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QUICK RESET:
3 SCIENCE-BACKED
BREATHING TECHNIQUES

THE BRAIN LONGEVITY SERIES



Welcome Dearest

When I saw a healthy brain and a dementia-affected brain during my neurobiology course, tears welled in my eyes at the stark difference. The healthy brain was full and vibrant; the other, shrunken and empty. In that moment, I thought of my father who lived joyfully to 95 without cognitive decline, cooking, experiencing life & painting in his atelier until his final months

.
This contrast ignited my mission with PREVENTIA—to help others protect their most precious asset through five essential pillars: Knowledge, Exercise, Nutrition, Sleep, and Community.

I'm sharing this guide because I deeply believe dementia is not inevitable. The choices we make daily can write a different story for our future. I hope this resource brings you both practical tools and renewed hope. Your brain has an astonishing capacity for resilience—and I'm here to help you nurture it. To your vibrant brain health,

Kathryn Ann

Contents

Welcome

Brain - Stressmanagement

Daily Breathing Techniques

Stay Connected

CALM YOUR STRESS RESPONSE, PROTECT YOUR BRAIN

*"Sleep and stress management are
keys to a healthy brain and a long,
happy life."*

— PREVENTIA



QUESTIONS?

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Sleep & Stress: The Brain's Reset Button



Your brain never truly rests—even during sleep, it's working tirelessly to repair, consolidate memories, and clear out toxins.

Poor sleep and chronic stress create a perfect storm for cognitive decline, with sleep deprivation reducing brain detoxification and stress hormones literally shrinking your hippocampus - your memory center.

Therefore quality sleep and effective stress management are two of the most powerful tools you have for protecting your cognitive future - stay sharp and resilient.

WHY STRESS MANAGEMENT IS CRITICAL FOR BRAIN HEALTH



Stress isn't just an emotion—it triggers a **cascade of physiological changes** that can dramatically impact your brain health:

So what happens during stress:

- Your **brain's alarm system** (hypothalamus) activates
- Stress hormones like **cortisol and adrenaline flood your system**
- Your **heart rate increases**, muscles **tense**, and **blood pressure rises**
- Your body prepares for **"fight or flight"**

While short-term stress can be motivating, chronic stress causes serious damage:

How Chronic Stress Harms Your Brain:

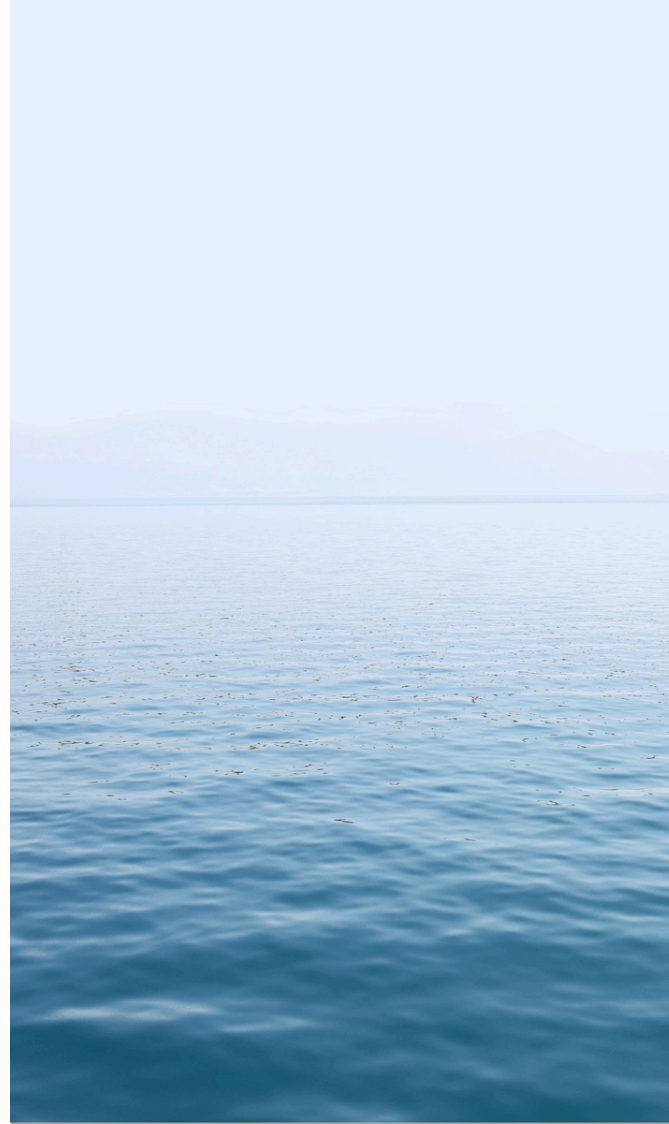
- High cortisol levels can actually **shrink the hippocampus** (your memory center)
- **Blood vessels become less elastic**, reducing oxygen and nutrients to brain cells
- **Inflammation increases** throughout the body and brain
- **Sleep quality deteriorates**, preventing crucial brain cleansing processes
- **Focus and decision-making abilities decrease**

The good news? Simple breathing techniques can interrupt this stress response in as little as 60 seconds.

The following breathing methods activate your parasympathetic nervous system (your "rest and digest" mode), quickly reversing the stress response and protecting your brain health.

I. THE 4-4-4-4 BREATH

This technique, also known as "box breathing", is used by Navy SEALs to stay calm under extreme pressure. It balances carbon dioxide and oxygen levels while focusing your mind.



How to practice:

- Sit comfortably with a straight spine
- Inhale through your nose for a count of 4
- Hold your breath for a count of 4
- Exhale through your mouth for a count of 4
- Hold your breath (lungs empty) for a count of 4
- Repeat 4 times

When to use: Before stressful situations, when feeling overwhelmed, or to improve focus before important tasks.

Brain benefit: Reduces cortisol levels, increases alpha waves in the brain (associated with calm alertness), and improves executive function.

2. BUDDHA BELLY BREATHING

This deep diaphragmatic breathing technique activates the vagus nerve, which runs from your brain through your body and acts as a "brake" on your stress response.



How to practice:

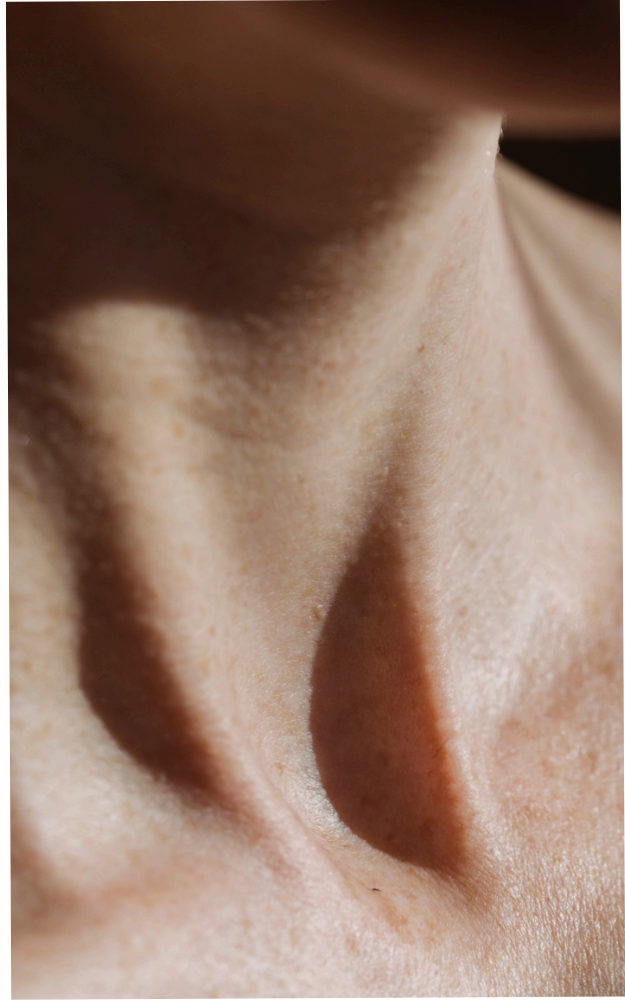
- Place one hand on your chest and the other on your belly
- Inhale deeply through your nose, allowing your belly to expand like a Buddha's belly (your chest should move very little)
- Exhale slowly through your mouth with a gentle "haaa" sound
- Focus on the sensation of your belly rising and falling
- Repeat for 1-2 minutes

When to use: To calm anxiety, before sleep, or whenever you feel tension in your body.

Brain benefit: Increases heart rate variability (a key indicator of stress resilience), reduces blood pressure, and activates brain regions associated with emotional regulation.

3. JAW RELAXATION & GENTLE THROAT BREATHING

This subtle technique can be done anywhere without others noticing. It targets tension in the jaw—an area where many people unconsciously hold stress.



How to practice:

- Consciously relax your jaw muscles (let your teeth separate slightly)
- Inhale through your nose
- Gently place your tongue against the roof of your mouth
- Exhale through your nose while making a natural, soft sound in your throat
- Focus on the sound and sensation of the breath in your throat
- Continue for 1 minute

When to use: During meetings, in public settings, or when you need a discreet way to reset.

Brain benefit: Reduces muscle tension that can trigger stress responses, slows heart rate, and improves focus by providing a sensory anchor for attention.

THE SLEEP-STRESS CONNECTION

Sleep and stress have a bidirectional relationship—poor sleep increases stress sensitivity, while high stress disrupts sleep quality. This creates a vicious cycle that can dramatically impact brain health.

Tip: Practice one of these breathing techniques as part of your bedtime routine to break the cycle and improve both stress resilience and sleep quality.

WANT MORE BRAIN-PROTECTIVE SLEEP & STRESS STRATEGIES?

These three breathing techniques are just a glimpse of how proper stress management and sleep hygiene can protect and enhance your brain health. For the complete PREVENTIA approach to dementia prevention through all five pillars (Knowledge, Exercise, Nutrition, Sleep, and Community), reach out to learn more!



EMBRACING THE PRIVILEGE OF AGING

"GETTING OLDER IS A PRIVILEGE DENIED TO MANY."

This simple truth invites us to shift our perspective—from fearing ageing to embracing it as the remarkable gift it truly is. Each year brings new opportunities for growth, connection, and wisdom. Yet embracing ageing doesn't mean passively accepting whatever comes our way. It means living with intention, making choices that protect our most precious asset: our brain.

These five facts merely scratch the surface of what we know about brain health and dementia prevention. These free guides in THE BRAIN LONGEVITY SERIES want to start the conversation on what is possible when we approach brain health holistically.

For a deeper understanding and practical strategies across all five PREVENTIA pillars (Knowledge, Exercise, Nutrition, Sleep, and Community), reach out to learn about our workshops and individual coaching options!

NEED MORE INSIGHT
& SUPPORT?

PREVENTIA OFFERS MORE

If you're curious about deepening your understanding of brain health, PREVENTIA provides:

- **Educational Workshops** exploring all five pillars of brain health in depth
- **Personalised Coaching** to develop strategies tailored to your unique lifestyle and needs
- **Community Events** that combine learning with the cognitive benefits of connection
- Additional Resources on specialised topics like sleep optimisation, stress management techniques, and targeted nutrition strategies

Our approach is always evidence-based, practical, and focused on abundance rather than restriction. We believe in making brain health accessible, enjoyable, and integrated into your existing life—not something that requires dramatic upheaval.

CONNECT WITH US

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