This is a fascinating area of neuroscience. The old thinking was that the adult brain was fixed, but we now know it is "plastic"—meaning it can physically change and rewire itself.

For **white matter** specifically, "training" is about **myelination**. You are essentially trying to tell your brain, *"I need this specific cable to be faster,"* so the brain responds by adding more insulation (myelin) to that cable.

Based on current research, here is how you can "train" your white matter to improve its structure and function.

### 1. Complex Motor Skills (The "Juggling" Effect)

One of the most famous studies on white matter involved teaching adults how to juggle. After just six weeks of training, the participants showed **measurable increases in white matter** in the parts of the brain responsible for visual-motor connection.

* **The Key:** It wasn't just "exercise"; it was learning a **new, complex physical skill**.
* **Actionable "Training":**
  + **Learn to Juggles:** It is the classic example for a reason. It forces your eyes and hands to communicate rapidly.
  + **Table Tennis (Ping Pong):** This is considered one of the best "brain sports" because it requires lightning-fast processing speed and hand-eye coordination.
  + **Dancing:** Learning choreographed dance steps forces your memory and motor cortex to work together in real-time.

### 2. High-Effort Cognitive Switching

White matter thrives when you force different parts of the brain to talk to each other. "Switching" tasks are heavy lifters here.

* **Learn a Second Language:** This is like weightlifting for white matter. It forces the brain to constantly "suppress" one language and "activate" another, which strengthens the connecting tracts (like the *corpus callosum*).
* **Play a Musical Instrument:** This is perhaps the ultimate white matter workout. It connects:
  + Visual (reading notes)
  + Motor (moving fingers)
  + Auditory (listening to pitch)
  + **Action:** If you don't play, even 4-5 months of piano lessons in older adults has been shown to improve white matter integrity.

### 3. The "Fuel" for Repairs (Aerobic Exercise)

While the skills above act as the "training," aerobic exercise acts as the "supply chain."

* **The Mechanism:** White matter is very vulnerable to low blood flow. Aerobic exercise pushes oxygen-rich blood into the deep capillaries of the brain.
* **The Evidence:** Studies show that walking briskly (getting your heart rate up) for 30-40 minutes, 3 times a week, effectively stops the shrinkage of the hippocampus and improves white matter integrity in the frontal lobes.

### 4. The "Protection" (Blood Pressure)

This is the most critical "non-training" factor. The "chronic changes" mentioned in your report are often caused by **high blood pressure** stiffening the tiny blood vessels.

* If your blood pressure is high, the "training" won't work as well because the cables are under constant stress. Keeping your blood pressure in a healthy range is the single most effective way to stop those "chronic changes" from progressing.

### Summary of a "White Matter Workout"

If you wanted to design a regimen to target these areas, it might look like this:

1. **Physical:** 30 minutes of brisk walking or cycling (to fuel the brain).
2. **Skill:** 15 minutes of practicing a **new** coordination skill (juggling, typing games, throwing a ball with your non-dominant hand).
3. **Mental:** 15 minutes of language learning or instrument practice.

The goal is to feel a little bit "frustrated" during the practice. That feeling of "this is hard, and I have to focus" is actually the signal that tells your brain it needs to build better wiring!