4 myths about learning after 65 — busted!

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Posit Science February 16, 2023

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Despite what you might have heard, there's a lot more to learn past retirement age. Don't fall for these myths on aging and brain health.

Your brain is an amazing organ that changes, adapts, and even gets sharper when you use it — no matter how old you are. And the more you do for your brain, the more benefits you'll see in return. That includes the way you learn, how you remember things, and even your mood.

Translation: Your brain has not already seen its best days — not even close! Here are four popular myths about brain health and aging that you should, er, forget about. Let the learning begin.

Myth #1: Your brain stops growing at a certain age

Scientists used to think that the brain stopped developing after adolescence. But we now know that your brain can change and develop at any age.

“Every time we acquire an ability or improve an ability, the brain is actually revising itself,” says Michael Merzenich, Ph.D. He’s a professor emeritus at University of California San Francisco and chief science officer of Posit Science, the creators of BrainHQ.

That revision process is called brain plasticity, or the brain’s ability to change by creating connections between nerve cells. As these connections get stronger, your abilities grow. Skills you may have once struggled with become second nature.

On the flip side, when you stop using those skills, those connections weaken. That helps explain why it’s easier to remember the names of your close friends than the names of co-workers from your first job.

So, your brain doesn’t lose its ability to grow as you age. But it might feel that way if you stop challenging yourself. Merzenich describes it as a tendency to “rest on your laurels” once you’ve reached a certain skill or knowledge level. But it’s important to continually challenge yourself to keep building and maintaining those neural connections.

High-performing athletes and musicians understand this concept. That’s why they keep practicing even when they’re at the top of their game. Famous violinist Jascha Heifetz once said, “The discipline of practice every day is essential. When I skip a day, I notice a difference in my playing. After two days, the critics notice, and after three days, so does the audience.”

Myth #2: You can’t teach an old dog new tricks

A big reason older adults struggle to learn new skills? They haven’t been challenging their brains to try new things.

“The reason you might feel slower or poorer at learning is because the machinery that’s controlling change is in poor shape,” says Merzenich. “It’s an indicator of how the brain has been maintained.”

So how do you teach your older self new tricks? Simply put, by learning. “The way you sustain the brain is by having a level of continuous new learning across the span of your life,” Merzenich says. And the more you do it, the easier it will become as you rev up that machinery in your brain.

Think about an activity you haven’t done much that interests you — whether it’s ballroom dancing, birdwatching, or learning a musical instrument. Get started on a new hobby that allows you to learn something new.

Myth #3: Cognitive decline is inevitable

Let’s start with the not-so-wonderful news: As you get older, cognitive decline can be significant if you don’t take care of your brain health. (Unfortunately, that happens regardless of whether you’re diagnosed with dementia.) For example, your brain’s ability to make decisions slows down,

says Merzenich. A person who makes decisions better than 86% of the population at age 30 will, on average, be in the 50th percentile at age 60. And by the time they're 90 years old, they'll make decisions better than only 16% of the population.

"However, you don't have to be on that trajectory," says Merzenich. "It's primarily because you're not exercising and engaging in ways that sustain your brain. There are all kinds of exceptional older people who are doing the right thing, accidentally or on purpose, and are sustaining their brains."

What's more, just like starting a regular exercise routine can reap future rewards, so can leveling up your brain workouts. "You can throw the switch in the opposite direction anytime you want," Merzenich says.

Myth #4: Your brain can't recover from damage

Your skull does a pretty good job of protecting your brain. But your brain can still be damaged, whether by internal attack (such as a stroke) or an external attack (a concussion or other traumatic brain injury). Strokes, for instance, affect the blood supply to the brain, and brain damage from stroke can cause problems such as:

- Impaired speech or vision
- Loss of balance
- Numbness or weakness on one side of the body

While some of that damage may never be repaired, it's possible for your body to partially repair it. Thanks to brain plasticity, the brain naturally starts forging new neural pathways to replace those that have been damaged.

Treatments such as speech therapy, to regain speaking skills, and occupational therapy, to regain everyday skills, are important.

If you're medically able to work at recovery after a stroke, there's a good chance your brain can work toward its own recovery too, says Merzenich.

In short, when it comes to maintaining brain health, "use it or lose it" is great advice. And that's no myth.