# NEWSLIR

The Workplace Wellness Conference and Exhibition

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Speaker Highlight:

Rhett Bergeron, MD

Early Bird Registration

April 19 - 20, 2024

Hilton Atlanta Marietta Hotel and Conference Center

500 Powder Springs Road | Marietta, Ga. 30064

July 2023



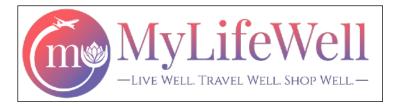
# Dr.Rhett Bergeron, MD

Rhett Bergeron, MD, has over 20 years of experience as a regenerative medicine physician. He currently serves patients at Real Health Medical, located in Roswell and Stockbridge, Georgia.

Dr. Bergeron grew up in Baton Rouge, Louisiana, and received his medical education at Louisiana State University Medical School, located in New Orleans, Louisiana.

After graduation, he completed an internship in Pediatrics and Internal Medicine at the Charity Hospital System of Louisiana. He finished his Family Medicine residency at Earl K. Long Medical Center in Baton Rouge, Louisiana.

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**We Have A Simple Mission:** to help improve personal and social wellbeing for clients all over the world.

It's not news to anyone that we live in an unwell world. With our "always on" culture, it seems easier to become overwhelmed with stress, anxiety, anger, and even depression than it does to find balance. We're spending more time in front of our screens and less time with those that mean the most to us. We're eating more, sleeping less and not getting out nearly as much as we should.

### **VISIT WEBSITE**

# The Science of Mental Wellness

The Wellness Brain

Wellness practices have existed for centuries and millennia in promoting health, harmony, and balance. However, until the past few decades, we were unable to provide a "hard science" explanation for their underlying benefits. We now have substantial scientific evidence explaining how wellness habits promote our brain to change and rewire itself through a lifelong process termed **Neuroplasticity.** 

Our brain functions in a nonlinear (inverted-U shaped) relationship with stress level, such that optimal performance is achieved at moderate levels of stress.

Neuroplasticity depends on experience. Fundamentally, we need to engage in experiences that provide sensory, emotional, and intellectual arousal. Our brain functions in a nonlinear (inverted-U shaped) relationship with stress level, such that optimal performance is achieved at moderate levels of stress.

Too little or too much arousal impairs functioning. It is important that we push and challenge ourselves to moderate levels of stress, past our natural comfort zone, to promote neuroplasticity in favor of growth and resilience.

Equally important is subsequently getting sufficient rest, nourishment, and rejuvenation necessary for the recovery period. The deliberate and active maintenance of this perpetual back-and-forth state of balance between optimal stress and restorative rest is key for driving positive neuroplastic changes. Additionally, it is paramount that we preserve our health by avoiding and minimizing burnout and exposure to harmful and toxic substances.

Committing to a proactive lifestyle which incorporates a positive mindset, emotional awareness, and daily wellness habits will foster lifelong growth.

When we exercise, our brain is the commander-in-chief directing activity in our heart, lungs, and muscles to mobilize our body for action, empowering us with a sense of influence over our environment and surrounding conditions.

#### Aerobic Exercise

Aerobic exercise is fundamentally important for neurogenesis and proper maintenance of our body's physiologic "fight/flight/freeze" stress response. Our brain functions most effectively when our mind perceives a position of authority and control over our body and environment. When we exercise, our brain is the commander-in-chief directing activity in our heart, lungs, and muscles to mobilize our body for action, empowering us with a sense of influence over our environment and surrounding conditions. On the other hand, when we are under acute and chronic stress, our environment is the initiator that triggers and sends our body into an activated

state. Consequently, instead of feeling empowered and in control, we may soon find ourselves in a state of distress where we perceive a sense of being acted upon by our external environment, furthering the harmful stress cycle. Aerobic exercise enables our brain and body to sustain and overcome the negative effects of acute and chronic stress through natural physiological processes that are otherwise switched off during prolonged physical inactivity and a sedentary lifestyle.



#### **Emotional Health**

A revolutionary new understanding of emotions posits that emotions are socially constructed experiences, rather than automatic and universal phenomena. Emotions involve the integration of physical, mental, and social processes. Emotional health can be fostered via intentionality on emotional awareness, expression, and communication. Maintaining a positive mindset and cultivating pro-social behaviors are integral to emotional health and wellbeing. Developing trust, security, and love in interdependent relationships are foundational to nurturing the brain's development, building the foundation for healthy thriving relationships. Committing regularly to activities such as journaling, volunteering, social bonding, and psychotherapy drives positive neuroplasticity.

# **Environmental Enrichment**

Engaging in activities that stimulate our senses, challenge our cognitive and motor abilities, and enhance our social interactions are indispensable for maintaining positive neural changes throughout our lifetime. Playing a musical instrument, dancing, aromatherapy, traveling, hiking, and volunteering enrich not only our lives, but also our brain's development. Activities that are novel and challenging in nature, literally and figuratively, further enhance neuroplasticity.

#### Meditation

Meditation induces large scale neuroplasticity to promote higher level development in cortical areas, especially the PFC. Different types of meditation practices exist with each varying in the brain regions that are activated, eliciting distinct neural changes and corresponding benefits. Mindfulness meditation cultivates nonjudgmental awareness, discipline, attention control, and emotional regulation. Transcendental meditation promotes calmness, restful alertness, and heightened self-awareness. Loving-kindness and compassion meditation foster selflessness, empathy, and positive relationships.

#### Nutrition and Inflammation

Chronic inflammation is one of the main underlying causes of mental illness. Our diet and gut microbiome have important roles in affecting our bodies' inflammatory processes, which impact our brain's health in numerous ways. Dietary modification incorporating caloric restriction, intermittent fasting, anti-inflammatory foods, antioxidants, supplements (omega-3 fatty acids, N-acetylcysteine, phosphatidylserine), and prebiotics/probiotics help support and promote the brain's health and drive positive plasticity.

# Physical Touch

Physical touch from another person in the context of comfort and safety provides relief, healing, and pleasure. Massage therapy releases into our body's circulation natural hormones for analgesia, love, and bonding, a physiologic process vital for combating stress and promoting health.

Our breathing holds the key to reducing stress and achieving relaxation.

# Relaxation and Deep Breathing

Respiration is the only autonomic function we have direct control over. Thus, our breathing holds the key to reducing stress and achieving relaxation. Physical exercises that involve controlled breathing techniques such as yoga and tai chi help us endure chronic stress. Deep breathing activates the vagus nerve which is a direct channel to the "rest/digest" branch of the nervous system. Vagal activation counteracts and turns down the stress-inducing activity of the "fight/flight/freeze" branch of the nervous system, favoring healthy neuroplastic changes.

#### Sleep

Sleep is essential for overall health, providing vital rest and restoration for the mind and body. It is particularly necessary for plasticity associated with memory processing. Sleep is also critical for the maintenance of "house-keeping" functions, particularly the removal of waste, via the recently discovered glymphatic waste clearance system.

#### Substance use

Smoking, alcohol use, and drug abuse have negative effects on neuroplasticity. It is critically important to moderate, minimize, or avoid the exposure to addictive and harmful substances, especially during childhood and adolescence, when drug addictions may potentially become more permanent.

We all have the ability to survive and thrive in this world. We all possess the most useful and powerful tool in the universe — our human brain.

Committing to a life of mental wellness is instrumental in today's world. The world we live in constantly demands change and progress from us both as individuals and as a society. In order to meet the evolving needs of our present and the future, we must harness our brain's plasticity towards positive growth.

Evolutionarily, our human species' rise to the top was due to the brain's capacity for change. Neuroplasticity enabled higher brain regions and functions to emerge, ultimately conferring upon us our quintessential human capabilities of consciousness, language, and toolmaking. Our newfound capacities gave us the advantage to better problem solve, communicate, and cooperate, thus enhancing our survival, paving the way towards the advancement of humanity.



In the history of our civilization, we have traversed two major disruptive changes in our social evolution. The Agricultural Revolution transformed us from exploratory hunter-gatherers to enterprising farmers and settlers. The Industrial Revolution then propelled us forward from our simple and rural lifestyle toward our urban, fast-paced, commercial way of living. Now, we find ourselves navigating through the midst of our third revolutionary period in the Computer and Information Age. The Digital Revolution has empowered us with the once unimaginable ability to access any information and communicate with anyone at any given time, quite literally from our fingertips. Our advanced technologies provide us with endless functional capabilities in everyday life.

In our ever-changing environment, we also face mounting pressures that threaten our state of wellness and well-being. In addition to the fears and concerns of machines replacing human jobs, pervasive world stressors abound, such as global warming, loss of biodiversity and extinction, overpopulation, resource scarcity, political tension, terrorism, and nuclear threat, further straining our collective psyche.

We can ascend our personal hierarchy of needs, moving from basic survival towards social connectedness, emotional fulfillment, creative expression, aesthetic gratification, intellectual stimulation, and a greater purpose in life. We all have the ability to survive and thrive in this world. We all possess the most useful and powerful tool in the universe — our human brain. As we learn more about the complexities of the brain, we can better tap its immense potential to orchestrate neuroplastic changes in favor of developing and enhancing higher brain regions. We can ascend our personal hierarchy of needs, moving from basic survival towards social connectedness, emotional fulfillment, creative expression, aesthetic gratification, intellectual stimulation, and a greater purpose in life.

Wellness-based neuroplasticity enables us to achieve self-actualization and ultimately undergo a transformation towards self-transcendence. Only when we achieve this dimension of well-being are we able to set aside our own needs to help others fulfill their needs. To this end, we will be able to create a sustainable, integrated, and harmonious path toward personal and global wellness.

Written by Lawrence Choy, MD

Published by Thrive Global

# This month we begin a five-part series on the senses.

Each month we will pick one of the five senses and explain how each of the senses works, basic anatomy, and how to maintain the health of each.

- 1. Sight
- 2. Hearing
- 3. Smell
- 4. Taste
- 5. Touch

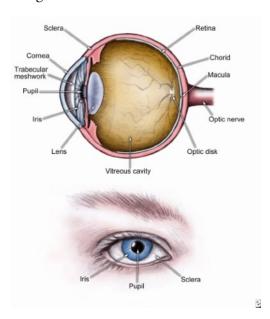
We begin this month with sight.

# How do we see?

The eyes are truly unique. They are small spherical organs bout an inch in diameter that carry out one of the most cherished and relied-upon senses: sight. From reading a book to watching a movie and driving a car, the eyes have an important job. Modern technology can't design something that works so well with so little maintenance. However, some upkeep is crucial to the long-term health of your eyes. Simple practices can help protect them, keep your vision sharp, and prevent many sight-Stealing diseases. Enlist the following strategies to see clearly for years to come.

# Anatomy of an eye

At the front of each eye lies the cornea, a rounded bulge that allows light inside. That light passes through the pupil, a transparent space in the center of the colored iris. Behind the pupil is the lens, which connects to zonules. Zonules are ligaments that tighten and loosen the lense necessary for focus. Light proceeds through the lens and hits the retina, the tissue at the back of the eye. The retina then sends a message through the optic nerve to the brain, telling it what you're looking at.



# The aging eye.

When you are born, the lenses inside your eyes are generally crystal clear and flexible, and the zonules connected to them are strong. The lenses become less elastic with age, and the zonules are less effective. Your eye shape, which is genetically determined, may mean that you need corrective lenses. If they are somewhat short, you're farsighted. If your eyeballs are too long, you're nearsighted.

When a person reaches their forties, they begin to lose the ability to focus up close, which is called presbyopia, resulting from thicker, more rigid lenses and weakening zonules. That is when we need reading glasses. How quickly you develop presbyopia depends on where your vision started. People with perfect eyesight will probably need reading glasses in their early 40s. Nearsighted people typically won't notice a change until their late 40s. A farsighted person will probably need glasses in the late 30s. A comprehensive baseline eye exam should be around age 40 unless there are vision issues earlier.

Around age 50, the lenses continue to harden, requiring stronger corrective lenses or even bifocals. You are also at greater risk of developing the following eye diseases.

Cataracts form when the lenses of the eyes become cloudy. More than 20 million Americans have cataracts, and everyone, if they live long enough, will develop them. Age is the number one culprit, and smoking and sun exposure are also contributors.

Glaucoma is a disease that affects more than 2 million people in the United States. It's one of the most common reasons adults lose their eyesight worldwide. Glaucoma causes peripheral -vision loss and can eventually lead to blindness. Pressure building up in the eyes, resulting in damage to the optic nerves, is a cause.

The macular is a part of the retina. macular degeneration is the degeneration of the macula due to heredity and or environmental factors. In which the central line of sight becomes impaired. Blurred vision is often the first sign. Macular degeneration affects almost 2 million people in the United States. It is the leading cause of vision loss in Caucasians over 65. Ultraviolet (UV) light can speed its development, as can smoking.

To protect your vision, **e**at dark leafy greens such as spinach, kale, collard greens, and other deep-colored vegetables. Lutein and zeaxanthin are two carotenoids associated with reducing the risk of developing cataracts and macular degeneration, both found in these vegetables. Try to eat two servings a day – for example, a handful of spinach in your salad at lunch and a side of broccoli at dinner.

Eat antioxidant foods such as berries, oranges, plums, and cherries, to help minimize freeradical damage caused by environmental factors and pollution. That quickens the hardening of lenses and contributes to cataracts and



macular degeneration. Eat at least two servings a day – a cup of berries with your breakfast, say, and an orange as an afternoon snack.

A National Eye Institute study showed that supplements with antioxidant vitamins C and E, beta-carotene, and copper and zinc minerals slowed the progression of advanced macular degeneration in high-risk patients. Take supplements if you have a family history of macular degeneration or cataracts.

Omega-3 fatty acids found in fish help maintain the eyes' protective tear film, minimize dry eyes, and even prevent cataracts. Eat two to three servings a week, or take a fish-oil supplement daily. High consumption of red meat increases the risk of macular degeneration.

Carrots and other orange offerings, like pumpkin and butternut squash, contain beta-carotene and carotenoids that help keep eyes healthy.

Wear sunglasses with 100% UV protection. UV light is a significant participant in the hardening of the lenses and the development of cataracts and macular degeneration. Also, wear a hat in the sun because all glasses allow some light in through the tops and the sides. Choose one that has a brim of at least four inches.

Aerobic exercise decreases the pressure inside the eyes, helping reduce the risk of glaucoma. Aim for three 30-minute workouts a week.



#### Eye Q's

Q. Whom should I see for my eye exam, an ophthalmologist or an optometrist?

A. Either. An ophthalmologist is a doctor of medicine (M.D.), which means they went to medical school and had an internship and a residency in ophthalmology. An optometrist is an optometry doctor (O.D.) who has completed four years of optometry school. Both can give comprehensive eye examinations and prescribe glasses and contacts. But only an ophthalmologist can perform surgery.

Q. How often should I have my eyes examined?

A. A child should have the first screening, generally done by a pediatrician, anywhere from birth to age one. A second screening at age three and another before the child starts school. Yearly exams after that unless a doctor tells you otherwise. Most experts recommend having a comprehensive examination at age 40 unless you begin to notice changes in your vision. See a doctor, regardless of age.

Q. Do I need my eyes dilated during an exam?

A. It's the best way a doctor can see if the optic nerves are healthy. However, some ophthalmologists use a machine to see into the eye without dilating.

Q. Why do my eyes start stinging when I'm tired?

A. Dryness, surfaces dry out when eyes are open for a long time. When the eyes are dry, they can't flush irritants from the surfaces so they may sting or feel scratchy. Also, with age, the ability to produce tears decreases.

Things you can do at the computer to reduce eye strain: Placing the monitor in an appropriate position helps reduce exposure to awkward postures and overhead glare.

Consider the following points to help improve your computer workstation:

#### Viewing Distance

Monitors placed too close or too far away may cause awkward body positions that lead to eyestrain. Viewing distances too far can cause you to lean forward and strain to see small text, fatiguing the eyes and placing stress on the torso because the backrest no longer provides support.

Viewing distances that are too short may cause your eyes to work harder to focus (convergence problems) and may require you to sit in awkward postures. For instance, you may tilt your head backward or push your chair away from the screen, causing you to type with outstretched arms.

Sit at a comfortable distance from the monitor where you can easily read all text with your head and torso in an upright posture and your back supported by the chair. Generally, the preferred viewing distance is between 24 and 30 inches (50 and 100 cm) from the eye to the front surface of the computer screen and 18-24 inches for the laptop.

#### Viewing Angle

Position your computer monitor directly in front of you so your head, neck, and torso face forward when viewing the screen. Working with your head and neck turned to the side for a prolonged period loads neck muscles unevenly and increased fatigue and pain.

A display screen that is too high or low will force the head, neck, shoulders, and back into awkward postures.

Bifocal users typically view the monitor through the bottom portion of their lenses. The head then tilts backward in extension. Fatiguing the muscles that support the head. In this case, lower the monitor slightly.

Using a pair of single-vision lenses with a focal length designed for computer work eliminates the need to look through the bottom portion of the lens.

#### Viewing Time

Rest your eyes periodically by focusing on objects farther away. Stop, look out, and blink regularly to moisten the eyes.

#### Viewing Clarity

Computer monitors should be periodically cleaned and dusted. Dust accumulation can reduce contrast and degrade viewing conditions.

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