



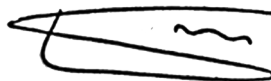
Weill Cornell Medicine Neurological Surgery

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**This Is Your Brain
with Dr. Phil Stieg**
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Those of us who have had the good fortune to reach age 50 (or 60, or beyond) know that there are some significant changes that take place over time, even in the healthiest of bodies. We need to pay more attention to, and take better care of, our knees, heart, and other body parts as we get older, because they're just not as young as they used to be.

The brain is no exception. As your brain ages the cortex thins, processing speed slows, and signaling pathways weaken. The good news is that functional and cognitive decline are not inevitable. Just as a heart-healthy diet can stave off cardiac problems, a brain-healthy life can help prevent age-related diminishment in cognition, memory, speech, and even happiness. This guide explains why it's so important to keep learning and working your brain, with practical advice on what to do—today and every day—to keep your brain working well.



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Your Guide to "Working the Brain"

What Happens When Your Brain Is in Gear

We've all seen the ads for books, puzzles, and online brain training programs that claim to boost our brain power. Much of that is hype, but there's one grain of truth to it: Individuals who routinely use their brains to learn, memorize, read, and master new skills have healthier brains than those who pursue more passive pastimes like watching TV, or who give up on trying to use new technology. When you are actively learning new things, your brain is forming new connections, reinforcing synaptic pathways, and storing and retrieving memories. The brain is not a muscle, but "use it or lose it" still applies.

For most of human history we had to work our brains hard—we had to plan, organize, memorize—but for the past several decades we haven't had to do that. We no longer have to memorize phone numbers (they're all on our cell phones) or remember anything about history (just Google it). For the most part, we're no longer making the effort that cognition requires. And because the effort itself helps keep the brain going strong, it's important to sustain it.

What Happens When It's Not

In those who decide it's time to pack it in, to stop reading the newspaper or not bother to learn how to use that new-fangled smart TV, the brain starts to lose its connectivity. This is especially worrisome in older adults, who are already experiencing the slowdown in processing speed and thinning of the cerebral cortex that are natural consequences of aging. But those don't lead inevitably to cognitive issues or memory loss. In fact, the mental decline that some people assume is a normal part of aging is thought to result from the weakening or altering of neuronal connections. Letting those connections lapse is what accelerates that decline.

What to Do

You are in charge of what's going on in your brain, so use every opportunity to work it. Re-engage your brain if you've fallen out of the habit of using it. It's not as important what you do as long as you're doing something, and the more varied the better. Doing a daily crossword puzzle will eventually make you better at doing crosswords, but it won't help you solve other problems. A rich, varied mix of learning, processing, and problem-solving will keep your brain healthy and working better across all domains.



If you're already pretty good at crossword puzzles, try learning a new game or sport to spur different areas of your brain back into action. Attend lectures on topics that are unfamiliar to you, which will trigger activity in different areas of your brain. Listen to music, which has structural and mathematical elements to it that the brain processes in several different areas. (Music is linked to reduced anxiety and blood pressure, and has been shown to improve mood, sleep quality, and mental alertness.) Memorize poetry or famous speeches to counteract the effects of technology on your brain.

The bottom line is that mental stimulation of all kinds preserves brain cells and can even generate new cells and connections, so keep your brain active every day.