

# Mindfulness Practice in the Treatment of Traumatic Stress

MCC Medical Patient Education Module

**What is mindfulness?** Mindfulness is a way of thinking and focusing that can help you become more aware of your present experiences. Practicing mindfulness can be as simple as noticing the taste of a mint on your tongue. There are some things you might do every day without even thinking about them, like brushing your teeth in the morning. Mindfulness involves paying attention to the feelings and sensations of these experiences.

While researchers have not yet studied the effects of mindfulness practice in helping trauma survivors diagnosed with PTSD, research has shown mindfulness to be helpful with other anxiety problems. It has also been shown to help with symptoms of PTSD, such as avoidance and hyperarousal. If you have gone through trauma, you may want to learn what mindfulness is and how it might be helpful to you.

...Mindfulness can help people train themselves to get unstuck from a vicious cycle of negative thinking, often a cornerstone of trauma.

Mindfulness practice has two key parts: 1) Paying attention to and being *aware* of the present moment and 2) *Accepting* or being willing to experience your thoughts and feelings without judging them.

For example, focusing on the inhale and exhale of your breathing is one way to concentrate on the present moment. Mindfulness involves allowing your thoughts and feelings to pass without either clinging to them or pushing them away. You just let them take their natural course. While practicing mindfulness, you may become distracted by your thoughts and that is okay. The process is about being willing to notice where your thoughts take you, and then bringing your attention back to the present.

**How can mindfulness help reduce trauma reactions?** Mindfulness might increase your ability to cope with difficult emotions, such as anxiety and depression. Practicing mindfulness can help you to be more focused and aware of the present moment while also being more willing to experience the difficult emotions that sometimes come up after trauma. For example, mindfulness practice might help you to notice your thoughts and feelings more and to be able to just let them go, without labeling them as "good" or "bad" and without acting on them by avoiding or behaving impulsively.

Mindfulness is a practice, a continual process. Although it may be hard to do at first, regular mindfulness practice can help you notice your thoughts and learn to take a step back from them. Mindfulness practice can also help you develop more compassion toward yourself and others. You may be less likely to sit in judgment of your thoughts, feelings, and actions. You may become less critical of yourself. Using mindfulness can help you become more aware and gentle in response to your trauma reactions. This is an important step in recovery.

Cognitive Processing Therapy and Prolonged Exposure have been shown to be the most effective treatments for PTSD. In both of these treatments, you are asked to write or talk about trauma with the guidance of your therapist. Mindfulness can prepare you for these treatments by giving you skills and confidence that you can handle your feelings. As you learn to be mindful, you learn to observe what is happening in your body and your mind. You can learn to be more willing to cope with difficult thoughts and feelings in a healthy way. This will help you keep going when you are asked to think and talk about your trauma in treatment. In this way you may get even more out of the PTSD treatment.

There are several types of therapy that use mindfulness practices. These therapies have been used to treat problems that often affect people with PTSD, such as anxiety, depression, and substance use. The therapies may target specific problems such as: 1) Difficult feelings and stress in daily living 2) The stress of physical health problems, such as chronic pain 3) Negative thinking patterns that can lead to repeated episodes of depression 4) Trouble working towards your goals in life, 5) Urges to use drugs or alcohol

**Summing it up.** Mindfulness practices may be of benefit to trauma survivors. Research findings show that mindfulness can help with problems and symptoms often experienced by survivors. Mindfulness is used by itself or together with standard treatments proven effective for PTSD.

**What are the positive benefits of mindfulness for adult patients suffering from PTSD in relation to the brain?**

**Mindfulness and the Brain:** There is a significant amount of data supporting mindfulness as a treatment approach for patients with PTSD. Much of the literature, however, doesn't speak to the neurological changes that occur during the mindfulness process. Research regarding mindfulness mediation's impact upon the brain points to changes in brain structure and function that could account for the reduction of symptoms of PTSD.

**Changes in Brain Structure:** As I mentioned earlier, deregulation of the brain areas associated with emotional regulation and memory are key contributors to the symptoms associated with PTSD in addition to the over activity of the fear center, the amygdala. Mindfulness reverses these patterns by increasing prefrontal and hippocampal activity, and toning down the amygdala. In fact, brain scans confirm that mindfulness meditation is correlated with an increase in gray matter in the hippocampus, a decrease of gray matter in the amygdala, and neuroimaging studies have found that mindfulness meditation also helps to activate the PFC.

**Impact on Brain Function:** A recent study looking at the neural functional impact of mindfulness meditation on those with PTSD implicates the interaction of two "opposing" brain networks in mediating beneficial outcomes. In this study, 23 male veterans who served in Afghanistan and Iraq were divided into different treatment groups, one of which included mindfulness-based exposure treatment (MBET). Results indicated that while each treatment group showed promise, the men in the group receiving Mindfulness-Based Exposure Therapy (MBET) experienced actual post-treatment brain changes that indicate mechanisms by which mindfulness could potentially help in the treatment of PTSD.

Functional magnetic resonance imaging (fMRI) indicated that at the start of the study, the veterans showed increased activity in regions associated with perceived external threats. After receiving MBET, fMRI showed increased activity in what is known as the brain's default mode network (DMN). The DMN consists of interacting brain regions associated with internally focused meandering and wandering thought. Additionally, fMRI also showed that the DMN increased its connections with what's known as the Executive Network, associated with the purposeful shifting of attention. Both these networks were working in sync, providing insight into how mindfulness can help people train themselves to get unstuck from a vicious cycle of negative thinking, often a cornerstone of trauma.

Overall, these neural correlates of symptom reduction can potentially shed light on the therapeutic possibility of mindfulness-based treatments going forward. There is, without a doubt, great potential for these treatments in helping people better process trauma, and hopefully decrease a lot of potential suffering. Yet, a caveat worth heeding: Given the precarious nature of the symptoms of PTSD, the most efficient and safe treatment should only be obtained by a professional. It is my opinion that mindfulness, as an integrative approach under professional supervision, is the most prudent.