

CAPTURING AND PRACTICING MINDFULNESS

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OVERVIEW

Asked to name the states of consciousness and people will usually name three: consciousness (awake), subconsciousness (daydreaming), and unconsciousness (sleeping). However, there is a fourth state of consciousness that fits under the subconsciousness category we call mindfulness. If we direct the questioning to what percent of our day is spent per day in the state of consciousness (paying attention intentionally), people are surprised to learn it only takes up 5-to-10% of our day. Whereas 50-to-60% is spent daydreaming (subconscious) and 30-to-40% (sleeping).



Picture throwing a handful of pebbles onto a peaceful lake. Upon hitting the completely still surface, these pebbles form small indentations surrounded by concentric circular waves that progressively get wider. Imagine these drops as thoughts (sensations, emotions, and feelings) entering your brain as your mind

wanders off. These thoughts could be media messages or chatter about your appropriate size, health warnings about being overweight, and dieting advice. This collection of information may be deceptive, false, and conflicting, but it has become part of your self-referential unconscious thought process and autobiographical memory.

Your mind comes online when it begins to be aware of the thoughts and starts to process them (analyze, judge, ruminate and appraise). The adjoining waves begin to integrate and form a continuous ripple (like an ocean wave) as the original drops disappear. The mind begins to react negatively, and this evokes arousal (anxiety, worry, fear, and stress anger), depression (sadness, shame, hopelessness, and frustration), obsessions (phobias), or pain (suffering). The once still waters are now turbulent and out of control. Efforts are made to regulate the conflicted brain through avoidance, distractions, suppression, isolation, escape, or control, but this only heightens the waves to a crescendo resembling a stormy sea. Finally, this unregulated behavior manifests in an eating disorder, addiction, social phobia, chronic pain, ADHD, OCD, etc. The scene is a jumbled mess (chaotic, distracting, overwhelming, inhibiting, interfering, and irregular), as multiple confusing messages are entering from every direction, making it impossible to be calm and rational. The scenario resembles hurricane conditions with seemingly little hope for escape or assistance.

Our reaction to a life that is spinning out of control is to find ways that distract us from being with our painful thoughts, emotions, sensations, and feelings. These distractions can come in many forms, including drinking, drug use, shopping, sleeping, eating, exercising, restricting, blaming, working, arguing, viewing pornography, etc. We seek those behaviors (process addictions or compulsive disorders) and chemicals (drugs and alcohol) to rid our minds of uncomfortable feelings. These distractions temporarily relieve stress because they are negatively reinforcing.



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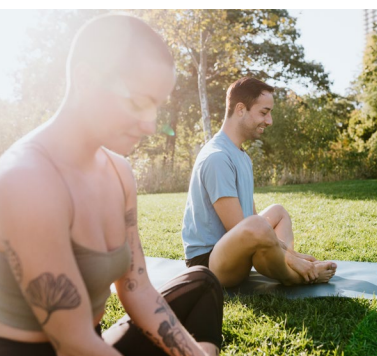
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Dr. Ralph Carson is a clinical nutritionist and exercise physiologist with nearly 40 years of experience in the treatment of addictions, mood and anxiety disorders, sports nutrition and eating disorders.

Prior to joining ERC Pathlight, Dr. Carson was the Executive Director of FitRx in Brentwood, Tennessee, an outpatient program for people of size struggling with both medical and psychological complications of binge eating. He is also a Clinical Nutritional Advisor to Pine Grove Behavioral Health and Addiction Treatment Center in Hattiesburg, Mississippi. In addition to his successful clinical practice, Dr. Carson is committed to community education and teaching the next generation of healthcare professionals specializing in exercise therapy, sports nutrition, eating disorders and mood and anxiety. He was a faculty member of the University of Alabama at Huntsville for over 20 years, and previously nutritional advisor to numerous university athletic departments, and speaks regularly to professional and lay audiences alike. Dr. Carson is the author of two books "Harnessing the Healing Power of Fruit" and "The Brain Fix: What's the Matter with Your Gray Matter", and has published more than 20 articles.

Additionally, Dr. Carson is an active board member of the International Association of Eating Disorder Professionals (IAEDP) and in 2018 received the IAEDP Lifetime Achievement Award for Nutrition. He is a previous board member of the Binge Eating Disorder Association (BEDA). Dr. Carson has earned multiple degrees, including a Bachelor of Science from Duke University; Bachelor of Health Science from Duke University Medical School; Bachelor of Science in Nutrition from Oakwood College; and a Ph.D. in Nutrition from Auburn University.

The brain will remain in this state, and the behaviors will become hardwired as we continue to navigate through the insanity of our existence. One solution is to begin to cultivate a certain quality of the mind through mindfulness. It is a contemplative science where we virtually think about not thinking. The process is simple, yet it takes time, understanding, and practice to master the skills (Kabat-Zinn '90):



1. **Set the intention:** Choose to rid the body of pain, anxiety, or poor body image; focus on being satisfied by a nourishing meal; or cultivate compassion. Once the choice is made regarding what to change, the type of mindfulness skill you decide on will set the stage for proceeding. Whatever modality you choose, each practice must be executed with purpose, understanding, and motivation.
2. **Practice focused meditation:** The emphasis is on attention and awareness. The instructions are to stay focused and maintain vigilance without distractions. With the mind clear from useless chatter, it is now possible to let go of conflicting thoughts brought on by automatic conditioning.

Cubby Holing is a mini mindfulness practiced by reflecting on a conflict or issue someone is struggling with internally (Maine '10; pg. 395). The key to this practice is focusing on a specific thought or body sensation while simultaneously applying a modified version of open-monitoring mindfulness (see below). Mini mindfulness includes being aware of the body while allowing images and thoughts surrounding the issue to flow in, pass through, and eventually dissolve in the mind without judgment, analysis, or manipulation.

- Judgment: "I am fat" or "What will other people think of me?"
- Doubt: "I can't do that" or "The pain will not stop."
- Impulse: "I want to binge, exercise, restrict, or purge."
- Planning: "What should I eat?"
- Second-guessing: "I shouldn't have done that" or "What was I thinking?" or "How good it could've been."
- Body sensations: "I am full and uncomfortable" or "I can no longer tolerate this pain."

Compassion and Loving Kindness Meditation: A way of cultivating empathy (compassion, benevolence, and altruism) is by putting yourself in the place of another and having a sincere desire for others' well-being. The well-defined sense of self (referential self) becomes less fixed. Practicing the Loving Kindness Meditation helps prevent the risk of emotional burnout (empathy fatigue). High-frequency, low amplitude gamma-band oscillations (waves) become more coordinated (in synchrony).



Mindfulness Meditation (Open Monitoring): This calls for noticing/observing everything and anything that crosses your mind. Allow each moment of awareness to give way to the next thought. Those thoughts should not be held onto or pushed away. You become aware of what comes in through the mind stream and let it arise, change, and dissolve. Then give way to the next thought that moves through the mind. Doing this allows one to diminish anxiety, thereby making them less reactive to those thoughts, feelings, and emotions that spiraled out of control.

This form of meditation requires several steps:

1. **Follow a specific bodily sensation (the breath):** Continuing to use the water metaphor, one will attempt to enter the state of mindfulness (penetrate to a deeper level of the lake) by focusing on a particular physical sensation (a single thought): body awareness (like a yoga pose), imagery (a visual mental picture), sound (mantra: a nonsensical two-syllable sound not written down), or the breath. The essence of Eastern Yoga practice is to move from the awareness of the body (pose), to awareness of the breath (abdominal breathing), and finally to awareness of the mind (meditation).
2. **Train attention:** Automatic processes such as gut feelings, emotions, thoughts, intrusions, or habits are available to the consciousness if the mind knows to pay attention.

This will not be a skill you learn in a single session or employ only when you need to call on its benefits. This will need to be practiced 40-to-60 minutes a day. The results are not immediately spectacular for most, as it requires patience to master this skill and see its benefits. Many individuals stop prematurely, claiming it is too difficult to learn, too time-consuming, or too “New Age.”

- 1. Distract and reorient:** The waters below will get murky and cloud your vision. The hardest part of meditating is how quickly it takes you to notice you have ceased just observing. You have begun to place judgments (plans, decisions, analysis, and opinions) on the entering thoughts. Some will find themselves reflecting on the past (autobiographical memory) or imagining the future (expectations and fantasies). Many fail to stay focused and, as a result, take a mental journey to places without awareness. Multiple practice sessions are needed to hone the skill necessary to identify distractions and quickly reorient. Once the interruption in the process is recognized, you will revert back to the breath, sound, imagery, or body sensations to bring you back into the state of mindfulness. You become aware of what is happening without being preoccupied with any single thought, returning to the detached focus each time the mind strays.
- 2. Non-judgmental:** Since you are in the present moment, there is no past and no future. It's important not to push away things you want to avoid (fears and pain), nor should you embrace (accept) everything (pull in) that attracts and interests you. This openness prevents you from buying into information masquerading as fact (i.e., only thin people are happy). You want to practice being accepting and curious as to what is happening. Picture yourself floating through the water, not stopping to take in the beauty of the coral and school of iridescent fish, nor panicking and escaping the oncoming sharks. The best way to tame those painful feelings and emotions is not by escaping, controlling, or reacting to them. The key is to embrace those urges, social anxieties, arousal, pain, negative experiences, and bad habits head-on (exposure). You will learn to draw strength to stay in the present by practicing acceptance and tolerance. During this process, your mind will be integrating the inner wisdom of the body with the outer wisdom of learning and experience. There is a difference between judgment which defines what things are good vs. bad, and discriminating wisdom, which observes what leads to health and well-being and what leads to harm and suffering. You will be giving up conscious control to increase your power. The process could be described as listening to yourself, thinking about not thinking, thoughtless awareness, or restful alertness. You are not on autopilot or mindless; you are in a state of metacognition or insightfulness. Mindfulness is not “forgive and forget,” but rather, “forgive and accept.” As you allow yourself to experience your emotions and feelings, they will surface and disappear, erupt and dissipate, arise and dissolve. Our intentions help shape our actions in the future, but *we cannot change the present moment*. We can change the way we relate to the present moment, with compassion or judgment.
- 3. Change the way you think:** Too often, destructive thoughts get stuck (frozen, locked, rigid, habituated, and conditioned) in our brain. Once locked in, we find ourselves repeating behaviors despite adverse consequences. *“How often have I told myself I would change, and yet I continuously relapse back into my old destructive behaviors?”* Your thinking process gets stuck (rigid, obsessed, and unable to shift focus). You lose the capacity to solve problems creatively, bounce back from adversity, and make rational choices. The habits are so conditioned, fixed, and hardwired you are unable or unwilling to try something new. At other times your thoughts are scattered: you cannot control your impulses: and you are overwhelmed with making decisions. Blame is placed on poor decision-making and lack of impulse control. Mindfulness is a tool for loosening the connections and overcoming resistance; it is also useful for becoming grounded, centered, and focused.



Picture a computer where you are asked to type a letter using Arial typeface, in 10 font size. When you begin typing, the script is defaulted to Times New Roman, size 12. To complete this task, you must navigate to the menu bar and change the settings. After finishing the letter, you shut off the computer. Soon afterward, you are asked to type a second letter in Arial, size 10. Again, the script is defaulted to Times New Roman, size 12. To make the change permanent, you will need to change the hard drive. So too, to change the way we think often entails going into the brain and reconfiguring the hard drive. The tool you use to “fix it” is mindfulness.

Neuroscientifically, this process is called neuroplasticity, whereby the brain reorganizes its neural networks. Neuroplasticity allows the brain to be continually responsive to environmental changes and to adapt accordingly. Learning is not enough; repetition is necessary. Boosting and altering active cognitive processes and jumpstarting dormant cognitive skills allow new thinking styles and strategies to emerge.

The neuroplasticity will create new neural connections, strengthen, and fine-tune circuits, and extinguish useless and defective wiring. The axons are redirected to other neural cell bodies (axonal guidance), dendrites branch out to meet the new connections (dendritic arborization), and the connections (synapses) are altered (synaptogenesis). Behaviors, personalities, and temperaments are all capable of being changed. (Kleim '08; Monfils '04; '05; DeYoung '10; Koven '10; Welbourne '08, van Schuerbeek '10)

MINDFULNESS APPLICATION



There is no one region of the brain that is the location (center of self) where we experience “self.” Instead, there are two brain processing systems (default and mindfulness) that define who we are.

With self-referential processing (narrative and default mode), we are trapped into a fixed past and future orientation. If our self-image stems from external sources' negative perceptions, this can stifle our creativity and self-worth. The image created by mindfulness processing (experiential) allows you to experience yourself in the present moment and allows for creativity, strengths, virtues, and change (flexibility) (Watkins & Teasdale '02; Anderson in press). Mindfulness frees the mind from an automatic mental condition and inner confusion.

Imagine a prairie dog on the plains. The fox, its natural predator, creeps up and is within 20 feet. The internal alarm sets off bodily signals (rapid heart rate), which are perceived and cue the animal to escape. The only hope to avoid capture is to run into any of the numerous holes in the ground nearby. The prairie dog needs to integrate the true internal perception of size with the external wisdom of the hole dimensions it will jump into. A hole too large, and the fox will follow the prey into the hole. Too small, and the prairie dog gets stuck and eaten by the fox. For those who have a distorted sense of size; mindfulness can construct into the mind our size and its relationship to the world we live in.

A young man has lost his right leg below the knee in a car accident. He arbitrarily complains about the pain in his right foot. Listening to this complaint by those close by conjures up thoughts of disbelief that pain exists because there is no right foot. However, the pain associated with the foot has been stored in the memory trace of the somatosensory cortex. Practicing mindfulness takes place in the present. In the present, there is no leg. If there is no leg, there is no pain. The wise advocate passes this on to the executive center. The executive center orders the brain to rewrite the memory trace, excluding the sensation of pain for a limb that no longer exists. The perception of pain is extinguished or at least tolerable. Eventually, through practice, the process no longer requires input from the dlPFC and mPFC. In the future, the disconnect from pain will be automatic.

Mindfulness training has been used in the treatment of numerous clinical disorders:

- Anxiety (Hofmann '10; Roemer '08; Volsted '11)
- Depression (Hoffmann '10; Teasdale '00)
- Trauma/PTSD (Ryback '06; King '16; Haider '21)
- Eating Disorders (Tapper '09; Hill '11; Kristeller '05; '06; Baer '06; '09; Desole '11; Wanden-Berghe '11)
- Alcohol and drugs (Schuman '11; Alfonso '11; Courbasson '11)
- Chronic pain (Grossman '07; Veerhof '11; Chiesa '11)
- ↓ Immune function (Carlson '07; Davidson '03)
- ↓ Blood pressure and cortisol levels (Carlson '07)
- ADHD (insufficient evidence) (Passarotti '10; Hirvikoski '11)
- Bipolar disorder (Fountoulakis '08)
- Well-being (Carmody '08; Chiesa '09; Zeller '11)
- Enhance cognitive functioning (Jha '07; Ortnor '07; Pagnoni '07; Slagter '07)
- ↑ Telomerase activity (Jacobs '10)
- Aggressive Behavior (Singh '11)

When deciding to binge, there may be many environmental elements that can make your head spin with various random thoughts. The tendency is to focus on these thoughts, which only amplifies the neural firing that produces more defeating thoughts. The trick is not to fight with thoughts and feelings but instead, letting them move through as you practice mindfulness meditation. Once you've stopped relating to them, they stop upsetting you, and they have no power over you (Begley '07; Schwartz '09; Folensbee '07).

The USDA claims that organic foods are no safer, nutritious, or more palatable than traditional, farm-raised crops subjected to fertilizers and pesticides. The difference is the cost, so I opt for fruits and vegetables that are not organic to save money. Later I reflect on the food in front of me. I trace it back to my wife, who prepared it and originally bought it at the grocery store. I picture the store worker laying out the food and imagine he originally received it from a distributor. The food distribution center had it delivered by truck. The truck driver picked up the vegetables and fruit from a farm. On the farm, workers are exposed to toxic pesticides and fungicides. By inhaling those chemicals, they absorb poisons in their skin and breath toxins into their lungs. Those farmworkers become vulnerable to lung and skin cancer over time. I cultivate empathy and compassion for those suffering from cancer. In some ways, I feel responsible. Through meditation, I put myself in someone else's shoes, which changes the way I think. In the future, I choose to purchase only certified organic foods. Through this practice, I acknowledge the world does not center around me but instead, I am one element of the universe.

DIALECTICAL BEHAVIOR THERAPY UTILIZATION OF MINDFULNESS

Dialectical Behavior Therapy | Pathlight Mood & Anxiety Center (pathlightbh.com) is a treatment that targets emotion dysregulation. Often people get emotionally dysregulated by seemingly insignificant or trivial events, not because of the events themselves, but by the judgments people have about the events. Mindfulness is the backbone of DBT (Dialectical Behavior Therapy); it is the core skill that underlies all the other skill sets. Mindfulness is an awareness of thoughts, feelings, behaviors, and behavioral urges. By learning mindfulness, we are empowered to take charge of ourselves in a different way. It has been proven that awareness assists in emotional regulation. By practicing non-judgmental, present-focused awareness, you can tend to thoughts, feelings, and behaviors without engaging in the self-invalidation responsible for persistent emotion dysregulation.

SUMMARY

- Set intention
 - Mindfulness meditation
 - Focused meditation
 - Compassion and Loving Kindness Meditation
 - Cubby holing
- Follow a specific body sensation
- Train attention
- Distract and reconnect
- Non-judgmental
- Change the way you think
- Health and well-being benefits of mindfulness meditation
- DBT therapy
- Practice, practice, practice



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