

# 4 WAYS TO INCREASE SEROTONIN NATURALLY

# Insights gleaned from The Upward Spiral

More and more research is starting to point us away from the "serotonin theory of depression," as inflammation, gut health, and the mind-body connection begin to increasingly take center stage in modern research on depression.

So while we're learning "serotonin deficiency" may not be the sole cause of depression, it nonetheless remains one of the brain's most important "feel good" chemicals. It's good to know how to naturally maintain healthy levels of this ubiquitous neurotransmitter, which is responsible for helping us feel positive, confident and easygoing.

In his book *The Upward Spiral*, Depression Summit speaker Alex Korb, Ph.D. outlines four things that will naturally boost our serotonin levels.

## 1. Sunlight

We evolved as beings that were in the sun for long parts of the day, and just like plants, our bodies need sunshine to perform certain vital processes. We spend an increasing amount of time inside buildings and staring at screens, and are missing this "vital nutrient" that we absorb through our eyes and our skin.

#### From The Upward Spiral:

Sunlight holds distinct advantages over artificial light. First, the ultraviolet (UV) rays in sunlight, when absorbed through the skin, allow your body to produce vitamin D, which has many important functions, including promoting serotonin production. Second, sunlight is a lot more intense than most artificial light. You may think the lights in your office are bright, but that's just because your eyes are good at adjusting to ambient light. In reality, the intensity of light on a bright, sunny day is about one hundred times higher. Bright sunlight improves serotonin production and keeps the serotonin transporter from sucking it away (which is also one thing that antidepressants do). Lastly, the scattered sunlight that creates the blue of the sky is the ideal color to stimulate the photoreceptors that control your circadian rhythms. So it's better at promoting quality sleep than artificial light.

Set reminders for yourself to get outside and get some sun on your skin. Don't overdo it and get burned (the benefits occur when we don't use sunscreen), but find the right amount of time for you and create a new habit around getting more of something we've been told to be scared of - sunlight.

#### 2. Exercise

Most of us have heard that exercise releases endorphins, but exercise does much more than that. Studies have shown that exercise makes us sharper and better at planning and decision making. It also modulates the impact of stress, reduces anxiety and improves mood.

What are the mechanisms responsible for this magic?

From The Upward Spiral:

Exercise increases nerve growth factors... such as brain-derived neurotrophic (BDNF), which are like steroids for your brain. BDNF makes your brain stronger, so it's more resilient to all kinds of problems, not only depression.

Movement increases the firing rate of serotonin neurons, which causes them to release more serotonin. And when more serotonin is released, more is produced to keep up with demand.

In particular, aerobic exercises, like running and biking, are best at boosting serotonin. Interestingly, if you try to do too much exercise or feel forced to do it, it may not have the right effect. Recognizing that you are choosing to exercise changes its neurochemical effect. That may be a result of your ancient instincts—the difference between running because you're hunting something and running because it's hunting you.

So when you get advice to "find exercise you like," that's not just because we're generally more motivated to do it. It's because when we enjoy exercise while we're doing it, we actually receive more of the neurochemical benefits. That said, any movement is better than no movement.

#### 3. Massage

We may feel indulgent about booking a massage, but massage has measurable, positive repercussions for our mental health.

From The Upward Spiral:

Numerous studies have examined the effects of massage on everyone from babies and new mothers to breast-cancer survivors and people who suffer from migraines. The results are fairly clear that massage boosts your serotonin by as much as 30 percent. Massage also decreases stress hormones and raises dopamine levels, which helps you create new good habits.

The bottom line is, when we tell ourselves we need a "mental health break," we would do well to make that break a massage, and reap the neurochemical benefits.

### 4. Remembering Happy Memories

This may sound too simple to be "scientific," but the simple act of thinking about something pleasant, such as a positive memory, increases beneficial neurotransmitter firings.

From The Upward Spiral:

This may seem like the hokiest piece of the puzzle, but it may be the most important. It's also the simplest to do. All you need to do is remember positive events that have happened in your life. This simple act increases serotonin production in the anterior cingulate cortex. The same study also showed that remembering sad events decreased serotonin production in the anterior cingulate. Thus, remembering positive events has a twofold effect: it increases serotonin and also keeps you from thinking about negative events.

In sum, there are simple behavioral things we can do to increase serotonin and keep it flowing in a beneficial way.