A microscopic view of neurons, showing cell bodies and branching processes, rendered in a light brown color against a white background. The neurons are scattered across the page, with some larger and more prominent than others.

# Practical NeuroWisdom

## Global Anxiety

How to  
Vaccinate Your  
Brain Against  
Global Anxiety

by Mark Waldman  
with members of his International Association  
of Evidence-based NeuroCoaches

# How to Vaccinate Your Brain against Global Anxiety

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"No matter how difficult the situation may be, we should employ science and human ingenuity with determination and courage to overcome the problems that confront us. Faced with threats to our health and well-being, it is natural to feel anxiety and fear. Nevertheless, I take great solace in the following wise advice to examine the problems before us: If there is something to be done—do it, without any need to worry; if there's nothing to be done, worrying about it further will not help."

- The 14<sup>th</sup> Dalai Lama of Tibet, March 30, 2020.

# Introduction

## Dear Friends, Fans, Colleagues, and Students:

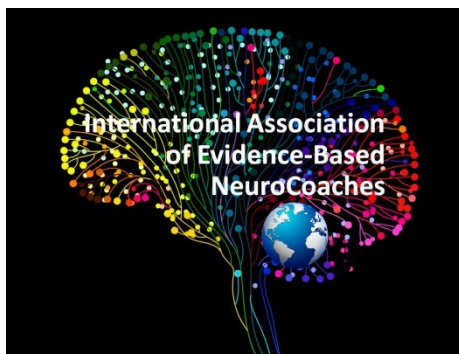
Most pandemics come and go with little fanfare, so they are soon forgotten. Not with COVID-19. For the first time in history, much of the world went into mandatory or voluntary social-isolation to slow down the spreading of this dangerously contagious virus. Unfortunately, the constant televised images of death and dire statistics causes neurological stress and anxiety, to the point where it can become crippling. In an effort to help we have put together some of the most powerful brain-based and evidence-based tools for you to use and share with others. Play with them, modify them, and add them to your growing arsenal of defense strategies to nurture your body, mind, and spirit. Enjoy!

Mindfully Yours,



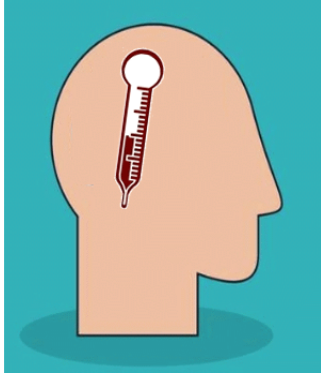
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# Pandemic Anxiety Makes Your Brain Temperature Go Up. Yawning Makes It Go Down!

Mark Waldman

There are now more than 60 studies showing how essential yawning is to maintain a healthy brain, and not a single one to dispute this evidence-based discovery. Yawning decreases anxiety. It stops you from ruminating on negative thoughts and feelings. It brings greater clarity and calmness. It helps you to make better decisions to achieve your desired goals.

But there's a trick: Don't just yawn a few times; practice doing three slow MINDFUL yawns so that you can actually experience the subtle shift in your mood and mental state. It brings you into the present moment, interrupting worrisome thoughts about the future. And it's contagious! Do conscious yawning with a group of people and you should experience more empathy and cooperation.

Nearly every form of neurological stress – caused by negative emotions, improper medication or disease – literally heats up the brain. And yes: getting angry make you a “Hot Head” who cannot think clearly or rationally.

When neurons become overly active, yawning will increase cerebral blood flow that will slow down excessive activity in the brain. That's why animals and people yawn when they wake up – to clear out the vague dreamlike state that filled with imaginative fantasies. And if you are feeling ill or feverish it's ESSENTIAL to yawn 5-10 times several times an hour to help your brain cool down and to boost the power of your immune system to heal.

One more thing: wearing a medical mask will also heat up your brain so make sure you learn how to evoke genuine yawns before putting it on and after taking it off. Can't yawn? Breathing in slowly through your nostrils and exhaling through your mouth has a similar thermoregulatory effect.

---SOURCES---

Yawning and stretching predict brain temperature changes in rats: support for the thermoregulatory hypothesis. Shoup-Knox ML, Gallup AC, Gallup GG, McNay EC. *Front Evol Neurosci*. 2010 Sep 24;2:108.

Effect of wearing an N95 filtering facepiece respirator on superomedial orbital infrared indirect brain temperature measurements. DiLeo T, Roberge RJ, Kim JH. *J Clin Monit Comput*. 2017 Feb;31(1):67-73.



## Stop Your Glucose Levels from Sky-Rocketing in Stressful Times

Kelly Bennett

Certified NeuroCoach and  
Clinical Social Worker

It was the end of my first weeks' stay at home following the global social distancing order, and my blood sugar was on the way up. I felt calm but my blood sugar was

screaming "Honey, you are one stressed-out woman." I knew I had to bring my glucose levels down to handle my 42 years of struggling with diabetes, and for anyone who has had similar issues, you know that the adrenaline of fear is not your friend.

No matter what kind of diabetes you might have – or hypertension or weight problems which, according to the World Health Organization, includes 70% of Americans and two billion people worldwide – the newest medical research shows that you have a much greater risk of getting ill, especially when facing Covid-19. Life-threatening viruses will be with us for a long time, so now is the time to take care of ourselves: to eat healthier, take our vitamins, exercise, and care for our mental health. Each of these are of equal importance but the #1 threat to our health is excessive stress, and how you choose to handle anxiety and stressful situations can literally save your life.

So what can you do right now to instantly lower your stress and take control over your anxious thoughts? Relaxed Mindful Awareness. There are now thousands of studies documenting the effectiveness of relaxation and mindfulness, and when you combine the two, you can feel the effects in minutes. Being mindful means to just simply be aware of how you are thinking and feeling in the present moment. You don't have to do anything other than to relax and pay attention to your body, mind, and mood for a few minutes. Your focus and concentration will immediately improve, allowing you to make better choices about your health. Mindfulness has been shown to work wonders for us, helping lower our levels of blood sugar, cortisol, blood pressure, resting heart

rate, high frequency heart rate variability, fasting blood glucose, cholesterol and low density lipoprotein levels.

There are several very specific things that you can do for yourself right now, and my absolute favorite method is to mindfully yawn. I want you to try it right now so take a moment to stop reading and close your eyes. Take a slow deep mindful yawn. Notice how it affects the way you breathe and pay attention to how the mindful yawn feels for your body. Then pause and notice any differences. Did you feel the yawn all the way to your stomach? Do you now feel a greater sense of relaxation, or a new sense of calmness? Did you observe a decrease in overall anxiety? Has your physical pain lowered?

Yes, it's even possible for a good, mindful yawn to decrease physical pain! Try this: make a small movement with your head or neck or shoulders or torso. The moment you feel a slight tinge of pain, pause and do a mindful yawn. For most people that tiny pain will evaporate!

Yawning appears to be the fastest way to decrease neurological stress, which is why infants begin yawning in the womb. Yawning is extremely healthy for you, and we should continue to do this our entire lives but we suppress them because people think it's rude. When you realize how important yawning is to maintain a healthy brain, it will make it easier to turn relaxed mindful yawning into a daily practice, one that you can teach to others to help them stay calm in the presence of any stressful event.

Let's do another mindful yawn but before you begin, rate your current stress level on a scale from zero to 10. Now, mindfully yawn three more times, pausing after each one to notice any changes in your body, your mental state, and your mood. Sometimes you'll start to spontaneously yawn much more over the next few hours as your brain releases deeper layers of stress that you were unaware of.

I'd like you try one more simple strategy that will help eliminate more body tension. Start to move your fingers and hands very slowly, so slow that it looks like you are barely moving at all, very, slow motion movement. Bring your fingers together and caress them very lightly. The slower you go, the more pleasure you'll feel, and this will release oxytocin, the famous pleasure chemical associated with social bonding. But guess what? Those self-nurturing caresses and the oxytocin that is released will also lower stress levels, blood pressure, and glucose levels thereby adding another layer of protection from cardiovascular disease, diabetes, and obesity.

Take a moment to savor this amazing discovery as you continue to gently and slowly move your fingers over any part of your arms, face, and body that evokes a soothing

and pleasurable response. Then pause and yawn and slowly stretch. I'm willing to bet that you are now feeling more relaxed than you may have ever felt in the past.

My healthy prescription for you is to mindfully yawn three times, perform one super-slow movement or stretch, and take 30 seconds to caress your body with your fingertips. Do this once each hour throughout the day to protect yourself from excess stress, and if you are feeling anxious, increase this "prescription" to every 20 minutes. After a week, you will notice a substantial improvement, and for me I was also able to lower my overall blood sugar levels.

Be well, be safe, and practice Relaxed Mindful Awareness every day!

---SOURCES---

Mindfulness mediates the physiological markers of stress: Systematic review and meta-analysis. Pascoe MC et al. *J Psychiatr Res.* (2017).

Mindfulness meditation and gene expression: a hypothesis-generating framework. Black DS, Christodoulou G, Cole S. *Curr Opin Psychol.* 2019 Aug;28:302-306.

Meditation or exercise for preventing acute respiratory infection (MEPARI-2): A randomized controlled trial. Barrett B, Hayney MS, Muller D, et al. *PLoS One.* 2018;13(6):e0197778.

Serotonin transporter gene alters insula activity to threat in social anxiety disorder. Klumpp H, Fitzgerald DA, Cook E, Shankman SA, Angstadt M, Phan KL. *Neuroreport.* 2014 Aug 20;25(12):926-3.

Relaxation training significantly reduced blood glucose levels in patients with type 1 diabetes mellitus. Paschali AA, Peppou LE, Benroubi M. *Hormones (Athens).* 2020 Apr 1.

Presenting Characteristics, Comorbidities, and Outcomes Among 5700 Patients Hospitalized With COVID-19 in the New York City Area. Richardson S, et al. *JAMA.* 2020 Apr 22.

COVID-19 and diabetes: Knowledge in progress. Hussain A, Bhowmik B, do Vale Moreira NC. *Diabetes Res Clin Pract.* 2020 Apr 9;162:108142.

Yawning-Its anatomy, chemistry, role, and pathological considerations. Krestel H, Bassetti CL, Walusinski O. *Prog Neurobiol.* 2018 Feb;161:61-78.

Yawning in neurology: a review. Teive HAG, et al. *Arq Neuropsiquiatr.* 2018 Jul;76(7):473-480.

C-tactile afferents: Cutaneous mediators of oxytocin release during affiliative tactile interactions? Walker SC et al. *Neuropeptides.* (2017).

Bonding With  $\beta$ -Cells-A Role for Oxytocin in Glucose Handling. Scerbo MJ, Gerdes JM. *Diabetes.* 2017 Feb;66(2):256-257.

Oxytocin may have a therapeutic potential against cardiovascular disease. Possible pharmaceutical and behavioral approaches. Buemann B, Uvnäs-Moberg K. *Med Hypotheses.* 2020 May;138:109597.





# Finding Meaning and Purpose in Times of Uncertainty

Mark Waldman

Feeling that your life is meaningful is an essential component for happiness, wellbeing, and life-satisfaction. But when there's a global threat – like this pandemic – a person's perspective about what the future may hold can be challenged. Old values might fall away or

seem irrelevant. Work-related goals can be threatened, and even one's purpose in life can feel derailed.

In many ways, this global crisis presents an existential threat, one that can challenge a person's core beliefs about everything, and this can stir up profound and unfamiliar feelings of anxiety or despair. Sadly, these types of emotional problems are often overlooked in society, including the different branches of psychology, even though the history of philosophy and religion is filled with different "solutions" to the singular question: "What is my purpose in this life?" A purpose-driven life is highly correlated with life satisfaction, but finding your "main" purpose requires a highly individualized strategy. Here are a few tips.

First, write down your own definition of purpose, but do this in a brainstorming way: make a bullet-point list of 10 or more qualities you intuitively think are related to "life purpose" in general, and then add to that list your own personal sense of what gives your life deep meaning. Then mindfully meditate on that list.

Now reflect on this question "What are my deepest innermost values?" Write down two or three personal values, several relationship values, several work-related values, and several spiritual values. Just use your intuition and write down anything that comes to mind. When you have 5-10 values on your list, deeply relax and gaze at those words and circle the ones that "feel" the most meaningful. Those are the values that give your life a sense of meaning and purpose, and it stimulates a part of your brain – the

Salience Network – that helps to regulate and balance all of the other networks in your brain necessary for functioning well in the world.

Post your “Values Board” where you can see it daily and continue to add additional values when they suddenly come to mind. Many of those words can even be used throughout the day as a meditation to ground yourself and instill a sense of calmness and serenity, simply by repeating it silently to yourself. Research from Harvard and other universities has demonstrated that those forms of value-based meditations will turn on thousands of stress-reducing and immune-enhancing genes, and if you share those values with others – and help them to find their own – your own state of serenity will spread – like a virus – to those you meet throughout the day. Life purpose, you see, is not a solitary activity, it’s a social responsibility.

One of the most important books written in the 20th Century was Frankl's "Man's Search for Meaning." Written in 1947, it remains one of the 10 most influential books in the US, with over 10 million copies sold. Frankl was a psychiatrist interned in Auschwitz, and he found that if a person lost purpose or meaning, they would die. He concluded that it is essential for a person to identify a positive purpose in life that would make them yearn to live. To do so you have to visually immerse yourself in imagining what that purpose would bring you and to then identify those goals that are aligned with those innermost values. Ideally those goals should be long-term, taking many years – even decades – to achieve. With those meaningful values and purpose-driven goals, you won't fall into the existential traps and profound anxieties that are spreading like a virus across the globe.

So if you are feeling excessive worry, devote a few extra minutes every hour throughout the day to reflect on those values that give you the “felt sense” – it’s not a thought! – of what is most meaningful for you.



# Overcome Social Isolation with a “Contagious” Smile

Mary Elizabeth Nauha  
Certified NeuroCoach

As many research studies have shown, smiling can have tremendous health and social benefits. It has to be the right kind of smile and it has to be genuine. One smile in particular has been shown to neurologically

stimulate trust in others, the one that Leonardo Da Vinci captured in his Mona Lisa painting.

The Mona Lisa smile reminds me of what it “feels” like to be in my safe place. Although excessive worry and anxiety are normal during a time of intense change and uncertainty such as we are experiencing, you must be careful because worrying – mostly an imaginary thought process predicting a potential negative outcome – can stimulate the threat centers in your brain.

The result? You’ll release a variety of stress neurochemicals that stop you from being happy and productive. Worse, when other people sense your anxiety it stimulates the anxiety centers in their brain. If you want to navigate these difficult times in a way that will benefit your brain, your body, your work and relationships with others, learn how to create a Mona Lisa smile – especially when you are in the company of others. It’s easy to do, but you will have to be determined in your efforts to reinforce new, more supportive and pleasing neural patterns.

Here’s how:

## Step One

First, train yourself to become aware of how your mind and body feels when anxious thoughts first begin to arise and see what you can do to relieve them. The easiest way to do that is by using a mindfulness clock app on your cell phone. Choose a chime that is pleasing to your ear (or you won’t use it) and set it to ring once each hour. When you hear the bell, just pause for 10 seconds to yawn, stretch, and relax. Then do a

physical and mental inventory, looking for tension in your body and paying attention to your mental stress: all you need to do is remain relaxed and mindfully aware of any tension, anxiety or worry that might be going on in the back of your mind and your anxious thoughts will diminish. This only takes about 60-90 seconds.

## **Step Two**

Staying deeply relaxed, think about someone you deeply love or an event that brought you great pleasure and satisfaction. Visualize that person's face or recall the positive feelings from that event. You'll notice that a small half-smile begins to form along with an incredible sense of well-being. You'll notice your face fully relaxes, releasing tension in your forehead and eyes. Now, when you go back to work your productivity and performance will increase and when you engage in a conversation, keeping that smile and positive memory alive, you'll generate more empathy and cooperation with others.

Frequently returning to that state of "Relaxed Mindful Awareness" throughout the day will move you away from those anxious thoughts that are being subconsciously generated by the Imagination/Default Mode Network in your brain. Here are a few variations to employ in Step 2 of this exercise that may help you to "acknowledge and release" tension, worry and anxiety, producing the smile that only comes when we're in a genuine state of well-being and calm:

1. Deeply relax (Step 1) and then write down one thing you are grateful for. Notice how your feelings change when you embrace that thought. Go deeper with this thought, allowing all of the "feel-good" hormones and endorphins to be released to your brain and body. You'll see your anxiety has melted away. Studies show that writing down 3 things you are grateful for at the end of every day for one week increases self-esteem and a sense of well-being.
2. Remember a time in your life when you felt supremely safe. Embrace this memory and the feelings associated with it, lingering there for a while. Notice tension leaving your body and allow yourself to feel safe in the present moment. Now imagine extending your sense of safety to someone else: a friend or colleague, an aging parent or a grandchild. Savor the sense of shared safety, well-being and calm.
3. Consider a time in your life that you've accomplished even a small, meaningful goal or achievement. Remember in detail the sense of fulfillment that accompanied it. Perhaps there was an acknowledgement or reward you received or a desired outcome that you had hoped for.

Savor the memories of each one. Write them down on an “achievement board” and go back to these whenever worry and doubt begin to arise.

4. Pay it forward. Teach others how to experience the Mona Lisa smile. Ask others to share what they feel grateful for. Guide those who are worrying into memories of safety and show them how to maintain that feeling throughout the day.

Remember: chronic worry can exhaust your brain and body, compromising your immune system. But it only takes a few seconds to relax and generate a genuine Mona Lisa smile. Immerse yourself in the feelings that are generated by that smile each time that you practice these exercises and you’ll immediately improve your performance, extending kindness to everyone you meet at work and at home!

---SOURCES---

Emotions Revealed, Second Edition: Recognizing Faces and Feelings to Improve Communication and Emotional Life. Ekman P. Holt, 2007.

Words Can Change Your Brain. Newberg & Waldman. Hudson Street Press, 2012.

What's in a smile? A review of the benefits of the clinician's smile. Beamish A, et al. Postgrad Med J. 2019 Feb;95(1120):91-95.



# Explore your Worries in a Mindful Dialog with Others

Mark Waldman

Self-isolation, for many people, can be a stressful event but it doesn't have to be so, as long as you have access to a phone or the internet. Why? Because any form of audio or video conferencing has shown to be

nearly as effective for dealing with social, educational, or business problems as face-to-face contact in the real world.

Yes, we are all under a mild form of “house arrest” and any form of isolation makes us more prone to worry about ourselves and the future (solitary confinement causes severe psychological distress). But for those of us who are honoring social distancing, there's good news: Most of your worries are self-created, generated by the Imagination/Default Mode network in your brain. But too much worry about the ramifications of this global pandemic – especially if you consistently ruminate for several months on all of the negative possibilities that may or may not occur - can leave emotional wounds that may last for years.

Many professionals recommend that you talk about your negative feelings with others, but there's a well-established neurological problem to that: The more you talk about your worries and fears with others, the more your brain will “cement” those negative thoughts into long-term memory. Then those worries will be unconsciously stimulated every time you see any pandemic statistic or image of suffering in the news. So if you can't express your anxiety, what can you do? Instead of “talking about” your feelings, allow yourself to simply be “aware of” the constantly changing thoughts and feelings – but do so while you are deeply relaxed, observing each feeling or thought and sharing it with a friend or colleague. Speak slowly, one sentence at a time and then pause for five seconds as you notice how your mood subtly changed. Then, when another thought comes to mind, share it. Or listen to a single sentence spoken by the other person .

It's a form of "dialog meditation." If you allow your imagination to dip into those worrisome thoughts - watching them as if they were projected onto a giant movie screen, with you and your friend sitting in the audience chatting about them – you'll quickly see that they are nothing but pieces of imagination rushing through your consciousness, faster than you could ever put into words. Allow yourself to free associate out loud for 2-5 minutes (experiment with different lengths of time) and then switch with your partner as you listen from a deeply relaxed state of mindfulness. Just let the other person's words flow through you.

This type of mindful dialog is far more effective than doing it alone because your partner – by calmly being present – stops the brain from getting lost in the imagination process. Just make sure that both of you keep yawning and stretching remaining as relaxed as possible; if you don't, you won't be able to see the "symphony" of all the inner chatter that is a natural function of the imagination/prediction processes in your brain.

Best of all, you can do this with a small group of people meeting on Zoom or Skype, taking turns exploring the millions of ways your brain generates anxious thoughts and feelings. Remember: worries, fears, and doubts are mostly imaginary fragments mixed in with negative memories from the past. A relaxed, mindfully aware dialogue quickly turns negativity into delight.

--SOURCES--

Videoconferencing psychological therapy and anxiety: a systematic review. Berryhill MB, et al. *Fam Pract.* 2019 Jan 25;36(1):53-63. ["Effect sizes ranged from small to very large, and all controlled studies found no differences between videoconferencing and face-to face groups."]

"House Arrest" or "Developmental Arrest"? A Study of Youth Under House Arrest. Chamiel E, Walsh SD. *Int J Offender Ther Comp Criminol.* 2018 Oct;62(14):4381-4402.

Psychological Distress in Solitary Confinement: Symptoms, Severity, and Prevalence in the United States, 2017-2018. Reiter K, et al. *Am J Public Health.* 2020 Jan;110(S1):S56-S62.



# COVID19 Strategies for Business Leaders: Use Brutal Honesty & Hope to Inspire Success

**Linda Cassell**  
Executive Consultant and Certified  
NeuroCoach

In the age of COVID19, how do we keep our teams engaged and inspired to work at their full potential, to keep reaching for that next best idea, when anxiety and uncertainty pervade every conversation, every media report, every step we take outside of our quarantined homes?

We need healthy bodies, minds, and spirits to generate energy and clear-headedness to make the best possible decisions. Hope and optimism are the foundations and the drivers of all three. But how do we break through the noise of anxiety that surrounds us 24/7 to deliver a message of hope?

Begin with brutal honesty.

Our colleagues hear the same disturbing messages that we do: social distancing may be in place until 2021; millions will remain unemployed; don't expect a vaccination anytime soon, etc. Empty messages of hope like, "there is nothing to worry about; we've been through things like this before;" will create resentment, mistrust, and more fear. Acknowledging the current reality, however, will engender trust, respect, and even relief. Let your team know that:

- What we are experiencing is novel: it is unprecedented in scale and complexity; there are no standard operating procedures or playbooks to guide us; the virus is impacting every sector of our society (and the world) simultaneously.



- Because of its novelty and complexity, there is cause for concern. We have never experienced anything like this in our lifetimes.
- COVID19 is likely to be with us for a long time.

Combine the above with a message of hope:

- This is the time to be ingenious. We don't need to be in "survival" mode; we need to be in "re-invention/transformation" mode. We may take losses, but your creativity can help sustain us.
- Since no one has "the" answer, there are no right or wrong ideas. This is a time for a rich exchange of creative thought. Nobody gets to be wrong.
- The problems we face can only be solved collectively. Every single person can contribute. Every contribution matters and is needed.
- It is understandable, human, and healthy to worry, given the current circumstances. We just don't want to "dwell" in this state of anxiety for too long. If we do, chances of a successful outcome become much less likely. We will lose the opportunity to inform what we will look like and how we will function in the future.

The dictionary defines hope as a desire accompanied by expectation or belief in fulfillment, and optimism has a similar meaning: confidence about the future knowing that we will succeed. If we believe in our mission and have confidence that we can overcome our current circumstance – to create something for ourselves that is new, better, and transformative – we will have the motivation to take the next best step.

Here's an important neurological fact: It's impossible to worry and simultaneously do our best problem solving. Recent neuroscientific studies confirm that we do our best work when we are hopeful, curious, and motivated to discover anything new. Introduce the following to make your message more impactful:

- Hope, confidence, and optimism motivate us to act and it stimulates the problem-solving and decision-making areas of the brain, referred to as the Executive Network. When we focus our attention on the goals and actions that would be the most rewarding – for ourselves and for others

– it shuts down the worry centers in the brain that interfere with our ability to fulfill our expectations.

- Excessive worry and stress compromises the body's immune system, but focusing on a deep inner value that has great meaning (for example: peace, love, integrity, family, perseverance, etc.) can turn on 1200 stress-reducing genes and 1000 immune-enhancing genes. In the age of COVID19 this is very good news! A healthy immune system can help protect us from contracting the virus and, if we have it, to recover from it more quickly.

Introduce the following exercise to help your team build their “hope” neurons and remain engaged at the highest possible level, but first provide some context because some staff might equate the word “hope” with being soft or some sort of “new age” thinking. Before introducing the following exercise, use the above information to demonstrate the link between “hope” and the capacity to solve problems.

## **The exercise**

For the next five days, preferably in the morning, ask that they (1) think about a deep inner value that can help them to stay centered throughout the day and notice how it feels when they repeat the word or phrase to themselves; (2) identify an important goal that they want to fulfill, write it down, and visualize achieving it; (3) think about an obstacle that might interfere with reaching that goal, write it down, and spend a few seconds imagining how they can overcome it. What does the obstacle look like? How does it feel? Then write down any strategies or action steps to overcome or work around the obstacle. If nothing comes to mind, that's fine. They may think of something later in the day or the next day. The most important part of the exercise is to visualize the goal they want to accomplish and then visualizing removing the obstacle, a process known as mental contrasting. It shifts the focus from being “stuck” to taking action.

Repeat this exercise for five days. The values, goals, and obstacles may remain the same or they may vary. At the end of the five days, they should review their notes. What did they notice? Did anything change over the five days? What did they learn about themselves? Did they accomplish more goals with less stress?

At the next team meeting, without divulging the obstacles they identified (unless they do so voluntarily), ask what they learned. What was most important? Chances are you will have a rich discussion that will inspire and motivate everyone. Encourage them to continue building their “hope” neurons by repeating the exercise and sharing it with

others. This will shift the focus from feelings of “overwhelm” to “we can do this together.”

Messages that consist of brutal honesty combined with a rationale for hope and optimism, and exercises like the ones above can create the conditions for successful problem solving while helping our teams remain engaged at the highest possible level.

--SOURCES--

Influence of vmPFC on dmPFC Predicts Valence-Guided Belief Formation. Kuzmanovic B, Rigoux L, Tittgemeyer M. J Neurosci. 2018 Sep 12;38(37):7996-8010.

As above, so below examining the interplay between emotion and the immune system.. Dialogues Clin Neuroscience. Brod S1, Rattazzi L, Piras G, D'Acquisto F Immunology. 2014 Nov;143(3):311-8. doi: 10.1111/imm.12341.

Genomic counter-stress changes induced by the relaxation response. Dusek JA, Otu HH, Wohlhueter AL, Bhasin M, Zerbini LF, Joseph MG, Benson H, Libermann TA.. PLoS One. 2008 Jul 2;3(7):e2576.

“Personal Inner Values: A Key to Effective Face-to-Face Business Communication.” Manning CA, Waldman MR, Lindsey WE, Newberg AS, Cotter-Lockard D. Journal of Executive Education, Vol 11, 2012.

Mental contrasting as a behaviour change technique: a systematic review protocol paper of effects, mediators and moderators on health. Cross A, Sheffield D.Syst Rev. 2016 Nov 25;5(1):201.



# Fight Pandemic Anxiety with Placebos

Mark Waldman

Placebo research has been a major area of investigation in medicine for the past 15 years, and some astonishing discoveries have been made. For example, probably 30-40% of one's healing is associated to the placebo response, but both you and your doctor need to have strong positive beliefs and expectations that your health will improve.

A new line of research began in 2009 was recently featured in both Time and Scientific American: if you give people bottles of inert substances AND you openly label them "placebo" their health problems improve faster. Ted Kaptchuk, a professor of medicine at Harvard Medical School and one of the leading researchers on the placebo effect has shown that if the doctor/therapist used a warm gentle voice, the patient's healing outcome improved by more than 50%. And if you double the amount of placebo you are taking, effects will be stronger!

If a person is unknowingly given a placebo, it will still have a specific beneficial effect on the brain, but one that is different than how the prescribed medication affects the same person's brain. Also, certain placebos work better than others. For anxiety, blue pills work better than other red or yellow pills, and white pills are better for reducing pain! And if you take a placebo – even knowing that it's a placebo – with your regular medication, the meds will be more effective. Why? That's what scientists are trying to unravel and I suspect that it may have something to do with helping you become more mindfully aware of your body and mental state. Hundreds of studies support this showing that daily mindful awareness practices lower stress and boost the healing powers of your immune system.

In a recent study published in June 2018 in Frontiers in Psychiatry, Kaptchuk discovered that placebo needles are more potent than placebo pills, and that the more ritual you add to the treatment, the more effective it becomes.

So what makes placebos work: your positive belief and the optimism of those around you who are expressing compassion with a warm soothing tone of voice; confidence in those who are treating you; deep relaxation and pleasurable tactile sensations; and the mindful observation of your thoughts, feelings, sensations – a practice that reduces stress, negative emotions, and the propensity to worry about the future. Apply these strategies to yourself and teach them to others who are worrying about their future health and well-being.

Final Thought: Practice being a realist and an optimist at the same time. Avoid conspiracy theories and overly dramatic “scare” opinions that dominate many television news stations. If you are feeling what I call “pandemic anxiety” remember this: Anxiety is fantasy generated by the imagination/Default Mode network in your brain that is predicting a future negative outcome. If you ruminate on the POSSIBILITY of something bad happening, you are ignoring the other half of your imagination that is predicting positive outcomes. The key word is *may*: maybe things will get better (optimism) or maybe worse (pessimism). Pessimism generates anxiety causing neurological stress. Optimism boosts the power of your immune system. Which do you choose?

---SOURCES---

How Placebo Needles Differ From Placebo Pills. Chae Y, Lee YS, Enck P. *Front Psychiatry*. 2018 Jun 5;9:243.

Open-Label Placebo Treatment for Cancer-Related Fatigue: A Randomized-Controlled Clinical Trial. Hoenemeyer TW, Kaptchuk TJ, Mehta TS, Fontaine KR. *Sci Rep*. 2018 Feb 9;8(1):2784.

Open-label versus double-blind placebo treatment in irritable bowel syndrome: study protocol for a randomized controlled trial. Ballou S, Kaptchuk TJ, Hirsch W, Nee J, Iturrino J, Hall KT, Kelley JM, Cheng V, Kirsch I, Jacobson E, Conboy L, Lembo A, Davis RB. *Trials*. 2017 May 25;18(1):234.

Open-label placebo treatment in chronic low back pain: a randomized controlled trial. Carvalho C, Caetano JM, Cunha L, Rebouta P, Kaptchuk TJ, Kirsch I. *Pain*. 2016 Dec;157(12):2766-2772.



# Quash Your Anxiety with Memories of Success

Heidi Normandin  
NeuroCoach and Peak  
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People everywhere are anxious right now. Even those stoic friends, unflappable news anchors, and reassuring public officials seem worried. The very definition of

anxiety is uncertainty about the future, which has never been truer for billions of people across the globe.

Some people are terrified about contracting COVID-19. Some are heartbroken because they're separated from family members. Others have lost their jobs or a significant portion of their income. The evening news tells us of how to alleviate these anxieties: wash our hands, connect with loved ones on Zoom, and apply for unemployment benefits.

But what about the "other" anxiety, where you're afraid you couldn't handle whatever comes your way? Do you think things like, "I don't know what I'd do if I lost my job," or "I couldn't handle my mom getting sick and not being able to be with her," or "I can't imagine being sick and all alone."

I have good news. Your mind is a genius at protecting you from future disasters or negative situations but it's a dunce when it comes to remembering your strengths and achievements. If we peered into the billions of anxious minds right now, we'd find a lot of activity in the parts of the brain that are:

- Scanning the environment for potential threats and sending out stress signals via the amygdala to all the other parts of your brain.

- Bringing past negative memories and negative beliefs into consciousness (a process shaped by the dorsolateral prefrontal cortex in the Executive Network) which can lead you to believe you'll have another negative outcome.
- Generating all kinds of negative fantasies and thoughts that you won't be able to handle what life throws at you (taking place in the Default Mode Network) which can significantly interfere with your decision-making skills (also in your Executive Network).

Other areas in your brain (like the Salience Network) get derailed, blocking you from using your intuition and creativity to find practical solutions that can lead to a feeling of confidence and calm. But there are simple things you can do to stimulate the Salience Network, which, as a bonus, plays a key role in optimizing the functioning of your entire brain. So let's crank up that activity and restore some balance to your mind and your life!

Here are the steps:

- **Relax.** Relaxing your mind is the first step to gaining clarity and reducing mental stress. You probably know how to relax your body through yoga or stretching, but do you know how to relax your mind? One of the most effective ways is something our cats and dogs do all the time: yawning! Yawning slows down your active imagination; interrupts your brain's ability to overly focus on negative feelings, thoughts, memories, and beliefs; and helps you become highly focused on achieving the goals you desire. So try this now: Do three "mindful" yawns, noticing how each one feels different and leads you into a deeper state of calm, in-the-moment awareness. Now you are ready for the next step.
- **Remember a time you were successful.** Visualize it as fully as possible and savor the satisfaction it brought you (you can also bring to mind any pleasant memory, person or place).
- **Now recall one of the more challenging times in your life,** one that you eventually overcame. Visualize the obstacle and then visualize how you overcame it (this is called mental contrasting and it helps your brain find better solutions to any problem you face).
- **Write down at least 5-10 other challenges you overcame.** Then yawn a few more times and mindfully gaze at your solutions. Savor them and

then ask your intuition for an insight. Do you see personal strengths that you haven't paid attention to? Stay deeply relaxed and pay attention to all the positive thoughts and feelings that come to mind. Keep your list and each day add another challenge you overcame that brought you closer to happiness and success.

You should now feel confident in your ability to lead yourself and others through whatever challenges come your way. (And don't be surprised if this powerful confidence-boosting exercise inspires you to make some overdue changes in your life!) Whether at work, with your family, or at the grocery store, you can be a source of calm and help others to recognize their strengths as they strive to overcome their pandemic concerns and fears. To stay in this stress-free zone, download a mindfulness clock app onto your cell phone and set it to ring once an hour. Just take 60 seconds to mindfully yawn, relax, and savor a pleasant memory or accomplishment...and appreciate yourself for leading us to a calmer state of mind!

---SOURCES---

Interactive association between negative emotion regulation and savoring is linked to anxiety symptoms among college students. Chiu HT, et al. *J Am Coll Health*. 2019 Mar 25:1-8.

Being present and enjoying it: Dispositional mindfulness and savoring the moment are distinct, interactive predictors of positive emotions and psychological health. Kiken LG, Lundberg KB, Fredrickson BL. *Mindfulness (N Y)*. 2017 Oct;8(5):1280-1290.

Optimizing expectations and distraction leads to lower cortisol levels after acute stress. Salzmann S, et al. *Psychoneuroendocrinology*. 2018 Feb; 88:144-152.

Cortisol response to stress: The role of expectancy and anticipatory stress regulation. Pulpulos MM, Baeken C, De Raedt R. *Horm Behav*. 2020 Jan; 117:104587.

Uncertainty and anticipation in anxiety. Grupe DW, Nitschke JB. *Nat Rev Neurosci*. 2013 Jul; 14(7) :488-501.





# Is This Pandemic a Traumatic Experience? For Most People, No.

Mark Waldman

Consider these questions:

1. Do you consider yourself emotionally resilient to serious problems?
2. Are you strongly optimistic?
3. Do you remain calm rather than anxious when facing potential emergencies? Think deeply about each one before answering.

If yes, then the likelihood of being traumatized by this pandemic is small. The American Psychological Association defines trauma as an emotional response to a terrible event, followed by shock, denial, unpredictable emotions, flashbacks, strained relationships and even physical symptoms like headaches or nausea that continue for several weeks. But if these symptoms continue or increase that becomes the clinical “definition” of trauma, and can be viewed along a spectrum ranging from mild to severe (PTSD).

Fortunately, research shows that most people are resilient and will quickly recover from a tragedy and function in their work and relationships in familiar ways. It is prolonged distress that you need to “worry” about, but it’s way too early to predict what your emotional state will be in for another couple of months. But if you WORRY about the future, as opposed to PREPARING for it, it will increase your risk for long-term problems. Resilience and recovery are the norm, but if you don’t feel normal that’s the time to seek professional help. So now is the time to increase your skills of resiliency and your mindful ability to be aware of what is actually happening instead of becoming overwhelmed by your negative thoughts and feelings.

A trauma is a genuine “attack” on your well-being that comes from an outside source, but a POTENTIAL threat is not a traumatic experience. It’s a call for action to protect yourself and others as best you can. But chronic worry or anxiety will interrupt your brain’s instinctual propensity to remain alert and observant, and to initiate strategies to remain safe.

But what if you begin to feel emotionally numb or detached, or start feeling overwhelmed or hopeless, or begin experiencing substantial fatigue day after day? Those are symptoms of cognitive dysfunction where different networks in your brain that regulate motivation, decision-making, and creative problem-solving are disrupted. When this happens, another brain area known as the Salience Network is disrupted, interfering with its ability to maintain a healthy balance of the other brain networks needed to function well in the world. Fortunately, we now have hundreds of studies showing how easy it is to stimulate the Salience Network and literally “reset” the neurological balance in your brain. The technique – and the only one to document this type of brain enhancement – is a few weeks of performing daily mindfulness exercises. And from the brain-scan research we’ve been conducting over the past 15 years, very brief periods (1-5 minutes, four to eight times a day) of mindful relaxation, mindful observing of your thoughts and feelings, or super-slow mindful movements will have immediate effects helping you to remain calm, creative, motivated, alert, and optimistic. In a word, “Relaxed Mindful Awareness” makes you more RESILIENT to stress, anxiety, depression, and trauma.

I’m also willing to bet that if you do a series of mindful yawns, you’ll feel an immediate calmness in less than a minute. Why? Because yawning is one of the brain’s essential mechanisms for reducing neurological distress.

What most of us are experiencing now is Information overload, not sensory overload. Again, remember: if nothing is physically happening to you or to the people around you RIGHT NOW, the stress you are experiencing is cognitive. You have too many thoughts occurring about what may or may not happen and that causes excessive neurological activity that dysregulates the normal functioning of your brain networks.

There’s an interesting paradox here when it comes to gathering important information about a current or future problem. It’s easy to become obsessed with the news rather than using the information to make wise decisions. And television news is particularly dramatic, making it difficult to walk away. We learned an important lesson from 9-11: the longer you watched the replay of the planes crashing into the Twin Towers, the more likely you would later have symptoms of post-traumatic stress. Your brain reacts to images on television as if you were present at the scene of the tragedy. So if you are disturbed watching the news, read about it from a fact-based (yes, liberal) source.

Don't keep vigilantly watching the TV. Gather information instead of emotionally overreacting.

Practice mindfulness – and this is best done with a friend or colleague – by observing how you are thinking for about 10 seconds, then pause and yawn and stretch and bring your attention to a pleasurable experience. Then observe your next feeling or thought. If you do this aloud with a friend, taking turns sharing those thoughts and feelings and then returning to a state of “Relaxed Mindful Awareness,” you should feel amazingly calmer for the next day or two.

Learn how to notice the imagination/prediction processes that are constantly going on in your Default Mode Network, and then notice how your mind – the thinking processes that are also constantly going on in your Executive Network. If you stay relaxed, observant, and nonjudgmental, all of our brain-scan research and the mindfulness research shows that you immediately stimulate the anterior cingulate and insula, the two key structures of your Salience Network. You are turning down activity in your emotional networks along with the worrisome thoughts and feelings that interfere with calmness, serenity, empathy, compassion, and self-love. Not bad, considering that you only need to spend 60 seconds once an hour mindfully yawning, mindfully stretching or moving super-slowly, and mindfully reflecting on your deepest inner values. Savor the resilience you feel, knowing that you have protected yourself from trauma.

**IMPORTANT NOTE:** If you have past traumas or a history of severe anxiety or depression, those memories and feelings can resurface now, and especially in the next few weeks as the pandemic spreads and slowly fades away.



# What does it mean to Ruminat

Suzy Christensen

NeuroCoach and Freelance Poet

The human brain is incredibly creative, and it dreams up positive and negative scenarios all day long. But if you begin to ruminate on just the negative ones, other parts of your brain respond to those fantasies as if they were real.

Rumination comes from the Latin word “ruminat,” which literally means to “constantly chew the cud over and over,” and it came to mean that a person was thinking deeply about something. But in the latter part of the 20th

century it took on a specific psychological meaning concerning a person who overly focuses all of their attention on distressful situations. Chronic negative rumination turns worry into anxiety and can eventually lead to symptoms of depression.

To make matters worse, the human brain pays more attention to negative stimuli – including one’s worrisome thoughts – because it can be a threat to one’s well-being, and those types of emotional experiences form stronger memories than the positive ones that are also happening. Thus the more we ruminate on the things that might go badly in the future (illness, loss of work, eventual death), the stronger those negative memories become and when stress or anxiety are active, our negative rumination can take us into a tailspin of despair. We become lost in the crannies of our Default Mode Network, which is where our brains imagine and predict possible positive or negative outcomes.

These fantasies – along with negative memories from the past – are not real; they only feel that way because we are obsessively ruminating on them. If you want to free yourself of the habitual tendency to over-focus on negative fantasies, the first step is to become aware that we are unconsciously doing this. One simple strategy is to write down every negative thought you have in a single day, and you’ll be surprised by how many you have. Most people can’t even go 5-10 minutes without being interrupted by something negative.

I remember waking up one morning with negative thoughts on my mind, and the more I ruminated on them the more I wanted to put my head under the sheets and bask in self-pity. Why is this? I was ignoring all of the positive thoughts and feelings that were also going on in the imagination center of my brain. In fact, that part of your brain is generating an equal amount of positive possibilities that may or may not happen in the future. You might say we have both an optimist and pessimist in our brain, and the side we choose to ruminate on will become our internal reality.

To undermine negative rumination, Robert Leahy, a clinical Professor of Psychology at Well-Cornell Medical School, recommends the following:

- Ask yourself if your negative thinking has ever helped you in the past. Usually the answer is "no."
- Write down your negativity, and then put the sheet of paper aside. Later, when you look at it, the problem won't seem as large.
- Ask yourself if the problem is real or imaginary. Is it part of the present, or part of the past. Accept the past and let it go.
- Instead of focusing on your problem, focus on an immediate goal you can accomplish.
- Accept that many problems are unpleasant, difficult, and unfair, and that some of them simply can't be solved.
- Take a break and focus on something enjoyable to do.

The power of our imagination can trap us either in a downward spiral of negative thoughts or an upward spiral that leads to happiness, success, and lifelong satisfaction. In these times of "pandemic anxiety," it is essential to think deeply about the situation, seeking a path that will lead to creative life-enhancing actions. When you do so, decades of useless old habitual behaviors will fall away.



# Write Your Pandemic Worries Away

Mark Waldman

Yes there are great signs that things may soon be improving, but just thinking about positive outcomes is not enough to squash those weeks (or months or years)

of worrisome thoughts and feelings, especially since most of them are now cemented into nonconscious parts of memory and imagination. You'll need to find them and write them down, and then intentionally gaze at your list as you put yourself into a state of "Relaxed Mindful Awareness" (using a series of mindful yawns and super-slow stretching, as I've been "preaching" for two dozen years...it's simply faster than other relaxation strategies and the yawning specifically deactivates the worry centers in the Imagination/Default Mode Network that takes up a good chunk of your neocortex.

Next, you'll need to "overwrite" those negative thoughts by creating a list of several deep inner values that emerge when you follow your intuition while remaining in that calm and pleasurable state of Relaxed Mindful Awareness. Keep asking yourself these questions: "What is my deepest personal value?" "What is my deepest relationship value?" "What is my deepest work-related value?" Try to find three words for each category, but again, you must write them down. Then you can mindfully gaze at your list and find the words that resonate strongly. Repeating those words, or any affirmation that has deep meaning or value to you, will turn on thousands of stress-reducing and immune-enhancing genes, but you'll have to do so on a daily basis for 4-8 weeks. That's what the research shows.

Here's a neuroscientific fact: Just doing affirmations or meditating on happiness or success barely stimulates any of the important neural structures in your brain that help to regulate emotional and psychological health. Talking about them, even in therapy, is not enough. You have to write down your worries, your hopes, your values, and your goals, and then study and meditate on what you wrote in order to turn those desires into memories that are strong enough to influence your daily behavior. In other words, your brain learns by combining thinking, writing, reading, listening, speaking, and rehearsing any important concept and skill that you want encoded into long-term memory.

For children and young adults, writing appears to be one of the most effective ways to achieve goals, develop new skills, and most important, to build confidence and self-esteem. In one research study, high school students were asked to do the following task for ten days. Each night, before going to bed, they wrote down three things they did well that day. Then they stopped. At first not much improvement was seen, but with each passing month, for the next three months, the student's sense of happiness and well-being dramatically increased! And yes, it also has similar benefits for adults. The author of these famous studies, Martin Seligman, who founded the field of positive psychology, added that the effects will not fade away, as is the case with placebos.

If just ten days of reflecting on what we do well can generate months of psychological improvement, imagine what would happen if you wrote down your accomplishments each day for a month? That's what I recommend you do, and to repeat this exercise often, especially when you feel frustrated in your work, your relationships, or your life.

So if you want to transform a negative outlook on life, we suggest that you stimulate as many language, learning, and sensory centers in your brain as possible. Focus on information that has the greatest value to you, and then read from the best sources possible to build your desired knowledge or skill. Use your intuition to seek insights and creative solutions, and then write them down, along with your daily accomplishments and positive experiences. Savor your discoveries and seek out pleasurable activities associated with them. And then share your successes with others. Not only will it strengthen your own optimism, it will also stimulate the listener's brain in many positive ways.

Here's another excellent strategy to improve your mood and self-esteem: Keep a daily gratitude list of the people and experiences for which you feel thankful. When 221 young adolescents were asked to keep a gratitude journal for three weeks, their sense of well-being, optimism, and satisfaction with life improved. But when they kept lists of daily hassles, their moods and coping behaviors did not improve. Children who feel the most gratitude toward others and about their lives exhibit greater satisfaction and optimism and have better relationships with their peers. So during these globally stressful times, practice these simple brain-changing strategies to your family, friends, and students, and together we can help each other to grow.

---SOURCES---

A balanced psychology and a full life: Seligman M. E., Parks A. C., Steen T. *Philosophical Transactions of the Royal Society of London: Series B, Biological Sciences*. 2004 Sep 29; 359(1449):1379–81.

Positive psychology progress: Empirical validation of interventions: Seligman M. E., Steen T. A., Park N, Peterson C. *American Psychologist*. 2005 Jul–Aug; 60(5):410–21.

Journaling about stressful events: Effects of cognitive processing and emotional expression: Ullrich P. M., Lutgendorf S. K. *Annals of Behavioral Medicine*. 2002 Summer; 24(3):244–50.

The effects of journaling for women with newly diagnosed breast cancer: Smith S, Anderson-Hanley C, Langrock A, Compas B. *Psycho-Oncology*. 2005 Dec; 14(12):1075–82.

Writing about testing worries boosts exam performance in the classroom: Ramirez G, Beilock S. L. *Science*. 2011 Jan 14; 331(6014):211–13.

The effects of counting blessings on subjective well-being: A gratitude intervention in a Spanish sample: Martínez-Martí M. L., Avia M. D., Hernández-Lloreda M. J. *Spanish Journal of Psychology*. 2010 Nov; 13(2):886-96. "Counting blessings versus burdens: an experimental investigation of gratitude and subjective well-being in daily life." Emmons R. A., McCullough M. E. *Journal of Personality and Social Psychology*. 2003 Feb; 84(2):377–89.

Counting blessings in early adolescents: An experimental study of gratitude and subjective well-being: Froh J. J., Sefick W. J., Emmons R. A. *Journal of School Psychology*. 2008 Apr; 46(2):213–33. Epub 2007 May 4.

Counting blessings versus burdens: an experimental investigation of gratitude and subjective well-being in daily life: Emmons R. A., McCullough M. E. *Journal of Personality and Social Psychology*. 2003 Feb; 84(2):377–89.

Gratitude and subjective well-being in early adolescence: Examining gender differences: Froh J. J., Yurkewicz C, Kashdan T. B. *Journal of Adolescence*. 2009 Jun; 32(3):633–50.







# Tigers in a Cage

Kate Edwards  
NeuroCoach

Tiger King has taken over our screens and our social media, and for many of us, we pace around in social isolation like tigers caged in without a choice. But are we really limited by physical confines, or are we caged in our mental ones?

The world is slowly “reopening” and the psychological wounds will stay with us for many years, but there is also an opportunity to learn a new

kind of freedom – one within ourselves – to discover who we are and to reflect on the new kinds of lifestyles that will help us thrive. We learn what we can and cannot control and what we can do to free ourselves from our mental cages.

We have been gifted the time to reflect on what we truly value, to reconnect with our intuition and our own inner wisdom. It’s an opportunity to realign with our own purpose and person, to slow down, and to learn how to trust ourselves again.

Why is this so important? When we value and trust ourselves, and follow our own inner wisdom, we hold the power to heal the deeper issues and past pain that have remain stored away in the deepest recesses of our brain. Slowly and gently we can sit with those emotions, heal our wounds, and embrace ourselves and others with compassion.

Learning to take care of ourselves - to hear ourselves and heal ourselves - allows us to enjoy life and discover what is within. Here’s one way to begin that inner journey right now:

- Mindfully yawn. Take a moment to get comfortable and close your eyes, taking a few moments to become more centered and grounded. Again, as many of our NeuroCoaching community have suggested in the previous essays, take three slow mindful yawns. At first you may struggle, but by the third yawn you should feel a subtle but remarkable

shift in your mind and body, even perhaps a sense of bliss! The practice of mindful yawning will help you to get more fully in touch with a natural human reflex that is designed to rapidly relieve psychological stress.

- Mindfully move. Staying deeply relaxed, begin to scan your body for any tension, starting at the top of your head and moving all the way down to your toes. Slowly and gently make tiny movements so that you can feel where the tension may be in your neck, shoulders, arms, hands, torso, legs and feet. If you don't go super slowly you'll miss a lot of the tiny aches and pains that quickly accumulate throughout the day. When you come across an area of tension pause and gently tighten those muscles and then relax. Again, slow slow slow movement is key here.

Try this: Sitting in a chair, rotate your head in a full circle (as if you were drawing a circle with your nose on an imaginary chalkboard in front of you), but take a FULL minute to do so. I actually want you to slowly count to 60 because you'll discover, as most people do, that you are going 2-4 times faster!. When you come across an area that feels tight, achy, or even painful, pause and rest there and take a slow deep breath in. Then, if you still feel a tiny ache or pain, trying doing a mindful yawn – it will usually disappear! Many studies have shown that slow mindful movements improve many cognitive functions in your brain including creativity, better mood regulation, and improved motor coordination.

- Mindfully self-soothe. When you feel tense or anxious, or your mind wanders to thoughts that make you feel uneasy, self-soothing touch is key to moving through these emotions. But again, the secret is in going super-slowly. Using your fingertips, slowly and lightly stroke your hands and arms in a pleasurable way. Or gently squeeze your hands and arms in a way that feels safe and relaxing. Slowly scratch or run your fingers through your hair – doesn't that feel good? Be playful and curious as you explore for yourself what feels nice. Research has shown that pleasant, affectionate self-touch provides various health benefits, reducing stress, anxiety, and depression, and it will even reduce the intensity of any emotional experience or painful memory. And even more important – especially in times when we are alone or isolated from others, self-touch will nurture you almost as well as being nurtured by someone else!

Remember: if you are worrying about the future or your health, or anything – a few mindful yawns, super-slow movement, or a self-soothing touch will tame the tiger within.

---SOURCES---

Mindful movement and skilled attention. Clark D, Schumann F, Mostofsky SH. *Front Hum Neurosci*. 2015 Jun 29;9:297.

A Neurophysiological and Neuropsychological Consideration of Mindful Movement: Clinical and Research Implications. Russell TA, Arcuri SM. *Front Hum Neurosci*. 2015 May 26;9:282.

Gentle touch perception across the lifespan. Sehlstedt I, et al. *Psychol Aging*. 2016 Mar;31(2):176-84





# In Conclusion: During Times of Stress Don't Forget to Laugh!

Mark Waldman

It is rumored that Paul Simon may have said, during this global social-isolation experiment, "There Must be 50 Ways to Get a Haircut." This - as you can plainly see - ain't one of them, and god forbid if this picture goes...uh....viral.

Now that would TRULY be a hair-raising experience. (Yes, I know ... I just split an infinitive!)

Did I make you laugh or smile, or at least slightly cringe? Good! I boosted your immune system! Laughter can alter dopamine and serotonin activity, stimulating the brain's motivation centers and increasing your level of self-confidence. The endorphins secreted by laughter can help when people are anxious, uncomfortable, or in a depressed mood. If you are feeling pain, laughing will release opioids. Having sleep problems? Engage in "laughter therapy" – it really works!

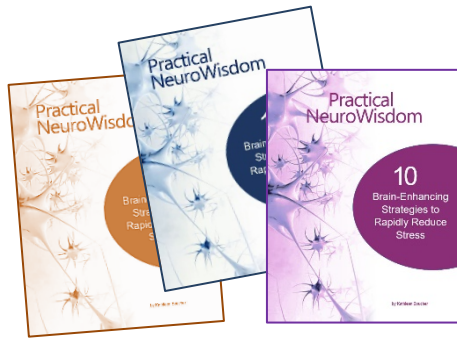
I'M SERIOUS: Find as many ways to engage in social humor: in video conferencing, on the phone, in emails. And do it often. It's profoundly healing and it contributes to your psychological well-being. And that's no laughing matter...sort of!

---SOURCES---

A meta-analysis of randomized controlled trials of laughter and humour interventions on depression, anxiety and sleep quality in adults. Zhao J et al. J Adv Nurs. (2019)

The Humor in Therapy: the Healing Power of Laughter. Amici P et al. Psychiatr Danub. (2019)

Social Laughter Triggers Endogenous Opioid Release in Humans. Manninen S et al. J Neurosci. (2017)



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