



Twenty something ..

...Strategies to Help your Memory

Strategies to help your memory (for all ages!)

A variety of strategies have proven highly effective in helping people improve their memory and/or learn new information and skills.

Some of them are detailed below. They are organized in four main sections: memory techniques, effective learning strategies, external help for your memory, and memory techniques.

A- Memory Techniques

Little tricks that some students use to learn a great amount of information can help improve your everyday memory.

- 1. Use acronyms.** Use the first letter from all the words/things you have to remember and make one sentence with them. Here is a classic example: “My Very Easy Method Just Set Up Nine Planets” represents the names of the nine planets in the solar system. These tricks worked for us when we were children. And, they still do.
- 2. Associations.** Link the information you need to remember through association. For instance, use numbers that are significant to you, such as dates. Make connections between the different things to remember: e.g. PIN 36912 → multiples of 3. PIN 2510 → $2 \times 5 = 10$. When you generate possible links between the items you need to remember, you are creating a richer memory trace. These self-generated links between the items might serve as cues for retrieving the information later. This technique can be used with numbers as well as with words or concepts. Be imaginative!
- 3. Story-making.** Making up a story with the information you need to remember will make the information meaningful and organized, which can help you remember it later. Also, you could imagine the story involving many of your



senses, hence using different regions of your brain and making it much more likely that you will later be able to recall the information.

Let's say you need to remember to ask your friend three things when you see her. You have an important dinner next week and you need to organize a few things before then. You want the name of a good cook for the event as well as a good hair-dresser and you want to ask your friend to give you back the suit you lent her so that you can wear it to your dinner. You can picture a cook with a very big and extravagant hairstyle wearing your suit! When following the advice we mentioned earlier, take the time to work on this mental image and to make it funny so it stays in your imagination. Imagine the suit way too big or the hairstyle extremely original; think about how the suit might be odd on this funny character. You are creating the image in such a way so as to later remember it.

- 4. Method of Loci.** Visualize a route you know very well. Place the things you have to remember on this route in your mind. To remember the info, go through this route again in your head and recollect the items you need to remember. See the TED Talk by Joshua Foer to inspire you <http://on.ted.com/gGbw> or ask neuropsychologist Dr. Sylvie Belleville about her MEMO memory program.
- 5. The SQ3R Method.** Survey, Question, Read, Recite, and Review: the golden rule to learn a text efficiently. Some students do this without even realizing it and it is the key to learning a substantial amount of information. Excellent for students! Here is how it works: 1) Survey – get an overview of the material. 2) Formulate a question based on what you've just read. 3) Read the text. 4) Recite out loud the key point(s) of what you have just read. 5) Review the information the next day, or a few hours later.

*** If you feel your attention drifting, get a highlighter! Reading with a highlighter or a pen, and highlighting the important points/words, will help you read actively. Being an active reader will help your attention hence your memory!



You know it is there but you just can't find it?? You know the name but you just can't find it??

Sometimes the information is available in memory but it's just not accessible. This phenomenon



(called "blocking") is observed at all ages and has been greatly studied. When you are looking for someone's name and you can't find it, it's not that you have forgotten the name – it's merely that the name is hard to access at the moment. This is a form of difficulty with "retrieval" of the information from your memory. Below are a few possible solutions.

- 6. Recreate the context.** Walking into a room and forgetting why you went there is a classic problem. A possible solution is to try to recreate the context of what you were thinking when you realized you needed to go there.
- 7. Talk about it.** Let's say you forgot a word or a person's name. Talk about it using other words. Give details about this person and his or her physical attributes; describe the word your memory is targeting. Talk about things associated with the "target" as this dialogue can conjure up cues to remember.

***The concept of cues. This is a very important idea in memory. It explains a lot of things about HOW we remember things – i.e. what the PROCESS of remembering is. To enable a conscious remembering of something, we often use cues, or things around us that make us remember. For example, seeing someone on the street opening an envelope makes us remember that we forgot to pick up our mail. Or, smelling someone's perfume reminds us of another memory. The smell is the cue that automatically activates the memory.

B- Effective Learning Strategies

- 8. Repeat information to yourself.** If you want to memorize something, repeat it to yourself several times. Or, take time to notice and rehearse the information. If you have to remember a phone number, repeat it to yourself a few times.
 - This is a very simple strategy. But, it is not necessarily the most efficient. I once heard a teacher say: "Not everything needs to be repeated. It's better to understand." So true!



- 9. Make things meaningful.** If you want to remember a name, think about what the name means or associate it with someone or something that reminds you of that name. Still trying to render that phone number? Associate it with dates that mean something to you or associate it with the dates you know by heart. Are you a hockey fan? Associate phone numbers to hockey players' numbers, if you know them very well!
- 10. Visualize it.** Create a mental image of what you are trying to remember. Make it funny or strange and it will help you remember it. You'll be surprised how much this works! Ask Joshua Foer, a memory champion how it worked for him! When you visualize something, try to involve as many of your senses as possible. Or better yet, smell it and feel it in your head. Involving vision, touch, or emotions will activate different regions of your brain and can cause the information to be stored in many different areas of your brain, making this information much more resistant to forgetting. Involving many senses makes it more likely that you will later be able to recall the information.
- 11. Take time to understand the information:** Taking the time needed to understand an idea and the logic behind it will make it easier to remember. This is because it has become meaningful and you have put effort into understanding it. The results of the most fundamental studies in human memory are very clear: by giving better attention to something, you increase your chances of remembering it.
- 12. Pay attention.** It is hard to remember something you did not pay full attention to in the first place. Make a point of focusing your attention on information you want to remember – such as the name of someone you meet for the first time or where you parked your car. Pause for a few seconds and pay attention.
- 13. Talk to yourself.** Have you ever left the house and wondered whether or not you locked the door? To prevent worrying about it, say to yourself (silently or out loud) the task that you intend to do or are currently doing. This will help you keep track of and remember it.
- 14. Limit distractions.** We have all walked into a room only to realize we have forgotten the reason why we went there. Why is this? You might have gotten distracted.

 - You'll notice that sometimes remembering to do something is more difficult if there are distractions standing in the way of your goal. For example, if someone starts talking to you while you are going to get something in another room, you might forget what you initially wanted to do. Why? Did you get distracted from your initial goal?



- Limiting distraction is also good for your attention; hence, it might help you better memorize... as you will be better able to focus on the information you need to remember. Makes sense, right?

15. Spaced retrieval. Every time you try to consciously remember something, you make that memory stronger. Practice "**spaced retrieval**" by gradually spreading out the repetitions over longer and longer intervals. Also, learning that is spread out over time (spaced rehearsal) is more durable than learning that is concentrated within a short period (massed trials).

16. Be patient. Take the time you need to learn new information. Give yourself time to understand new information. If it takes more time and more questions for you to remember, so be it. Be patient with yourself! ;-)

C- External help for your memory

17. Write things down. Writing things will not *necessarily* make your memory lazy. When you write down information or take notes during a meeting (at work or at your doctor's office), you are actually working on the information you need to remember, thereby making the memory trace richer and more solid. By giving the information good attention, you are elaborating the memory trace. Also, when you will look at the info later, you will remember what it meant, making the memory trace stronger (read point number 15 again!)

18. Buy an alarm. Then, set alarms. Do you often forget to take your pill or supplement? Buy an alarm at the dollar store, set it, and leave it next to the bottle. Strategies don't have to be complicated to work.

19. Use the options on your phone. Use the calendar option on your phone or a pocket day planner to keep track of your schedule, frequently used phone numbers, etc. You can also take notes, make a list of questions to ask your doctor at your next appointment or of medications you currently take or note of any other important information. This way, you can have it with you at all times! Feel free to take pictures of important business cards too: then, you will always have them with you.

- Using available technology to support your memory is an excellent and very reliable memory strategy to make sure you have access to important info and that you get to your appointments on time and well-prepared.



20. Reach out. If you don't feel comfortable with all the apps on your phone or pocket day planner, ask someone to show you! You might be surprised of their enthusiastic answer!

- Try to reach out to people when they have time to help you 😊

21. Routine is the key. Memory strategies work best when they are used consistently: Use your day planner every day. Practice is key!

D- Organize information ...and your environment!

22. Routine is the key (again). Keep items that can be easily misplaced (like keys!) in a consistent and visible location. Make a habit of always returning the items to those places (consistency!). Seems too simple of a strategy? Maybe that is why it always works!

Did you know that many researchers from the last decade have shown that the brain can tolerate some accumulation of Alzheimer's disease pathology without a person showing any symptoms!

Interestingly, recent research has focused on identifying factors that would make some people more resistant to Alzheimer's disease pathology

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In 2010, the United States National Institutes of Health systematically reviewed scientific data on the relationship between various personal/environmental factors and cognitive decline (like memory loss). They wanted to better understand the memory problems, or other cognitive problems, sometimes seen in aging folks. They found that diabetes, smoking, depression, cognitive engagement, physical activity, and diet can all contribute to these problems.



In 2014, Chen and collaborators identified Modifiable Risk Factors for Alzheimer's disease and Subjective Memory. Mood, cognitive stimulation, physical exercise, and cardiovascular conditions like hypertension are significantly associated with subjective memory. See their article in PLOSone (free). Let's look at the meaning and implications of all this.

Healthy mind in a healthy body

A very efficient way to maximize your chances of aging well and prevent cognitive decline is to keep your heart and body healthy. The brain is an absolutely fantastic organ – but it's also part of the body and thus greatly depends on the efficiency of the cardiovascular system. If your heart and blood vessels are not doing a good job of providing the brain with blood, chances are your brain will not be aging as well as it could. By keeping your heart healthy, you contribute to keeping your brain healthy. The opposite is also unfortunately true.

23. Exercise regularly, by doing something you enjoy. Walk or bicycle instead of driving or riding the bus. Take a half-hour walk daily around the neighborhood in the evening or during your lunch break. Take an exercise class or join a health club. Scientific studies have shown that participants with higher cardiovascular fitness perform better on attention-based tasks. If the brain gets its oxygen and nutrients, it functions better.

- To help Canadians move towards healthier lifestyles, the Public Health Agency of Canada supported the Canadian Society for Exercise Physiology (CSEP) are reviewing the scientific evidence on physical activity and developing new physical activity guidelines. See the Health Canada website for more details.
- It is recommended that adults accumulate at least 2 1/2 hours of moderate to vigorous physical activity each week and that children and youth accumulate at least 60 minutes per day.

24. Eat a well-balanced diet that includes lots of fruits and vegetables. This will help your brain get the nutrients it needs and keep your heart healthy.

- Most recent literature suggests that a Mediterranean diet comprised of vegetables, fruits, whole grains, fish, and legumes is linked to good cognitive aging and perhaps lower rates of depression (Skarupsi et al 2014).

25. Get your sleep. We consolidate learned information while we sleep. Talk to your doctor if you think you have sleep apnea. Try to have a routine before



going to bed (this will prepare your mind for going to sleep and ease the transition). Try drinking something hot, such as a cozy cup of chamomile tea or a glass of warm milk, to help prepare you for going to bed. Keep a consistent sleep schedule, if possible. Exercise in the morning if you can. It enhances your alertness at the beginning of the day and makes for better sleep at night. Avoid daytime naps or make them brief (30 minutes or less). Lower temperatures and a darker room promote sleep.

- 26. Try not to smoke and drink too much.** These habits constrict the blood vessels going to the brain. In the long run, this limits the efficiency with which the blood vessels irrigate the brain.

Alcohol also disturbs sleep architecture, leading to fragmented sleep, more frequent awakenings, and thus more tiredness in the morning even after the same amount of sleep.

- 27. Get regular medical check-ups.** Your general physician will help you control existing medical conditions like diabetes or cholesterol. Controlling these medical conditions will help limit their impact on your body and brain health. Your general physician can help you with these things. Make your annual appointment now if you have not already done so. If you don't have a general physician, go to a nearby clinic and get put on a list. Or register online.

<http://sante.gouv.qc.ca/en/programmes-et-mesures-daide/inscription-aupres-d-un-medecin-de-famille/>

Food for thought...

It's all about the attitude!

In their Study of Aging, the Chicago Rush Memory Clinic asked 246 older people in the community about their purpose in life and tested their memory as well as the amount of Alzheimer's disease pathology present in their brains. Results show that participants with higher levels of purpose in life exhibited better cognitive functions, even at more severe levels of Alzheimer's disease. In fact, a higher purpose in life was a protective factor for the clinical expression of Alzheimer's disease. Indeed, people with a higher purpose in life showed less cognitive changes, even with a high level of Alzheimer's disease in their brain. One's purpose in life, or the meaning derived from life experiences and goal-seeking, is a component of well-being that has long been associated with positive health outcomes.

Reference: Boyle and collaborators in Archives of General Psychiatry (2012)



- 28. Keep your mind active.** Engage in activities that make you think or activities that make you learn new things, such as playing games (e.g., puzzles, cards, chess) and reading books. Activities like socializing and attending cultural events are incredibly stimulating for your brain and might also be good for your mood.
- 29. Try to maintain a relatively positive outlook.** There are things you can do to improve your memory. You have more control than you think! And, you have already started to take control as you read this and think about ways to make your memory better! People with positive attitudes toward their memory find it easier to learn and remember.
- Consult your doctor (physician or psychologist) if you are feeling depressed and unable to achieve a positive attitude. You can and do have control over your life. Someone can help you change your attitude, if needed!

Find someone in Quebec <https://www.ordrepsy.qc.ca/en/public/find-a-professional2/index.sn> or in Ontario https://members.cpo.on.ca/public_register/new . Or, ask a friend for a reference!

- 30. Find healthy ways to manage your stress.** Learn relaxation techniques such as deep breathing, meditation, and yoga. Take some time for yourself every day. Especially when going through stressful times, keep engaging in activities you find relaxing, such as going for a walk, listening to music, or reading a book.
- Overwhelmed and have no time to do anything? You can always take 15 minutes to go for a walk. Solutions don't have to be complicated.



Set yourself a goal: pick 2 points and set yourself the goal of implementing these 2 things in your life.

Rome wasn't built in a day: start with the beginning. A small change is better than no change at all.

You have more power than you think!