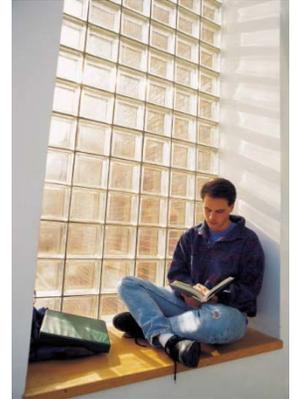


Strategies to Improve Memory

Memory consists of recalling information that you have learned or experienced. Many students struggle with remembering what they've read or recalling information for tests. In order to be successful in school, you need to remember the information you have learned. Although there isn't any "magic" memory pill, it *is* possible to improve your memory using the following strategies.

Short-term and Long-term Memory

- Short-term memory: your mind stores information for a few seconds or a few minutes. This memory is fleeting—typically enough time to dial a phone number or write down an instructor's thought. Your brain holds an average of seven items in short term memory.
- Long-term memory involves information you make an effort to retain because it is:
 - Personally meaningful to you—such as information about family and friends.
 - You need it—job procedures or material you're studying for a test.
 - It made an emotional impression on you.
 - Episodic memories—personal memories about experiences.
 - Semantic memories—factual data like the color of your hair.
 - Procedural memory—skills and routines you perform often.



Ways to Improve Memory

The following information from <http://www.memory-improvement-tips.com/memory-systems.html> focuses on specific memory techniques as well as what you can do to maintain the health of your brain. The key to a healthy brain and improved memory is to do these consistently.

- Memorization Techniques: Mnemonics are techniques for remembering information that is otherwise quite difficult to recall: A simple example is the '30 days hath September' rhyme for remembering the number of days in each calendar month. The idea behind using mnemonics is to encode difficult-to-remember information in a way that is much easier to remember.
- Practice study skills for more efficient learning.
See: <http://www.memory-improvement-tips.com/best-study-skills.html>
- Weave memory improvement exercises into your daily routine.
- Eat brain foods to improve brain health.
- Take vitamins and supplements to improve brain health: especially B vitamins, antioxidants, and Omega 3 fatty acids. <http://www.memory-improvement-tips.com/vitamins-for-memory.html>
- Play brain games to strengthen brain skills. Brainteasers and games can be found online as well as in print. <http://www.memory-improvement-tips.com/brain-games.html>
- Perform cardio exercise for healthy brain cells
- Get sufficient restful sleep to consolidate memories
- Engage in mindfulness meditation to improve concentration

Mnemonics ("New-monics")

Our brains are designed to encode and interpret complex stimuli. We use images, colors, structures, sounds, smells, tastes, touch, positions, emotions and language to make sophisticated models of the world we live in. Our memories store all of these very effectively. So, a technique for remembering

information is to code the information using vivid mental images. When images are vivid, they are easy to recall when you need them.

You can do the following things to make your mnemonics more memorable:

- Use positive, pleasant images. Your brain often blocks out unpleasant ones.
- Use vivid, colorful, sensory-laden images to code information— these are easier to remember than boring ones. Use all your senses; your mnemonic can contain sounds, smells, tastes, touch, movements and feelings as well as pictures.
- Give your image three dimensions, movement and space to make it more vivid. You can use movement either to maintain the flow of association, or to help you to remember actions.
- Exaggerate the size of important parts of the image.
- Use humor! Funny or peculiar things are easier to remember than normal ones.
- Symbols (red traffic lights, pointing fingers, road signs, etc.) can quickly and effectively code complex messages.

Three Fundamental Principles Underlying The Use Of Mnemonics are imagination, association and location. You can use these principles to generate powerful mnemonic systems.

- Imagination: is what you use to create and strengthen the associations needed to create effective mnemonics. Your imagination is what you use to create mnemonics that are potent for you. The more strongly you imagine and visualize a situation, the more effectively it will stick in your mind for later recall. The imagery you use in your mnemonics can be as violent, vivid, or sensual as you like, as long as it helps you to remember.
- Association: this is the method by which you link a thing to be remembered to a way of remembering it. You can create associations by:
 - Placing things on top of each other.
 - Merging images together.
 - Wrapping/ Rotating them around each other or having them dancing together.
 - Linking using the same color, smell, shape, or feeling.
- Location: this gives you a coherent context into which you can place information so that it hangs together, and separates one mnemonic from another. You can build the atmosphere of these places into your mnemonics to strengthen the feeling of location.

(Information from the following source: <http://www.mindtools.com/memory.html>)

Exercise and Memory

Regular aerobic exercise can improve your memory. Your brain needs oxygen and other nutrients in order to function well. When your oxygen is low, it affects your ability to concentrate, which in turn makes it more difficult to learn new information or recall information you studied in the past.

It can sometimes be difficult to get enough exercise when you have a lot of classes, or when you're working part-time/full-time jobs or caring for children in addition to school. Exercise helps supply oxygen to the brain, so even walking 15 minutes a day will help you focus better. You might also think about taking a PE class during the day.

Sleep and Memory

Studies have shown that the brain requires 7-8 hours of sleep per night. Sleep strengthens relevant associations and weakens irrelevant associations, thus improving your access to memories. A lack of

sleep can disrupt processing speed, long-term memory and emotional stability. Getting too few hours hurts memory almost as much as no sleep at all, because it impacts your concentration, which in turn impacts your memory. Keep a log of the hours that you sleep, subtracting time that you get up during the night; add up the hours at the end of the week to average how much sleep you are getting.

<http://www.memory-improvement-tips.com/sleep-and-memory.html>

Food and Memory

What you eat can have a huge impact on how your brain functions; certain foods help to improve brain function. Many of these brain foods protect your brain by releasing anti-oxidants, natural chemicals that break down harmful compounds called "oxidants" that your body produces naturally. Most of these foods also contain important vitamins and nutrients essential for health. Here are the basics of a healthy diet that will help your memory:

- Healthy Fats - Build Your Brain: Your brain cell's structure is made up of "healthy fats". The most important of these are the Omega-3 fatty acids. As your brain repairs itself and grows new neurons, it needs an abundant supply of Omega-3's from your diet: cold-water fish, canola/ flax seed oil, soybeans, walnuts, and eggs.
- Antioxidants - Protect Your Brain. See the list to the right.
- High-Tyrosine Proteins - Spark Your Brain: Neurotransmitters, chemical messengers in your brain, carry signals from one neuron to the next. The best neurotransmitter-building foods for boosting alertness, energy, and concentration include seafood, meat, eggs, soy and dairy.
- Water - Hydrate Your Brain: It's important to stay well hydrated. Being even slightly dehydrated decreases your mental energy and can impair your memory. It can also increase anxiety. You can use the following calculator to help you determine how much water you need per day: <http://www.csgnetwork.com/humanh2owater.html>
- Fiber - Regulate Your Fuel Supply: Fiber helps your brain function at its best. Sugar provides fuel for the brain, but it needs to be the right type of sugar—glucose, not refined sugars. Fiber slows the absorption of sugar so that it enters your bloodstream gradually, rather than quickly like refined sugars. Foods containing healthy amounts of fiber include *dried fruits, vegetables, legumes, nuts and seeds, whole fruit, and whole grains*.
- Foods to Avoid: Because your brain needs a steady stream of glucose to work properly, foods that spike your blood sugar will cause you to crash later and leave you feeling unfocused. Avoid anything made with *white flour*, (i.e. white bread, white pasta, donuts, etc.). Also avoid regular soda, which is a "sugar bomb," delivering too much refined sugar at once.
- Eat Regularly: To perform your best mentally, you must keep your blood sugar steady throughout the day. The best ways to do this is to eat breakfast, eat smaller meals more frequently throughout the day, and eat a late afternoon protein snack. Studies show that students who eat a healthy breakfast are more successful than those who do not.

BRAIN FOODS INCLUDE:

- Apples
- Avocados
- Bananas
- Blueberries
- Grapes
- Cherries
- Dried Fruit
- Broccoli
- Eggplant
- Spinach and dark green vegetables
- Onions
- Eggs
- Legumes
- Nuts and Seeds
- Flaxseed oil
- Whole Grains
- Salmon
- Green Tea
- Rosemary
- Dark Chocolate

<http://www.memory-improvement-tips.com/brain-foods.html>