BREATHING EXERCISES

When we are stressed or anxious, we breathe shallow and even hold our breath. Slow, deep breathing helps to re-oxygenate the body and brain so we can function better and think more clearly.

4x4 Breath

- 1. Inhale through your nose to a slow count of 4
- 2. Hold at the top of the breath for a count of 4
- 3. Gently exhale through your mouth for a count of 4
- 4. Pause at the bottom of the breath and hold for a count of 4
- 5. Repeat 3-4 times

Practice the 4x4 breath throughout the day such as while sitting in traffic, standing in line, waiting on the phone, when angry or upset, or before an important meeting.

Diaphragmatic Breathing

- 1. Imagine a balloon in your abdomen. Rest your hand on your diaphragm (located below your rib cage) to feel it move
- 2. As you take a slow, deep breath, inflate the balloon, allowing your abdomen to expand. Feel your hand move outward as you inhale
- 3. As you exhale slowly, the balloon deflates and your hand moves inwards
- 4. Take almost twice as long to exhale

Dr. Andrew Weil's 4-7-8 Exercise for Anxiety

Sit with your back straight, feet on the floor, and eyes open or closed. Place the tip of your tongue against the ridge of tissue just behind your upper front teeth. Keep your tongue there through the entire exercise. You will be exhaling through your mouth around your tongue. The timing can speed up or slow down during the exercise as needed.

- 1. Inhale through your nose for a count of 4
- 2. Hold your breath for a count of 7
- 3. Exhale completely through your mouth while making a whoosh sound for a count of 8
- 4. This is one cycle. Practice 5 cycles first thing in the morning and again before going to sleep

You might feel a little lightheaded at first. With regular practice you will notice you can breathe more slowly and deeply. The 4-7-8 breath is a natural tranquilizer for the nervous system and can help you feel more calm and relaxed. This exercise is subtle at first and will gain in power with repetition and practice.

Stress Release Breath

- 1. Breathe in slowly and deeply through your nose
- 2. Hold your breath for a quick count of I-2-3-4
- 3. Drop your jaw, open your mouth slightly, and very slowly let your breath escape. Exhaling should take at least twice as long as the in breath
- 4. As you exhale, focus on softening the muscles from head to toes, releasing more tension with each out breath



BREATHING EXERCISES

Quiet Space Breath

- I. Sit comfortably and breathe in and out normally
- 2. Focus on the little space at the end of a breath, before you take the next breath. It's a little space of stillness and quiet
- 3. Take your next breath when you're ready
- 4. As you become more comfortable and calm, you will be able to stay in this space longer. Let yourself settle into this quiet, still space

DAILY MINDFULNESS

Mindfulness is simply being fully present in the moment. While that may sound easy, it is actually quite difficult and requires practice. Being mindful means being aware without judgment or analysis about what we are experiencing. We naturally drift into our thoughts—thinking about the past, planning, worrying, or recalling conversations. The mind naturally wanders. Practicing mindfulness is patiently and continually bringing your focus back to the present moment. The mindfulness practices listed below will train the mind to be more focused and present.

Focused Breath or Mantra

- 1. Sit comfortably in a chair in a place that is free from distractions
- 2. Focus on your breath or choose a word or short phrase that is positive and uplifting that you will repeat to yourself silently during the meditation

Examples: Peace • Joy • I am blessed • In this moment all is well

- 3. Gently close your eyes and breathe normally, focusing on your breath or the word/phrase
- 4. Allow yourself to experience the positive feelings related to the word or phrase
- 5. Any time your mind wanders, simply bring your focus back to your breath or word/phrase, without judgment

Mindfulness Throughout the Day

Focus on the details of your experience when you are doing daily activities like eating, showering, walking, driving, or doing chores. Taste, smell, and experience the subtle nuances of your food. Feel the warm water of the shower hitting your skin. Listen and be fully engaged in conversations with others.



MEDITATION PRACTICES

Progressive Muscle Relaxation

- This exercise can help you fall asleep and relax your muscles when feeling stressed.
- 1. Practice this meditation while lying comfortably on your back with your eyes closed
- 2. Breathe in and tense each muscle group progressively from your feet to your face. Hold the tension for a few seconds. For example, inhale and tighten the muscles in your toes and feet. Try to keep the other muscles in your body relaxed. Focus on one area at a time
- 3. Breathe out and abruptly release the tension so the muscles can fully relax
- 4. Relax for 10-20 seconds before moving on to the next muscle group. Notice how relaxed the muscles feel after you release the tension
- 5. Once you finish tightening and releasing the muscles in your face, tense all the muscles in your body and face for a few seconds. Then release the tension and revel in the sensation of being fully relaxed from head to toe
- 6. Take some slow, deep cleansing breaths. It is easier to breathe when your muscles are relaxed, especially in your face and jaw

Body Scan

This exercise can help you fall asleep.

- 1. Practice this meditation while lying comfortably on your back with your eyes closed
- 2. Take some deep, cleansing breaths to start
- 3. You will progressively scan each part of your body from your feet to your head
- 4. Focus on one body part at a time. Start with your feet. Notice any sensations in your feet. Is there pain, tingling, numbness, a warm or cold sensation, tension, pressure, or tightness in your feet? Bring your awareness to these sensations and try to just observe them without judgment or emotion
- 5. Next, imagine your breath entering your feet on the inhale and exiting your feet on the exhale. Breathe into any sensations you may notice. Imagine any uncomfortable sensations leaving your body with each exhale
- 6. Move on to the next body part when you are ready. You will finish at the top of your head

Gratitude Meditation

A gratitude meditation can increase positive energy and well-being and decrease anxiety and depression. Practicing gratitude has also been shown to be beneficial for heart health.

Sit comfortably with your eyes closed and bring your focus to your breath, breathing softly through your nose. Let your focus be on your breath, feeling grateful for these moments to do nothing other than to just "be."

Now, bring to mind a meaningful experience for which you are grateful. It may be something recent or from long ago. Let yourself recall the experience with as much detail as you can, using all your senses to re-experience the energy of that time. Notice what you see, sense, and feel. Breathe the energy in from that experience. Take some moments to enjoy how this feels.

A simple way to practice gratitude is at the end of the day before falling asleep. In bed, think of three things that happened that day for which you are grateful. Even if you had a bad day, always look for three good things. Recall those moments in your day that brought you joy such as the sun shining into the kitchen while you drank your coffee or the friendly greeting of a stranger at the store.

MEDITATION PRACTICES

Guided Imagery

Guided imagery is purposeful daydreaming, using your imagination at its best. In this practice, you use all of your senses to some degree – "seeing" with your mind's eye, smelling the fresh air, hearing the sounds around you, and having a kinesthetic awareness of your imagined surroundings. Practicing guided imagery induces a relaxation response; it calms the body, quiets the mind, and lifts the spirits.

- 1. Rest in a comfortable position in a place without interruptions. Soften the muscles throughout your body. Notice if you are holding tension in your face or jaw.
- 2. With eyes gently closed, imagine being in a place that feels safe and comfortable where you can just be. It may be a place you have been to, perhaps in nature, or it can be a place you create in your imagination. Take in the qualities of this place, such as stillness, peace and quiet, and beauty. Let go of whatever gets in the way of you experiencing these positive qualities.
- 3. Experience this place fully with your senses. Notice the details of your surroundings. You might notice the time of day, the smell of the air, and the softness of the ground beneath your feet. Hear the sounds in your imagined place. Focus on how you feel there. Focus on what is particularly enjoyable and positive. Allow yourself to just "be" in this place for a few moments.
- 4. Whenever your mind wanders, without judgment, bring your focus back to your imagery. This will get easier with practice.

Shift and Activate

This exercise can help you break a cycle of negative thinking.

- 1. Take three slow, deep cleansing breaths to center and focus yourself.
- 2. Choose a positive feeling such as love, joy, happiness, or gratitude. If needed, think of a person, pet, or place to connect to your positive feeling. Experience the feeling strongly, noticing it in your chest.
- 3. Now, take a breath and as you exhale, focus on that feeling "radiating" from your chest, as though you were exhaling from your heart. Imagine the positive feeling radiating to other parts of your body, especially to the parts that need healing energy.
- 4. Repeat #3 several times, focusing on this positive feeling. You have now shifted your energy and mood in a positive way.



MEDITATION RESOURCES

Mindful Moments by Cleveland Clinic Wellness



Free app with the following guided meditations (includes time):

- Body scan (21:22)
- Compassion meditation (11:35)
- Finding the pause (6:29)
- Guided imagery (19:20)
- Healers loving kindness (6:51)
- Heart breath (4:07)
- Letting go (6:16)
- Loving kindness (20:09)
- Mindful Breath–Day (10:27) and Night (11:17)
- Mindful Minute (1:17)
- Mindfulness of being (14:38)
- Mountain meditation (18:56)
- Restoring yourself (3:38)
- SOS meditation-chaos to calm (2:53)

Calm

Meditation app for beginners, intermediate, and advanced users

- Sleep stories
- Master classesGuided meditations
- Breathing exercises for relaxation
- Relaxing music

Insight Timer

Timer for meditation session

- · Guided meditations in diferent lengths of time
- Teachings
- Relaxing music in different genres from classical to sound healing
- Sleep resources (calming music, binaural beats, bedtime tales, meditations)
- Discussion groups on different topics to connect with others

10% Happier

- "A clear, simple approach to meditation. Designed for skeptics."
- Introductory course
- Daily meditation videos
- Guided meditations
- Free meditation coach

Provided by ACADA Cleveland Clinic PA FOUNDATION

MEDITATION RESOURCES

Headspace

Free meditation basics course, additional courses available by subscription

- Guided meditations to teach mindfulness, bring calm, and improve sleep
- 2-3 minute mini meditations for mental reset
- SOS sessions for moments of panic, anxiety, and stress

Inner Balance (HeartMath)

Biofeedback using HeartMath sensor and Inner Balance app to track the physiological response to your meditation practice

- HeartMath sensor can be purchased on the Inner Balance app
- On-screen coaching
- Real time heart rate variability

IMPORTANT TAKEAWAYS

- 1. Chronic stress damages the brain and contributes to brain atrophy or volume loss. These changes can cause memory impairment, decreased focus and concentration, and cognitive decline.
- 2. Chronic stress is associated with depression and anxiety and other serious health problems such as high blood pressure and heart disease.
- 3. Meditation mitigates stress by activating the parasympathetic nervous system and instilling a sense of calm. You may not be able to change the stressors in your life, but you can change how you respond to stress. Meditation increases our ability to cope with stress.
- 4. Meditation lowers cortisol, the stress hormone, thus mitigating the harmful effects of high cortisol levels
- 5. Meditation is beneficial for brain and heart health and health in general. A regular meditation practice may increase grey matter in the brain, including in the hippocampus, which can lead to improvements in memory.





CHRONIC STRESS AND THE BRAIN

When we experience an immediate threat or encounter a dangerous situation, the stress response is quickly activated in the body. Hormones are released into the bloodstream, including adrenaline and cortisol, and several physiological changes occur instantly to prepare the body to handle the stressor. This includes an increase in heart rate and respiratory rate, thus allowing more blood and oxygen to flow through the body, and a release of glucose into the bloodstream for quick energy.

These physiological changes occur when the sympathetic nervous system is activated. This is known as the "fight or flight" response because we get a quick burst of energy to fight or flee a life-threatening situation.

You may have experienced this while driving. If a deer suddenly runs in front of your car, your muscles tense up and you slam on the brakes. Your heart is pounding and you start to sweat. Once the situation has passed and you are safe, the parasympathetic nervous system is activated, also known as the "rest and digest" response, and you can relax.

The stress response is a survival mechanism that allowed humans to survive prehistoric times when wild animals were a serious threat. The majority of stressors we face in modern times are not life-threatening, but they trigger the stress reponse all the same.

When stress continues unabated, it can make you feel revved up, tense, and anxious. Breathing is shallow and resting heart rate is higher than normal. It can be hard to fully relax because the sympathetic nervous system is constantly activated. This can lead to poor health and burnout.

Chronic, unrelenting stress is associated with the following health problems:

- Memory impairment
- Poor concentration
- Anxiety
- Depression
- Sleep disturbances
- Weight gain and difficulty losing weight

- Gastrointestinal symptoms
 (a.g. diarrhoa abdominal pair
 - (e.g., diarrhea, abdominal pain, nausea, and heartburn)
- Chronic fatigue
- · Increased susceptibility to illness and infections
- High blood pressure
- Heart disease

Headaches

Cortisol can have detrimental effects on the brain.

Cortisol, known as the stress hormone and part of the stress response, can damage brain cells in the hippocampus, the region of the brain associated with memory. Cortisol is harmful to the brain when cortisol levels are chronically elevated as a result of long-term, unwanted stress.

In the following study, researchers demonstrated that older adults with chronically elevated cortisol levels had reduced hippocampal volumes and more memory problems than adults with normal levels of cortisol.

Lupien SJ, de Leon M, de Santi S, Convit A, Tarshish C, Nair NP, Thakur M, McEwen BS, Hauger RL, Meaney MJ. Cortisol levels during human aging predict hippocampal atrophy and memory deficits. *Nat Neurosci.* 1998 May;1(1):69-73. doi: 10.1038/271. Erratum in: *Nat Neurosci* 1998 Aug;1(4):329. PMID: 10195112.



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RELAXING

- Sit in nature and take in the sights, smells, and sounds
- Take a restorative yoga class
- Swing on a swing
- Visit an art gallery
- Lie in the grass and watch the clouds go by
- Gaze at the stars and watch for shooting stars
- Relax in a hammock
- Listen to soothing music
- Practice slow, deep breathing
- · Go for a mindful walk in nature
- Go to a matinee at a movie theater
- Enjoy a cup of tea or coffee in your favorite chair
- Take a train trip
- Build a Zen garden or butterfly garden
- Enjoy a picnic after a hike
- Study the constellations and look for them in the sky
- Take a bath with Epsom salts

- Use an essential oil diffuser with a calming essential oil
- Visit a botanical garden or arboretum
- Go to a play or musical
- Go on a boat ride
- · Get a pedicure and foot massage
- Watch the sunrise or sunset
- Visit a farm
- Learn how to knit
- Write in a journal
- Have breakfast in bed
- · Go on a weekend getaway
- · Have tea with a friend
- Read a book
- Get a massage
- Enjoy a warm cup of Almond Gold Milk (see recipe on page 9)
- Color in an adult coloring book



ALMOND GOLD MILK by Chef Jim Perko

Makes 6 Servings–Serving Size: 1/2 cup

Ingredients:

4 cups almond milk, unsweetened I tsp fresh ginger, coarse chop 1/2 tsp turmeric

1/2 tsp cinnamon, ground 1/4 tsp black pepper, coarse ground 8 Turkish apricots, dried

Procedure:

Place all ingredients in a saucepan, bring to a simmer and cook until reduced to 3 cups, about 12 minutes. Pour into a blender and process until well blended. Store the leftovers in the refrigerator and reheat on the stove or in the microwave.

Sugars: 4g

Protein: .91g

Nutritional Information per Serving:

Calories: 50 Saturated Fat: 0g Fiber: 1.4g

Sodium: 127mg

Cholesterol: 0mg Carbohydrate: 7.35g

