The Mindfulness Revolution
Edited by Barry Boyce
and the editors of the Shambhala Sun
Leading Psychologists, Scientists, Artists, and Meditation Teachers on the Power of Mindfulness in Daily Life
What Is Mindfulness?

Jan Chozen Bays

Mindfulness is a capability we all possess and can cultivate. Yet, so often, we are on autopilot, going through the motions but not really present in our lives. Longtime meditation teacher and physician Jan Chozen Bays tells us how not being present leads to dissatisfaction and unhappiness, while being in the present moment is restful and enjoyable, bringing a sense of discovery to even the most mundane of everyday activities.

Mindfulness means deliberately paying attention, being fully aware of what is happening both inside yourself—in your body, heart, and mind—and outside yourself in your environment. Mindfulness is awareness without judgment or criticism. The last element is key. When we are mindful, we are not comparing or judging. We are simply witnessing the many sensations, thoughts, and emotions that come up as we engage in the ordinary activities of daily life. This is done in a straightforward, no-nonsense way, but it is warmed with kindness and spiced with curiosity.

Sometimes we are mindful, and sometimes we are not. A good example is paying attention to your hands on the steering wheel of a car. Remember when you were first learning to drive, and how the car wobbled and wove its way along the road as your hands clumsily jerked the wheel back and forth, correcting and overcorrecting? You were wide awake, completely focused on the mechanics of driving. After a while, your hands learned to steer well, making subtle and automatic adjustments. You could keep the car moving
smoothly ahead without paying any conscious attention to your hands. You could drive, talk, eat, and listen to the radio, all at the same time.

This arises the experience we have all had of driving on automatic pilot. We open the car door, search for our keys, back carefully out of the driveway, and...pull into the parking garage at work. Wait a minute! What happened to the twenty miles and forty minutes between house and job? Were the lights red or green? Our mind took a vacation in some pleasant or distressing realm as our body deftly maneuvered the car through flowing traffic and stoplights, suddenly awakening as we arrived at our destination.

Is that bad? It’s not bad in the sense of sin or guilt. If we are able to drive to work on autopilot for years without having an accident, that’s pretty skillful! We could say that it’s sad, though, because when we spend a lot of time with our body doing one thing while our mind is on vacation somewhere else, it means that we aren’t present for much of our life. When we aren’t present, it makes us feel vaguely but persistently dissatisfied. This sense of dissatisfaction, of a gap between us and everything and everyone else, leads to unhappiness.

Let’s look at it from the other side. When have we really been present? Everyone can recall at least one time when they were completely present, when everything became clear and vivid. We call these peak moments. It can happen when our car skids. Time slows as we watch the accident unfold or not. It often happens at a birth or as someone dies. It doesn’t have to be dramatic. It can happen on an ordinary walk as we turn a corner and everything is, for a moment, luminous.

Peak moments are times when we are completely aware. Our life and our awareness are undivided, at one. At these times, the gap between us and everything else closes. We feel satisfied—actually, we are beyond satisfaction and dissatisfaction. We are present.

These moments inevitably fade, and there we are again, divided and grumpy about it. We can’t force peak moments or enlightenment to happen. Mindfulness, however, helps close the gap that causes our unhappiness.

Zen master Thich Nhat Hanh has called mindfulness a miracle. It seems like it. When we learn how to use this simple tool and find for ourselves what it can do, it seems miraculous. It can transform boredom into curiosity, distressed restlessness into ease, and negativity into gratitude. Using mindfulness, we will find that anything—anything—we bring our full attention to will begin to open up and reveal worlds we never suspected existed. In all my experience as a physician and a Zen teacher, I have never found anything to equal it.

A large and growing body of scientific studies supports the claims about the surprisingly reliable healing abilities of mindfulness. Jon Kabat-Zinn at the University of Massachusetts Medical School has developed a training called Mindfulness-Based Stress Reduction (MBSR). He first taught MBSR techniques to people suffering from chronic pain and disease, people whose doctors had referred them as a last resort after other medical therapies had failed. The results were so good that he began helping people to apply these techniques to other illnesses. Other doctors and therapists learned MBSR techniques and tried them out successfully with a variety of disorders. There are now many articles in medical and psychology journals documenting the benefits of MBSR for illnesses ranging from asthma to psoriasis, heart disease to depression.

Why is mindfulness helpful to us? Left to our own devices, we easily become lost in thoughts about the past and the future. The capacity of the human mind to plan for the future is a unique gift. Unfortunately the mind, in its anxiety for us, tries to make plans for a huge number of possible futures, most of which will never arrive. This constant leapfrogging into the future is a waste of our mental and emotional energy.

The mind also enjoys excursions into realms of fantasy, where it creates an internal video of a “new me,” famous, handsome, powerful, talented, successful, wealthy, and loved. The capacity of the human mind to fantasize is wonderful, the basis of all our creativity. It allows us to imagine new inventions, create new art and music, arrive at new scientific hypotheses, and make plans for everything from new buildings to new chapters in our lives. Unfortunately, it can become an escape, an escape from the anxiety of not knowing what is actually moving toward us, the fear that the next moment (or hour or day or year) could bring us difficulties or even death.

When we allow the mind to rest in the present, full of what is actually happening right now, redirecting it away from repeated fruitless excursions into the past or future or fantasy realms, we are doing something very important: conserving the energy of the mind. It remains fresh and open, ready to respond to whatever appears before it.

This may sound trivial, but it is not. Ordinarily the mind does not rest. Even at night it is active, generating dreams from a mix of anxieties and the events of our life. We know that the body cannot function well without rest,
so we give it at least a few hours to lie down and relax each night. We forget, though, that the mind needs rest too. Where it finds rest is in the present moment, where it can lie down and relax into the flow of events.

Although mindfulness is becoming an increasingly popular concept, people may easily misunderstand it. First, they may mistakenly believe that to practice mindfulness means to think hard (or harder) about something. In mindfulness, we use the thinking power of the mind to initiate the practice and to remind us to return to the practice when the mind inevitably wanders during the day. But once we follow the mind's instructions and begin the task (following the breath and, when the mind wanders, returning to the breath), we can let go of thoughts. The thinking mind naturally quiets down. We are anchored in the body, in awareness.

The second misunderstanding is to think of mindfulness as a program, a series of forty-five-minute exercises that begin and end during periods of seated meditation. Mindfulness is helpful to the extent that it spreads out into the activities of our life, bringing the light of heightened awareness, curiosity, and a sense of discovery to the mundane activities of life: getting up in the morning, brushing our teeth, walking through a door, answering a phone, listening to someone talk.

Anything that we attend to carefully and patiently will open itself up to us. Once we are able to apply the power of a concentrated, focused mind, anything, potentially all things, will reveal their true hearts to us. It is that heart-to-heart connection with ourselves, with our loved ones, and with the world itself that all of us so dearly long for.

A Receptive, Respectful Awareness

JACK KORNFIELD

When we first start practicing mindfulness meditation, says psychologist and meditation teacher Jack Kornfield, we usually expect to become instantly calm and peaceful. Instead, we most likely are shocked to find out just how much is going on in our minds or how bored we can be just sitting there. The very act of seeing this confusion and irritation begins the process that leads to insight and, ultimately, to relief and relaxation.

The film Gorillas in the Mist tells the story of Dian Fossey, a courageous field biologist who managed to befriend a tribe of gorillas. Fossey had gone to Africa to follow in the footsteps of her mentor, George Shaller, a renowned primate biologist who had returned from the wilds with more intimate and compelling information about gorilla life than any scientist before. When his colleagues asked how he was able to learn such remarkable detail about the tribal structure, family life, and habits of gorillas, he attributed it to one simple thing. He didn’t carry a gun.

Previous generations of biologists had entered the territory of these large animals with the assumption that they were dangerous. So the scientists came with an aggressive spirit, large rifles in hand. The gorillas could sense the danger around these rifle-bearing men and kept a safe distance. By contrast, Shaller—and later, his student Dian Fossey—entered the
territory without weapons. They had to move slowly, gently, and, above all, respectfully toward these creatures. And in time, sensing the benevolence of these humans, the gorillas allowed them to come right among them and learn their ways. Sitting still, hour after hour, with careful, patient attention, Fossey finally understood what she saw. As the African-American sage George Washington Carver explained, “Anything will give up its secrets if you love it enough.”

Mindfulness is attention. It is a nonjudgmental, receptive awareness, a respectful awareness. Unfortunately, much of the time, we don’t attend in this way. Instead, we react, judging whether we like, dislike, or can ignore what is happening. Or we measure our experience against our expectations. We evaluate ourselves and others with a stream of commentary and criticism.

When people initially come to a meditation class to train in mindfulness, they hope to become calm and peaceful. Usually they are in for a big shock. The first hour of mindfulness meditation reveals its opposite, bringing an unseen stream of evaluation and judgment into stark relief. In the first hour, many of us feel bored and dislike the boredom. We can hear a door slam and wish for quiet. Our knees hurt, and we try to avoid the pain. We wish we had a better cushion. We can’t feel our breath, and we get frustrated. We notice our minds won’t stop planning, and we feel like failures. Then we remember someone we’re angry at and get upset, and if we notice how many judgments there are, we feel proud of ourselves for noticing.

But like George Shaler, we can put aside these weapons of judgment. We can become mindful. When we are mindful, it is as if we can bow to our experience without judgment or expectation. “Mindfulness,” declared the Buddha, “is all-helpful.”

Peter, a middle-age computer designer, came to a meditation retreat looking for relief. He was coping with a recently failed business, a shaky marriage, and a sick mother. But meditation quickly became an agony. The anger and disappointment that pervaded his current situation rose up in the quiet room to fill his mind. His attempts to quiet himself by sensing his breath felt hopeless; his attention bounced away from his body like water on a hot skillet. Then it got worse. A restless woman seated nearby began to cough loudly and frequently. She began to fidget and move and cough more as the first day wore on.

Peter, who was struggling just to be with his own sorrow, became frustrated and angry, and as the woman continued coughing, he became enraged. He sought out my coteacher and good friend, Debra Chamberlin-Taylor, and insisted that meditation was the wrong approach and told her that he wanted to leave. Debra asked Peter to close his eyes and mindfully notice the state of his body. It was filled with tension and pain. With Debra’s help, Peter found he could hold the tension and hurt with more accepting and kind attention. He breathed, relaxed a little, and recognized that the medicine he needed was nothing other than to understand his own pain.

The next instruction he was given was simple: “As you sit, keep a gentle mindfulness on your body and notice whatever happens.” After only a few minutes, his fidgety neighbor began a long coughing spell. With each cough, Peter felt his own muscles clench and his breath stop. Now he became more curious, interested in how his body was reacting. He began to notice that hearing each cough produced an internal clenching and a wave of anger, which subsided as he practiced relaxing between the spells.

Finally, at the end of the sitting period, he got up to walk down to the lunchroom. As he arrived, he noticed this same difficult woman in line just ahead of him. Immediately he noticed how his stomach clenched and his breath stopped—just from seeing her! Again, he relaxed. After lunch, when he returned to the meditation hall, he checked to see what time his name was listed for a private interview with his teacher. Further down the same list, he read the restless woman’s name. Still paying attention, he was surprised. Just seeing her name made his stomach clench and his breath tighten! He relaxed again. He realized that his body had become a mirror and that his mindfulness was showing him when he was caught and where he could let go.

As the retreat went on, his attention grew more precise. He noticed that his own anxious and angry thoughts about his family and business problems could trigger the same clenching and tightening as the woman’s cough did. He had always tried to have things under control. Now that his life had proved out of control, the habits of anger, blame, and judgment toward himself were tying him in knots. With each reaction, he could feel the knots arise. After each one, he would pause mindfully and bring in a touch of ease. He began to trust mindfulness. By the close of the retreat, he was grateful to the restless woman near him. He wanted to thank her for her teaching.
With mindfulness, Peter found relief. He also discovered the benefit of curiosity and openness, what Zen master Suzuki Roshi famously called "beginner's mind." In Suzuki Roshi's words, "We pay attention with respect and interest, not in order to manipulate, but to understand what is true. And seeing what is true, the heart becomes free."

Is Mindfulness for You?

**Susan Smalley and Diana Winston**

When we live life mindlessly, we feel dull and disconnected from others, and we can act rashly. Susan Smalley and Diana Winston, of the Mindful Awareness Research Center at UCLA, counsel us to practice present-time awareness, even in the midst of difficult situations. Instead of reacting thoughtlessly to the stimuli in our lives, we can become curious about what's going on in our minds and be kinder and more accepting of ourselves and others.

The idea that mindfulness can have meaning for someone with a demanding job, endless responsibilities, and any one of a variety of religious orientations—including Christian, Jewish, Hindu, Buddhist, or no religion at all—might seem absurd. After all, even if there were some benefit to the practice, who has the time? Right away we can dispel the notion that mindfulness is time-consuming. In fact, it is time-enhancing and can be practiced anywhere in the blink of an eye. *Mindfulness is the art of observing your physical, emotional, and mental experiences with deliberate, open, and curious attention.* And although it is an “art” that can be cultivated through a daily, formal meditation practice, you can easily practice it instantaneously by remembering to be aware of your present-moment experience anytime in the course of a day.

To incorporate mindfulness into your life does not require that you change your life in any drastic way; you still attend to your normal array of family, work, social, and leisure-time activities. But you can learn to
perform all of these activities with a different state of awareness, one that is open, curious, and nonreactive. Mindfulness may at some point lead you to change some behaviors, particularly those that may be harmful to yourself or others, but it is not a self-help methodology per se. In practicing mindfulness, you are not trying to change who you are but to become more fully present with your experiences—with your body, thoughts, and feelings, and with their impact on your life. In the process, you are likely to get to know yourself better, learn to relax and detach from stress, and find a way to navigate the intense pressures you may face. Through such increased awareness, you may also become more discerning of your thoughts, feelings, and actions, and that awareness will give you a greater opportunity to make a positive change if you wish to do so. Says Charlie, a thirty-eight-year-old dockworker,

I'm convinced mindfulness makes me a better father. It's not only that I'm able to listen better to my children, but also it's the fact that I somehow appreciate every moment I have with them more than I ever have in the past. I don't take the time with them for granted anymore. I mean, they're six and eight now, but before I know it, they'll be in college and... Well, I get to enjoy them now.

Moving into the Present

If you ask people on the street where their minds are most of the time, they will probably think you are really odd, but then they will answer, "My mind is right here." Is it? Most of us spend a great deal of time lost in thoughts about the past or the future. Many of our thoughts are about things we regret from the past or things we are worried about in the future. We obsess, worry, grieve, imagine the worst happening in the future, and replay situations from the past that caused us pain. Theoretically, it might be wise to replay only pleasant thoughts, but we mostly replay negative thoughts, as if we have broken records in our heads. Most of our thoughts hardly seem to vary. We have been thinking the same (often painful) thoughts day after day! So our minds are often not aware in the present but are living in a different time period, either the past or the future.

Mindfulness can take you out of your habitual thinking by bringing you to what is actually happening at the present time. Stop right now, take a breath, and pay close attention to the present. Exactly in this moment, are things, for the most part, okay? The future has not happened, the past is over, and right now—well, it just is. This foundational technique of learning mindfulness—learning to return your mind to the present no matter what is happening—is tremendously helpful for working with challenging thoughts, emotions, and experiences.

Emma, a twenty-three-year-old aspiring actress, struggled constantly with negative thoughts about herself. After a few weeks of the Mindful
Awareness Practices (MAPs) class we teach at the Mindful Awareness Research Center at UCLA, she came into class elated: "I had an audition today, and for the first time ever, I didn't judge myself. Well, I did notice judgment in my mind, but I just stopped and took a breath and decided to be mindful instead of judgmental. I felt my body, noticed my thoughts, and all the judgment just stopped."

Coming back into the present moment by letting go of thoughts does not require that you eliminate creative ruminations, reflections on the past, or abstract thinking. Mindfulness is more about giving yourself a choice with your thoughts. You can exert some control over them rather than being at their mercy. As you learn to regulate your attention, you also learn when it is useful to focus on the present moment (particularly when working with difficult or negative thinking) and when it is useful to use creativity and other functions of mind.

Sunila, who is a forty-four-year-old internist, tells us,

As a physician, it's important for me to be able to be really present with patients. But I also have so much I'm juggling, thinking through their case, not to mention the other cases I'm working with that day. Oftentimes I'm trying to come up with an out-of-the-box solution. So I've learned to train my mind. When I'm with patients, I listen with full attention. I focus on them fully. Once I leave the room, I allow my attention to wander, to ponder, to think creatively. It's only since learning mindfulness that I've had some facility doing this, and my patients have noticed a difference.

**Less Reactivity**

For our purposes here, reactivity means responding to stimuli in the world in ways that induce unnecessary stress. For instance, when you are verbally attacked, you may respond automatically, both physically and mentally. When you come into your office and find extra work on your desk, you may get irritated and say or do something you later regret. When your partner has promised to wash the dishes but you come home and find the kitchen a mess, you may react by getting angry, isolating yourself, or trying to make your partner feel guilty. It may feel as though you have no control over your actions. You are behaving automatically—reactively.

Mindfulness offers another way. By practicing present-time awareness, even in the midst of a difficult situation, you can become aware of your impulses (your reactive patterns), stop, perhaps take a breath, and respond skillfully in a way that does not lead to more harm. With such insight into yourself, wise actions are likely to follow, as one meditation student discovered.

Gino, a twenty-eight-year-old graduate student, was running late as he drove down an L.A. freeway; when someone cut him off, he missed his exit. Immediately, a flash of rage swept through his body. In the past, he might have made an angry hand gesture or shouted fruitlessly at the long-departed car. He would have stewed in his anger, with his blood pressure rising, and obsessed about getting back at the other driver. But because he was learning mindfulness, he decided to use this experience as an opportunity to become aware of his reactivity and make a different choice. He took a breath, noticed his body—heart racing, heat in his face, a clenching in his gut—and thought, Wow, I'm really angry. After thinking about what a small thing it had been that triggered such massive anger, he was actually able to laugh about it. As he noticed this, his body began to calm down. In that moment, he knew he could respond differently in the situation. He realized that he was still angry but somehow not so overwhelmed. He even thought, I might let that guy in the pickup into my lane. Awareness allowed him to make that choice.

**Developing a Mindful Attitude**

A classic definition of mindfulness often includes the words nonjudgmental, open, accepting, and curious to describe the attitude you can cultivate when in this state. Mindfulness is an accepting and kind attitude toward yourself and your present-moment experience. So if you are trying to be mindful but have a reaction to your experience—that is, you are aware, but you're disliking, fearing, or judging your experience—then your mindfulness is colored by these reactions. For example, if you are mindful of your breath but thinking, Wow, this is utterly boring, or I'm doing this wrong, then you are aware, but the quality of accepting things as they are is not present
for you. To make it slightly more complicated, if you then notice that you are either bored or doubting your effort but feel curious and open about this experience, even somewhat kind toward yourself for feeling bored or doubting, then your attitude would be accepting.

When you are aware of the present moment in a kind and curious way, accepting it exactly as it is, then you have the direct experience of mindfulness. This is not to say that judgment, aversion, fear, and so forth will not sometimes color your mindfulness, but this is the ideal you can aspire to through practice: to be as kind as possible to yourself and your experience. This is also not to say that if you are truly mindful you will never have judgmental thoughts. Judgments arise unbidden in our minds, so we don’t need to judge our judgments! Instead, recognize them for what they are—thoughts passing through your mind. How might this work? Here is what Joan, a fifty-three-year-old musician, has to say:

When I began my meditation practice, I was convinced I was doing it wrong. I couldn’t breathe one breath without a voice telling me that I was breathing wrong! How can you breathe wrong? Anyway, I really worked on practicing kindness with myself, letting myself be okay with each breath, even letting myself be okay with not knowing if I was doing it right. It was like I could bring mindfulness to being unsure. Over time I began to relax, and now I don’t judge my meditation so strongly.

Hiring a kind and open attitude does not mean that you accept all behaviors as equally appropriate. If you say to yourself, “I yelled at my partner when he didn’t deserve it, but I was very mindful and kind to myself in the process,” you are misunderstanding this attitude. When you have a truly mindful attitude, you see yourself kindly but clearly, with no blind spots arising from your own reactive patterns. As you become more mindful, you begin to see more clearly the effect of your behaviors on other people. Through a lens of mindfulness, you recognize behaviors that harm, such as abuse, lying, and malicious gossip, as hurtful to yourself and others, and you may choose to diminish or abandon these behaviors.

Over the long term, you may notice a striking effect: kindness begins to permeate the rest of your life. Unfortunately, many people these days suffer from self-criticism and self-hatred. Learning to develop an accepting attitude through moments of mindfulness helps you develop a kind and compassionate attitude toward yourself and others over the long term. This idea is based on the principle that what you practice, you cultivate. So if you spend many moments of your day learning to be open to experiences with kindness, openness, and curiosity, you are likely, over time, to find these attitudes and behaviors becoming a natural and more incorporated part of who you are.

**Mindfulness Is Simple but Not Easy**

One of our students, Jade, age thirty, sums up how difficult it is to be in the present:

I was on vacation in Mexico, and the whole time I was there, despite beautiful, sunny weather and an amazing beach, all I could think about was whether or not I should be in Hawaii or maybe another Central American country. Finally, I said to myself, “If I’m not going to be here, why bother to go anywhere at all?”

As obvious and simple as mindfulness can be, and despite its beneficial effects, doing it is another story. It is very simple to be mindful. Take a moment right now, stop reading, and feel your nose and body take one breath. You are present with that one breath. You are mindful in this single moment in time. It is simple to be mindful, but remembering to be mindful can be very difficult.

Modern society tends to condition us to be anything but mindful. The dominant American culture validates virtually mindless productivity, busyness, speed, and efficiency. The last thing we want to do is just be present. We want to do, to succeed, to produce. Those of us who are good at the doing seem to fare well in many of our institutions and corporations. Those who are not—well, they tend to fall behind. But this is life in America in the twenty-first century and, to an increasing degree, around the world. We are so focused on doing that we have forgotten all about being, and the toll this takes on our physical, mental, and emotional health is significant. As the saying goes, we have become “human doings instead of human beings.” Mindfulness is a means to rebalance doing and being.

It has become so normal to be incessantly busy that many of us cannot
even tolerate the feeling of stopping and slowing down. We know a man who needs to talk on his cell phone or read a book when walking down the street; he cannot face what he perceives as the sheer boredom of no stimulation. Josh, a beginning meditation student, reports that in all his waking hours, he never chooses to be in silence. Even when he is relaxing, he turns on the TV or searches the Internet while ambient music pumps away in the background. His first attempts at mindfulness were quite discouraging for him, because the feeling of being alone with himself was so foreign and uncomfortable.

He could not see the point of spending five minutes in silence with himself when he had so much to do to run a successful business. He assumed that a period of silence and self-inquiry was a waste of time when he had all those “important” things to do.

Learning mindfulness starts wherever you are. Whether you are busy, distracted, anxious, depressed, jealous, peaceful, or tired, all you need to do is take a moment to pay attention to yourself. If you can stop, breathe, and notice what is happening in just this moment, then you have tapped into the power of mindfulness. This simple act, unassuming as it is, can lead to significant changes in your well-being and become a real “seat belt” for your mental health.

PRACTICE

Eating Meditation

This introductory exercise provides an excellent experiential understanding of mindfulness. We recommend that you try this practice with grapes, raisins, or any small bits of fruit.

Assume an upright yet relaxed posture, sitting on a cushion on the floor or in a flat, upright chair with your feet touching the floor. Have two pieces of your fruit nearby—we usually choose grapes. Pick up one of the grapes. Close your eyes, and take a breath or two to relax. The grape you have in front of you didn’t magically appear at the supermarket. It actually has a long history. As we describe this, let your mind imagine the history of the grape. Feel free to make other associations on your own.

Some time ago, someone planted a grape seed. That grape seed began to sprout, and it grew into a vine. There was soil, sun, rain, and water, and perhaps fertilizer; there were humans who tended to the vine. The vine grew and grew, and ultimately it began to sprout fruit. The fruit ripened until it was ready to be harvested. Then someone came along and cut the vine, whose grapes may have been packaged at that point, wrapped in plastic, loaded on trucks, and driven to supermarkets, where you purchased them. There are also many secondary connections to reflect on . . . all of the humans involved in this process. There were people who tended, people who harvested, people who drove the trucks. And we don’t know the circumstances under which the farmworkers lived and worked; perhaps their lives were quite difficult.

We do know that each person had a set of parents. Their parents had parents, and their parents had parents, and so on. And each person was clothed and fed and ate countless amounts of food. Where did that food come from? Let your mind roam and imagine the answer to this question. The truck, for instance—where did that come from? Oil and metal and plastic and glass. How about the roads the truck drove on to cart the grapes to market? Who tarred, cemented, and paved those roads? Let your mind consider this. Make one more connection that hasn’t been described here.

Now notice what is going on inside yourself. How do you feel? There is no right or wrong answer to this question, which is a really important point with mindfulness. All we do is find out what is true in this moment for us. You might be feeling some sense of appreciation. Or you might be feeling some sadness or sleepiness or anything at all. Just check in with yourself and notice what is happening in this present moment.

Now open your eyes and pick up the grape. Look at it as though you have never seen a grape before—as if you were a little child who has been handed his or her first grape. You can roll it around in your fingers; you can notice the shape and the color and the way the light on it changes; you can find out whether it has a smell or a sound. See if you can look at the grape with the curiosity and wonder a child brings to a first experience—that is mindfulness.

Now bring the grape up close to your mouth and notice as you do so whether something inside you says, I want to eat it! Simply be aware
of that impulse. Then close your eyes, open your mouth, and put the grape in. Begin to chew, but slow down the process. Use your awareness to feel and sense and taste; there’s so much to explore—flavors, textures, sounds. And there’s saliva; your teeth and your tongue know exactly what to do.

You also might notice what is going on in your mind. Maybe you are comparing this grape to one you had last week and thinking, It’s not as good, or Oh, this one’s better than the other one. Maybe you want another grape immediately. Maybe you are thinking, Hmm, this is kind of silly, or This is so interesting. Truly anything could be happening. With mindfulness, we simply notice. We become aware.

When you finish the first grape, eat the second grape with the same quality of attention. When you finish the second grape, notice your whole body present here, and when you are ready, open your eyes.

Here, Now, Aware

JOSEPH GOLDSTEIN

“Have you ever stopped to consider what a thought is?” asks author and meditation teacher Joseph Goldstein. The very fact that we are not very aware of our thoughts and how they come into being allows them to dominate our lives. Like little dictators, they tell us to go here, there, and everywhere. Mindfulness breaks the grip our thoughts have on us, allowing us to more often choose whether to act on them or not.

Mindfulness is the key to the present moment. Without it, we cannot see the world clearly, and we simply stay lost in the wanderings of our minds. TulkU Urgyen, a great Tibetan master of the last century, said, “There is one thing we always need, and that is the watchman named mindfulness—the guard who is always on the lookout for when we get carried away by mindlessness.”

Mindfulness is the quality and power of mind that is deeply aware of what’s happening—without commentary and without interference. It is like a mirror that simply reflects whatever comes before it. It serves us in the humblest ways, keeping us connected to brushing our teeth or having a cup of tea.

Mindfulness also keeps us connected to the people around us, so we don’t just rush by them in the busyness of our lives. The Dalai Lama is an example of someone who beautifully embodies this quality of caring attention. After one conference in Arizona, His Holiness requested that
This habit of wandering mind is very strong, even when our reveries aren’t pleasant and perhaps aren’t even true. As Mark Twain put it, “Some of the worst things in my life never happened.” We need to train our minds, coming back again and again to the breath and simply beginning again.

As our minds become steady, we begin to experience some inner calm and peace. From this place of greater stillness, we feel our bodies more directly and begin to open to both the pleasant and unpleasant sensations that might arise. At first, we may resist unpleasant feelings, but generally, if they come up repeatedly, over a period of time we begin to feel their impermanence, insubstantiality, and to be less afraid of them.

A further part of the training is becoming aware of our thoughts and emotions, those pervasive mental activities that stop us from considering what a thought is—not the content but the very nature of thought itself. Few people really explore the question, “What is a thought?” What is this phenomenon that occurs so many times a day and to which we pay so little attention?

Not being aware of the thoughts that arise in our minds or of the very nature of thought itself allows us to dominate our lives. To do this, say that, go here—thoughts often drive us like we’re their servants.

Once, when I was teaching in Boulder, Colorado, I was sitting quite comfortably in my apartment. Thoughts were coming and going. When one particularly rose in my mind that said, “Oh, a pizza would be nice,” I wasn’t even particularly hungry, but this thought lifted me out of the chair and took me out the door, down the stairs, into the car, over to the pizza place, back into the car, up the stairs, and into my apartment. What drove that whole sequence of activity? Just a thought in my mind...

Obviously, there is nothing wrong with going out for pizza. What does merit our attention, though, is how much of our lives are driven by thoughts.

Unnoticed, our attention, though, is how much of our lives are driven by thoughts. When we observe thoughts as they arise and pass away, we begin to see their essentially empty nature. They arise as little energy bubbles that float by as if they belong to nobody and float by as if they belong to nobody.

THE PRACTICE OF MINDFULNESS

We can start the practice of mindfulness meditation with the simple observation and feeling of each breath. Breathing in, we notice we’re breathing in. Breathing out, we notice we’re breathing out. It’s very simple, but not easy. After just a few breaths, we hop on trains of association, getting lost in plans, memories, judgments, and fantasies. Sometimes it seems like we’re a movie theater, where the film changes every few minutes. Our minds change so rapidly, but what can we do about our own internal screening room?
Just as there was no all-powerful wizard behind the curtain in *The Wizard of Oz*, the only power our thoughts have is the power we give them. All thoughts come and go. We can learn to be mindful of them and not be carried away by the wanderings of the mind. With mindfulness, we can exercise wise discernment: “Yes, I will act on this one. No, I’ll let that one go.”

**Working with Emotions**

In the same way, we can train ourselves to be mindful of emotions, those powerful energies that sweep over our bodies and minds like great breaking waves. We experience such a wide range of emotions, sometimes within quite a short period of time: anger, excitement, sadness, grief, love, joy, compassion, jealousy, delight, interest, boredom. There are beautiful emotions and difficult ones—and for the most part, we are caught up in their intensity and the stories that give rise to them.

We easily become lost in our own melodramas. It’s illuminating to drop down a level and look at the energy of the emotion itself. What is sadness? What is anger? Seeing more deeply requires looking not at the emotion’s “story,” but at how the emotion manifests in our minds and bodies. It means taking an active interest in discovering the very nature of emotion.

The American Buddhist monk Ajahn Sumedho expressed this kind of interest and investigation very well. He suggested that in a moment of anger or happiness, we simply notice, “Anger is like this,” or “Happiness is like that.” Approaching our emotional lives in this way is quite different than drowning in the intensity of feelings or being caught on the roller coaster of our ever-changing moods. To do this takes mindfulness, attention, and concentration. We need to take care, though, not to misunderstand this practice and end up suppressing emotions or pushing them aside. The meditative process is one of complete openness to feelings. From the meditative perspective, the question is, “How am I relating to this emotion? Am I completely identified with it, or is the mind spacious enough to feel the grief, the rage, the joy, the love without being overwhelmed?”

**The Practice of Letting Go**

As you meditate, keep bringing your attention back to what is happening in the moment: the breath, a feeling in the body, a thought, an emotion, or even awareness itself. As we become more mindful and accepting of what’s going on, we find—both in meditation and in our lives—that we are less controlled by the forces of denial or addiction, two forces that drive much of life. In the meditative process, we are more willing to see whatever is there, to be with it but not be caught by it. We learn to let go.

In some Asian countries, there is a very effective trap for catching monkeys. Trappers make a slot in the bottom of a coconut, just big enough for the monkey to slide its hand in but not big enough for the hand to be withdrawn when it’s clenched. Then they put something sweet in the coconut, attach it to a tree, and wait for the monkey to come along. When the monkey slides its hand in and grabs the food, it gets caught. What keeps the monkey trapped? It is only the force of desire and attachment. All the monkey has to do is let go of the sweet, open its hand, slip out, and go free—but only a rare monkey will do that. Similarly, the twentieth-century Japanese Zen teacher Kosho Uchiyama speaks of “opening the hand of thought.”

Another quality that develops in meditation is a sense of humor about our minds, our lives, and the human predicament. If you do not have a sense of humor now, meditate for a while and it will come, because it’s difficult to watch the mind steadily and systematically without learning to smile.

Some years ago I was on retreat with the Burmese meditation master Sayadaw U Pandita. He is a strict teacher, and everyone on the retreat was being very quiet, moving slowly, and trying to be impeccably mindful. It was an intense time of training. At mealtimes, we would all enter the dining room silently and begin taking food, mindful of each movement.

One day, the person on line in front of me at the serving table lifted up the cover on a pot of food. As he put it down on the table, it suddenly dropped to the floor, making a huge clanging noise. The very first thought that went through my mind was, “It wasn’t me!” Now where did that thought come from? With awareness, we can only smile at these uninvited guests in the mind.

Through the practice of meditation, we begin to see the full range of the mind’s activities, old unskillful patterns as well as wholesome thoughts and feelings. We learn to be with the whole passing show. As we become more accepting, a certain lightness develops about it all. And the lighter and more accepting we become with ourselves, the lighter and more accepting we are with others. We’re not so prone to judge the minds of others once
we have carefully seen our own. The poet W. H. Auden says it well: “Love
your crooked neighbor with all your crooked heart.” Spacious acceptance
doesn’t mean that we act on everything equally. Awareness gives us the op-
tion of choosing wisely: we can choose which patterns should be developed *and*
cultivated and which should be abandoned.

Just as the focused lens of a microscope enables us to see hidden levels
of reality, so too a concentrated mind opens us to deeper levels of experi-
ence and more subtle movements of thought and emotion. Without this
power of concentration, we stay on the surface of things. If we are commit-
ted to deepening our understanding, we need to practice mindfulness and
gradually strengthen concentration. One of the gifts of the teachings is the
reminder that we can do this—each and every one of us.

**Practicing in Daily Life**

In our busy lives in this complex and often confusing world, what practical
steps can we take to train our minds?

The first step is to establish a regular, daily meditation practice. This
takes discipline. It’s not always easy to set aside time each day for medita-
tion; so many other things call to us. But as with any training, if we practice
regularly, we begin to enjoy the fruits. Of course, not every sitting will be
concentrated. Sometimes we’ll be feeling bored or restless. These are the
inevitable ups and downs of practice. It’s the commitment and regularity of
practice that is important, not how any one sitting feels. Pablo Casals, the
world-renowned cellist, still practiced three hours a day when he was
ninety-three. When asked why he still practiced at that age, he said, “I’m
beginning to see some improvement.”

The training in meditation will only happen through our own effort.
No one can do it for us. There are many techniques and traditions, and we
can each find the one most suitable for us. But regularity of practice is what
effects a transformation. If we do it, it begins to happen; if we don’t do it,
we continue acting out the various patterns of our conditioning.

The next step is to train ourselves in staying mindful and aware of our
bodies throughout the day. As we go through our daily activities, we fre-
quently get lost in thoughts of the past and future, not staying grounded in
the awareness of our bodies.

A simple reminder that we’re lost in thought is the very common feeling
of rushing. Rushing is a feeling of toppling forward. Our minds run
ahead of us, focusing on where we want to go instead of settling into our
bodies where we are.

Rushing does not particularly have to do with how fast you are going.
You can feel rushed while moving slowly, and you can be moving quickly
and still be settled in your body. Learn to pay attention to this feeling of
rushing. If you can, notice what thought or emotion has captured your at-
tention. Then, just for a moment, stop and settle back into your body: feel
your foot on the ground, feel the next step.

The Buddha made a very powerful statement about this practice:
“Mindfulness of the body leads to nirvana.” This is not a superficial prac-
tice. Mindfulness of the body keeps us present—and therefore, we know
what’s going on. The practice is difficult to remember but not difficult to
do. It’s all in the training: sitting regularly and being mindful of the body
during the day.

To develop deeper concentration and mindfulness, to be more present
in our bodies, and to have a skillful relationship with thoughts and emo-
tions, we need not only daily training, but also time for retreat. It’s very
helpful, at times, to disengage from the busyness of our lives for intensive
mindfulness practice. Retreat time is not a luxury. If we are genuinely and
deeply committed to awakening, to freedom—to whatever words express
the highest value we hold—a retreat is an essential part of the path.

We need to create a rhythm in our lives, establishing a balance between
times when we are engaged, active, and relating in the world, and times
when we turn inward. As the great Sufi poet Rumi noted, “A little while
alone in your room will prove more valuable than anything else that could
ever be given you.”

At first this “going inside” could be for a day, a weekend, or a week. At
the Insight Meditation Society in Barre, Massachusetts, we offer a three-
month retreat every year, and at the adjacent Forest Refuge, people have
come for as long as a year. We can do whatever feels appropriate and pos-
tible to find balanced rhythm between our lives in the world and the inner
silence of a retreat. In this way we develop concentration and mindfulness
on deeper and deeper levels, which then makes it possible to be in the world
in a more loving and compassionate way.
Mindfulness Meditation Instructions

BOB STAHL and ELISHA GOlDESTEIN

Health professionals Bob Stahl and Elisha Goldstein lucidly present a range of mindfulness practices beginning with the body, proceeding through breath and sensations, ending with choiceless awareness of the present moment. These practices are the heart of the Mindfulness-Based Stress Reduction program.

Simply put, mindfulness is the practice of cultivating nonjudgmental awareness in day-to-day life. It involves simple profound practices that can decrease suffering and bring you greater balance and peace. These tools help you maximize your life and experience, even in the midst of stress, pain, and illness. They can also help with the stresses associated with living with illness and medical conditions such as AIDS, arthritis, asthma, cancer, chronic pain, fibromyalgia, gastrointestinal disorders, heart disease, high blood pressure, and migraines.

Mindfulness of Body

It’s quite obvious you need a body to live and that you won’t get another one in this lifetime. You may perhaps have some parts surgically removed or replaced, but there’s no such thing as a total body transplant. The body is the vehicle you live within through the journey of life, and you must care for it to promote its health, wellness, and longevity. Bringing mindfulness to the body can help you learn what your body does and doesn’t need in order to thrive. It can also reveal a great deal about your world and your life. Through mindfulness of the body, you can begin to understand how stress and anxiety affect you and also learn how to live better, even with physical pain and illness. You can open the door to greater mindfulness of the body using a time-honored practice: the body scan.

The body scan meditation is a deep investigation into the moment-to-moment experiences of the body. While you may have heard about meditations that create “out-of-body” experiences, the object of the body scan is to have an “in-the-body” experience. If you’re like most people, you probably spend a lot of time living outside your body while thinking of the future or the past, imagining all sorts of scenarios, contemplating abstractions, or being otherwise preoccupied with your thoughts.

In the body scan, you methodically bring attention to the body, beginning with the left foot and ending at the top of the head. We suggest lying down while doing the body scan, but if you find yourself sleepy or would rather just sit or stand, you are welcome to do that too. A full body scan can take up to forty-five minutes. It’s helpful if you can get some guidance from an instructor or a CD that guides your attention progressively through the parts of your body. (For a list of helpful audio programs on meditation, see page 265.)

As you perform a body scan, you may notice a wide range of physical feelings: itches, aches, tingles, pain, lightness, heaviness, warmth, cold, and more, as well as neutrality. Some of these sensations may be accompanied by thoughts or emotions. As you practice the body scan, this multitude of sensations and internal experiences can be boiled down to three basic feelings: pleasant, unpleasant, and neutral. Since the body is a dynamic organism that’s always changing, no two body scans will ever be completely alike. The body has its own wisdom, and if you listen, it can communicate where physical tension, thoughts, and emotions lie within it.

When you practice the body scan, first simply become aware of physical sensations by exploring their felt sense. This is distinct from thinking about your body. There is no need to analyze or manipulate your body
in any way; just feel and acknowledge whatever sensations are present. Through this deep investigation, the body may begin to reveal a whole range of feelings. In this way, the body scan can bring you in touch with many aspects of your life.

**Practicing the Body Scan**

Take a few moments to be still. Congratulate yourself for taking this time for meditation practice.

Do a mindful check-in, feeling into your body and mind and simply allowing any waves of thoughts, emotions, and physical sensations to just be.

Perhaps it’s been a busy day and this is the first time you’re stopping. As you begin to enter the world of being rather than doing, you may notice the trajectory of the feelings you’ve been carrying within you.

There is no need to judge, analyze, or figure things out. Just allow yourself to be in the moment with all that’s there.

When you feel ready, gently shift the focus to the breath.

Now become aware of breathing.

Breathe normally and naturally and focus on the tip of the nose or the abdomen. Breathing in and knowing you’re breathing in, and breathing out and knowing you’re breathing out.

At times the mind may wander away from awareness of breathing. When you recognize this, acknowledge wherever you went and then come back to the breath, breathing in and out with awareness.

And now gently withdraw awareness from mindful breathing as you shift to the body scan. As you go through the body, you may come across areas that are tight or tense. If you can allow them to soften, let that happen; if you can’t, just let the sensations be, letting them ripple in whatever direction they need to go. This applies not only to physical sensations but also to any emotions. As you go through the body be mindful of any physical sensations and any thoughts or emotions that may arise from sensations.

Bring awareness to the bottom of the left foot where you feel the contact of your foot on the floor. It could be the back of the heel or the bottom of the left foot. Sensing into what is being felt. Feeling the heel, ball, and sole of the left foot.

Feel into your toes and the top of the left foot and back into the Achilles tendon and up into the left ankle.

Now move your awareness up to the lower left leg, feeling into the calf and shin and their connection to the left knee. Being present.

Let awareness now rise up to the thigh, sensing into the upper leg and its connection above into the left hip.

And now withdraw awareness from the left hip down to the left foot, shifting it into the right foot and bringing awareness to where you feel the contact of your right foot on the floor. It could be the back of the heel or the bottom of the right foot. Sensing into what is being felt. Feeling the heel, ball, and sole of the right foot.

Feel into the toes and the top of the right foot and back into the Achilles tendon and up into the right ankle.

Now move your awareness up to the lower right leg, feeling into the calf and shin and their connection to the right knee. Being present.

Let awareness now rise up to the thigh, sensing into the upper leg and its connection above into the right hip.

Gently withdraw your attention from the right hip and move into the pelvic region. Sense into the systems of elimination, sexuality, and reproduction. Feeling into the genitals and the anal region. Being mindful to any sensations, thought or emotions.

And now lift the awareness to the abdomen and into the belly, the home of digestion and assimilation, feeling into your guts with awareness and letting be.

Now withdraw your awareness from the belly and move to the tailbone and begin to sense into the lower, middle, and upper parts of the back. Feeling sensations. Allow any tightness to soften and let be what’s not softening.

Let the awareness now shift into the chest, into the heart and lungs. Being present. Feeling into the rib cage and sternum and then into the breasts.

Now gently withdraw attention from the chest and shift the awareness into the fingertips of the left hand. Feeling into the fingers and palm, and then the back of the hand and up into the left wrist.

Proceed up into the forearm, elbow, and upper left arm, feeling sensations.
Now shift awareness to the fingertips of the right hand. Feeling into the fingers and palm, and the back of the hand and up into the right wrist.

Proceed up into the forearm, elbow, and upper right arm, feeling sensations.

Let the awareness move into both shoulders and armpits and then up into the neck and throat. Being present to any sensations, thought or emotions.

Now bring your awareness into the jaw and then gently into the teeth, tongue, mouth, and lips. Allowing any resonating sensations to go wherever they need to go and letting be.

Feel into the cheeks, the sinus passages that go deep into the head, the eyes, and the muscles around the eyes. Feel into the forehead and the temples, being present.

Let the awareness move into the top and back of the head. Feeling into the ears and then inside of the head and into the brain. Being present.

Now expand the field of awareness to the entire body from head to toe to fingertips. Connect from the head through the neck to the shoulders, arms, hands, chest, back, belly, hips, pelvic region, legs, and feet.

Feel the body as a whole organism, with its various physical sensations, thoughts, and emotions. Being present.

Breathing in, feel the whole body rising and expanding on an inhalation and falling and contracting on an exhalation. Feel the body as a whole organism. Being present.

As you come to the end of the body scan, congratulate yourself for taking this time to be present.

**Sitting Meditation**

Outwardly, the formal practice of sitting mindfulness meditation is much like the popular conception of meditation: sitting in silent contemplation. You'll soon discover that the practice is quite rich and profound, as you turn your awareness to the ever-changing nature of your experience. By focusing on how the breath, sensations, sounds, thoughts, and emotions are continually forming and then falling away, it allows a glimpse of the transitory nature of all things—and the potential freedom that comes with this awareness.

As you simply sit with and acknowledge whatever is with beginner’s mind, without evaluation or judgment and without striving for a particular outcome, you’ll develop greater equanimity, a deeper capacity for letting things be, and, with time and practice, greater wisdom and compassion.

This practice begins with a focus on posture and the breath and expands outward to sensations, sounds, thoughts and emotions, and finally choiceless awareness.

**Time, Place, and Posture**

It can be very easy to get caught up in daily routines and not follow through on your intention to practice. Schedule your formal practice in whatever calendar you use for your daily life and try to observe this special time with the same discipline as you would a doctor’s appointment. Try to practice at least five days a week. Try to choose an amount of time you are going to practice for and stick to that. Forty-five minutes is a good amount of time for a session, but if you have less time or would like to start out slowly, you may try a half hour or fifteen minutes. You may use an alarm or stick of incense to measure the time. The amount of time you practice in each session may increase as you become more familiar with the practice. Instructions from a mindfulness teacher or CD will help guide you in starting your practice.

Find a relaxing environment without distractions, such as a phone, television, or the noise of other people. It’s advisable to sit up with the spine as straight as possible. You may sit on the floor, on a meditation cushion, or on a chair. You can also sit on a folded towel or blanket or cushions from your couch.

Most people meditate with their eyes closed, but if you prefer or are more comfortable doing so, you can keep them partially open. If you choose to keep them open, please remember the focus is on whatever meditation you are practicing.

You can fold your hands on your lap or place them on your thighs.

Position yourself so you can remain alert yet comfortable. Just as the strings on an instrument can be wound too tight or too loose, a meditator can sit too rigidly, causing a lot of discomfort. This may result in not sitting for very long. Conversely, a meditator whose posture is too relaxed may end up falling asleep.
Mindfulness of Breathing

Sitting meditation often begins with mindfulness of breathing. By being aware of the shifting quality of the breath as you inhale and exhale, you can learn a great deal about the nature of impermanence and life. Much like the ebb and flow of the ocean's waves, the breath is constantly in a state of change, coming in and going out. This is a powerful teacher that underscores how everything changes in life and that it's possible to go with the flow rather than fighting it. It also brings a recognition that the stronger the resistance, the greater the suffering. It's natural to go after what you want and try to hold on to it and, conversely, to push away what you don't want. However, this self-limiting definition often fuels a push-and-pull relationship between what you want and don't want and can make you feel restless and ill at ease; in short, it leads to suffering. For example, if you try to resist the process of breathing, you'll find that discomfort arises almost instantly and can rapidly develop into suffering! Simply being with your breath as you practice mindfulness meditation allows you to experience firsthand the ever-changing quality of your experience and helps you open up to going with the flow of life with less grasping and aversion and with a greater sense of space and freedom.

Mindfulness of Sensations

After spending some time with the breath, you'll expand your awareness to the field of physical sensations. You simply open awareness to whatever sensations are predominant or distinct in each moment. Noticing the coming and going of sensations throughout the body in this way makes this practice much more fluid and reflective of the direct experience of the present moment. The human body is a dynamic organism with sensory receptors that are essentially in a perpetual state of fluctuation, experiencing a wide array of sensations (itching, tingling, warmth, coolness, dryness, moisture, heaviness, lightness, pain, and so on) that may be either pleasant, unpleasant, or neutral. If you aren't feeling any distinct sensations, you can bring awareness to any point of contact, such as your body touching the chair, your feet on the floor, or your hands making contact with your lap—wherever you feel contact. In mindfulness meditation, there's nothing to analyze or figure out about these sensations. Simply maintain attention on the field of sensory experience, noticing as each sensation arises and then recedes. Directly focusing on the transitory quality of physical sensations will deepen your understanding of the nature of change.

Mindfulness of Hearing

Next, you'll extend your mindful awareness to hearing. By listening to various sounds rise and fall, you come into direct contact with impermanence in yet another way. Mindfulness of sounds can be very useful. As with mindfulness of the breath, most of us can engage in this practice almost anytime and anywhere, since so many of us live in noisy, busy environments where sounds are almost always coming and going. If a particular sound is persistent and possibly even annoying, such as a car alarm, loud music, kids screaming, traffic, or airplanes, simply bring attention to the sound itself without evaluation. On a more elemental level, the mind simply hears sound waves. Auditory phenomena are always present; you cannot escape them. Even if you isolated yourself in a deep cave or a soundproof room, you'd still hear the internal sounds of your pulse, your heartbeat, or ringing in your ears. Whatever your auditory environment, try not to judge the sounds as good or bad. Simply notice how they arise and recede as impermanent events.

As you turn your focus to hearing, you can begin to transform any irritation with sounds. There is no need to like or dislike them; they're just sounds. You may hear sounds outside or indoors, or as your concentration deepens, you may be aware of sounds within the body. All of these are just sounds, appearing and disappearing. There's no need to analyze them or figure them out; simply maintain bare attention on the ever-changing field of auditory experience.

Mindfulness of Thoughts and Emotions

After meditating on sounds, you'll shift to mental events (thoughts and emotions) as the object of meditation, directing attention to the mind and the thought process itself. As well as seeing and experiencing the content of your thoughts and emotions, sometimes known as the "ten thousand joys and sorrows," you'll begin to see that thoughts and emotions are always changing, just like the breath, sensations, and sounds. Rather than getting
involved in the contents of the mind, you can become more interested in just experiencing the process. As you become aware of the stories you spin and the traps you create, you can begin to disengage from them.

Mindfulness cultivates the ability to observe and experience thoughts and emotions as they arise, develop, and recede. There’s no need to analyze them or figure them out; simply view them as mental formations that come and go. It’s like lying in a meadow watching the clouds float through the sky or like sitting in a movie theater watching the images and sounds changing on the screen. In other words, the practice is simply to experience and be mindful of the changing nature of mental formations that rise and fall away moment to moment.

Here’s a helpful metaphor: Many different types of storms arise in the ever-changing atmosphere of our planet—occasionally very powerful storms, such as Category 5 hurricanes. Yet even with the strongest hurricane, the sky doesn’t feel the effect of the storms. The virtue of the sky is that it has plenty of space to let the storm run its course. Within this vast space, the storm eventually dissipates. In a sense, mindfulness helps you develop an internal awareness as big as the sky. By practicing mindfulness, you can begin to watch the storms of fear, anxiety, and other emotions and give them the space they need to transform and diminish in intensity. By observing and experiencing thoughts and emotions and allowing them to go wherever they need to go, you can come to see them as transient mental phenomena and understand that you are not your thoughts. Your thoughts are not facts, nor are they a complete definition of who you are. Freeing yourself from your own self-limiting constructions will bring deeper levels of freedom and peace.

Choiceless Awareness

The last and most expansive aspect of this practice of sitting mindfulness meditation is choiceless awareness, or present-moment awareness. In this practice, the present moment becomes the primary object of attention. Choiceless awareness invites you to become mindful of whatever is arising in the unfolding of each moment in the endless succession of present moments—whatever arises in the body and mind, whether sensations, sounds, or other sensory phenomena, or mental events like thoughts and emotions. Although outwardly you may be very still, your internal experience may be very different as you sit back and watch the ever-shifting tides of physical and mental experience.

Together, your body and mind are a single dynamic organism that’s constantly in a state of change, with interactions between stimuli from thoughts, emotions, physical sensations, sounds, sights, smells, and tastes. As you practice choiceless awareness, simply observe what’s predominant or compelling in the mind and body and be present to it. If nothing is especially prevalent and you’re unsure of where to place your attention, you can always go back to the breath, sensations, sounds, or thoughts and emotions as a way to anchor into the here and now.

This practice is analogous to sitting by the edge of a river, just watching whatever goes downstream, and indeed, it is one of the most fluid of meditation practices, as it reflects the unfolding of your direct experience moment by moment. Sometimes there are sounds, sometimes sensations, sometimes thoughts and emotions. Just sit and witness the sea of change in your mind and body. Even if you’re experiencing storms of anxiety, pain, sadness, anger, or confusion, know that by giving them space, they will gradually diminish.
Mindfulness FAQ

JEFF BRANTLEY

Isn’t meditation something religious? Why is meditation taught in hospitals?

In answering questions that he fields on a daily basis, Jeff Brantley, MD, of Duke Integrative Medicine, gives us insight into how mindfulness acts as “self-regulatory practice” that promotes deep relaxation and circumvents harmful reactions to stress.

Many people I encounter in the hospital setting want to know exactly what meditation means. I tell them that meditation refers to intentionally paying attention to a particular object for a particular purpose. Spiritual practitioners and members of many faith traditions have developed meditation practices over countless years of human experience. There are literally thousands of ways to practice meditation. As it has been developed in diverse faith traditions, the purpose of all meditation practice is to awaken us. Meditation is intended to bring about transformation and change through understanding, compassion, and clarity of seeing.

Meditation practices may generally be grouped into two basic categories based on the emphasis placed on where one’s attention is directed during practice. First, there are “concentration” practices. In these, the practitioner focuses attention (concentrates) on a narrow field, usually a single object. For example, in the service of spiritual practice, people may repeat a meaningful phrase or prayer over and over, or they may fix their attention on an object or a sacred figure. In these concentration practices, when the attention wanders or is drawn away from the object of attention, practitioners gently return their attention to the object. The object is selected for reasons specific to each person and to his or her particular faith tradition. Done for health purposes, concentration practices may select a more neutral object such as the sensation of the breath or the sensation of the body as it moves.

The second general category of meditation practice includes all forms that emphasize awareness, or “mindfulness.” Such activities seek to develop and nourish present-moment awareness. They encourage paying attention so as to be more aware in the present moment of all that is here and of the constantly changing nature of what is here. These mindfulness practices are often described as “being, not doing,” because mindfulness itself is the innate quality of human beings, which is bare awareness. Mindfulness can be defined as careful, openhearted, choiceless, present-moment awareness.

Mindfulness benefits from the ability to concentrate attention but is not the same as concentration. It is a quality that human beings already have, but they have usually not been advised that they have it, that it is valuable, or that it can be cultivated. Mindfulness is the awareness that is not thinking but is aware of thinking, as well as of each of the other ways we experience the sensory world; that is, seeing, hearing, tasting, smelling, and feeling through the body. Mindfulness is nonjudgmental and openhearted (friendly and inviting of whatever arises in awareness). It is cultivated by paying attention purposely, deeply, and without judgment to whatever arises in the present moment, either inside or outside of us. By intentionally practicing mindfulness, deliberately paying more careful moment-to-moment attention, individuals can live more fully and less on “automatic pilot,” thus being more present in their own lives. Mindfulness meditation practices seek to develop this quality of clear, present-moment awareness in a systematic way so that the practitioner may enjoy these benefits. Being more aware in each moment of life has benefits both to a person doing a specific spiritual practice and to the same person in everyday life.

Why is meditation now offered in health care settings and for stress reduction?

The use of meditation in health care settings and for stress reduction is related to discoveries about the mind-body connection in health and illness that have been made in Western medicine over the last twenty-five to thirty years. In that time, researchers have discovered that the mind and body are
intimately connected. It is now known that thoughts, beliefs, emotions, and stress all have a great impact on health and illness. Meditation is one of a variety of so-called self-regulatory practices people can learn to do for themselves to promote their own health and well-being. Research has shown that individuals who learn and practice these skills are likely to have better health outcomes than those who do not. In particular, research has shown that the ability to concentrate one’s attention can promote deep relaxation in the body and that the ability to be more mindful in each situation can help break one’s destructive habitual reactions to stress.

Why is daily meditation practice important?

Research has shown that meditation is similar to other lifestyle changes in that it is only effective if you do it. Exercise, dietary changes, or meditation—any lifestyle change requires consistent practice to gain results. In early studies of meditation, Harvard cardiologist Herbert Benson demonstrated that practicing meditation for twenty minutes, twice a day, was sufficient to bring about significant reductions in blood pressure in many people. The exact number of minutes of daily practice necessary to bring benefits for large populations is not well understood, and in truth, it probably varies. Generally, however, we can say that regular daily meditation practice of at least thirty minutes or more is likely to bring benefits to the person who does it.

Do the meditation practices taught in health care settings have anything to do with Eastern religions or cults?

The use of meditation practices here in the West, largely for health benefits and promoted and investigated by the emerging field of mind-body medicine, is only about twenty-five to thirty years old. However, many of the meditation methods now taught in the West for health purposes owe some (or considerable) debt to the instructions and experience detailed by meditation teachers of more ancient traditions.

There is already an enormous body of experience with meditation and yogic practice in different traditions worldwide. The challenge for those working in the emerging field of mind-body medicine in the West has been to identify what is useful and relevant about meditation and yogic practices in those more ancient and diverse contexts and to translate it into something practical for those in the contemporary Western health care culture who wish to utilize that information, be they consumers or providers. Those who have pioneered meditation for health purposes in Western medicine in the past three decades have made deliberate efforts to make the meditation practices they teach nonsectarian and available to people of any and all faith traditions.

I can’t meditate. Instead of quieting my mind, all I do is think.

As we practice mindfulness or present-moment awareness, we can expect to experience difficulties. For example, with growing awareness in each moment in each situation of our lives, we begin to be aware of the unpleasant and painful as well as the pleasant. We may become more aware of “neutral” experiences as well, seeing even in these some unpleasant or pleasant aspect that was previously unnoticed. This growing awareness of the unpleasant can be upsetting to the beginning meditator. They can mistakenly believe they are “not doing it right” or are “not cut out to meditate.” At this stage, it is vital that the meditator realizes that growing our awareness of any aspect of life is actually progress. Those in a Mindfulness-Based Stress Reduction program might ask, “How does growing awareness of pain and the unpleasant help reduce my stress?” The answer is that to have a chance to reduce our stress and to heal ourselves from the toll stress takes in our lives we must find a way to see clearly all that is here. We must remain aware and present in order to give ourselves the best chance to make the most skillful response to whatever situation life offers us.

So if through the practice of present-moment awareness, we grow in awareness and begin to experience the unpleasant (as well as the pleasant) more deeply, more intensely, this is actually waking up to the reality of our lives. Yet it can be difficult to remain present, to “keep our seat,” to continue meditating and continue our practice of present-moment awareness. To support us in remaining present in these difficult moments, it is useful to call upon some other qualities we have within us. These qualities are kindness, compassion, and equanimity. It is important to realize that we are not imagining these qualities or inventing them. Rather, they are already within us, important elements of our deepest nature as human beings. Unfortunately, many people do not realize the depth and power of these qualities within themselves, nor do they know how (or that it is even possible) to bring them forward and cultivate these qualities in their own lives.
As we gain some increasing awareness of our own pain, it is important to notice our reaction. Too often people meet pain in themselves with criticism, meanness, or a sense of failure. They fall into patterns of stressful and destructive self-blame that just add to the misery they already feel. Practicing mindfulness, we can be aware of our own pain, whatever its nature (physical, emotional, and so on). And we can recognize our patterns and habits of judging and blaming ourselves for our own pain. Recognizing these patterns, we can respond with kindness and compassion instead of reacting with blame and meanness. Our challenge thus becomes, “Can we meet and hold our own pain with the same compassion and kindness as we would meet and hold the pain of a loved one?” This holding of ourselves in kindness and compassion is not easy! Most of our lives we have taken a very different attitude toward ourselves and our own pain. For that reason, we have to practice kindness and compassion openly and often toward ourselves. Our growing mindfulness can be a great ally in changing our habits of meanness toward ourselves to habits of kindness and compassion. As we learn to be aware of our own pain and our habitual critical and judgmental reactions about that pain, we have a choice in each moment of taking a different path, the path of compassion and kindness.

_How do I bring mindfulness into my daily life?

Have you ever started eating an ice cream cone, taken a lick or two, then noticed all you had was a sticky napkin in your hand? Or been going somewhere and arrived at your destination only to realize you hadn’t noticed anything or anyone along the way? Of course you have; we all have. These are common examples of mindlessness, or “going on automatic pilot.”

We all fall into habits of inattention that result in our not being present for our lives. The consequences of this inattention can be quite costly. They can result in our missing some really good things and also in our ignoring really important information and messages about our lives, our relationships, and even our own health.

Our reactions to the stressful events of our lives can become so habituated that they occur essentially out of our awareness until, because of physical or emotional or psychological dysfunction, we cannot ignore them any longer. These reactions can include tensing the body; experiencing painful emotional states, even panic and depression; and being prisoners of habits of thinking and self-talk, including obsessional list making and intense, even toxic self-criticism.

An important antidote to this tendency to “tune out,” to go on automatic pilot, is to practice mindfulness.

All we have to do is establish attention in the present moment and allow ourselves to rest in the awareness of what is here. To pay attention without trying to change anything, to allow ourselves to become more deeply and completely aware of what it is we are sensing, and to rest in this quality of being in each moment as our life unfolds.

And to the extent we can practice “being” and become more present and more aware of our life and in our life, what we do about all of it will become more informed, more responsive, and less driven by the habits of reaction and inattention.

Make the effort! Whenever you think of it in your day or night, remember that you can be more mindful. See for yourself what it might be like to pay more careful attention and allow yourself to experience directly what is here, especially what is here in your own body, heart, and mind. Change the way you start a new activity. For example, begin a meeting with two minutes of silence and attention on the breath, or take a few mindful breaths before entering a patient’s room, or focus on the breath before starting your exercise routine. In the middle of an ongoing situation or process, bring attention to the breath or to the sensations that arise while you are washing dishes, eating a meal, walking the dog, doing a job, and so forth. Or when you are just waiting, in between the things on your schedule, gently bring attention to the breath. If you’re at a red light, in a line at the bus stop or grocery store, or waiting for someone to arrive, notice the sounds, sensations, sights, or thoughts that arise.

In these situations, use the sensation of the breath as your anchor for awareness in the present moment. Establish mindfulness on the narrow focus of just-the-breath sensation. Allow yourself to feel the breath as it goes in and out and the pause between in and out. Do not try to control the breath. Simply let it come and go. Bring as much complete and continuous attention as you can to the direct sensation of the breath.

Anytime you feel lost or confused or frustrated, gently narrow the focus and return awareness to the sensation of the breath. You may have to do this frequently. That’s okay. Or you may wish to concentrate mainly on the breath, especially if you are new to meditation. That, too, is okay.
The important thing is the quality of awareness you bring to the moment. One moment of mindfulness, one breath when we are truly present, can be quite profound. See for yourself!

Practice for a few breaths at a time, even for a few mindful moments. And if you wish, you can make this a more formal meditation practice by setting aside some time (from a few minutes to an hour or more, as you wish) free from other activity or distraction to devote full attention to simply being present, being mindful of what is present. Over time you may find that the formal practice supports and strengthens your ability to practice mindfulness informally throughout the day in different situations.

*My mind is all over the place, and it’s just too hard to stay here.*

Expect your mind to wander, even if you practice for just a few breaths or a few minutes. Practice kindness and patience with yourself when this happens, and gently return awareness to the breath sensation.

Notice any tendency to be hard on yourself or to feel frustrated or like a failure. See this kind of judgment as just another kind of thinking, and gently return awareness to the breath.

Expect to feel some relaxation, even in short periods of practice. This relaxed feeling is an ally. It helps us to be more present, more mindful. Relaxation alone is not what mindfulness is about, however. It is about being present with awareness.

Expect to become more mindful with practice. Expect to notice more things, including more painful things. This is actually progress! You are not doing anything wrong! Quite the opposite, you are increasing mindfulness for all things. When you begin to notice the painful things, see if you can hold yourself with compassion and kindness, and continue to bring open-hearted awareness to the experience that is unfolding. By practicing staying present, not turning away from what is painful in our lives, we can learn to remain open to all possibilities in each situation. This increases our chances for healing and transformation. It also gives us a way to be with those situations when there is nothing more we can do to get away from the pain, when there is no alternative but to be with it. We can discover that the quality of mindfulness is not destroyed or damaged by contact with pain. It can know and relax with pain as completely and fully as it knows and relaxes with any other experience.

Finally, be careful not to try too hard when practicing mindfulness. Don’t try to make anything happen or to achieve any special states or special effects. Simply relax and pay as much attention as you can to just what is here now. Whatever form that takes. Allow yourself to experience life directly as it unfolds, paying careful and openhearted attention.

3. As quoted by Robert Abelson in personal conversation.

This Is Your Brain on Mindfulness

MATTHIEU RICARD

People say that meditation is good for your brain, but can it be proved? A longtime monk, meditator, philosopher, and sometime scientist, Matthieu Ricard reports on studies that show the benefits of meditation for the brain. Since he himself was a laboratory subject in one of these major scientific studies, he has a unique vantage point from which to describe the historic encounter between science and meditation.

Twenty years ago, almost all neuroscientists believed that the adult brain had very little margin for change and could not generate new neurons. There could only be some limited reinforcement or deactivation of synaptic connections, combined with a slow decline of the brain through aging. It was thought that major changes would wreak havoc in the unbelievably complex brain functions that had been gradually built up in early life. Today, ideas have changed considerably, and neuroscientists are talking more and more about neuroplasticity—the concept that the brain is continually evolving in response to our experience through the establishment of new neuronal connections, the strengthening of existing ones, or the creation of new neurons.

In a seminal research project, Fred Gage and his colleagues at the Salk Institute in California studied the response of mice to an “enriched
environment." The rodents were transferred from a bland box to a large cage with toys, exercise wheels, tunnels to explore, and plenty of playmates. The results were striking: in just forty-five days, the number of neurons in the hippocampus—a brain structure associated with processing novel experiences and dispatching them for storage in other areas of the brain—grew by 15 percent, even in older mice.¹

Does this apply to human beings? In Sweden, Peter Ericksson was able to study the formation of new neurons in cancer patients. When those elderly patients died, their brains were autopsied and it was found that, just as with the rodents, new neurons had been formed in the hippocampus.²

It has become clear that neurogenesis in the brain is possible throughout life. As Daniel Goleman writes in Destructive Emotions, "Musical training, where a musician practices an instrument every day for years, offers an apt model for neuroplasticity. MRI studies find that in a violinist, for example, the areas of the brain that control finger movements in the hand that does the fingering grow in size. Those who start their training earlier in life and practice longer show bigger changes in the brain."³

Studies of chess players and Olympic athletes have also found profound changes in the cognitive capacities involved in their pursuits. The question we can now ask is, "Can a voluntary inner enrichment, such as the long-term practice of meditation, even when carried out in the neutral environment of a hermitage, induce important and lasting changes in the workings of the brain?"

That is precisely what Richie Davidson and his team set out to study in the W.M. Keck Laboratory for Functional Brain Imaging and Behavior at the University of Wisconsin–Madison (now known as the Waisman Laboratory for Brain Imaging and Behavior).

**An Extraordinary Encounter**

It all began half a world away, in the foothills of the Himalayas in India, in a small village where the Dalai Lama located his government-in-exile following the Chinese invasion of Tibet. In the fall of 2000, a small group of some of the leading neuroscientists and psychologists of our time—Francisco Varela, Paul Ekman, Richard Davidson, and others—gathered for five days of dialogue with the Dalai Lama. This was the tenth session in a series of memorable encounters between the Dalai Lama and eminent scientists that had been organized since 1985 by the Mind and Life Institute at the initiative of the late Francisco Varela, a groundbreaking researcher in the cognitive sciences, and former businessman Adam Engle.

The topic was "destructive emotions," and I had the daunting task of presenting the Buddhist view in the presence of the Dalai Lama, a test that reminded me of sitting for school exams. Following that remarkable meeting, which has been endearingly recounted by Daniel Goleman in Destructive Emotions, several research programs were launched to study individuals who had devoted themselves for twenty years or more to the systematic development of compassion, altruism, and inner peace.

Four years later, in November 2004, the prestigious scientific journal *Proceedings of the National Academy of Sciences* published the first of an ongoing series of papers about what can arguably be described as the first serious study of the impact of long-term meditation on the brain.⁴ Meditators have traditionally been described in terms of the first-person experience, but they now began to be translated into a scientific language.

To date, twelve experienced meditators in the Tibetan Buddhist tradition (eight Asians and four Europeans, comprising both monks and lay practitioners) have been examined by Richard Davidson and Antoine Lutz, a student of Francisco Varela's who joined the Madison laboratory. These accomplished practitioners, who have completed an estimated ten thousand to forty thousand hours of meditation over fifteen to forty years, were compared, as a control, with twelve age-matched volunteers who were given meditation instructions and practiced for a week.

**Meditators in the Lab**

I happened to be the first "guinea pig." A protocol was developed whereby the meditator alternated between neutral states of mind and specific states of meditation. Among the various states that were initially tested, four were chosen as the objects of further research: the meditations on altruistic love and compassion, on focused attention, on open presence, and on the visualization of mental images.

There are methods in Buddhist practice devoted to cultivating loving-kindness and compassion. Here, the meditators try to generate an all-pervading sense of benevolence, a state in which love and compassion permeate the entire mind. They let pure love and compassion—intense,
deep, and without any limit or exclusion—be the only object of their thoughts. Although not immediately focusing on particular people, altruistic love and compassion include a total readiness and unconditional availability to benefit others.

Focused attention, or concentration, requires focusing all one's attention upon one's object and calling one's mind back each time it wanders. Ideally, this one-pointed concentration should be clear, calm, and stable. It should avoid sinking into dullness or being carried away by mental agitation.

Open presence is a clear, open, vast, and alert state of mind that is free from mental constructs. It is not actively focused on anything, yet it is not distracted. The mind simply remains at ease, perfectly present in a state of pure awareness. When thoughts intrude, the meditator does not attempt to interfere with them but allows the thoughts to vanish naturally.

Visualization consists of reconstituting a complex mental image, such as the representation of a Buddhist deity, in the mind's eye. The meditator begins by visualizing as clearly as possible every detail of the face, the clothes, the posture, and so on, inspecting them one by one. Lastly, he visualizes the entire deity and stabilizes that visualization.

These various meditations are among the many spiritual exercises that a practicing Buddhist cultivates over the course of many years, during which they become ever more stable and clear.

In the lab, there are two main ways to test the meditators. Electroencephalograms (EEGs) allow changes in the brain's electrical activity to be recorded with a very accurate time resolution, while functional magnetic resonance imaging (fMRI) measures blood flow in various areas of the brain and provides an extremely precise localization of cerebral activity.

The meditator alternates thirty-second neural periods with ninety-second periods in which he generates one of the meditative states. The process is repeated many times for each mental state. In this instance, the instrument measuring the meditators was equipped with 256 sensors. The electrodes detected striking differences between novices and expert meditators. During meditation on compassion, most of the experienced meditators showed a dramatic increase in the high-frequency brain activity called gamma waves “of a sort that has never been reported before in the neuroscience literature,” says Davidson.

It was also found that movement of the waves through the brain was far better coordinated, or synchronized, than in the control group, whose members showed only a small increase in gamma wave activity while meditating. This seems to demonstrate that “the brain is capable of being trained and physically modified in ways few people can imagine” and that the meditators are able to regulate their cerebral activity deliberately. By comparison, most inexperienced subjects who are assigned a mental exercise—focusing on a single object or an occurrence, visualizing an image, and so on—are generally incapable of limiting their mental activity to that one task.

One of the most interesting findings is that the monks who had spent the most years meditating generated the highest levels of gamma waves. This led Davidson to speculate that “meditation not only changes the workings of the brain in the short term, but also quite possibly produces permanent changes.”

“We can't rule out the possibility that there was a preexisting difference in brain function between monks and novices,” he says, “but the fact that monks with the most hours of meditation showed the greatest brain changes gives us confidence that the changes are actually produced by mental training.” Further supporting this was the fact that the practitioners also had considerably higher gamma activity than the controls while resting in a neutral state, even before they started meditating. As science writer Sharon Begley comments, “That opens up the tantalizing possibility that the brain, like the rest of the body, can be altered intentionally. Just as aerobics sculpt the muscles, so mental training sculpts the gray matter in ways scientists are only beginning to fathom.”

The Startle Response

The startle response, one of the most primitive reflexes in the human body's repertoire of responses, involves a series of very rapid muscular spasms in reaction to a sudden noise or an unexpected and disturbing sight. In all people, the same five facial muscles contract instantaneously, notably around the eyes. The entire thing lasts a mere third of a second.

Like all reflexes, this one responds to activity in the brain stem, the most primitive part of that organ, and is usually not subject to voluntary control. As far as science is aware, no intentional act can alter the mechanism that controls it.
The intensity of the startle response is known to reflect the predominance of the negative emotions to which someone is subject—fear, anger, sadness, and disgust. The stronger a person’s flinch, the more he is inclined to experience negative emotions.

To test the first meditator’s startle reflex, Paul Ekman, a psychologist who has been a pioneer in the study of emotions, brought him to the Berkeley Psychophysiology Laboratory run by his longtime colleague Robert Levenson. The meditator’s body movements, pulse, perspiration, and skin temperature were measured. His facial expressions were filmed to capture his physiological reactions to a sudden noise. The experimenters opted for the maximal threshold of human tolerance—a very powerful detonation, equivalent to a gunshot going off beside the ear.

The subject was told that within a five-minute period he would hear a loud explosion. He was asked to try to neutralize the inevitable strong reaction to the extent of making it imperceptible, if possible. Some people are better than others at this exercise, but no one is able to suppress it entirely—far from it—even with the most intense effort to restrain the muscular spasms. Among the hundreds of subjects whom Ekman and Levenson had tested, none had ever managed it. Prior research had found that even elite police sharpshooters, who fire guns every day, cannot stop themselves from flinching. But the meditator was able to.

As Ekman explained, “When he tries to repress the startle, it almost disappears. We’ve never found anyone who can do that. Nor have any other researchers. This is a spectacular accomplishment. We don’t have any idea of the anatomy that would allow him to suppress the startle reflex.”

During these tests, the meditator had practiced two types of meditation: single-pointed concentration and open presence, both of which had been studied by fMRI in Madison. He found that the best effect was obtained with the open presence meditation. “In that state,” he said, “I was not actively trying to control the startle, but the detonation seemed weaker, as if I were hearing it from a distance.” Ekman described how, while some changes had been effected in the meditator’s physiology, not one muscle in his face had moved. As the subject explained, “In the distracted state, the explosion suddenly brings you back to the present moment and causes you to jump out of surprise. But while in open presence, you are resting in the present moment, and the bang simply occurs and causes only a little disturbance, like a bird crossing the sky.”

Although none of the meditator’s facial muscles had quivered when he was practicing open presence, his physiological parameters (pulse, perspiration, blood pressure) had risen in the way usually associated with the startle reflex. This tells us that the body reacted, registering all the effects of the detonation, but that the bang had no emotional impact on the mind. The meditator’s performance suggests remarkable emotional equanimity—precisely the same kind of equanimity that the ancient Buddhist texts describe as one of the fruits of meditative practice.

**What to Make of It All**

The research, writes Goleman,

seeks to map . . . the extent to which the brain can be trained to dwell in a constructive range: contentment instead of craving, calm rather than agitation, compassion in place of hatred. Medicines are the leading modality in the West for addressing disturbing emotions, and for better or for worse, there is no doubt that mood-altering pills have brought solace to millions. But one compelling question the research with meditators raises is whether a person, through his or her own efforts, can bring about lasting positive changes in brain function that are even more far-reaching than medication in their impact on emotions.10

As far as the cognitive scientists are concerned, the point of this research is not simply to demonstrate the remarkable abilities of a few isolated meditators, but to make us rethink our assumptions about the potential impact of mental training on the development of constructive emotions. “What we found is that the trained mind, or brain, is physically different from the untrained one. In time, we will be able to understand the potential importance of mind training and increase the likelihood that it will be taken seriously,” says Davidson.” The important thing is to find out whether that process of mental training is available to anyone with enough determination.

We may wonder how much practice is necessary for the brain to effect such changes, especially in an exercise as subtle as meditation. For example, by the time they have reached the competition for admission to national
music conservatories, violinists have logged an average of ten thousand hours of practice. Most of the meditators now being studied by Lutz and Davidson have gone way beyond the equivalent ten thousand hours of meditation. The major portion of their training has been undertaken during intensive retreats, in addition to their years of daily practice.

Ten thousand hours may seem daunting, if not entirely out of reach, to the vast majority of us. Yet there is some comforting news. A study that Davidson published with Jon Kabat-Zinn and others has shown that three months of meditation training with highly active employees of a biotech company in Madison showed increased activation in the left prefrontal cortex. Work carried out principally by Davidson and his colleagues in the last twenty years has found that when people report feeling joy, altruism, interest, or enthusiasm, and when they manifest high energy and vivaciousness, they present significant cerebral activity in the left prefrontal cortex. The immune system of these apprentice meditators was also boosted, and the flu vaccine they received in the fall, at the end of the training, was 20 percent more effective than in the control group.13

If it is possible for meditators to train their minds to make their destructive emotions vanish, certain practical elements of that meditative training could be usefully incorporated into the education of children and help adults to achieve better quality of life. If such meditation techniques are valid and address the deepest mechanisms of the human mind, their value is universal and they don’t have to be labeled Buddhist, even though they are the fruit of more than twenty centuries of Buddhist contemplatives’ investigation of the mind. In essence, the current collaboration between scientists and contemplatives could awaken people’s interest to the immense value of mind training. If happiness and emotional balance are skills, we cannot underestimate the power of the transformation of the mind and must give due importance to the profound methods that allow us to become better human beings.

Notes
The Proven Benefits of Mindfulness

Daniel Siegel

Psychiatrist Daniel Siegel, a pioneer in the emerging field of interpersonal neurobiology, reports on the state of research into the effectiveness of mindfulness-based interventions in health care.

The practice of intentional, nonjudgmental awareness of moment-to-moment experience has been practiced since ancient times in both the East and the West. Wisdom traditions have, for thousands of years, recommended mindfulness practice in a variety of forms to cultivate well-being in an individual’s life. Now science is confirming these benefits. Here, we’ll explore the common elements of these practices and review the research findings that affirm that daily mindful practice is good for your health.

Mindful awareness practices include yoga, tai chi, qigong, centering prayer, chanting, and mindfulness meditation derived from Buddhist tradition. The science of mindfulness could have delved into any of the practices of intentionally focusing on the present moment without judgment, but through the impact of Mindfulness-Based Stress Reduction (MBSR), much of our in-depth research on the impact of mindful awareness on brain and immune function—as well as psychological and interpersonal changes—has emerged from the study of mindfulness meditation.

Jon Kabat-Zinn, a microbiology PhD then teaching at the University of Massachusetts Medical Center, was inspired in the late 1970s to apply the basic principles of mindfulness meditation to patients in a medical setting. His work developing the MBSR program proved effective in helping to alleviate the suffering of chronic and previously debilitating medical conditions such as chronic pain. It also served as fertile ground for a systematic set of research investigations in collaboration with one of the founders of the field of affective neuroscience, Richard Davidson of the University of Wisconsin–Madison.

Kabat-Zinn repeatedly clarifies in his writings and teachings that MBSR, despite its Buddhist roots, is a secular application of mindfulness, which is a practice of carefully focusing attention, not a form of religion. Indeed, each of the mindfulness practices mentioned earlier share common, secular elements: cultivating an awareness of awareness and paying attention to intention.

Studies show that the ways we intentionally shape our internal focus of attention in mindfulness practice induces a state of brain activation during the practice. With repetition, an intentionally created state can become an enduring trait of the individual, as reflected in long-term changes in brain function and structure. This is a fundamental property of neuroplasticity—how the brain changes in response to experience. Here, the experience is the focus of attention in a particular manner.

A question that is raised regarding the specific features of MBSR is what the “active ingredient” is in its powerful effects. Naturally, the experiences of joining with others to reflect on life’s stresses, listen to poetry, and do yoga may each contribute to the program’s scientifically proven effectiveness. But what specific role does meditation itself play in the positive outcomes of the MBSR program? One clue is that those practicing mindfulness meditation during light treatment for psoriasis experienced four times the usual speed of healing for the chronic skin condition. And in other studies, long-term improvements were seen and maintained in proportion to the formal reflective meditation time carried out at home in patients’ daily practice.

Further research will be needed to verify the repeated studies affirming that long-term improvements are correlated with mindfulness practice and not just the effect of gathering in a reflective way as a group. Sara Lazar and
her colleagues at Massachusetts General Hospital have found that people who have been mindfulness meditators for several decades have structural features in their brains that are proportional to the number of hours they've practiced. But this finding too, along with studies of "adepts" (those who have spent often tens of thousands of hours meditating), need to be interpreted with caution as to cause and effect. Are people with differing brain activity and structure simply those who've chosen to meditate, or has the meditation actually changed their brains? These questions remain open and in need of further study.

MBSR has proven an excellent source of insight into these questions because it enables novices to engage in new practices that can then be identified as the variables that induce the positive changes that follow. What are these changes, whatever their specific causes? Studies of MBSR have consistently found several key developments that demonstrate its effectiveness as a health-promoting activity. These may be key to the "science of mindfulness."

First, a "left-shift" has been noted, in which the left frontal activity of the brain is enhanced following MBSR training. This electrical change in brain function is thought to reflect the cultivation of an "approach state" in which people move toward, rather than away from, a challenging external situation or internal mental function such as a thought, feeling, or memory. Naturally, such an approach state can be seen as the neural basis for resilience.

Second, the degree of this left-shift is proportional to the improvement seen in immune function. The mind not only finds resilience, but the body's ability to fight infection is improved. At the University of California–Los Angeles (UCLA), David Cresswell and his colleagues have found that MBSR improves immune function even in patients with HIV. Improved immune system function may help explain the increase in healing found in the psoriasis treatment studies that incorporate mindful reflection during treatment.

Third, MBSR studies reveal that patients feel an internal sense of stability and clarity. Using a modified version of the general MBSR approach in our own pilot study at the UCLA Mindfulness Awareness Research Center, we've found that adults and adolescents with attentional problems achieved more executive function improvements (such as sustaining attention and diminishing distractibility) than are accomplished with medications for this condition. Other researchers (for example, Alan Wallace, Richie Davidson, Amishi Jha) have also found significant improvements in attentional regulation in patients who have had mindfulness meditation training; these include enhanced focus as revealed in the reduction of the "attentional blink," times when new information is not seen because of prolonged attention on the prior stimulus. Some of these studies have been done during three-month retreats whose primary focus was on isolated meditative practice rather than group discussions.

Fourth, researchers in a wide array of mental health situations have found that adding mindfulness as a fundamental part of their treatment strategies has proven to be essential in treating conditions such as obsessive-compulsive disorder, borderline personality disorder, and drug addiction; it is also helpful in the prevention of chronically relapsing depression.

Some insight into the possible core mechanisms that enable application to the treatment of a wide range of mental disorders was offered in a recent study by Norman Farb and colleagues in Toronto. After the eight-week MBSR program, subjects were able to alter their brain function in a way that confirmed they could distinguish "narrative chatter" (often called discursive thinking) from the ongoing sensory flow of here-and-now experience. This ability to develop discernment—to differentiate our unique streams of awareness—may be a crucial step in disentangling the mind from ruminative thoughts, repetitive destructive emotions, and impulsive and addictive behaviors.