



## **Stress and the threat of Coronavirus**

If you are feeling stressed about the coronavirus, you are not alone. The whole world is feeling on edge, and for good reason. No one – not even the experts - seem to know exactly what might happen next or how bad it might be. And uncertainty, is a MAJOR cause of stress.

The stress response begins in the amygdala, an almond shaped area, found in middle part of your brain. Sometimes referred to as a threat-detector, the amygdala sounds the alarm for anything it perceives as threatening. Because the coronavirus seems more and more threatening every day, the amygdala is on guard all the time and has the power to make us feel more and more anxious every day.

The amygdala has the dual role of 1. Focusing our attention and 2. Generating intense emotional reactions, like anxiety and fear. If you've ever survived a near-miss car accident without a scratch, you can thank your amygdala, for giving you the razor-sharp focus that allowed you to avoid a collision and possible injury. That's part 1 of the amygdala's dual role and this is a perfect example of why acute (or short-lived) stress, does no long-term damage.

Our bodies were built to handle acute stress. After a near-miss accident, we figuratively brush ourselves off, maybe even revel in amazement for a moment or two, and then continue on, almost as if nothing had happened. You might experience elevated levels of cortisol (a stress hormone) for the next hour or two, but knowing that the danger is over, you just might interpret this increased energy level as *exhilaration*. That's part 2 of the amygdala's dual role.

Unfortunately, this is not the case with chronic or long-term stress. Chronic stress can make us sick, depressed and anxious. It can lead to health problems like migraine headaches, back pain, high blood pressure, allergic reactions, gastro-intestinal problems and even heart disease. This outbreak of coronavirus is most likely going to present us with months and months of uncertainty and stress. How will we cope? What steps can be taken to deal with chronic stress? How can we manage stress when our very survival is at stake? And how can we avoid stress related dis-ease?

**This is how the dual role of the amygdala will most likely play out over the weeks and months ahead:** Every time you lie down to go to sleep, or try to focus on work, or have a moment of repose, your amygdala is going to try to get you to focus on this emerging threat. (That's part 1.)

Right now, we don't have *all* the answers as to what we should do about this threat, so that means increased levels of cortisol are probably going to be, for many people, chronic. That will lead to increasing levels of anxiety. Plus, when we notice that felt sense of anxiety, we often have a secondary stress reaction of feeling even more anxious. We notice that we are stressed, and this makes us feel even more stressed. This can set up a vicious cycle that can eventually lead to high anxiety and panic. (That's part 2.)

When the amygdala senses a threat it simply sends a signal to another part of the brain, the prefrontal cortex, which is responsible for interpreting the information and determining the level of threat, or even the validity of the threat. My first car used to backfire all the time. When it did, it sounded exactly like a gun going off, and very nearby. Each time this would happen I'd immediately duck. That's the amygdala doing its job: Sending out a warning signal to the whole body to react and pay attention.

It would take a few seconds for the executive center of my brain, the prefrontal cortex (PFC) to interpret the data and say: no threat; just the car backfiring. So, we do possess the power to down-regulate (or [self-regulate](#)) the amygdala. But in the case of coronavirus this is going to require a lot of will-power, daily practice, and the use of reasoning to lessen the sense of danger, which of course is very real.

But if you consciously work at it, it's possible to reduce your reactivity to the threat dramatically. And perhaps this can even lead to a virtuous cycle, where you get better

and better at self-regulation and perhaps even habituate to the increased level of threat (without ignoring it or sticking your head in the sand.)

The other day, I looked at my newsfeed and saw the headline: **25 People Dead in Tennessee**. Immediately, I thought the corona virus had struck there too. Tragically, it was a tornado that had done all the damage. But consider this awful scenario carefully: In an hour – probably in an area no bigger than 20 square miles – a tornado can emerge out of thin air and kill, what now turns out to be well over 25 people.

Even if we live in places like Tennessee or Texas or Oklahoma, where a devastating tornado can strike at any time, many of us have learned how to live with that level of threat.

We've learned how to live with [the threat](#) of tornadoes, hurricanes, earthquakes, plane crashes and gun violence. Car accidents kill tens of thousands of people, every year, but most of us have trained ourselves, to effectively deal with this *very real* threat. We say to ourselves (this is the PFC talking to the amygdala) this won't happen to me because: (and this could be any number of different things) I wear a seat-belt, I drive carefully, I take precautions, or I simply refuse to worry about it because the payoff is well worth the risk.

Right now, it's very unsettling that we don't know the exact level of risk, but data is emerging that seems to indicate that while the coronavirus is more deadly than the flu, still the odds are in your favor that you **WON'T** even catch it, let alone die from it. That doesn't mean you shouldn't take all the precautions you possibly can and use this reassuring knowledge to self-regulate your amygdala with the same kind of self-talk we use to get us driving comfortably on the highway every day.

When we first learned to drive, getting on a highway was terrifying. We knew the risk and we thought about it every single second. *When it comes to coronavirus are all like new drivers on the highway*. Yes, it's dangerous. Yes, we could die from it. But it's almost certainly not as dangerous as we **THINK** it is, and over time, with the help of a little brain training, we can probably learn to live with this threat, too.

There are other ways to self-regulate your amygdala and your nervous system by using meditation, yoga, exercise, deep breathing, progressive muscle relaxation, point by point relaxation, and visualization. I will talk more about how we can use these techniques and other methods for dealing with coronavirus stress, in my next installment.

Jim Porter  
President StressStop