**Becoming Architects of Our Own Minds**

**4 Tips for Better Memory and a Happier You**

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***Live Long, Die Short: A Guide to Authentic Health and Successful Aging***

When I was in medical school, the prevailing belief was that once we reached physical maturity, our brains were fully formed and ceased to make new brain tissue. Therefore, all of the conditions associated with aging (e.g. head trauma, hypoxia, heart attacks) gradually depleted the neurons in brains, causing them to atrophy until we succumbed to senile dementia … Depressing, right? Fortunately, we were *wrong*.

We’ve since learned that our brains are not the static organs we thought they were, but are dynamic, alterable and have the incredible potential for growing, rewiring and healing. Neurogenesis (the ability to make new neurons) and neuroplasticity (the ability of the brain to reorganize and build new neural pathways as a response to stimulation) continue well into old age. Which means that we are, in fact, architects of our own brains.

**Your Brain’s Superhighway**

Think of the brain as 100,000 miles of interconnected roads (or, neural pathways). Every time we move, learn something new, recall a fact or recognize someone, messages travel like cars along these pathways at nearly three hundred miles per hour to get us to our destination (i.e. enable us to perform a task).

For example, say you want to learn something new (e.g. the list of presidents or how to play a new song on the guitar) – think of that skill as a destination (e.g. Boston). Once you’ve learned that skill, you’ve built a neural pathway to Boston. Keep doing it, and you’ve soon created a better, faster freeway to get there. However, stop using that road, and eventually potholes develop, and you won’t be able to get there as fast, or at all. In other words …

**Tips #1: Use It Or Lose It! Don’t Let Your Brain Atrophy** - Learning new things and keeping our level of brain activity up is a virtual fountain of youth.

When we use the skills and knowledge we have, the many connections within the brain remain functional and in the best shape they can be. Don’t use them, and they become more difficult to use (if not completely unusable) through a process known as synaptic pruning, whereby the brain atrophies in areas where these functions are no longer (or rarely) used.

Atrophy of the brain used to be viewed as a common side effect to aging. Now, we know this may simply be a lack of use. Continue doing those Sudoku puzzles, playing the guitar, speaking a second language, cooking a new recipe ... This equates to basic maintenance of our brain function. Neuroplasticity and effective neurogenesis can only occur when the brain is stimulated by environment or behavior. This involves us using our brain, and challenging it to keep the connections it has and to grow more. The added benefit of learning something new is that when we are fully focused on a task, we become mindful and less stressed.

**Stress and Multitasking**

Stress, quite literally, rots us from within. The chronic stress that is accepted as part of living in our modern world is, among other adverse effects, destructive to our cognitive function, and raises our risk of dementia. One of the primary stressors is the belief that we can effectively multitask our way through life - driving, drinking our coffee, talking on the phone, yelling at the guy who just cut in front of us and planning an upcoming meeting. Yet, research tells us that we cannot effectively process several things at once and make up to 40% more mistakes than if we tackled one thing at a time. Furthermore, when we’re faced with a million decisions of seemingly equal priority, we’re left with a paralyzing stress. How can we get it all accomplished?

**Tip #2: Think Sequentially (Just One Task at a Time)** – Set aside time to tackle a single task. Put everything else out of your mind; put a “do not disturb” sign on the door if you have to. By focusing on one task at a time, we are once again returning to a sense of mindfulness and being in this moment.

**The Effects of Stress and Depression on Memory**

Within the memory area of our brains – the hippocampus – new cells appear. However, not all survive because stress and depression decrease neurogenesis. The hippocampus, in fact, is one of the first areas affected by Alzheimer’s Disease, bringing into question just how large a role depression and stress are in the development of the disease.

Sadly, we as humans, are the only mammals (as far as we know) capable of self-inducing the stress producing “fight-or-flight” mechanism with our thoughts. Moreover, we are capable of sustaining that state of hyper-response, even when there’s no real immediate danger. In other words, we can get ourselves worked up over a missed deadline and trigger the same bodily responses as if we were suddenly trapped in a cage with an angry lion. Furthermore, we can maintain that level of stress for days … weeks … months … even *years* after the threat is gone.

**Tip #3: Learn to Spot a Threat -** Rather than let your thoughts become the driver of your emotions (and then of your physiology), observe your mind as it begins to get wound up with worry and negativity.

Just observing your thoughts and mind puts you back in control so that those thoughts do not trigger the stress response, cause you to “lose it,” or cause you to be removed from this important moment. Don’t judge your mind, just observe. *Wow, look how my mind is getting itself all out of joint over this thing.* This reminds you that you are not your mind, and that you can control what and how you think.

**Tip #4: Find Ways to Keep the Enemy at Bay** – Once you’ve spotted that threat, whatever it might be, you have a decision to make. Will you accept it, change it, or walk away?

We choose our battles. Some are worth fighting, some aren’t. Is the stress small enough where you can accept the situation as is – such as a difference of opinion? Or, is it something bigger, such as a never-ending pile of work that you need to begin delegating to someone else? Or, is it something so big that for your physical and emotional health, you must walk away? Only you can make these decisions, and doing so will result in your being less stressed; your mind, body, and spirit will thank you for it!

By learning new things and keeping your mind engaged, managing the self-induced stress response and by keeping stress monsters at bay, your brain can continue to function at high levels for a lifetime. ***Live long; Live well!***