# Can Trauma Really Be Stored In The Body?

By Stephanie Eckelkamp

Scientists now have more evidence than ever before revealing the intimate, intertwined relationship between the mind and body. We see this with gut health's influence over our mental health, but we also see it with the very real physical manifestations of <u>psychological stress</u> and trauma on the body—tension, heart palpitations, trembling, pain—particularly trauma that hasn't been fully processed or even acknowledged by the person who experienced it.

Perhaps the most extreme example of how trauma may affect the body: According to research by <u>Kelly Turner</u>, <u>Ph.D.</u>, terminally ill cancer patients who have experienced unexpected remission—beating their disease against all odds—often cite releasing emotional stress or trauma as one of the key factors in their healing.

This has led some people to speculate that unprocessed trauma gets "stored" not just in your subconscious mind and memory but throughout your physical being—and that, in addition to more traditional modalities like cognitive behavioral therapy, some sort of physical stimulus or touch may be helpful in releasing it.

But what do the experts think? Could this be why, for instance, some people start spontaneously crying during a massage or acupuncture session for no immediately apparent reason? It's an interesting idea, so we asked researchers, psychiatrists, and healers for their take on why something like this might occur, whether trauma can, in fact, be stored in the body, and the safest ways to go about releasing it.

First, you need to understand that trauma affects everyone at one point or another.

As humans, we will all experience some sort of trauma. In fact, <u>some</u> <u>estimates</u> suggest 70% of adults in the United States have experienced some type of traumatic event at least once in their lives. And while trauma is a word we often associate with war, a violent attack, rape, abuse, or near-death experiences, the reality

is there are a range of other less obvious experiences that can be traumatic and that have the potential to seriously disrupt our lives.

"Trauma is going to come to all of us sooner or later," says <u>James S. Gordon, M.D.</u>, author of <u>The Transformation: Discovering Wholeness and Healing After Trauma</u> and founder of <u>The Center for Mind-Body Medicine</u>. "It's true that some experiences are most obviously traumatic, like rape or war, but things like dealing with a serious illness in yourself or a family member, the death of someone close, the breakup of a significant relationship, or even losing a job or leaving a community that's very important to you can be traumatic."

Trauma isn't something that has to be one specific event, either. "There's much more appreciation these days for micro-traumas—like chronic, more mildly traumatic things—that cumulatively over many years can amount to the same as one macro trauma," says <u>Ellen Vora, M.D.</u>, holistic psychiatrist. You can think of these as big-T and little-T traumas.

The problem, of course, is that the negative psychological and physical effects of any type of trauma don't always resolve on their own, and may extend far beyond the actual event. Case in point: post-traumatic stress disorder (PTSD)—a mental illness that can develop after a person experiences or witnesses a terrifying or life-threatening event(s), including any of those mentioned above—which may last the remainder of someone's life if left untreated.

### What's happening in the body during and after a traumatic experience?

To better understand why the negative effects of trauma can persist over time—and why it may potentially be physically "stored"—let's take a look at what's happening in the body during and after a traumatic experience.

"The primary response we often have to trauma is fight or flight," says Gordon. "The heart beats faster, blood pressure goes up, big muscles get tense and ready to run or fight, digestion slows down. The other reaction we can have—often when the trauma is overwhelming and inescapable, as might be the case with rape or an ongoing abusive relationship—is to freeze, or go into kind of a detached state. During these responses, which are mediated by the autonomic nervous system, areas of the brain responsible for fear, anger, and emotion, particularly the amygdala, become much

more active, while areas in the frontal cortex, responsible for self-awareness, thoughtful decision making, human connection, and compassion, become less active."

In some cases, a traumatic event doesn't cause prolonged suffering. "A sort of healthy resolution of a traumatic event would be that you do experience that initial stress response and you are shaken up, but after about a month, the <u>anxiety</u> and recollections of the event diminish significantly or go away," says <u>Andrea Roberts</u>, <u>Ph.D.</u>, a research scientist at Harvard T.H. Chan School of Public Health who studies PTSD.

But others can get stuck in these fight, flight, or freeze responses—even when they're not consciously thinking about the traumatic event. "Trauma can sort of shock the autonomic nervous system into a state of hyperarousal and hypervigilance," says Vora. "Like you're in that peak moment in a horror movie when the music is accelerated, and you know something bad is about to happen."

## So can unprocessed trauma actually become "stuck" or "stored" in the physical body?

While it may not be a totally scientific way to explain what's happening, there may be some merit to this whole idea of trauma being "stored" in the body—especially when thoughts of the traumatic event are so upsetting and uncomfortable that they get buried as a self-preservation mechanism (when this happens consciously, it's considered suppressed trauma; when this happens unconsciously, it's considered repressed).

"Trauma often represents the violation of all we hold to be dear and sacred. Such events are often simply too terrible to utter aloud, and hence they often become unspeakable," says <a href="Shaili Jain, M.D.">Shaili Jain, M.D.</a>, a clinical associate professor of Psychiatry and Behavioral Sciences at the Stanford University School of Medicine and author of <a href="The Unspeakable Mind">The Unspeakable Mind</a>. "But when these traumatic thoughts and memories remain unspeakable or unthinkable for too long, they often impede our brain's natural process of recovery after trauma. They become stuck points that inhibit the mental reintegration that is needed for healing to occur."

This, of course, can prolong the fight, flight, or freeze response and have very real physical consequences. Consider PTSD, which "brings disruption to hormone secretion, neurochemistry, and immune system functioning, all of which contribute to diseased cells, organs, and other bodily systems," says Jain. "Chromosomal studies have shown that PTSD patients have shorter telomeres—the segments on the ends of chromosomes that are a measure of cellular age—than their healthy counterparts do.

Up to 35% of chronic pain patients also have PTSD, and there is an even higher overlap between fibromyalgia and PTSD."

Symptoms of traumatic stress can also become somatized (i.e., present as genuine physical complaints as opposed to complaints of emotional distress) when the psychological nature of the symptoms is too scary or daunting for the patient to accept, considered taboo by society, or not understood by the physician, explains Jain.

So in this way, physical manifestations of trauma very much exist in our bodies—even when we may not be consciously thinking about the actual trauma.

Some experts, including Gordon, *do* view this as our body storing or holding on to trauma. "Everything that happens to us emotionally or psychologically happens to our bodies as well. It's all connected," he says. "If you look at people who go into a fight, flight, or freeze response, just look at the way they hold their bodies—they're tense, they're tight, their whole body is set up to protect them from a predator. And I believe this tension is connected with the traumatic experience in ways we don't completely understand."

Similarly, Vora believes trauma can essentially become stuck energy within the body, "especially when it overwhelms our cognition and overwhelms the systems in the brain." This is a belief shared by many energy healers and traditional Chinese medicine practitioners—along with the idea that memories key to unraveling and processing someone's traumatic experience could be held in the body. Of course, this would be hard to prove, but it's certainly interesting to think about.

"There isn't just one aspect to our memory of trauma. There's a sort of linear, factual aspect to it, but when we experience trauma, we also experience it in our body. There's a feeling associated with it—and in some ways this feeling may interrupt our factual recall of the event," says <a href="Jill Blakeway">Jill Blakeway</a>, <a href="DACM">DACM</a>, <a href="LAC">LAC</a>, doctor of acupuncture and Chinese medicine, founder of The Yinova Center, and author of <a href="Energy Medicine">Energy Medicine</a>. "So I think there are two aspects of memory, and the one that's in the body that people tend to store gets less attention."

If trauma becomes stored or stuck, could it be released with a physical stimulus like touch or movement?

So, given the possibility of trauma actually being stored in the body, we have to ask: What's the actual deal when you burst into tears during a massage, an acupuncture session, or in yoga mid-downward dog? And are these (or similar practices) actually "releasing" stuck trauma from the body, or perhaps helping you get to a place where you can more readily process it and heal both emotionally and physically?

The short answer—and the one you likely expected—is maybe, but we don't really know. There haven't exactly been studies on this stuff. But psychiatrists and healers have their theories on the topic, and they say certain types of physical movement or therapies that involve a physical stimulus may be a good adjunct to traditional trauma treatment.

"When I'm doing <u>acupuncture</u>, I'll often pop a needle in a patient and they start to sob. They invariably say, 'I have no idea why I'm crying, I don't know what's wrong with me,' and it leads me to believe that I've moved an area of stuckness that contains memory," says Blakeway. "That would be very consistent with Chinese medicine, where we say that repressed emotions, things that we can't deal with, become stuck chi. Or, put another way, that emotional trauma creates dense, energetic forms in our body. And then, because it's uncomfortable, we just don't go there—those become areas of stuckness and tightness."

Acupuncture is also helping the patient modulate between the sympathetic (fight or flight) and parasympathetic (rest and digest) nervous systems and bringing them into homeostasis, says Blakeway. For some patients, this improved flow and balance simply brings a feeling of relief and lightness; for others, she believes it may help draw someone's attention to certain suppressed or repressed experiences that need attention. "Often patients on the table then start to have memories of things that they haven't really thought about lately," says Blakeway. "Sometimes they'll say to me, 'It's not that I don't know this happened to me; it's just that I don't go there very often in my head."

Blakeway doesn't believe acupuncture is a "cure" for trauma. For patients with a trauma history, or who experience a resurfacing of traumatic memories during a session, she always refers them to a therapist. But she does believe combining more traditional trauma-focused therapies with something like acupuncture or <a href="massage">massage</a> could be more effective than psychotherapy alone—which, she believes, was the case for one particular female patient.

"I've treated a number of rape victims who have gone on to have problems associated with stagnation in their pelvic cavity," says Blakeway. "I had one patient who had

been raped in college and developed <u>endometriosis</u>. It had been an earth-shatteringly horrible experience for her, and she was extremely vulnerable. So I co-treated her with our massage therapist, and we just very gently helped her to unravel the experience in her body. What was interesting was that her endometriosis shrank even though we were treating the sort of psychological ramifications of it. This holding on, this clenching in her lower abdomen—which presumably started during the rape—and this wish never to go there again in her head meant that she wasn't flowing. And we just got things flowing very gently. She was seeing a therapist at the same time, and we were all contributing pieces to the puzzle. But I don't think all of it could have been handled by just talk therapy because I don't think she could put words on all of it in the same way as she could just release it. She went on to get married and have children. I wanted this not to define her, so she could be bigger than this experience—and she achieved that."

While we can't exactly prove that acupuncture helps move stuck energy or releases trauma, acupuncture—along with treatments like <a href="Emotional Freedom Technique">Emotional Freedom Technique</a> (EFT), which involves the manual stimulation or "tapping" of acupuncture points along the body—have been shown in <a href="studies">studies</a> to help alleviate some symptoms of PTSD. Acupuncture has also been associated with <a href="improved blood flow">improved blood flow</a> and <a href="changes">changes</a> in the brain, which, Blakeway says, could all play a role in how we experience our bodies and how we experience emotion. And even more fascinating, "a <a href="mailto:new">new</a> study came out showing that one hour of tapping can significantly change, in a positive way, the expression of 72 genes," says Turner.

Gordon also believes physical movement, touch, anything that brings you more into your body—like deep belly breathing—can be a key component in healing from trauma.

"Every part of the body that has that tension may store some of the information about the trauma we experienced," says Gordon. "So during something like a massage, what could be happening is that when somebody is working on the muscles and releasing that tension, the experience that is associated with that tension may be released. By going into a state of relaxation, you're counteracting all that protective tension, and as the armor begins to dissolve, then the emotions that necessitated the protection start to emerge. Now, this is theoretical, but it sure looks like it could be the case."

For the same reason, Gordon is a big fan of shaking and dancing as a means to begin healing from trauma, which he writes about in his book. "You stand up, put your feet shoulder-width apart, and you just start shaking from your feet up through your knees,

hips, chest, shoulders, and head," he says. And while it might sound silly, the effects can be pretty dramatic.

About a year after the massive earthquake that rocked Haiti in 2010, Gordon traveled to the island to lead a workshop for survivors. "I was leading a workshop for about 100 nursing students. They had lost about 90 of their fellow nursing students—many of them very young women, in their late teens—in the earthquake," says Gordon. "So at the end of one afternoon, I got them all up shaking, and within two minutes, half of them were weeping. We paused for a bit, became aware of our breath, and then I put on some Bob Marley, and they started dancing. Some were still crying, others started laughing, and afterward they said, 'This feels so good!"

Many of the women told Gordon it was the first time they'd been able to laugh or cry since the earthquake—and that they thought they had to be strong, or that they shouldn't be enjoying themselves. "When you shut down one emotion and you go into that frozen state, it's not just that emotion you're protecting yourself against that gets shut down; your whole emotional life gets limited," says Gordon.

Gordon believes that this type of movement—as well as things like <u>slow</u>, <u>deep</u> <u>breathing</u>—can help bring the body into a more balanced physiological state that could potentially make someone more open to sharing what's going on with friends or family members, more likely to reach out to a therapist, and more engaged overall in helping themselves heal. "When you're severely traumatized, those areas of the brain that make it easier to relate to other people aren't working so well," says Gordon. "But with these practices, as best we can tell, we're no longer so fixed in fight or flight, so there's likely less activity in the amygdala, and we're able to think more clearly."

Researchers suspect there *may* be something to this, but it hasn't been proved. Consider yoga, which couples movement with breathing. Some <u>studies suggest</u> yoga and meditation may be promising complementary treatments for PTSD, and "one of the hypotheses is that the movements of yoga trigger a physiological response, relaxation," says Roberts. "And that physiological response, I imagine, could kind of calm your immune system. In other words, it's almost like the opposite trauma."

#### The way you manage one of these "emotional releases" is key.

While having a sob-fest as a result of one of the aforementioned practices can be extremely cathartic for some, unearthing buried emotions and memories could be

legitimately frightening for others—depending on the severity of their trauma. And everyone we spoke to for this piece mentioned just how important it is to manage any newly stirred-up emotions or memories in a delicate and appropriate way.

"I wouldn't say the emergence of [these emotions and memories] per se is a good thing; it's only good if it can be processed in a safe environment," says Roberts. "Just like with PTSD, having flashbacks is not helpful. It's only helpful if they're treated and can be diminished."

Vora agrees, adding that things like massage, yoga, and acupuncture can be great but only if you have a way of containing what might come up. "Big strong emotions will come up, and sometimes it's something that you can't even put your finger on. You just feel a certain way—you feel angry, sad, or afraid," she says. "And so I think it's helpful to either support yourself through those moments with a journaling practice or to have some sort of therapeutic conversation. It's a gift when these things come up, but you want to be able to usher them up and out gracefully."

As far as trauma-focused therapies that may be particularly helpful, Vora is a big fan of eye movement desensitization and reprocessing therapy (EMDR) and somatic experiencing, both of which work with the trauma stored in the body and don't simply patch over a traumatic experience or your thoughts and feelings about it verbally—which can be ineffective and sometimes even retraumatizing.

With EMDR, physicians guide patients through guided eye movements while asking them to recall certain events and then shifting their thoughts to more pleasant events, which is meant to dampen the power of past trauma. "I have a lot of radical remission survivors who had great healing from EMDR," says Turner. "Scientifically, EMDR has been shown to significantly decrease activity in your amygdala and hippocampus. So you're basically taking this stress response that is kind of always on and quieting that down."

Somatic experiencing, developed by psychologist Peter Levine, is a body-oriented therapy that assesses where a person is stuck in the fight, flight, or freeze responses and provides tools to resolve these physiological states. Both <u>EMDR</u> and <u>somatic</u> <u>experiencing</u> have been shown in studies to be beneficial for the treatment of trauma and PTSD.

But what if you have legitimately no clue why you just had a sob session at your massage therapist's office—but suspect it may be connected to something in your past? To help you get to the bottom of unexpected emotions that may crop up,

something like journaling and writing down what comes to mind when you experience these emotions may be helpful. "I recommend that people write down their experience. It's important not only to bring out these emotions, but it's also important to be able to express them, at least on paper and ideally with other people," says Gordon. "If a trauma occurred early in life, it may take a while for us to connect these feelings with these events because they may be buried very deeply."

### Clearly, things are complex. So let's recap:

- Physical manifestations of trauma very much exist in our bodies—even when we may not be consciously thinking about the actual trauma—and some experts view this as trauma being stored or stuck.
- Having some type of emotional release during a massage, acupuncture treatment, or yoga class—which many people have reported anecdotally—is not uncommon.
- Can we say it is or isn't related to trauma or releasing stored trauma or unblocking energy that was stuck due to a traumatic experience? No, because these aren't exactly tangible or measurable things we can study.
- But we *can* say that some of these things (acupuncture, massage, physical activity like dancing, deep belly breathing) may help rebalance the autonomic nervous system, which could become imbalanced due to a traumatic event.
- This return to physiological balance *may* alter brain chemistry in ways that help us be present and connect better with others—which could be a key aspect of healing.
- We can also speculate, with somewhat less certainty, that bringing the nervous system into balance and countering some of the bodily tension that is associated with trauma *may* help certain emotions or memories resurface.
- Having an emotional release in and of itself isn't necessarily beneficial if you don't know how to handle these emotions and memories. Depending on the severity of the trauma, they may need to be carefully unraveled and processed with the help of a therapist and a trauma-focused therapy such as EMDR, somatic experiencing, or one of these other alternative treatments. And once they are processed, the effect could be massively beneficial for mental health.

And remember, there's no one right approach to processing and healing from trauma.

Just as there's no single diet that works for everyone, there's likely no single approach to healing or releasing trauma that's right for everyone—and being freed of stored, unresolved trauma is certainly not as simple as booking an acupuncture session. Yes, it could potentially be an important catalyst for healing, but someone may need much more.

"We're pretty complex creatures," says Gordon. "It's important to work with the body, it's important to work with the imagination, it's important to work with more rational problem-solving side of things, it's important to express ourselves and to connect with other people—all of those things are part of a comprehensive approach to trauma healing."

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