

THE BRAIN HEALTH GUIDE

How environmental toxins, chronic inflammation, and everyday choices may affect memory, focus, and long-term cognitive health

Inside:



The connection between environmental toxins and brain health



What the landmark AMBAR study revealed



Practical ways to reduce exposure and support your

MDLIFESPAN

Removing Toxins.
**Reclaiming
Brain Health**



Your Brain Is Shaped by More Than Genetics

Your brain influences how you think, remember, communicate, create, and connect. Yet brain health is often discussed only after someone begins experiencing memory changes or cognitive decline.

Changes such as persistent brain fog, difficulty concentrating, mental fatigue, memory concerns, or shifts in mood can have many possible causes. They do not necessarily indicate a neurological condition, but concerning changes deserve attention.



THE INFLAMMATION CONNECTION

Inflammation is part of the body's natural defense system. In the short term, it helps the body respond to injury or infection. When inflammation becomes chronic, however, it can place prolonged stress on cells, blood vessels, tissues, and organs—including the brain.

Environmental toxins may be one contributor to this inflammatory burden and have been associated with immune disruption, oxidative stress, mitochondrial dysfunction, and vascular damage—biological changes that may also affect brain health.



Brain health does not exist in isolation.

The brain is closely connected to the inflammatory, metabolic, vascular, and environmental conditions throughout the body.

FIVE INFLUENCES ON BRAIN HEALTH ENVIRONMENTAL AND OCCUPATIONAL EXPOSURES



Environmental and occupational exposures



Chronic inflammation and oxidative stress



Cardiovascular and metabolic health



Sleep, stress, nutrition, and movement



Genetics, age, and family history



The Brain's Environmental Burden

Every day, we encounter substances through the air we breathe, the water we drink, the food we eat, the products we use, and the places where we live and work.

ENVIRONMENTAL EXPOSURES BEING STUDIED IN CONNECTION WITH BRAIN AND NEUROLOGICAL HEALTH INCLUDE:



Air pollution and fine particulate matter



Pesticides and herbicides



PFAS and other industrial chemicals



Toxic metals, including lead and mercury



Microplastics and nanoplastics



Mold-related toxins



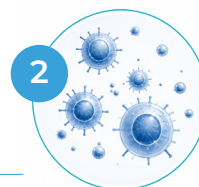
Solvents and occupational chemicals



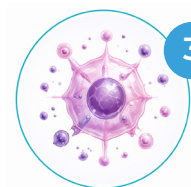
1

Environmental exposures

immune disruption and oxidative stress



2



3

chronic inflammation

increased stress on the brain and body



4

Could Your Environment Be Affecting Your Brain?

Understanding where exposure may occur can help you make informed choices and have a better conversation with your physician.

POTENTIALLY HIGHER-EXPOSURE ENVIRONMENTS AND ACTIVITIES MAY INCLUDE:



Living near golf courses, farms, highways, airports, or industrial areas



Applying pesticides, herbicides, or lawn chemicals



Spending time in water-damaged or mold-affected buildings



Renovating homes built before 1978



Working with solvents, paints, fuels, metals, or industrial chemicals



Welding, mining, battery work, or electronics recycling



Drinking unfiltered water



Frequently heating food or beverages in plastic

126%

higher odds of Parkinson's disease

A 2025 population-based study found that living within one mile of a golf course was associated with approximately 126% higher odds of Parkinson's disease compared with living more than six miles away.

Researchers identified pesticide exposure through air or groundwater as one possible explanation. The study showed an association—not proof that golf courses or pesticides caused Parkinson's disease.

READ MORE ABOUT THE STUDY

<https://mdlifespan.com/toxin-exposure-from-golf-courses/>



Awareness is not about fear.

It is about recognizing potential sources, reducing what is reasonably avoidable, and understanding your personal exposure history.

What **AMBAR** Taught Us

The AMBAR** study followed 347 adults with mild-to-moderate Alzheimer's disease to evaluate therapeutic plasma exchange with albumin replacement.



KEY FINDINGS



52% less decline
in daily functioning compared
to the control group.



61% less decline
Participants with moderate
Alzheimer's experienced 61%
less decline in cognition and
daily activities.



The study suggested that
**changing the composition of
circulating plasma** may
influence brain health.



Learn more about the science behind plasma exchange
and brain health:

<https://mdlifespan.com/brain-detoxification-protocol/>

AMBAR did **not study environmental toxin removal or the MDL Brain Protocol, and therapeutic plasma exchange is **not FDA-approved to treat or prevent Alzheimer's disease.**

Seven Ways to Support Your Brain

1 Avoid Toxins

START WITH THE EXPOSURES YOU ENCOUNTER MOST OFTEN:

- ✓ Filter water and air
- ✓ Avoid heating food in plastic
- ✓ Choose glass or stainless steel
- ✓ Wash produce thoroughly
- ✓ Use fragrance-free products
- ✓ Leave shoes at the door
- ✓ Reduce indoor dust
- ✓ Address mold and moisture quickly

2 Prioritize Restorative Sleep

Maintain a consistent sleep schedule. Discuss persistent insomnia, snoring, or daytime fatigue with a healthcare professional.

Why it matters: Adults who regularly sleep fewer than six hours per night have been shown to have approximately a **20–30% higher risk of cardiovascular disease and cognitive decline** compared with those who consistently get seven to eight hours of sleep. During sleep, the brain also clears metabolic waste products that accumulate throughout the day.

3 Move Consistently

Combine cardiovascular activity, strength training, balance, and mobility in ways appropriate for your health and abilities.

Why it matters: Studies suggest that regular physical activity can reduce the risk of cognitive decline and dementia by as much as **20–30%**, while improving blood flow, mood, and overall brain function.

4 Choose Brain-Supportive Foods

Emphasize leafy greens, berries, cruciferous vegetables, nuts, seeds, healthy fats, quality proteins, and minimally processed foods.

Why it matters: Research has found that people who follow Mediterranean-style dietary patterns may experience up to a **25% lower risk of cognitive decline** compared with those consuming highly processed diets.

5 Support Cardiovascular and Metabolic Health

Work with your physician to monitor blood pressure, cholesterol, blood sugar, and other relevant health markers.

Why it matters: The brain uses approximately **20% of the body's oxygen and energy supply**, making cardiovascular health essential for memory, focus, and long-term cognitive function. High blood pressure in midlife has been associated with an increased risk of dementia later in life.

6 Manage Chronic Stress

Meditation, breathing exercises, yoga, time outdoors, and meaningful relationships can support emotional and cognitive well-being.

Why it matters: Chronic stress increases cortisol levels, which has been linked to inflammation, impaired memory, and shrinkage of brain regions involved in learning and emotional regulation.

7 Keep Learning and Connecting

Reading, music, creative activities, new skills, and social connection help keep the brain active and engaged.

Why it matters: Studies suggest that social isolation is associated with approximately a 50% increased risk of dementia, while lifelong learning and strong social connections are linked to better cognitive resilience as we age.

A Personalized, Physician-Guided Approach

The MDL Brain Protocol is designed to identify and address measurable factors that may influence cognitive health.

MDLifespan focuses exclusively on Advanced Serial Therapeutic Plasma Exchange and the diagnostic testing, nutrient support, and related therapies incorporated into its physician-guided protocols.

THE MDL BRAIN PROTOCOL



A comprehensive physician evaluation



A personalized health and exposure-history review



Before-and-after diagnostic testing



Advanced Serial Therapeutic Plasma Exchange



Targeted nutrient and antioxidant support



Lifestyle and exposure-reduction guidance



“As a neurologist who has used plasma exchange for inflammatory and autoimmune neurological conditions for many years, I believe the MDL Brain Protocol has the potential to be a game changer for people experiencing cognitive decline.

I chose to undergo TPE myself because I wanted to understand the patient experience firsthand and explore its potential to remove toxins and inflammatory compounds that may affect brain and whole-body health.”

— Syed Asad, MD

Board-Certified Neurologist,
MDLifespan Medical Advisor and
TPE Patient

Is the MDL Brain Protocol **Right for You?**

YOU MAY WANT TO LEARN MORE IF YOU ARE:

- ✓ Experiencing persistent brain fog or changes in mental clarity
- ✓ Concerned about environmental toxin exposure
- ✓ Managing a family history of cognitive decline
- ✓ Seeking a proactive, physician-guided brain-health strategy

THE MDLIFESPAN DIFFERENCE

- ✓ Exclusively focused on Advanced Serial TPE
- ✓ Physician-led and TPE-certified clinical team
- ✓ Personalized diagnostic testing and biomarker monitoring
Patent-pending protocols
- ✓ A national network of MDLifespan locations

Removing Toxins. Reclaiming Brain Health.
www.mdlifespan.com

Begin With a Conversation

Schedule a free one-on-one telehealth conversation with an MDLifespan physician to discuss your health history, environmental exposures, concerns, and goals.



Schedule your
FREE physician
conversation

MDLifespan.com/mdl-brain



MDLIFESPAN

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Disclaimer

MDLifespan protocols are designed to support general health and wellness. They are not intended to diagnose, treat, cure, or prevent any disease. This guide is for educational purposes and should not replace medical advice. Consult your healthcare provider before beginning a new health protocol, especially if you have a medical condition or take prescribed medications.