



# Chicken Soup for the Soul<sup>®</sup>

by DR. MARIE PASINSKI of  
HARVARD MEDICAL SCHOOL

with LIZ NEPORENT

## Boost Your Brain Power!



You Can Improve and  
Energize Your Brain at Any Age

A great guide to powering up your brain...  
and I loved the motivational stories too!

~ Dr. Joe Shrand

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*Chicken Soup for the Soul: Boost Your Brain Power!*  
*You Can Improve and Energize Your Brain at Any Age*  
Dr. Marie Pasinski with Liz Neporent

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# Introduction

“It’s the heart.”

“It’s the brain.”

“No, it’s the heart!”

“Darling, I KNOW it’s the BRAIN!”

My husband and I often have a passionate argument about which organ in the body is the most important. He’s an internist and insists it’s the heart. If the heart isn’t working, he claims, blood doesn’t circulate, your cells don’t receive oxygen and pretty soon nothing else is working either. As a neurologist, I of course, have no doubt it’s the brain. After all, your brain is your very essence — it’s what makes you who you are. If your brain isn’t functioning, then what’s the point? Every once in a while I get him to concede I’m right.

Your brain is a marvel and your most precious possession. Weighing in at just three pounds, it is home to more than one hundred billion neurons interconnected by one hundred trillion synapses giving rise to your consciousness and your every thought, mood and action. Modern neuroscience research has changed our perception of the brain dramatically. One of the breakthroughs I find most fascinating is our new understanding of the brain’s ability to redesign itself. We used to think the brain was static but now recognize that it is incredibly dynamic and constantly evolving. Like a work of art in progress, it’s continuously shaped and transformed by experiences and the way it is cared for. No matter your age or your past, it’s never too late to take advantage of this remarkable ability.

I can’t think of a better way to highlight the potential of the human brain than by pairing stories of innovative individuals creatively using their minds with straightforward scientific explanations of what’s taking place in their brains. As the stories so eloquently illustrate, it’s possible to change the direction of thoughts, emotions and behaviors, which in turn may transform a moment, a day — or even an entire life. It is thrilling to share with you the explanations of the exciting neuroscience that allows this to happen.

As you read this book, I hope the stories as well as the captivating science inspire you to connect more with your brain. Every one of us is capable of reaching our potential. And with no disrespect to the heart or any of the other organs, what better tool to help you get there than your wonderful amazing brain?

~ Marie Pasinski, MD ~





# Invest in Your Brain



# Improving Through Improv

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I stood there like a deer in headlights. “Mom?” Cavin prodded. “Say anything that comes to your mind.” All I could think was get me off this stage! Signing up for an improvisational acting class was my son’s idea, not mine. He said this class would help me to think quicker and give me the confidence that I needed. I was re-entering the business world after years of being a full-time mom and I made the mistake of complaining to him that I wasn’t as sharp as I used to be. I told him how difficult it was for me at a recent networking luncheon to think of things to talk about with the other business people. Instead of giving me the sympathy I was hoping for, Cavin came up with this solution.

Cavin is an actor by profession. When he isn’t out of town for film shoots, he teaches acting classes at a Phoenix studio. He is also a favorite performer on various improv stages throughout the valley. Improv is his specialty. It is a form of comedy where the actor must spontaneously create scenes based on the suggestions of the audience. It is a fast-paced performance that leaves the viewer hurting from laughter and marveling over the cleverness that erupts on demand. Cavin told me that improv keeps his mind sharp for auditions and for whatever role he may be called upon to play. Learning this skill would be a great way to help me too. I took the bait.

My first class was abysmal. It started easily enough, with simple exercises to teach us to look our partners directly in the eye and respond to whatever cues they gave us. We played games that challenged our reaction times and exercises that stretched our listening and memory skills. I could see how these exercises would sharpen my brain, and it didn’t seem too difficult.

Unfortunately, these were just our warm-up exercises. Cavin then taught us another game called, “Yes, and.” We were paired up, and like Noah with his animals, Cavin herded us two by two to center stage. Once stationed in that most intimidating of places, my job was to agree with whatever my partner said about me or the scene and I had to ad lib information to move the scene forward. This was a far more difficult task than our earlier exercises and I found myself tongue-tied or stammering.

“I can’t do this,” I told Cavin as he drove me home. I was feeling flustered and humiliated. It didn’t help that I was the oldest student in the class. My inability to respond quickly like everyone else made me feel older than ever. I expected my son to give me motivational speech and tell me how I had done better than I thought, but he didn’t. Instead he asked, “Why don’t you think you can do this?”

“Because I can’t think fast enough!” I blurted out in frustration.

“Do you know how you can get better at that?” he calmly asked.

“Yeah,” I replied defiantly, “I need to get younger!”

Briefly averting his eyes from the road to glance at me, Cavin smiled and said, “No, but practice.”

Now I was angry and frustrated. Tears welled up in my eyes and I looked out the side window at the light poles flying past. What did a 24-year-old know about the way one thinking slows down as you get older? He didn’t understand my fear of getting Alzheimer’s.

disease like my mom did. I silently vowed I would never go back to his improv class. ~~didn't want to be a comedian anyway.~~

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The following week, when Wednesday rolled around, I tried to put the class out of my mind. Nearly every other night of the week I was parked in a camp chair beside my husband at the baseball field watching Cavin's brother Ryan play college ball. Guilt and my husband prodded me. I needed to give Cavin that one night a week. I swallowed my pride and went back to his improv class.

I liked to watch Cavin teach, and gradually the classes became more fun. I was learning how to quickly invent new characters and scenes, but I still felt terribly inadequate. After each class, Cavin asked me, "How do you think you did?" I told him what I thought worked and what didn't, still unsure of my assessment. But one night I knew I did well!

We were doing a scene that revolved around an imaginary jacket. Dave, the young man on stage, wrapped the jacket around a girl who was pretending to be his girlfriend. She admired the sleeve of the invisible jacket and cooed, "Is that the autograph of the lead singer of the JuJu Bees?"

When Dave drawled, "yea-aah" with a prideful swagger, Cavin yelled, "Show me when he got the autograph!" Immediately, everyone cleared the stage, and like spontaneous combustion I catapulted to the center and mimicked the lead singer of Kiss with abandon. I swung my head, whipping my hair around and around, then stood pumping both fists over my head and stuck out my tongue. I sauntered over to Dave, pulled an imaginary pen from my pocket and scrawled an autograph on the invisible jacket with aplomb.

When I completed that act, I looked around the room and became aware of the eerie silence. Blushing, I resumed my usual demure demeanor and looked back at all the wide staring eyes. Suddenly, my peers erupted in applause. I had not just stepped out of my comfort zone, I had exploded out of it! Now, I know I won't be stealing any acting jobs from Meryl Streep, but I will say that creative situations came to my mind much faster after that night. I instantly became Queen Elizabeth at a diner, trying to convince the waitress to date my son, or Martha Stewart determined to retouch the paint job on the ceiling of the Sistine Chapel. The improv class became something I looked forward to each week. I was part of the team, contributing to every scene I was in, no longer an anchor dragging it down.

Last week at the dinner table I was bragging to my family that one of the other actors in class told me he preferred to be my partner over everyone else. "He said that I make him better because I am so creative. So, it's working," I gushed, "I'm thinking better! I just wish improv could also improve my math skills."

My college ball player offered, "Mom, you could keep the stats for my team."

"Oh, no," I groaned, "I'd be terrible at that!"

"You know how you get better, don't you?" Cavin calmly asked.

Then grinning, he and Ryan chimed in together, "You practice!"

"I will," I replied. "I'll practice keeping my whining to myself!"

~Lindy Schneider~

“Hey.” I looked up from my computer and my yogurt at the barefoot teenager shuffling into the room.

“Hey,” I replied.

Talk radio blared from the counter as she opened the fridge and stared at its contents for a while. She’d been taller than me for a few years, but this year she had gone through a growth spurt, and now she was practically a giant. I watched her grab an apple, tossing it a few times as she carried it to the table. Who was this sporty, confident person who had once been my baby sister?

“So what are we doing today?” she asked.

I took a deep breath and let it out. “I don’t know,” I said. I really didn’t. What did 14-year-olds even do?

Allie and I had been close once, when she was tiny, as in under seven years old. I was in high school at the time, and she would skip into my room, curls bouncing, and sing me the song she learned in kindergarten that day. I would gladly turn away from my chemistry homework to read to her before bedtime, a chapter of *James and the Giant Peach* or *Anne of Green Gables*, books I’d loved when I was a kid. Over the weeks before I went to college she cried multiple times at the mere thought of me leaving.

I did go to college, though, and we both adjusted. I made new friends and got invested in my new classes and relationships. When I came home to visit, I focused on catching up with old high school friends. After college, I moved to New York for a job and found love. But each time I returned home, there was more of a distance between Allie and me. Like me, she’d found new friends and activities. She was growing up, and I was too far away to be part of that experience.

When my partner decided to go back to school, we packed up our New York apartment and prepared for the move to the Midwest town where the college was located. But our move-in date wasn’t until late August, and our lease was up July 15th. We decided to spend the month between homes with our respective families. I’d told Allie that it would be a time for us to bond. But now that I was home, I had no idea how we were going to fill the month. I didn’t even know her enough to know how she spent her time.

The talk radio program droned on, filling our awkward silence. The novel they were discussing suffered from many growing pains common to the new author. The main character had no agency, and the world in which he lived lacked verisimilitude.

“I always wondered what verisimilitude means,” I mused, because at least it was something to say. “I mean, I’ve heard the word before, but I still have no idea.”

“Look it up,” said Allie, sounding suspiciously like our mother.

I typed “verisimilitude definition” into Google. “Having the appearance or semblance of truth,” I read. Then I looked up at Allie. “Does that make sense?”

“A little,” she said. “See if you can find it in a sentence.”

I did a little digging, and then read proudly, “In an attempt to create verisimilitude, his dialogue is full of street slang.”

I looked at Allie. She grinned at me.

~~“You know what we should do?” I asked. “We should do this every day. It can be our mission while I’m home to learn a new word each day.”~~

It only sounded incredibly nerdy after I said it out loud. But this was the girl I read *Anne of Green Gables* to as a kid. The apple doesn’t fall far from the tree.

“Okay,” she said. “But then we have to try and use the words in our normal conversation. Like, just slip them in there.”

“We can give each other points for every time we use a word right!” I said.

Thus, The Word of the Day was born.

For the next few mornings, I would bring my laptop to breakfast, and we would spend the first hour of our day eating and looking for words. We laughed a lot, trying to find the funniest-sounding words, coming across the strangest sample sentences, and hearing the best voices when we clicked on pronunciation buttons over and over again. Our favorite word was “agroof,” which apparently was an adjective for falling flat on your face. The proper usage? I fell agroof.

Throughout our days, we tried to slip words like “verisimilitude” and “blandishment” into our everyday speech. And in those forced, silly sentences, we learned a lot more about each other. Allie, I learned, was on the track team at school, and her commitment to running every day, even in the summer when her coach wasn’t checking up on her, was impressive. She was as disciplined as she was smart.

One day, when I was meeting friends for dinner, she sent me a text:

“My new contacts added verisimilitude to my run — everything was sharper than usual, so I knew I was indeed in reality.”

I was chuckling as I got a second text:

“I expect that you fell agroof in astonishment upon reading my previous text.”

You never know what is going to bring people together. Sometimes, it’s the littlest thing — a conversation starter, a shared challenge, a silly word — that are the most bonding.

When I finally moved, I found myself missing our morning routine. At least, though, I knew Allie and I had a point of entry to start our conversation when I called her: What’s the word of the day?

~Eve Legato~

I retired from teaching elementary school six years ago. I enjoyed working with kids, but my body had begun to show the effects of aging — when I'd sit on the floor with the kids, it was harder to get up. And it was more and more tiring to keep up with a group of six-year-olds. So I took advantage of an Early Retirement Incentive, and retired at the ripe old age of 49. With my pension from the state, a part-time job at a local store, and an adjunct position at a local university, I knew I could make ends meet.

My schedule suddenly became a lot more open. I could volunteer with a quilting group at church. I could have lunch with other retirees. I could attend symphony concerts in the middle of the day. I could visit my daughter, who was going to college out of state.

But for some reason, I missed a lot of appointments. How could this happen? When I was the working mom of two active girls, I was able to juggle three schedules and get everyone where they needed to be. It was very frustrating. Even when events were clearly written on my calendar, I either forgot them or arrived late.

One day my cousin came to visit from Japan. He stayed with my parents, and I went to spend some time there. But my cousins don't speak English, and the only person who could speak to him was my mom. She spent much of the time translating. I had taken on a Japanese language class in college, but it wasn't nearly enough to carry on a conversation. And then during the hectic child-rearing days, there wasn't enough time to continue learning it.

But now I was a retiree, and had more time. Would it be possible for a middle-aged woman to learn another language? My kids encouraged me to try. By chance, the university where I teach hired a new full-time Japanese professor. I corresponded with him and got permission to audit the class.

On the first day, I nervously showed up with my books and notebook and pencils. I sat in a classroom full of students less than half my age. Even with a lifetime of listening to Japanese and a full year of studying it, I was scrambling to keep up. Learning to read and write Japanese involves not only the extensive vocabulary, but also the hundreds of characters known as kanji. I studied all night for a quiz, only to get a C.

I kept studying. I kept doing the assignments and having Mom check them. Several interesting things happened as I pressed on. I learned compassion for my students who had struggled to read, the ones who couldn't make sense of the marks and swirls we call letters. I learned to have patience for people like my mother, who learned to adapt in a new country, having to understand and speak a new language. And I learned a lot about the culture in which my aunts, uncles, and cousins live.

But the most amazing development was that I started to remember things better. Even though I was busier, going to class and doing the homework, I was better able to keep my appointments, even when Dad passed away suddenly and I had to take care of hundreds of details for Mom. I found myself remembering names and directions. And I became more efficient with my time.

I'm not sure if I'm happier when I'm busy, or if the busyness forces me to plan my da

better, but having this extra endeavor has really been a wonderful adventure for me. Last summer, after two years of study, I went to Japan with my mom and my daughter and son-in-law. I still can't carry on much of a conversation with my relatives, and I still can't read enough of the street signs to get around, but it was so much more enjoyable than my previous trip there 25 years earlier.

Last fall I attended the third-year language class with renewed enthusiasm. I began to correspond with my cousins by e-mail, using my poor grammar and limited vocabulary. I always knew I had cousins overseas, but I now have a closer relationship with them. Another bonus!

I got my game back. Life is good.

~Patricia Gordon~



**If you want to kick your brain into overdrive, give it a little competition!**

A few years back, I'd slipped into a writing rut. I was writing mostly full-time then. But I'd fallen into a few bad habits. I spent hours writing blog posts, or updating on a social network, or reading about writing. Basically, I was in front of my laptop the entire day, but wasn't really producing anything creative. My imagination seemed to have dried up.

It just so happened that my dry spell came along about the same time as an annual poem-a-day competition. It's a simple concept. For the month of April, we were challenged to write a poem based on a prompt. It didn't have to be pages long; it could be a haiku. But in order to "win," competitors had to produce a poem every single day in April.

Honestly, I'm more of a fiction and essay writer. But I love poetry. Especially short poems. So I took the challenge, knowing that a competition would bring out my primordial need to win, to push myself over the finish line. Plus, maybe I'd jumpstart better writing habits.

It's not that I wanted to write a poem a day for the rest of my life. And I didn't expect much, as far as the poetry went. But I desperately wanted to prod those brain cells out of their safe little box and into wild, open and creative spaces.

At first, it was difficult. Who am I kidding? It was very difficult! I wanted to put off the prompt like I was a five-year-old running from her mom and the spoonful of medicine! But after the first few days of waiting till the last minute to get the creative juices flowing, I sat myself down and gave myself a good talking-to. I decided that I would write the poem first thing in the morning. Or at least check out the prompt so I could think about it during the day.

By Day 7, I'd started my new routine. I'd check the prompt in mid-morning when it was posted. Then I'd go about mundane writing chores, take a shower, eat lunch, and maybe run an errand. By the time I sat down to write again, my brain had been mulling over the prompt for a couple of hours.

Sometimes, it took all day to think up a few brilliant lines. But by the end of the evening, I always got my poem finished. By the end of the month, I had 30 poems. I'd "won" the competition! And here's what I'd won:

I won bragging rights to say I wrote a poem a day for the month of April.

I won a few poetry contests when I later took some of my favorite poems, polished them up, and sent them off for competitions.

I won a little confidence, feeling that I could, in fact, write a pretty decent poem.

Mostly, though, I pushed myself out of that writing rut and produced every single day. I exercised my creativity and imagination, and limbered up my problem-solving skills. (Don't believe me? Try writing a villanelle.) I learned something new about poetry almost every single day. I felt like my brain exploded in April — in a good way, of course.

Now, when I feel a rut coming on, I find another writing-every-day competition. I've done the National Novel Writing Month, and I give myself serious daily writing goals, too. But I have to admit that public competitions work better for me. I suppose it's a little bit of pride. Once I've put myself out there and signed up, I have to cross that finish line.

Why not try a write-every-day competition and see where your brain takes you? No one has to see the results except you. But don't be surprised when glorious and creative thoughts cross the finish line!

~Cathy C. Hall~

## Introduction

In my tiny community, there is a coffee shop at the edge of town where I often stop on my way to work. Every morning a group of older men gather there to do the New York Times crossword puzzle together. I love listening to the steady buzz of social energy that fills the shop as they work their puzzles, chat, laugh and toss out clues to one another. Naturally, as a neurologist, I can't help but admire how much good these men are doing for their brains.

There are the puzzles of course. These help the men flex their memories and challenge their verbal skills. But since they've been doing the crossword for years, they may have maxed out the learning potential of this particular task. What's doing their brains the most good is the fact that they get together, interact and engage in a lively exchange of ideas. Thinking about the answers to their puzzle may be a stimulating intellectual exercise in its own right, but the social experience of doing the puzzles together, sharing ideas and engaging in lively conversation is what makes the gatherings a true brain boosting activity.

## Enrich Your Mind

High quality social connections appear to protect against cognitive decline. Recent studies show a 20 percent reduction in the risk of developing dementia among seniors who report feeling satisfied with the relationships in their lives. Having an interesting and fulfilling social life into your golden years is just one of several factors that may help preserve the brain's store of knowledge and memory, a concept known as cognitive reserve.

A robust cognitive reserve is essential for keeping your mind sharp as you age. One recent study reported that nearly 40 percent of people who die without any measurable cognitive deficits have evidence of Alzheimer's disease in their brains. These include the hallmark plaques and tangles.

How can this be? We now understand that some people seem to tolerate the pathologic brain changes of Alzheimer's pretty well. It appears that having a well-funded intellectual savings account somehow compensates for whatever damage has accumulated in the brain. When there's a pile-up or traffic jam on your main neural highways, cognitive reserve serves as an alternate route for information to travel. So, even if your preferred cognitive route is blocked, you still have a side exit and smaller streets available to get you to your destination. True, it may take you longer to get there, but at least you won't be stuck indefinitely.

Scientists didn't always believe there were ways to build up cognitive reserve throughout an entire lifetime. They used to think the brain behaved like cement: Young, freshly poured neural pathways could swiftly absorb materials and impressions but eventually these pathways would become set in stone, hardened and intractable with age. We now know this is far from true: The brain is more like a glorious garden, capable of growing, blooming and sending out new roots when the conditions are favorable. Research has shown that stimulating experiences and new learning, like sunshine and rain, allow this garden to flourish — and that's true whether you are young or old.

## The Miracle of Neuroplasticity

Regardless of age, your brain has the ability to make new neurons and construct new neural pathways throughout your life. Every time you engage in new activities, think in novel ways, learn a skill or do things differently, new pathways are forged and your cognitive reserve expands. This process, called neuroplasticity, has been a revelation in neuroscience.

Numerous studies have helped us to understand how learning transforms the brain. Take, for example, a landmark German study of a group of people who had never juggled before. After giving them three months of juggling training, the investigators scanned the newly minted jugglers' brains and found an increase in volume of areas that process complex visual motion. Although the change was temporary, the study demonstrated an anatomical modification as a result of learning.

Another study by German researchers looked at the effect of intense studying on brain structure. Medical students preparing for their board exams underwent MRI scans of their brains before, during, and three months after they completed their exams. The students experienced a significant volume increase in various brain regions including the hippocampus (the brain's memory center) over time. And what's even more exciting is that three months after they stopped studying for exams, the student's hippocampi continued to enlarge. This is thought to be due to the proliferation of new neurons induced by learning.

Every part of the brain serves a special function. In recent years, there's been an explosion of research in the field of neuroplasticity. Using MRI technology, the brains of athletes, musicians, video gamers and even cabdrivers have been studied. This has provided a new understanding of how the brain is shaped by the way it's utilized. For example, the scan of an accomplished pianist will show expansion of the cortical areas associated with finger dexterity while those of experienced cabdrivers reveal enlargement of regions dedicated to spatial navigational skills.

Researchers have even begun looking at how brain structure may be molded by online social networks. They've found that college students with more friends on Facebook had enlargement of various brain regions, including an area linked with the task of putting names to faces. For me, this kind of research underscores the fact that the brain you have at this very moment mirrors the way you have spent your time. But more importantly, the future structure of your brain is yet to be determined.

## **Making Friends for Your Brain's Sake**

I've already mentioned that having lots of friends is associated with maintaining mental performance and increasing cognitive reserve. My older acquaintances from the coffee shop, with their vibrant social lives, are a good example of this. And this is true even after other factors such as whether a person suffers from depression or other illnesses have been accounted for. There's something about being social that's good for the brain. What might this be?

Think about the possibilities a social encounter presents. Say, for example, you bump into a friend while you're out grocery shopping. You get to talking about the old neighborhood, which you haven't thought about in years, and then she invites you to a new play that's just opened at the local theater. The next night you attend the play, where she introduces you to a new group of friends. You find yourself immersed in the ideas presented in the play and by your new acquaintances. Afterwards you and the group go out to a Moroccan restaurant that you've never been to before. At dinner someone invites you to join her tennis group. You accept enthusiastically and over the next few weeks this inspires you to get in shape. Plus you meet another new set of people at the tennis club. And so on... One simple conversation in the cereal aisle leads to an interwoven tapestry

experiences you never would have had sitting home alone in front of the TV.

~~Whereas passive activities like TV watching put your brain into neutral gear, social interaction shifts it into high gear, calling upon it to perform a variety of complex tasks including those that require memory, attention, reasoning and language skills. Your brain is stimulated in countless ways that seem to energize the brain for other intellectual functions as well — this in turn expands your cognitive reserve.~~

We also know that having friends to lean on in times of strife helps you weather life's stormier events. Stressful emotions such as anxiety, depression and loneliness take their toll on the brain. The emotional support provided by close personal relationships seems to cushion some of those cognitive blows. They can also help you reframe problems in a more positive way and discover new solutions. Two brains are always better than one!

## **The More You Know, the More You Know**

Do you remember what life was like when you were young? For most of us, every day was an adventure. There was always something new going on. You were continually challenged, learning and discovering. Your brain was busy contemplating new concepts, developing new skills and adding to your cognitive reserve. But then you graduated from school. Over the years you gradually settled into a standard routine with work, family and friends, repeating many of the same kinds of tasks and activities over and over. You didn't stop gathering new information altogether — but you didn't gather it at anywhere near the pace of your youth.

During the early developmental stages of your life, you formed millions of neural connections. Some ultimately are pruned away, but those that survived connected with other neurons during the rapid-growth stage of the nervous system that occurred in childhood and adolescence. Reading progressively more challenging books, developing new talents, creating art, playing games, meeting new people, going new places — engaging in a variety of mentally stimulating activities — helped form these vital neural connections that folded into your cognitive reserve.

My question to you is this: Why stop there? There's no physiological reason that the deliberate funding of your cognitive reserve should cease the moment you're handed your last diploma. If you continue to challenge your mind, embrace new activities and acquire new skills you can continue to build up neural connections indefinitely.

One proven way to do this is indeed to pursue as much education and as many diplomas as possible. Studies show that the more time you've spent hitting the books, the lower the risk of Alzheimer's. The same conclusions have been drawn about those who work at highly complex and intellectually demanding jobs.

But not to worry if you didn't get a Ph.D. Formal education is only one way to stimulate the brain. I have, for example, an 84-year-old neighbor who is the perfect role model for how to maintain a healthy, vibrant brain as you age. Every time I talk to her she always has some fascinating new experience to share with me. She's either just returning from a biking trip in France or taking a class in furniture refinishing or reading the most interesting book. On her eightieth birthday she jumped off the local pier into the ocean with her children and grandchildren! In many ways she lives her life like a perpetual college student, filling her time and mind with a steady stream of new and novel experiences and ideas. And believe me when I tell you, she's as mentally sharp as they come.

## **Boosting Your Brain Power**

I wish everyone would seize the day like my neighbor does once their school days are behind them. ~~As we get older, many of us fall into an intellectual rut. The construction of new neural circuits is put~~ on hold as the demand for new ways of thinking dwindles. When I lecture, I often ask attendees if they've taken up a new hobby in the past year. Usually only a few hands go up. What about the past two, three or even five years, I ask them next. Even then, a minority raise their hands. We know that lifelong learning lowers your risk of dementia. So if you truly want to build your cognitive reserves, it's time to start challenging your mind.

It begins by opening yourself up to new experiences. In our everyday life there are countless opportunities that can stimulate new ways of thinking. It could be as simple as attending a lecture on a topic that interests you, playing a new game or listening to a new genre of music. Like the cereal aisle vignette above, small changes in our routine have a way of snowballing.


Instead of going to the movies this weekend, why not go dancing? Many clubs now offer free dance lessons at the beginning of the evening. Or, like Cathy Hall described in the story "Ready? Set. Go!" why not write a poem a day for a month to get your creative juices flowing? Engaging in new activities that are physical and social further boosts the brain benefits, as they also deliver the neuroprotective effects of exercise and socialization.

I encourage you to commit to trying something new every week. Engaging in new experiences on a regular basis will ultimately make learning a way of life. Keep a journal to track your progress. This will not only reinforce what you have learned, but it will also instill learning as a lifelong habit. When learning becomes a habit you will constantly be transforming and updating the infrastructure of your brain.

When you're ready, think bigger. To fully reap the benefits of neuroplasticity, a deeper commitment is required. Immersing yourself in a challenging pursuit is the best way to endow your cognitive reserve. It doesn't take learning rocket science or for that matter, brain science, to shift neuroplasticity into high gear. In fact, choosing any endeavor that you are passionate about will enhance the learning process.

For example, if you've always been fascinated with Spanish or Latino culture, why not learn how to speak the language? Take a leap, as Patricia Gordon did in her story "The Gift of Gab," and sign up for a class. If you're an independent learner, try a software program or listen to instructional audiotapes. Practice your skills by watching movies in Spanish with subtitles, singing along with Maroon 5, dining at authentic restaurants or preparing a Latino feast (using a cookbook written in Spanish of course!) Making friends with native speakers or traveling to destinations where Spanish is spoken are fun ways to further develop your burgeoning skills.

The possibilities to expand your intellectual horizons are endless. Whether you learn to play a musical instrument, take a computer class or dedicate yourself to the art and sport of horseback riding, have fun with it. All of these are wonderful examples of complex activities that require multiple cognitive skills and challenge your brain to think and grow in new directions. No matter when you start or how much you've done until now, you can endlessly deposit more knowledge and experience into the coffers of your cognitive reserve.





# Your Amazing Memory





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