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### BRAIN ESSENTIALS: WHAT YOUNEED TO KNOW

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.

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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. This is to you & your vibrant brain health,

Kathryn Ann

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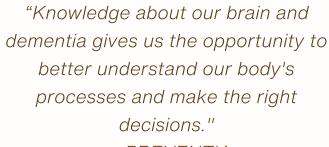
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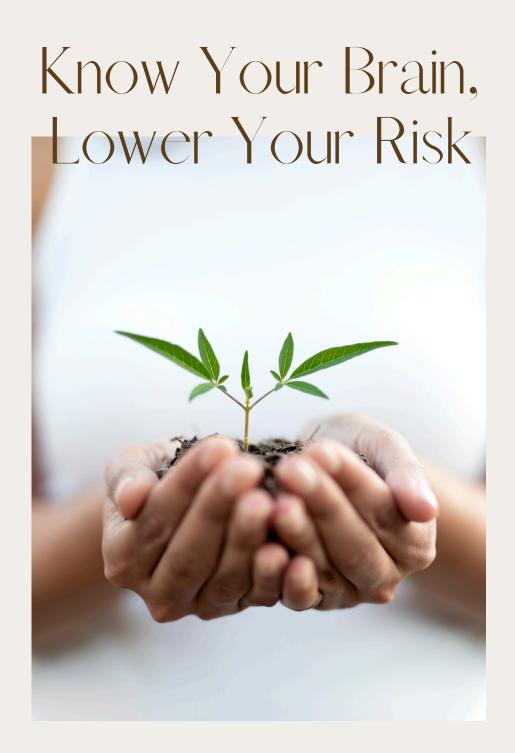
## UNDERSTANDING YOUR BRAIN TO PROTECT IT



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Your brain—the most complex structure in the known universe.

Understanding how your brain works is the first step toward protecting it. Recent research has revealed that over 40% of dementia cases could be prevented or delayed through lifestyle choices—meaning the power to safeguard your cognitive health lies largely in your hands.

These five surprising facts about your brain will provide you with practical insights you can apply starting today.

# FACT I: THE BRAIN'S COMMUNICATION NETWORK

Your brain contains approximately **86 billion neurons** (nerve cells), but what's truly remarkable is how they connect with each other. Each neuron can form up to **1,000 connections** (synapses) with other neurons, creating an estimated **100 trillion connections** in total! Jaw-dropping! I know!

Think of it like this: If each neuron were a telephone, your brain would have a phone network with 86 billion telephones, each able to call 1,000 other phones. This incredible network is the foundation of your thoughts, memories, movements, and everything that makes you uniquely you.

Why this matters: Every time you learn something new or create a memory, your brain forms new connections. The more connections you have, the more resilient your brain becomes against cognitive decline.



## FACT 2: DEMENTIA BEGINS 20-30 YEARS BEFORE SYMPTOMS APPEAR

Many people don't realise that the brain changes associated with dementia begin decades before the first noticeable symptoms. This "silent phase" offers a crucial window of opportunity for prevention.

The good news: This long development period means we have years—even **decades—to intervene and protect our brain** health before any symptoms might appear.

Why this matters: Prevention is most effective when started early, but it's never too late to begin. Even people in their 70s and 80s can significantly benefit from brain-healthy habits.



# FACT 3: YOUR BRAIN IS 60% FAT —AND NEEDS THE RIGHT KINDS

While many people try to avoid fats in their diet, your brain actually consists of **about 60% fat.** These fats form the **structure of brain cells** and the **protective sheaths** that help neurons communicate efficiently and super fast.

Not all fats are created equally: Your brain particularly needs **omega-3 fatty acids** (especially DHA), which it cannot produce on its own. These essential fats must come from your diet.

Why this matters: Choosing the right fats (like those found in olive oil, avocados, nuts, and fatty fish) can help maintain the structural integrity of your brain cells and support optimal communication between neurons.



### FACT 4: YOU CONTROL 14 OF 16 DEMENTIA RISK FACTORS

Research has identified 16 key risk factors for dementia, and remarkably, you can **influence 14 of them through lifestyle** choices! Only **age** and certain **genetic** factors are **beyond our control**.

Modifiable risk factors include:

- Physical activity levels
- Diet and nutrition
- Social connections
- Sleep quality
- Stress management

- Cognitive stimulation
- Cardiovascular health
- Education
- Head Injuries
- And many more!

Why this matters: This means you have tremendous power to protect your brain, regardless of your age or genetic makeup. Remember:

"Our genes load the gun, but our lifestyle choices pull the trigger."



### FACT 5: THE "HAND MODEL" CAN HELP YOU UNDERSTAND YOUR BRAIN

Your hands can serve as a simple model to understand the basic structure of your brain:

- Make a fist with your thumb tucked inside Your thumb represents the "limbic system" (emotional center), while your fingers folded over represent the "cerebral cortex" (thinking center).
- Your wrist represents your brainstem, controlling basic functions like breathing and heart rate.
- Your palm represents the midbrain, which helps regulate emotions, sleep, and attention.
- When you're overwhelmed and "flip your lid" (fingers open up), your thinking brain disconnects from your emotional brain-making it harder to think clearly or regulate emotions.

Why this matters: Understanding this model helps you recognise when you're emotionally overwhelmed and need to reconnect your "thinking brain" with your "feeling brain" through deep breathing and other calming

techniques.



### 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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