

BRAIN HEALTH BOOST



The Brain-Skin Connection

*The Brain Health Initiative (BHI) is working to develop brain healthy communities, creating a culture that promotes brain health protective factors and decreases risk factors, thereby improving brain health, optimizing brain performance, and preventing and fighting brain illness across the lifespan for the Florida Suncoast region and beyond. **Today we are talking about the link between stress and your skin.***

Our skin can be a reflection of our overall brain health. If we are stressed, not eating right, or not getting enough sleep — our skin will show it. Studies have proven that stress can have a negative effect on our skin and can exacerbate several skin conditions such as psoriasis, eczema, acne, and hair loss. In addition, our skin can produce its own stress-inducing signals, which can travel to the brain and perpetuate the stress response.

A recent [Harvard Health Blog](#) highlighted the brain-skin connection and the stress effect. Stress triggers the three glands that play a key role in our stress response: the hypothalamus, pituitary, and adrenal. These glands respond to stress by producing inflammatory factors, such as cortisol and hormones called catecholamines. These factors send immune cells from the bloodstream into the skin and stimulate inflammatory mast cells, whose response to cortisol can lead to itching, redness, and other skin conditions.

Research shows that when we are feeling psychological stress, a brain health risk factor, it can affect the top layer of our skin that locks in moisture and protects us from harmful microbes in the environment. Disruption of this barrier can lead to irritated skin and chronic skin conditions including eczema, psoriasis, or injuries. Acne outbreaks have also been linked to stress, although researchers are still working to understand this relationship.

Because our skin is exposed to the environment, many environmental stressors can trigger a response in our skin. Stressors like ultraviolet light and temperature can contribute to stressed-out skin, and our skin sends the stress signals back to the brain creating psychological stress.

So, what can we do to stop this cycle of stress between the brain and the skin? Researchers continue to study the effects of stress reduction and the health of our skin, but there is some evidence to support the regular practice of meditation and relaxation for improving some skin

conditions. A brain healthy lifestyle, including a well-balanced diet and exercise, may also help to regulate stress hormones and have positive effects on the health of our skin and hair.

WHAT YOU CAN DO TODAY TO PROTECT YOUR BRAIN HEALTH

Your lifestyle can affect your skin. Here are a few suggestions for keeping your skin youthful and healthy.

- **Watch your diet.** Vitamin C and reducing fats and carbohydrates are associated with better skin and brain health. Antioxidant-rich foods such as fish, fruits, and vegetables, seem to help protect skin.
- **Vitamins.** Most topical skin treatments contain vitamin C or E. Eating foods rich in these vitamins and the mineral selenium (Brazil nuts, seafood, organ meats, cereals and grains, dairy) can help protect your skin against sun damage. They may even help reverse signs of aging, like wrinkles and skin discoloration.
- **Exercise.** Exercise is important for your entire body and brain — including your skin. Working out improves circulation, which helps nourish your skin and brain with more oxygen and nutrients. It also promotes collagen production. Keep your skin clean by washing your face right after a workout and avoid tight headbands, which can trap sweat and irritate skin.
- **Sleep.** If you're not getting enough sleep, you will see it in your face: dark circles under the eyes, pale skin, and puffiness. Getting eight hours of sleep each night will help keep your body, skin, and brain healthy.
- **Reduce sun exposure.** Whether you are a Snowbird or a Florida native, you probably have some sun damage to your skin. The more time you spend in the sun the greater your risk of skin cancer. Avoid the sun between 10 a.m. and 2 p.m., when rays are strongest. Wide-brimmed hats and long sleeves also provide good protection.
- **Limit alcohol.** Alcohol dehydrates you and can contribute to dry skin. It also dilates blood vessels, which is why drinkers often have red, flushed faces. Some alcohol, especially red wine, can trigger rosacea flare-ups.
- **Stop smoking and vaping.** Smoking and vaping are just bad news for the entire brain and body, including your skin. Smoking reduces blood flow to the skin and contributes to the breakdown of collagen. It causes premature wrinkles and dry skin. In fact, under a microscope you can see wrinkles in smokers as young as 20. Beyond your skin, smoking and vaping also increase the risk of nicotine addiction, mood disorders, and permanent lowering of impulse control.
- **Keep it clean.** Your skin encounters a lot of environmental stressors every day so wash the day off every night before bed. Depending on the needs of your skin, you can cleanse your face with a gentle cleanser or exfoliate nightly with gentle scrubs and toners to remove dead skin cells before applying moisturizer. Remember, oily skin still needs moisturizer.
- And don't forget to **BE BRAIN HEALTHY and adopt a lifestyle** that includes thoughts, behaviors, emotions, responses, and language that promote brain health protective factors:
 - Stress resilience

- Nutrition
- Physical activity
- Sleep
- Social connection
- Emotional wellbeing
- Meaning and Purpose
- Cognitive stimulation and creativity
- Engaging with nature
- General health
- Positive impacts

About the Brain Health Initiative (www.brainhealthinitiative.org)

The Brain Health Initiative (BHI) is a cutting-edge, new approach to protecting brain health, optimizing brain performance, and fighting brain illness across the lifespan. The BHI is a collaborative effort with Massachusetts General Hospital, a Harvard Medical School Teaching Hospital, to build brain healthy communities through education, collaboration, research, innovation, and action, with a specific focus on *brain health promotion, prevention, early detection, evidence-based intervention, and optimization of performance*. The BHI is creating a culture that promotes brain health protective factors and decreases risk factors, thereby improving brain health and optimizing brain performance outcomes for the Florida Suncoast region and beyond. Join the ***Be Brain Healthy*** movement, ***because brain health matters, and lifestyle makes a difference***. To view all Brain Health Boosts [click here](#).