Mindfulness

Learning to live in the moment

Have you ever performed a routine task without thinking and, when asked about it later, don't quite remember doing it? For example, you don't remember taking your mail from the mailbox and yet there it sits on your kitchen table and no one else is claiming to have done it. Or you don't remember brushing your teeth last night. You know you did it, but you don't remember all of the details. Many things in life are performed with such routine efficiency that you might say they're done in "autopilot" mode. This isn't necessarily a bad thing. It minimizes the amount of time and mental energy you need to expend to accomplish various tasks.

And yet this type of automatic functioning can sometimes exact a price. Say you're having lunch with your spouse, and you were so preoccupied with the rest of your afternoon that later in the evening you barely remember what the two of you talked about or what you ate. But your spouse has noticed and is upset that your mind seems elsewhere. While watching TV, you absent-mindedly eat a whole bag of chips. Finally, when you go to bed your mind is so busy remembering all the things that went wrong with your day that you can't sleep. Your world seems to be spinning out of control, and the stress and frustration of it all is starting to disrupt your life.

Or perhaps you're dealing with more than just everyday anxieties. Maybe you're coping with cancer or fighting off a relapse into depression. Perhaps your life has been turned upside down by the loss of a job or a family member, and you're struggling to keep your head above water.

What if there was a way that you could regain your sense of balance, reduce your anxiety and instill more purpose and happiness into your life, even while not changing much of anything? One way to do this is to redirect your attention away from everything in the past, in the future or "out there" and simply focus on what is happening in front of you right now, without judgment or evaluation.

Mindfulness — sometimes called a form of meditation or therapy — can be used to enrich your life, calm your mind and even improve your health.

What is mindfulness?

The practice of mindfulness is rooted in ancient traditions. It was originally conceived as a way to ease suffering and cultivate compassion. But it is considered as relevant today as it was thousands of years ago. And because it can apply to anyone, no particular religious or cultural belief system is required to practice it.

There are many descriptions of mindfulness. In general, though, it's a conscious effort to be completely present — to set aside worries, expectations, and other thoughts and emotions and be fully aware of the current moment. By appreciating
what you have and not constantly longing for something else, you learn to be content and to live with renewed purpose. As a result, you feel better. Medically speaking, this type of mental anxiety reduction and optimistic engagement may also put your body on a path to better health.

The systematic daily practice of mindfulness can help you train your brain to focus your attention on what’s actually going on around you and inside of you. Mindfulness can also help you step back and avoid making premature assumptions (interpretations) about your own emotions, other people and external events. Often, these interpretations — made without reflection — are based disproportionately on personal preferences and prejudices. In today’s fast-paced world, many people pay too little attention even while generating an excessive amount of interpretation. This can lead to unnecessary fears and thoughts that aren’t based in reality, ultimately undermining your well-being.

Mindfulness has become popular not just as a form of personal meditation but also as a form of medicine. Doctors and scientists have been exploring the use of mindfulness to help people achieve better health and cope with major illnesses for several decades.

Although people have practiced mindfulness for thousands of years, the concept is still fairly new to Western medicine. Traditional Western medicine practices are based on evidence obtained through research and medical studies, and it can be difficult to prove that mindfulness is effective for a certain condition or that it’s better than a certain medicine.

Some of the problems inherent in studying this type of mind-body therapy include not having a standard definition of mindfulness or applying mindfulness in different ways, which makes it hard to compare study results. Studies that include too few participants or that don’t take into account the different characteristics of the participants make it difficult to generalize study results to the rest of the population.

However, overall evidence indicates that mindfulness has a positive effect on quality of life, not just in people who are coping with a chronic condition but also in healthy people who wish to reduce stress or live more simply. And when you consider the benefits versus the risks of practicing mindfulness, the benefits are likely to outweigh any possible harm, which makes it an ideal complementary therapy — a therapy that complements, rather than replaces, conventional medicine.

In medicine in particular, mindfulness invites you to separate yourself from whatever chronic condition you may have and to look at yourself as a whole person, one who just happens to be living with pain or cancer or depression. It also challenges you to take responsibility for how you react to your circumstances. By understanding that your body isn’t just a machine but is the result of a complex series of interactions between your mind and your body, you learn to use your mind to change your perception of the challenges you face. And you can do this without falling victim to the notion that the pain or anxiety you feel is “all in your head” or isn’t real. The very fact that your mind is involved gives you power to change your experience.

Finding meaning in relationships

For most people, relationships offer the deepest source of meaning in life. And yet attention directed toward loved ones frequently gets cut short because of competing demands on our time, such as appointments, running errands, taking care of the house or even watching TV.

All too often, acquaintances and strangers receive more attention than family members and close friends.

Bringing mindfulness to your closest relationships can help you find new meaning and wonder in the ones you love and strengthen the bond you have. Here’s a simple exercise adapted from the upcoming book The Mayo Clinic Guide to Stress-Free Living by Amit Sood, M.D. It will help you rediscover the depth and joy of your relationships:

- Make a list of your closest relationships, including friends. Write down as many as you can. Take a closer look at your list. These are your most precious treasures. Through all the ups and downs of your life, these are the people who share your sorrows and joys and provide you with a safe haven from the outside world.
- Now, close your eyes and bring up your fondest memories of each person. Then consider: How much attention do you give them? How often do you show them kindness?
- Next, write one kind thing you will do or say to show your appreciation for each loved one. This doesn’t have to be elaborate or expensive — just a simple note or call showing you care about them.

By simply becoming more aware of the meaning your loved ones provide you, you’re likely to invest more energy into nurturing these relationships, as well as yourself.
Mindfulness can be helpful for a number of conditions, including:

- **Managing chronic pain** — In the late 1970s, researchers developed a mindfulness training program for people with chronic pain called mindfulness-based stress reduction (MBSR), a set of daily practices that combines mindfulness meditation and yoga. One of the first studies involved a group of people who had been living with chronic pain for anywhere between six months and four years. Chronic pain can be notoriously difficult to control and often results in high levels of stress and decreased quality of life. Chronic pain for the people in this study hadn’t improved under traditional medical care. After 10 weeks of training in MBSR, half of the participants experienced a reduction in their pain rating of 50 percent or more. The researchers speculated that, as a result of the MBSR training, the participants were able to separate their physical feeling of pain from their perception of it. By detaching themselves from the pain and simply observing but not reacting to it, they were able to minimize their experience of pain.

  Additional research conducted using MBSR as a therapy for various types of chronic pain has shown that participants in the program demonstrate significant improvement in pain, anxiety, coping ability, well-being and ability to engage in daily activities.

  A recent study examined the effects of a community-based MBSR program on people with different types of chronic pain, including neck or back pain, headache, arthritis, fibromyalgia, and other less common conditions. The program, which lasted eight weeks, involved 20 to 25 minutes of daily formal meditation as well as the informal practice of being mindful of everyday activities, such as breathing, walking, eating and listening. Participants were also trained to scan their bodies for different sensations, increase awareness of various emotions and practice yoga.

  Before the program, the participants scored well below the general U.S. population in terms of health-related quality of life and well above the general population in terms of psychological distress. As a whole, the group experienced noticeable improvement in quality of life and significant reduction in psychological distress after completing the program. And the greater the amount of home practice of mindfulness, the less people felt limited in their everyday activities and the more able they were to function in social settings.

  By feeling the pain and observing the sensations it creates in your body, you not only become intimately familiar with it but also learn to distance yourself from it. You are not your pain. It’s merely something that’s a part of your life experience. On a physiological level, it’s possible that greater levels of mindfulness may tone down pain perception pathways in the central nervous system. But what mindfulness primarily aims to do is minimize your reactions to the distressing thoughts and emotions that can accompany pain. Systematic practice of mindfulness can help you strengthen your ability to regulate your emotions and form a buffer against everyday stressors, which can decrease your susceptibility to the mental and emotional ups and downs of living with chronic pain.

- **Coping with cancer** — Coping with a diagnosis and subsequent treatment of cancer can have a profound impact on your life. People with cancer often experience a high degree of emotional stress, as well as decreased physical health and well-being. Common problems include fatigue, anxiety, depression and sleep problems. A growing number of mind-body therapies — including mindfulness — are seen as a way to complement conventional cancer treatments by addressing these problems and helping people feel better.
5 exercises to increase awareness

Sometimes, performing mundane tasks just a little bit differently can heighten your awareness of what you’re doing at the moment, or at least prevent you from taking your skills for granted.

Here are exercises adapted from the book, *How to Train a Wild Elephant & Other Adventures in Mindfulness*, by Jan Chozen Bays, M.D. Try them out and see what you learn:

■ Use your nondominant hand for an ordinary task, such as using a fork or brushing your teeth.
■ When you’re eating or drinking, do just that. Don’t read the paper or watch TV. Focus entirely on your food or beverage.
■ Use waiting in line as an opportunity to practice mindfulness. Focus on breathing or on taking in the details of your surroundings.
■ Use gentle, loving hands to touch, even inanimate objects, such as bowls and screen doors.
■ Each time the telephone rings, take a deep breath or two before you answer.

Practicing mindfulness may help people with cancer avoid worrying about their disease and instead focus on life as a meaningful process. It can help them feel more open to new experiences, less vulnerable to stress, and more tolerant of perceived flaws in themselves and others. And it can help reduce fatigue, improve mood and sleep problems, and perhaps even enhance immune function.

A large, well-designed trial conducted in the United Kingdom focused on the effects of an eight-week MBSR program in women who had recently completed treatment for stage 0 to stage III breast cancer. This study was unique in that it also asked women about symptoms related specifically to breast health, such as body image, shortness of breath and pain, as well as questions pertaining to hormonal and menopausal health issues, such as hot flashes, vaginal dryness and loss of libido. Women who completed the MBSR program experienced improvement in these areas as well.

Researchers at Mayo Clinic developed a Stress Management and Resiliency Training (SMART) program designed to decrease stress and enhance resilience and the ability to thrive and live purposefully despite adversity. The program is adapted from attention and interpretation therapy, which guides learners away from instinctively focusing on threats and imperfections — often in the past or the future — and trains their attention toward delaying judgment and paying greater attention to the novelty of the present world. The program was tested in a group of women previously diagnosed with breast cancer who were serving as mentors to newly diagnosed women. After attending two brief group learning sessions and receiving optional follow-up meetings or phone calls, the women who participated in the program experienced reduced stress, anxiety and fatigue, greater resilience, and increased quality of life compared with women waiting to get in the program. One of the benefits of the SMART program is that it requires a much shorter time commitment than many other mindfulness training programs, making it more easily accessible to people under time constraints.

■ Preventing depression relapse — Major depression can be a devastating illness, robbing a person of joy and hope and producing emotional difficulties that disrupt daily life and productivity. While it often can be treated successfully with antidepressant medications and psychotherapy, it’s sometimes a little trickier to keep the symptoms from coming back (relapsing). Well over half of people who are treated for depression relapse within the first couple of years after treatment is finished. For this reason, many doctors advocate maintenance or continuing therapy even after pressing symptoms are resolved to prevent a relapse. Taking an antidepressant can help, but people aren’t always willing to continue taking medication, especially when it may have unpleasant side effects or their depressive symptoms have eased or disappeared.

Interestingly, people who are treated with cognitive behavioral therapy — a form of psychotherapy that helps you change negative thought patterns and learn to respond better to life’s stressors — have less of a risk of relapse than do people treated solely with medications. This may be because if you’ve learned ways to mentally and behaviorally cope with depression, you can carry on with your new skills, whereas once medication is stopped, the neurochemical changes that accompanied the treatment may dissipate, leaving you vulnerable once again. Some believe that the best combination may be treating urgent symptoms with medication and then following up with psychotherapy once symptoms have eased to prevent relapse.

Mindfulness-based cognitive therapy (MBCT) is a form of psychotherapy that combines principles of mindfulness with elements of cognitive behavioral
therapy. It generally takes place in a group setting and lasts about eight weeks. Like cognitive behavioral therapy, it helps you identify early warning thoughts or feelings that might signal a worsening of symptoms and helps you map out steps to get you back on track, such as deliberate relaxation techniques. Unlike cognitive behavioral therapy, MBCT doesn’t try to change your thoughts. Instead it emphasizes allowing negative thoughts to simply pass through the mind, viewing them as similar to clouds in the sky — but not as fixed realities. For example, a thought such as “I’ll never feel happy” is just that, a thought. Merely having the thought or even feeling sad doesn’t mean it’s a permanent reflection of you or of what’s true. In the same way, MBCT helps you keep past failures and future fears in perspective. Events and emotions from the past are done with. Catastrophic fears about what may or may not happen in the future are unnecessary. A mindful approach frees you up to enjoy the present and take a more deliberate, proactive stance toward the past and future.

Research indicates that MBCT is an effective way to prevent depression relapse or recurrence, especially for those in whom relapse is persistent. Several studies found that MBCT, when compared with treatment as usual, lowered the rates of relapse by almost twice as much. Other research has found that MBCT can be just as effective as antidepressant maintenance therapy in preventing relapse, particularly in people who still experienced flurries of symptoms after initial treatment. This is an important finding for people who would prefer not to take medications in the long term.

Researchers also are studying the use of MBCT for depression that’s hard to treat or that produces suicidal thoughts and behaviors, as well as other psychiatric disorders, including anxiety disorders and bipolar disorders.

Maintaining a healthy weight — Losing weight can be hard. Keeping it off? That can be even harder. If you’re like most people, you’ve probably tried a diet or two in your time. And as long as you’re following the rules, you may lose some weight. But as soon as those rules are relaxed, the pounds tend to get right back on for many people.

One reason people may eat too much is that they’re not always paying attention to their bodies when they eat. Often, people eat not to satisfy hunger, but as a reaction to boredom, stress or discomfort. As a result, eating becomes disconnected from nourishment and instead becomes an automatic reaction to negative emotions, misunderstood physical sensations and mental stress that have little to do with being hungry. Once such a notion of eating is established, it can be difficult to change.

Short-term weight loss can be relatively easy to accomplish because it doesn’t require a permanent change in attitude toward food. What makes maintaining weight loss so tough is that it requires a whole new approach toward eating and moving. And this is where mindfulness can come into play. By tuning in to feelings of hunger and fullness — eating only when you’re hungry and stopping when you’re full — you can better control the amount of food you take in. By eating mindfully — slowly, tasting each bite, being aware of textures and smells — you gain greater satisfaction from eating. Nonjudgmental awareness of what’s truly behind your need to eat can help you reduce automatic eating reactions to negative emotions and stress. Mindfulness also helps you cultivate compassion and loving kindness toward yourself, which can help disrupt cycles of binge eating and guilt and shame.

Early results from studies investigating the use of mindfulness to treat obesity and eating disorders are promising. Most show that people who used the Deep breathing

When your mind begins to fret and worry, focusing on your breath can help bring you back to the present moment. Practicing deep breathing can be particularly calming. Deep breathing is slower and deeper than shallow chest breathing and involves relaxing your belly so that your diaphragm, the muscle anchored to your lower rib cage, can push down farther and allow more air to flow into your lungs. If you’re not used to deep breathing, it can seem a little awkward at first, but you’ll soon get the hang of it.

Here’s how to do it:

- **Inhale** — With your mouth closed and your shoulders and belly relaxed, inhale as slowly and deeply as you can. When you breathe in, your abdomen should expand.
- **Hold** — Keep the air in your lungs for a few seconds.
- **Exhale** — Slowly release the air through your mouth.
- **Repeat** — Do all the steps three to five times.

It may be helpful to place your hand over your belly. If it rises when you inhale and falls when you exhale, you’re on the right track.
Mindfulness and the brain

It’s apparent that mindfulness and attention training can alter perceptions and mental state. But can it actually change the structure of the brain or the way brain cells interact? Preliminary reports say that, yes, it can.

A growing body of evidence suggests that the brain isn’t static over a lifetime but that it can change and reshape itself and its networks. This is referred to as brain plasticity. To see what effects a mindfulness-based stress reduction (MBSR) program might have on brain plasticity, a group of researchers decided to compare brain MRI scans of people undergoing the program with those of a group of people who were not in the program. MRI scans were performed both before the start of the program and after the program was completed.

In the MBSR participants, the researchers found an increase of gray matter (brain tissue) in the hippocampus. The hippocampus is an area of the brain associated with the regulation of emotion and also known for its ability to remodel itself and generate new nerve cells (neurons). Researchers also found expanded gray matter in other areas:

- The temporoparietal area, which has been linked to the conscious experience of the self and the ability to relate to others.
- The posterior cingulate cortex, which helps your brain assess the significance of incoming stimuli.
- The brainstem, where neural networks govern the type of attention given to environmental demands, mediate stress and modulate the brain’s serotonin system, which impacts mental states such as anxiety and depression.

Changes in gray matter are generally believed to result from repeated activation of these areas, which is what would be expected from mindfulness training.

A similar study made use of functional MRI, a type of brain imaging that depicts brain activity by lighting up when certain areas of the brain are being activated. This group found that mindfulness training enhanced neural networks involved in processing audio and visual stimuli. This makes sense because part of being mindful is focusing on what your senses are experiencing.

Another study sought to identify how mental training might affect the brain’s ability to allocate its limited resources. Results showed that the people who had undergone intensive attention training through meditation were able to dispatch attention resources more efficiently than were those who hadn’t.

It might help to think of training your mind as similar to training the muscles in your body. By engaging your mind regularly in a conscious effort to pay attention, you’re making your brain bigger, stronger and better suited to facing a challenge.
But you don’t necessarily have to go through formal training to begin your own mindfulness practice. The following steps can help you get started:

- **Paying attention** — One of the key aspects of mindfulness training is learning to place yourself fully in the present moment. Start by paying attention to the world around you. Use your senses, one at a time, to become aware of what’s going on in the space you’re occupying. What do you see? What do you hear? Notice the soothing sound of water coming from the faucet when you fill up a glass, the shadows in the room when you turn off a light or the smoothness of the sheets as you climb into bed.

  Focusing your awareness on the world around you redirects your attention to the present and away from inward contemplations about the past, worries about the future or just random, chaotic thoughts.

  In the beginning, you may want to set aside a few minutes each day to practice. Early morning is a natural time for many people because the day with all its demands hasn’t yet begun. Sit outside for a short while and do nothing but take in the world as it awakes. Look for new details, even in ordinary things.

  You don’t need to limit your attention training to a certain time, however. Try it at various points throughout the day. When you’re engaged in a conversation, don’t let your mind wander. Really pay attention to what the other person is saying. When you’re in a meeting, be present. The more you anchor yourself in the present moment, the calmer you will feel.

- **Removing judgment** — Another important element of mindfulness is observing without judgment. When you’re looking at the world, other people and — perhaps most importantly — yourself, look with appreciation and curiosity rather than criticism. Everyone has personal preferences and prejudices. In a benign sense, these can help you be more efficient in your choices. But if you allow them to short-circuit your powers of observation and awareness, you end up making premature evaluations or snap judgments that may prevent you from enjoying any number of joys and new experiences. Instead, occupy yourself with discerning as many details as possible, and then make your interpretation.

  Take this approach with your own thoughts and emotions, as well. Being mindful doesn’t mean you can’t or won’t feel angry or sad or annoyed. These feelings come up naturally. When they do, feel the emotion, observe it without judgment and let it flow through. Remind yourself that these are emotions, not absolute truths that must be acted on, nor are they permanent. In the same way, if you experience fearful thoughts about your health or your mind begins to fret about possible outcomes to a rift with a friend, don’t try to stop them or dwell on them. Just let them flow through. Since these are thoughts and nothing more, you can observe them as they pass through without giving them value.

  Taking the time to observe yourself in this way provides you with greater clarity and puts you in a better position to take action, if action is indeed necessary.

- **Breathing** — If you find your mind wandering, a reliable way to bring yourself back to the present moment is to focus on your breath. It’s always there and always with you. All you have to do is tune in to the way your breath feels. Forget everything else for a moment and feel each breath as it moves in and out. Pay attention to your nostrils as air passes through. Notice the way your abdomen expands and collapses with each breath. Notice how your breath changes when you physically exert yourself or you feel surprised or angry.

  You can observe your breath from different locations in the body, such as your nostrils, chest or belly. Whatever you choose, feel the sensations that accompany your breath. These include the cool air in your nostrils, the tightening

### Using higher principles

Delaying judgment can help you avoid interacting with the world based on prejudice and give you time to employ higher principles, such as gratitude and compassion, to guide your actions. With practice, adherence to higher principles instead of personal prejudices can become second nature.

Amit Sood, M.D., chair of the Mayo Mind Body Initiative, recommends a practical program of focusing on a different value each day of the week. Here’s an example:

- **Monday: Gratitude** — Start your day by finding five things to be thankful for. As you go through your day, think about the people you interact with in terms of gratitude. For example, remind yourself of the stability your spouse brings to your family, or the trust your colleagues place in you to accomplish your job.

- **Tuesday: Compassion** — In the morning, intend to decrease pain and suffering throughout the day. Try to be aware of your connectedness with others and recognize that everyone experiences pain, loss and suffering.

- **Wednesday: Acceptance** — Live your day by accepting yourself as you are and others as they are.

- **Thursday: Meaning and purpose** — Focus on the ultimate meaning and purpose of your life. This requires a degree of humility and perspective.

- **Friday: Forgiveness** — Start by forgiving yourself for past mistakes and then move on to forgiving others. Realize the possibility for a fresh new start.

- **Saturday: Celebration** — Celebrate your life and the lives of those around you. Savor the joy it brings.

- **Sunday: Reflection** — This may be through prayer, meditation or simply awareness.
of your chest, the flexing of your abdominal muscles. Keep these sensations foremost in your focus from moment to moment. Don’t try to force or regulate your breathing. Don’t think about it either. Just pay attention to it.

The rhythmic process of breathing also is fundamental to the practice of meditation, which is a big part of many mindfulness-based programs. By giving your mind just one thing to keep track of — your breath — you increase your powers of concentration, which can bring about deep calm and awareness. There are various breathing exercises you can do to get in tune with your breath. For starters, try the one on page 5.

■ **Meditating** — Meditation can sometimes sound fancy and exotic, but within the context of mindfulness, it simply means setting aside a few minutes each day to practice being mindful of yourself and your own mind. In a world of constant “doing,” even a brief session of meditation can put you back in touch with just “being.” It can also give you the energy and the insight to go back to “doing” in a more effective and balanced way.

Like breathing, another formal meditation practice is sitting meditation. This involves setting aside a special time and place specifically for “non-doing.” This isn’t the same as doing nothing, but more like the opposite of doing. You can sit either in a chair or on the floor. Your posture is comfortable yet alert — erect, spine straight yet relaxed, dignified. Once you’ve assumed your posture, focus on your breathing. In and out. That’s it. Although it sounds simple, it’s not that easy. When you find yourself wanting to change postures or your mind wanders, observe your reactions and then gently bring your attention back to your breath. Doing this repeatedly is like exercising your mind, honing its focus and concentration.

Sometimes, meditation can be focused on other parts of the body or the body as a whole. Mindful attention also can be brought to different types of movement, such as walking or yoga, so that the movement itself is meditation.

**Mindfulness as a way of life**

Mindfulness doesn’t have to be limited to a few minutes a day. In fact, you start to reap the most benefits when you bring a mindful approach to all aspects of your life, whether it’s washing the dishes, playing with your grandkids or having dinner with your spouse.

The more you learn to experience, accept and appreciate each moment in your life for what it is — without longing for something else or something better — the deeper your calm and the more peaceful and joyful you will feel. In the process, you also learn to look at yourself with greater compassion and trust, and this will spill out into your relationships with others. When you look at those around you, you’ll begin to see not flaws and imperfections, but real people who offer up endless new facets to discover.

Life can be full of meaning, purpose and joy. Mindfulness is one way to help you remember that.