
NSCAD Peer Mentors, 2020

**DEEP BREATHING**



“  
We’ve all probably been told  
to “take a deep breath”  
when we need to calm down.  
Is that really going to help?  
”



# DEEP BREATHING

## WHY DOES IT WORK?

- Deep breathing activates the vagus nerve. The vagus nerve controls the parasympathetic nervous system, which helps to slow our pulse and induce calm and relaxation. It helps us return to a state of equilibrium after a sympathetic (fight or flight) response.
- The brief holding of breath allows CO<sub>2</sub> to build up in the blood. An increased blood CO<sub>2</sub> level enhances the cardio-inhibitory response of the vagus nerve, further stimulating the parasympathetic nervous system. This produces a calm and relaxed feeling in the body and mind.
- Delivers oxygen to the brain
- Lowers blood pressure
- Calms body and mind
- Relaxes central nervous system
- Improves performance



# DEEP BREATHING

## THE BASICS

- Sit or lie in a comfortable position
- Place one hand on chest and one on stomach
- Breathe in through your nose, down through your diaphragm, allowing your belly to expand
- Exhale slowly through the mouth for a count of 5
- Breathe in through your nose for a count of 5
- Repeat for several breaths



# DEEP BREATHING

## BOX BREATHING OR FOUR-SQUARE BREATHING

- This technique involves doing each action as a count of 4
- Breathe in through the nose for 4
- Hold this breath for 4
- Breathe out through the mouth for 4
- Hold this breath for 4
- Repeat
- You can visualize moving across the edges of a square while you breathe if you like



# DEEP BREATHING

## THE 4-7-8 METHOD

- Developed by Dr. Andrew Weil, this technique is based on the ancient yoga technique of pranayama used for breath control
- Rest the tip of your tongue on the roof of your mouth, just behind your teeth
- Part your lips and fully exhale, making a whooshing sound out of your mouth
- Close your mouth and breathe in through your nose for a count of 4
- Hold this breath for 7 seconds
- Exhale from your mouth for a count of 8, making a whooshing sound
- Repeat for 4 cycles (4 for beginners, you can work up to cycles of 8)



# DEEP BREATHING

## REMINDERS

- Sit with good posture, this allows your lungs to fully expand
- Breathe in through the nose, out through the mouth
- Make sure you're doing deep breaths into your belly, not shallow breaths into your chest
- If you feel dizzy or lightheaded, STOP
- As a beginner, start with cycles of 4
- While deep breathing can be used to calm you down when you are in an agitated state, you gain the most benefits by actually doing this as a daily practice to consistently lower your overall stress levels.



# DEEP BREATHING

## BONUS TECHNIQUE

- This is one of Hannah's twists on a deep breathing exercise, modified to focus on mood regulation!
- Do you ever get stuck in a funky mood you don't want to be in, but can't seem to shake? This is what I do in that situation.
- Identify what your crummy mood or feeling is (eg. I looked at too much social media and now I feel really envious and bummed out), then choose a mood or emotion you would like to be feeling instead (eg. I would like to focus on feeling gratitude for everything that I have instead of envious about what I don't have)
- As you breathe in, imagine this positive replacement feeling as a bright golden light that you are breathing deep into your body
- As you breathe out, imagine your negative feeling as a cloud of dark smoke that you are exhaling right out of your body



# DEEP BREATHING

## LINKS FOR VIDEOS AND MORE INFO

- Box Breathing: <https://www.healthline.com/health/box-breathing>
- 4-7-8 Breath: <https://www.drweil.com/videos-features/videos/breathing-exercises-4-7-8-breath/>
- Science behind deep breathing: <https://www.health.harvard.edu/mind-and-mood/relaxation-techniques-breath-control-helps-quell-errant-stress-response>



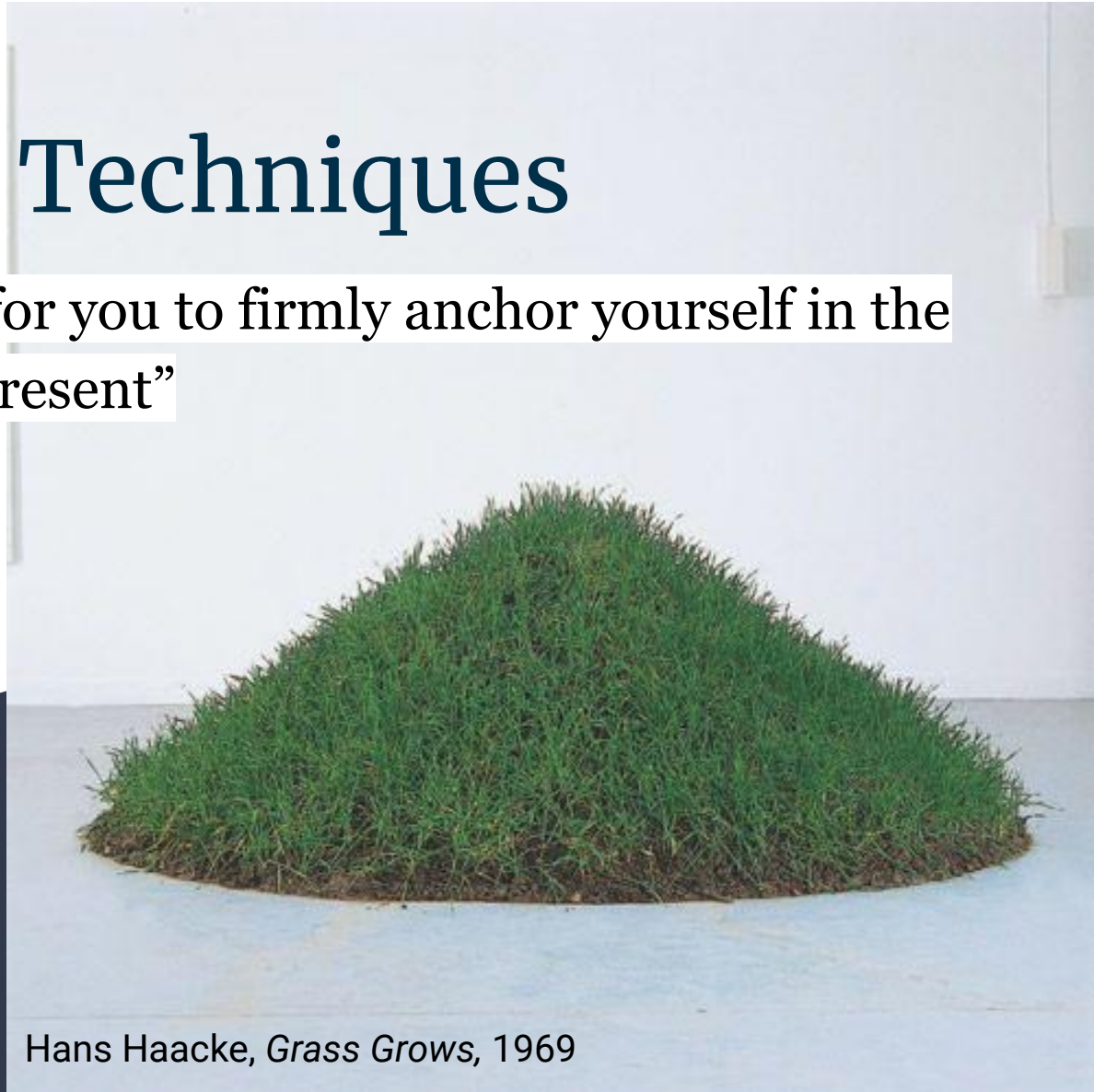
# Grounding Techniques

“Grounding exercises are a way for you to firmly anchor yourself in the present”

Do they work?

How do they work?

What's the science?



Hans Haacke, *Grass Grows*, 1969



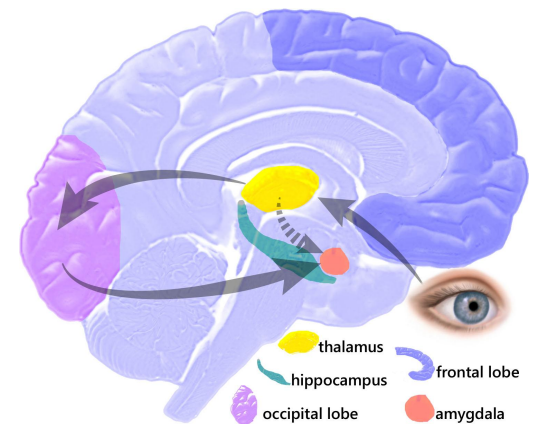
# The amygdala...

“The **amygdala** is a collection of cells near the base of the brain. There are two, one in each hemisphere or side of the brain.

This is where **emotions are given meaning, remembered, and attached to associations and responses to them** (emotional memories).

The amygdala is considered to be part of the brain's limbic system. It's key to how you process strong emotions like fear and pleasure.”

<https://www.healthline.com/health/stress/amygdala-hijack#overview>





# In a stressful situation...

Stress hormones, including cortisol and primarily adrenaline, do a number of things you may not notice, but essentially kick your body into high gear when faced with an emergency.

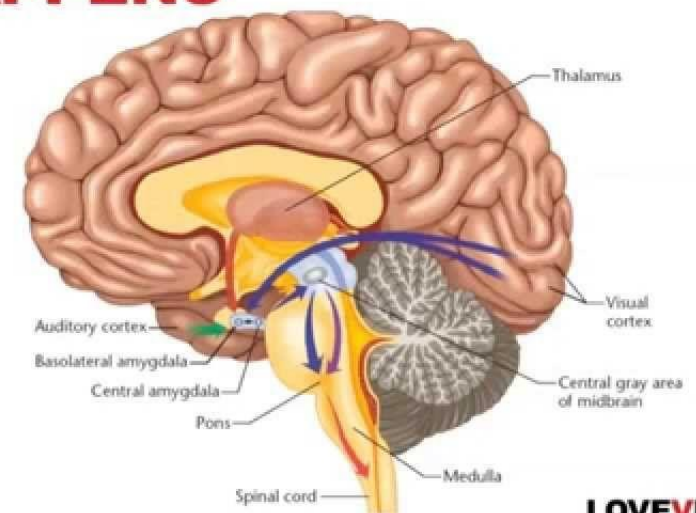
Physical symptoms you may notice include:

- rapid heartbeat
- sweaty palms
- goosebumps on your skin

Sometimes though, this physical response kicks in when we'd rather it didn't. It is great for preparing for emergency events but sometimes it kicks in to action and detects a threat where there really isn't any.

## HOW AMYGDALA HIJACKING HAPPENS

- **The stimuli goes directly to thalamus and it then goes right to amygdala before a signal reaches the neocortex to process.**
- **This survival mechanism lets us react to things before the rational brain has time to mull things over.**





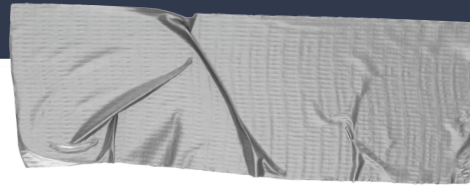
# What the amygdala does...



A common scenario:

- We have a negative thought about a situation,
- our amygdala says “**emergency! emergency!**” and initiates changes in our body such as increased muscle tension, rapid heartbeat and faster breathing.
- The amygdala then interprets these body changes as further evidence that something is actually wrong, which of course further activates it and creates a vicious cycle where you become more and more anxious and physically and emotionally overwhelmed.





# What do we do?

by consciously activating your frontal cortex, the rational, logical part of your brain, these reactions can be eased or stopped.

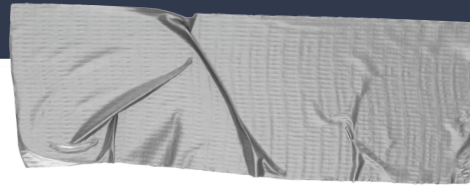
→ It takes practice, though.

## → **Grounding Techniques**

Refocus on your body and on what you are physically feeling - right now.

This brings you out of your head and diverts your mind away from anxious or stressful thoughts and into the moment.



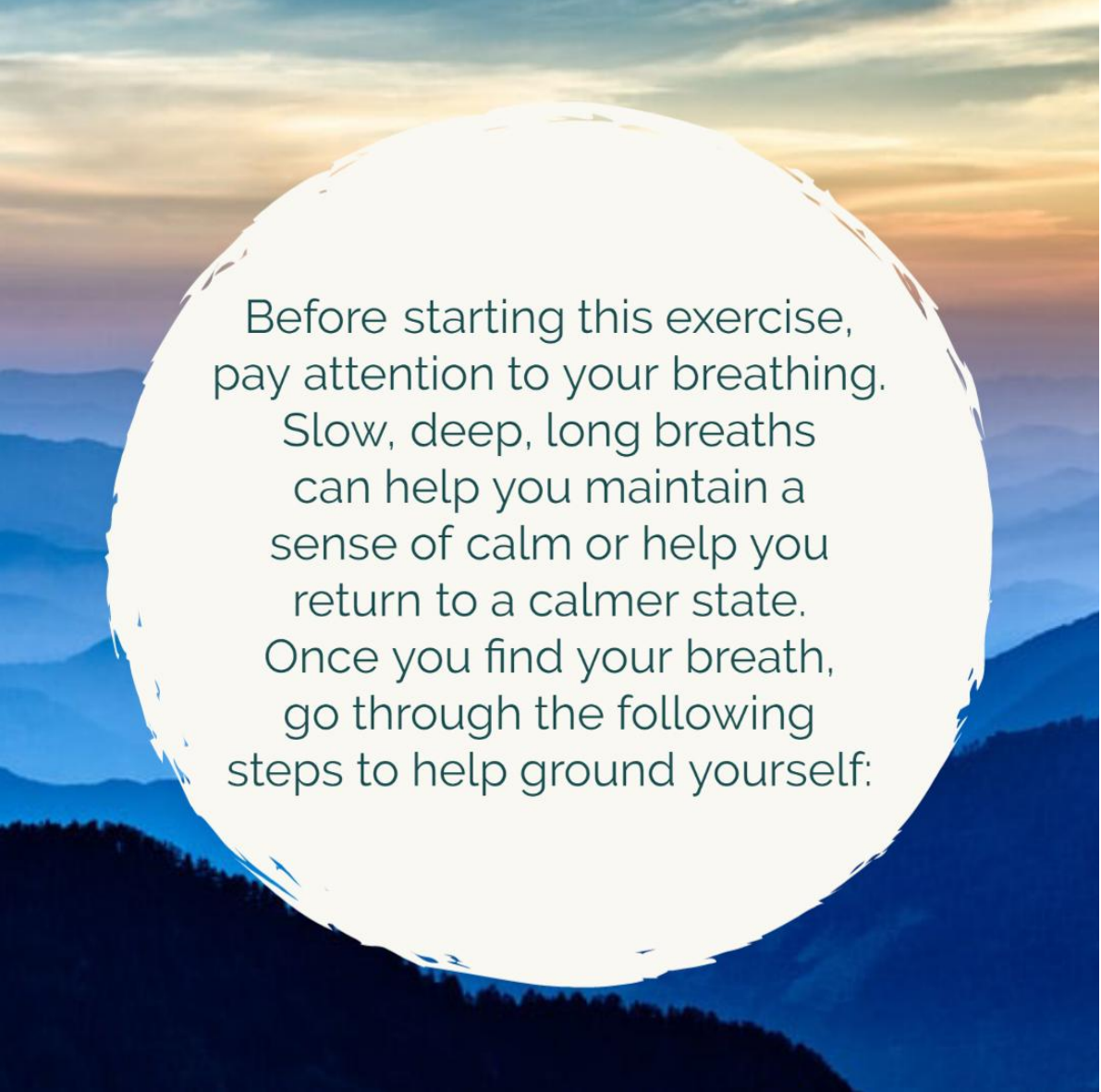


# Grounding:


One way to activate your frontal cortex, and regain control over your reaction, is to practice a grounding exercise:

- **Recognize**  
Identify what's happening
- **Breathe**  
Use a breathing technique to calm yourself
- **Ground**  
Refocus your body on what you are physically feeling - right now.





Before starting this exercise,  
pay attention to your breathing.  
Slow, deep, long breaths  
can help you maintain a  
sense of calm or help you  
return to a calmer state.  
Once you find your breath,  
go through the following  
steps to help ground yourself:



Acknowledge  
**FIVE** things you **see**  
around you.

It could be a pen, a spot on the ceiling, anything  
in your surroundings.





Acknowledge  
**FOUR** things  
you can **touch**  
around you.


It could be your hair, a pillow, or the ground  
under your feet.



Acknowledge  
**THREE** things  
you **hear**.

This could be any external sound. If you can hear your belly rumbling that counts! Focus on things you can hear outside of your body.





Acknowledge  
**TWO** things  
you can  
**smell.**

If you need to take a brief walk to find a scent, you could step outside, or walk through the hall. Even an old book has a scent.



Acknowledge  
**ONE** thing  
you can **taste.**

What does the inside of your mouth taste like—toothpaste? gum, coffee, or the sandwich from lunch?



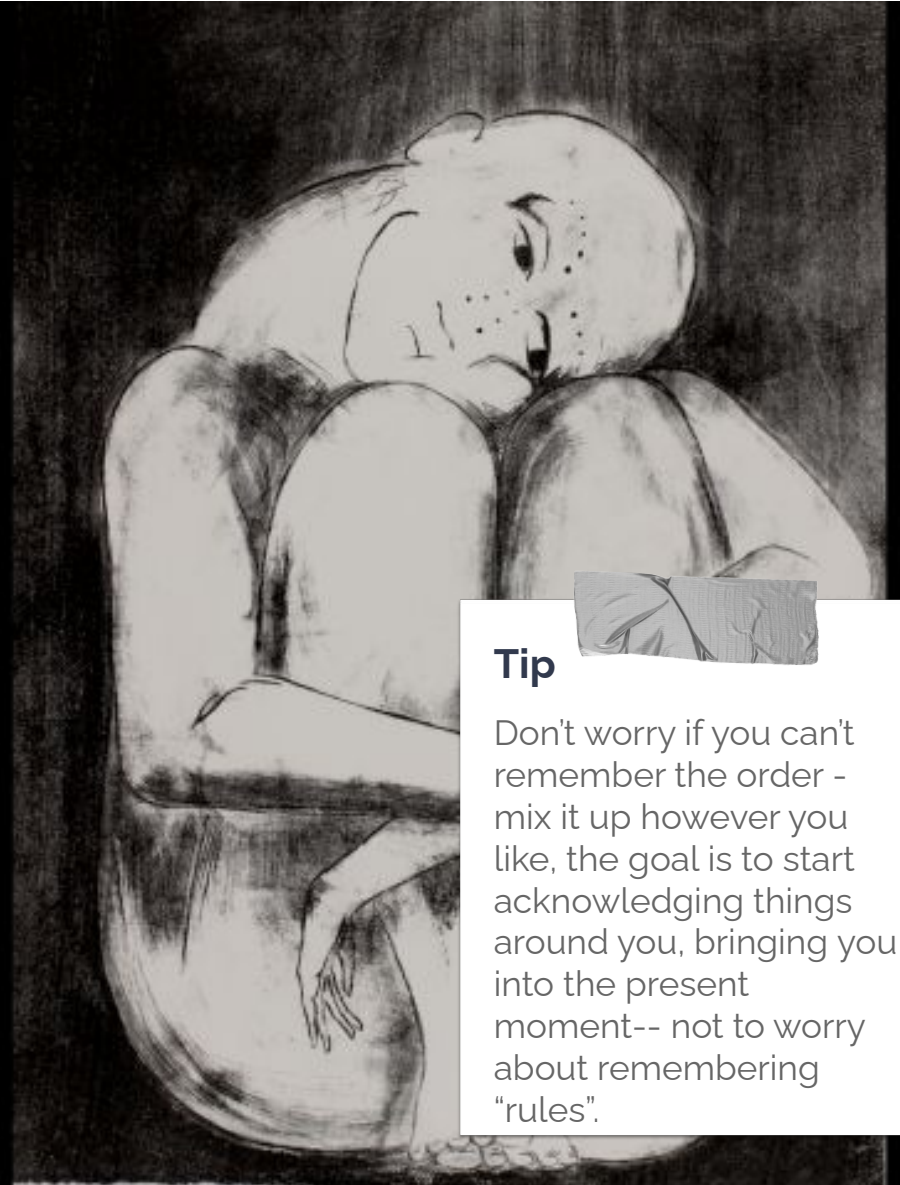
*A simplified version:*

3 things you can see

2 things you can hear

1 thing you can feel

Artwork: Ada Denil

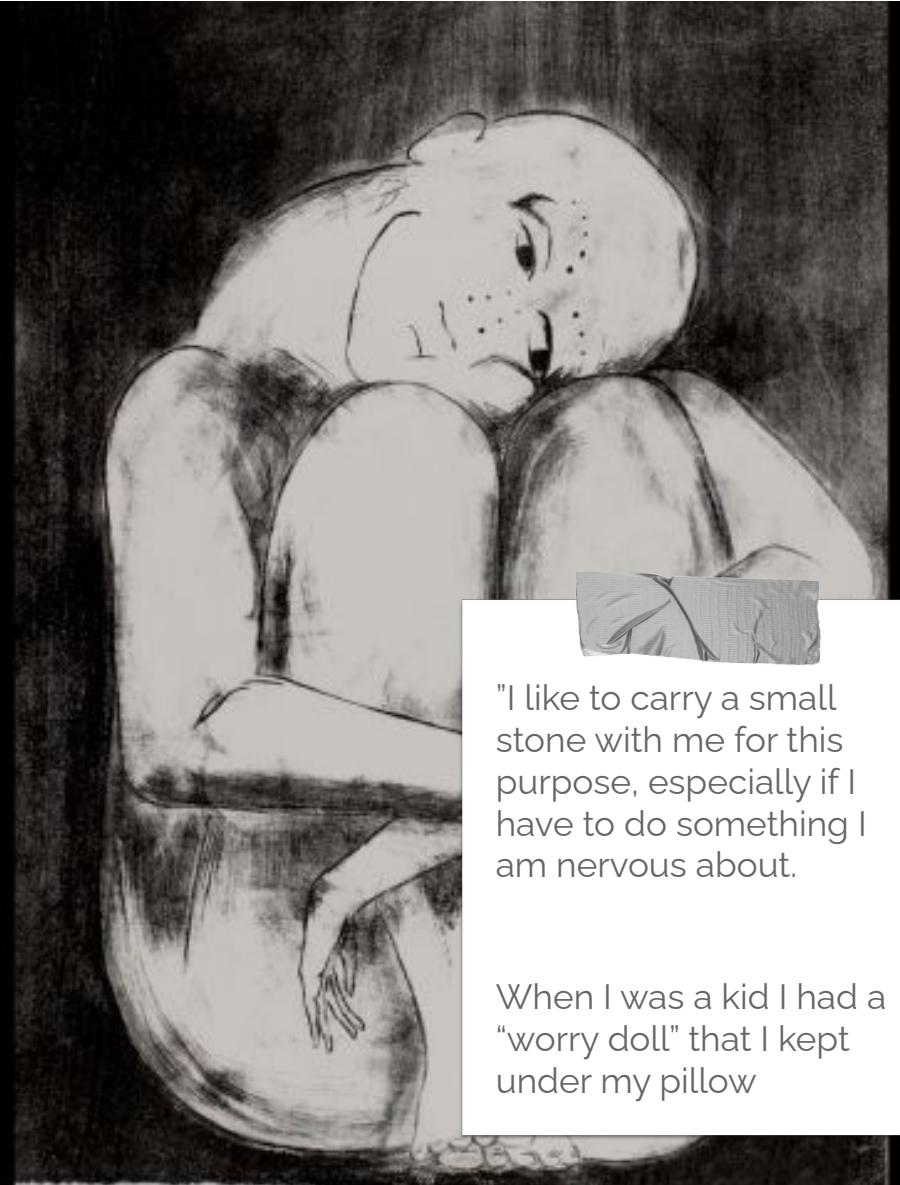


**Tip**

Don't worry if you can't remember the order - mix it up however you like, the goal is to start acknowledging things around you, bringing you into the present moment-- not to worry about remembering "rules".

Pick up or touch  
something that's near  
you -- How does it feel in  
your hand? Hard,  
smooth, soft, textured?

Artwork: Ada Denil



"I like to carry a small stone with me for this purpose, especially if I have to do something I am nervous about.

When I was a kid I had a "worry doll" that I kept under my pillow



# When to use grounding exercises...

Grounding exercises are helpful for many situations

- When you find yourself becoming **overwhelmed** or distracted by **distressing** memories, thoughts or feelings.

If you find yourself getting caught up in strong emotions like

- anxiety or anger,
- engaging in stressful circling thoughts,
- if you experience a strong painful memory or a flashback,
- if you wake up from a nightmare with a pounding heart,

Grounding exercises can help bring you back down to earth.

# Which one is the best one?

It's good to have a selection of grounding exercises that you can draw upon at different times.

Just like no one technique works for all people, it's often found that not all techniques work at all times.





## Examples/Lists:

- <https://www.healthline.com/health/grounding-techniques>
- <https://www.livingwell.org.au/well-being/mental-health/grounding-exercises/>

We also discussed some other strategies as a group!

- **Carrying a grounding object:** Lots of people find it helpful to have a small object that can be carried in a pocket that you can hold onto if you are feeling stressed or anxious. Some people like to use a crystal or stone that is associated with grounding, some folks like to use a small rock from a place that is significant to them (something from home if you are away, or from a special trip you took). Focusing on the object in your hand and the feelings of calm and safety that you associate with it can help to ground you. This object can be anything you like!
- **Self-soothing:** Many people also have physical actions they do to self-soothe—you may have some that you don't even notice that you do! Self-soothing is a Dialectical Behaviour Therapy technique that focuses on engaging the five senses in a way that you find calming and relaxing. Choose one of your senses and do something that engages that sense in a soothing manner. Examples could be, looking at cute cat pictures or a photo album of good memories, listening to a favourite album or nature sounds, using a diffuser or scented candle with a scent you find calming, making a cup of tea or eating a cookie, snuggling up in a soft blanket or giving yourself a hug.

More info on self-soothing: <https://dialecticalbehaviorthrapy.com/distress-tolerance/self-soothing/>