

Photo: © Paul Lovichi

Introduction

In an emergency, fear and anxiety are a natural reaction. However, there are ways to prepare for those tense, anxious moments with an emotional toolkit that helps you cope and respond effectively during a disaster. This publication explores mindfulness techniques to help you respond with resiliency in stressful times.

Dr. John Kabat-Zinn is the creator of the Stress Reduction Clinic and the Center for Mindfulness in Medicine, Health Care, and Society at the University of Massachusetts Medical School. He suggests that mindfulness can lower blood pressure, reduce depression and anxiety, and rewire parts of the brain. Practicing mindfulness enables you to respond, rather than react, to stress.

Reacting can lead to panic, which activates the primitive responses of fight, flight or freeze. Preparing your brain to respond, however, allows you to think more clearly and make wise decisions in moments of stress. Much like you develop muscle memory through practice and repetition, you can develop appropriate responses to stress through mental practice. Positive response, optimism and hopefulness lead to confidence, improved resiliency, and a quicker recovery when disaster strikes.

Brains enjoy being busy. However, too much stress may cause you to lose sleep, overeat, or lose your temper. When that happens, it's time to learn how to recognize your body's reactions and implement tools that reduce that stress.

Take the sessions

Preparing for the Cascadia Subduction Zone Event sessions are free at beav.es/Cascadia.

- Module 1: The Evidence features scientific and cultural evidence that the world's largest naturally recurring disasters return every 250 to 500 years. The last Cascadia earthquake was Jan. 26, 1700.
- Module 2: The Experience shows what to do during and after the Cascadia earthquake and tsunami. The Cascadia Simulator provides a virtual-reality experience that will help condition your brain for five to seven minutes of shaking.
- Module 3: It's Time to Get Ready! provides information and tips and outlines steps to take to plan, prepare, recover and rebuild.
- Module 4: Professional Level Basics provides additional information for neighborhood leaders or agency and organization staff and volunteers who hold emergency or preparedness assignments.

Glenda Hyde, associate professor of practice and Extension Disaster Education Network delegate; Lynette Black, associate professor and Extension Disaster Education Network delegate; and Lauren Kraemer, assistant professor of practice in the mid-Columbia region, all of Oregon State University.





"I can be changed by what happens to me, but I refuse to be reduced by it."

Maya Angelou, American poet, singer, memoirist and civil rights activist.

Photo: © Valmedia Creatives

Mindfulness is one tool to retrain your brain. Through mindfulness, your brain learns that it is okay to take a break from thinking and move to gentle awareness of your surroundings. Even a daily one-minute thinking break can help improve your response to stress and short-circuit brain reactivity. This is particularly important in our modern culture where smart phones and the internet keep us constantly connected and rarely allow us to unplug or fully take a break.

Learning about and practicing mindfulness for 10 to 30 minutes a day can improve and strengthen your ability to think clearly during a disaster and recover more quickly after the emergency has passed. Mindfulness can rewire the brain and body to respond more skillfully.

Mindful breathing

Your breath is your most accessible tool because it is always with you. Mindful breathing can calm strong emotional and physical reactions and allow you to respond in a more logical, thoughtful way than you would otherwise. Pausing to take a few deep, mindful breaths when you first start experiencing everyday stressors will help reduce the production of cortisol, a stress hormone. Cortisol is important in times of danger, but a physical release is needed to use it. The buildup of cortisol in your blood, sometimes called chronic stress, damages brain cells and can have other negative effects on your health. Regularly practicing mindful breathing improves your ability to self-regulate emotions.

Directions:

- When you notice stress, first drink a glass of water to address any chance of dehydration. Just as an engine needs oil to function properly, our bodies need water to improve blood flow and get oxygen and important nutrients to the heart, muscles and brain.
- Sit with your feet flat on the floor and your hands on your knees. Relax your shoulders and breathe. Some people enjoy deep breaths or closing their eyes.
- Observe the way the breath feels as you breathe in ... and out. Observe the rise and fall of your chest and then your belly. You may wish to breathe in through your nose and out through your mouth, noticing the sensation of the air moving.
- If your mind wanders into thinking, reflecting or planning and you begin to judge yourself, stop. Guide yourself back to gentle awareness and observing. Practice for 10 breaths.

With a little training, your brain will learn to appreciate the time spent in relaxation and awareness instead of the busy-ness of thinking. With a week's practice you may find it easier to go back to sleep when you start mindful breathing.

Mindful movement

Ten simple "mindful movements" from Thich Nhat Hanh, a Buddhist monk and leader of a spiritual community in France, can be practiced daily. Individually or in a series, these



"The average person looks without seeing, listens without hearing, touches without feeling, eats without tasting, moves without physical awareness, inhales without awareness of odor or fragrances and talks without thinking."

Leonardo da Vinci

Photo: © Simon Pilolla

movements can help you become aware of what is going on both inside and around you. There are free guided practices online where the narrator can help you or a group of people learn to engage in awareness. While you are moving, you can shed your stress with the basic awareness of repeated simple movements and physical sensations.

For example, Thich Nhat Hanh recommends the Reach for the Sky mindful movement.

Directions:

- Begin with your arms at your sides.
- Breathing in, lift your arms in front of you.
- In one continuous movement, bring your arms all the way up, stretching them above your head. Touch the sky!
- Place your palms together or facing forward as you reach up.
- Breathing out, bring your arms slowly down again to your sides.
- Repeat three more times.

Thought surfing

When feeling stressed or overpowered with something out of your control, "thought surfing" can help you address powerful negative emotions such as fear and anger and regain your emotional balance. This activity can be one of your most powerful tools to help you accept a new reality.

Directions:

- Notice your thoughts and sensations. Let your mind fill with your emotion.
- Give this sensation a number from 1 to 10 to quantify the intensity of your upset.
- Breathe into this thought. Make room for it as it rises like a wave.
- Envision the wave in your mind as it rises, crests and falls as it rushes to the shore.
- Repeat several times. Like all waves, the agitation, urge or thought will peak and pass.
- Now, say your number again as the thought wave passes by and rolls on to the shore.

Riding the wave of your thought can give you time to regain your emotional balance and consider other ways to solve the problem. Being able to step back from racing thoughts allows you to take actions more in line with your values. With practice, thought surfing allows you to make room for once highly charged emotions off to the side of your mind.

Three moments

A simple activity called the three blessings exercise will increase positive emotions, decrease stress and help improve resiliency after a disaster. Dr. Martin Seligman, the founder of the positive psychology movement at the University of Pennsylvania,



"You can't stop the waves, but you can learn to surf."

Jon Kabat-Zinn, creator of the Stress Reduction Clinic and the Center for Mindfulness in Medicine at the Health Care, and Society at the University of Massachusetts Medical School

Photo: © Monkey Business Images

developed the practice. The three blessings exercise, done each evening for seven days, has lasting effects. Some people enjoy this activity and continue it because of the pleasing results.

Each night before you go to bed:

- Reflect on the past 24 hours, noticing things that went really well.
- Write down three things that you enjoyed or gave you a sense of happiness.
- Consider why these good things happened.
- Repeat for six more days.

Families might want to consider an adaptation of this practice for young children, tweens and teens. The exercise increases resiliency, confidence, self-worth and other positive emotions. At the end of the day, ask each child to think about three good things they observed in their siblings. Each child shares their thoughts and says why it was important. For example, "I'm glad you helped me when I fell down this morning. I didn't feel so scared." Repeat this activity daily.

Emotional freedom technique tapping

There is growing evidence that tapping acupressure points along the body's key energy meridians — a practice called emotional freedom technique tapping — can reduce stress and increase mindfulness. Studies of have shown the technique:

- Reduces symptoms of post-traumatic stress syndrome, depression, anxiety and stress.
- Changes stress biochemistry.
- Reduces the stress hormone cortisol.

The practice involves:

- Becoming aware of the stress or issue you are facing.
- Ranking the intensity of the stressor.
- Repeating an affirmation or key phrase during the practice.
- Tapping a sequence of eight acupressure points along the head, face and torso.
- Reassessing the intensity again.

By bringing awareness to the brain and body, emotional freedom technique tapping is a quick and simple process. It can be taught to children as well as adults. Like breathing, the emotional freedom technique can be done anywhere. Learn more by searching for emotional freedom technique tapping on the internet for guides and instructions. Also, check the resources below.



"Resiliency is something you do, more than something you have. ... You become highly resilient by continuously learning your best way of being yourself in your circumstance."

Al Siebert, American author and educator

Photo: © Paul Lovichi

Apps and activity trackers

Many mainstream apps can help you improve your mindfulness. Visit the App Store or see some of the top free suggested apps in the resources below. Some activity trackers for products such as Apple Watch and Fitbit have guided meditation or breathing sessions.

Music and videos

Music can help keep you be calm and relaxed. Relaxing music is available free on the Internet and YouTube videos. Options include calming, music-only videos with guided mindfulness practices using a soothing voice.

For more information

Harris D., J. Warren and C. Adler. 2017. *Meditation for Fidgety Skeptics*. Penguin Random House. New York

Moore-Hatter, B. J. Barbee, C. Zacharias-Miller and L. Shaner. 2019. Emotional Freedom Technique (EFT) Tapping Free Manual. EFT International. eftinternational.org/wp-content/uploads/EFT-International-Free-Tapping-Manual.pdf

Medical News Today. A guide to EFT tapping. medicalnewstoday.com/articles/326434

UCLA Mindful Awareness Research Center. Free guided meditations. Recordings and transcripts. marc.ucla.edu/body.cfm?id=22

University of California, Berkeley Greater Good Science Center. ggsc.berkeley.edu/

Hanh, T. N. Mindful Movement (video). youtube.com/watch?v=oWerJwf3-3I

Hanh, T. N. Mindful Movement Ten Exercises for Well-Being. 2008. Berkeley, CA. Parallax Press.

Kabat-Zinn, J. 2010. What is Mindfulness? University of California, Berkeley Greater Good Science Center. youtube.com/watch?v=xoLQ3qkh0w0

Kabat-Zinn, J. 1994, Wherever You Go, There You Are. New York City, New York. Hyperion.

Kabat-Zinn, J. 2019. Walking Meditation: Turn an everyday action into a tool for mindfulness and stress reduction. Center for Mindfulness at the University of Massachusetts Medical School. ggia.berkeley.edu/practice/walking_meditation

Mindful: Healthy Mind, Healthy Life (website) mindful.org

Mindfulness: the new science of health and happiness. 2017. Time magazine special edition. https://www.amazon.com/TIME-Mindfulness-Science-Health-Happiness/dp/1683304438

Newman, K. 2019. Free Mindfulness Apps Worthy of your Attention. Mindful



"Courage doesn't always roar. Sometimes courage is the quiet voice at the end of the day saying, I will try again tomorrow."

Mary Anne Radmacher, consultant, author and artist

Photo: © Monkey Business Images

(e-magazine). mindful.org/free-mindfulness-apps-worthy-of-your-attention/

LSU Center for Academic Success. 2012. Short Deep Breathing Relaxation (video). youtube.com/watch?v=PQW4FO52UXo

Siegel, D. 2015. Daniel Siegel Hand Model of the Brain. UCLA School of Medicine. youtube.com/watch?v=qFTljLo1bK8

Other resources

Authentic Happiness (website). University of Pennsylvania. authentichappiness.com

Black, L. et al. 2020. Taking Care of YOU: Stress Management. Extension Disaster Education Network. Extensiondisaster.net

Garden-Robinson, J. 2016. Have a Healthy Heart (lesson plan). North Dakota State University Extension. ag.ndsu.edu/publications/food-nutrition/have-a-healthy-heart

Garden-Robinson, J. and S. Stastney. 2017. Nourishing your Brain with a Healthful Diet (lesson plan). North Dakota State University Extension. ag.ndsu.edu/publications/food-nutrition/nourish-your-brain-with-a-healthful-diet

The Importance of Staying Hydrated. 2015. Harvard Health Letter. health.harvard.edu/staying-healthy/the-importance-of-staying-hydrated.

Riffe, J. and B. Smith. 2015. Stress Less with Mindfulness (online course). West Virginia University Extension. employees.extension.wvu.edu/train-the-trainer-resources/stress-less-with-mindfulness

Stapleton, P., G. Crighton, D. Sabot and H. Maree O'Neill. 2020. Reexamining the Effect of Emotional Freedom Techniques on Stress Biochemistry: A Randomized Controlled Trial. Psychological Trauma: Theory, Research, Practice, and Policy.

Acknowledgment

Special thanks to Carlos Salcedo, community partnerships manager, St. Charles Health System.

Project supported by National Institute of Food and Agriculture Smith Lever Special Needs Competitive Grants Program (Award# 2018-41210-28702).

This publication will be made available in an accessible alternative format upon request. Please contact puborders@oregonstate.edu or 1-800-561-6719. © 2020 Oregon State University. Extension work is a cooperative program of Oregon State University, the U.S. Department of Agriculture, and Oregon counties. Oregon State University Extension Service offers educational programs, activities, and materials without discrimination on the basis of race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, familial/parental status, income derived from a public assistance program, political beliefs, genetic information, veteran's status, reprisal or retaliation for prior civil rights activity. (Not all prohibited bases apply to all programs.) Oregon State University Extension Service is an AA/EOE/Veterans/Disabled.

Published June 2020