

## Ahead of the Curve - 06/04/2008 (Plain Text Version)

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### Need a memory boost? How to upgrade your brainpower

by Dr. Nancy D. O'Reilly

People who have remarkable memories are no more talented than you; the difference is that they have spent time practicing.

As each day unfolds, we are challenged to remember a multitude of things, such as phone numbers, driving directions, names, tasks, and moment-to-moment requests. Yet at some point in life, everyone will have a problem with his or her memory. Why do we forget, and what can we do about it, especially if a once-perfect memory has now become faulty and unpredictable?

Let's start off by understanding what a memory actually is. There are two types we use daily: short-term memory and long-term memory. Both of these are important for our everyday functioning. We learn new material (a name, a date, directions, all things) with the use of short-term memory. That's why it is hard to remember a person's name when we've just been introduced. If we want to remember his or her name, we must mentally practice it by saying or spelling it out loud, writing it down, or repeating it. People who have remarkable memories for names, dates, and events are no more talented than you; the difference is that they have spent time practicing and taking steps to encode and move this information from short-term to long-term memory.

Long-term memory is what we need to survive and function. It allows us to go through our day almost effortlessly when we brush our teeth, comb our hair and eat our breakfast. What happens when we forget how to do something? Unless we can find something to associate with new information, and then encode it into our long-term memory banks, we forget. Forgetting is called "decay." In other words, the memory literally starts to fall apart. A name may start as "Jane," but without practice or encoding it starts to decay and becomes maybe "Ja" or is gone completely.

We also learn information in what are called "chunks" of memory. If we take learning a new action in pieces and learn one piece at a time, we can put them all together and repeat the action. For example, when we learn a song word by word and sentence by sentence and put meaning into the words and sentences to make chunks of information that flow together, then we form a complete memory.

#### What affects memory?

All forms of memory are affected by several factors. Stress is a big destroyer of memory chunks and affects every aspect of performance. Have you ever been so overwhelmed that when someone asks for your telephone number, you cannot remember it? Stress and illness can affect brain functioning and can cause constriction of blood flow. Good memory occurs when the flow of healthy oxygen nourishes the brain and creates overall health and well-being. When we feel rushed and pushed by time constraints, it can affect a person's performance and ability to remember.

Retention is the ability to maintain information and to retrieve it. Retrieval is the brain's ability to absorb information and to store it for later use. To understand this process, visualize a mountain of words and information. Each day we are confronted with new information and asked to sort through it and remember it. We pile new information on top of old information and we keep piling it on until we want to access some older memories, which are solidified in our long-term memory. Practice is important to the skill of retrieving information that is layered down in our conscious memory.

Memory is also affected by trauma and tragedy. We know that a person who has been in a serious accident or crime may experience memory difficulties. Time and healing often must take place for memories to be accessed and for the impaired person to remember information more accurately. Those who have hidden dangerous or invasive memories may need assistance to deal with these. A victim of a serious crime or attack may experience what is called a post-traumatic episode, where memories may appear to be so real that the person is re-living the horrendous event over and over again. Treatments are available to help these people understand and heal from their life-changing events and return to normal functioning.

#### Memory-boosting tips

Fortunately, with good health and exercise, reduced stress levels and mental challenges, you can retain your memory and even boost your brainpower! Here are some helpful hints:

1. Memories begin as short-term memories and when they are encoded and practiced, they are placed in the long-term memory banks. The memory process occurs as chunks of memory are placed in storage for retrieval at a later time, so practice storing and retrieving information you want for later use. Memory chunks need time to solidify and this is accomplished with practice, repetition and making memory a conscience action.
2. Memory can be impaired by illness, accidents, trauma, stress and time limits. Obviously, it is important to do what you can to protect yourself from serious injury, such as wearing the right gear when involved with sports or recreational activities, and reducing stress when you can by cutting out unhealthy habits, situations and even relationships.
3. It is also important, when retrieving previously learned materials, to store these memories in chunks. For example, when children take piano lessons, they learn the piano keys by memorizing sentences that encode the names of each key. This is also called "situational memory." An example of "situational" memory is memory chunks that are formed in the same place, in the same situation and the same environment. By recreating successful learning conditions and having the same frame of mind, health, attention and focus, you are more likely to remember the information and have better retention.
4. Use your brain and keep it pumped up. Good blood flow to the brain is maintained with regular exercise, a healthy diet and reduced stress levels, which all help to ensure we have good memory. See your doctor regularly, and choose foods that are rich in vitamins, but low in sugar and caffeine. Your brain is a muscle; therefore it needs good food, exercise and new information daily to keep it fresh and ready to learn. Involvement with art and music has been shown to help brain function and improve blood flow. Fish oils and foods high in Vitamin B will help reduce stress and improve memory.
5. Practice makes perfect! We've all been told this, especially when we're learning a new skill. Practice whatever it is you want to remember: a language, a task, or information you want to use on the job. We can practice any action in our minds and later execute it with amazing results. Also look for new hobbies and experiences that will help your brain get "exercise." These can be as simple as crossword puzzles and memory games, or more physical such as learning how to cook gourmet food or trying to snowboard.
6. Memory is important for all of us, especially as we grow older. To retain the memory functions that we have, we must try to stay active, social, and take advantage of the plethora of books, games and websites that can improve memory function. Keep learning new things on a daily basis, and challenge your memory.

Make today the day you put together your plan for a brain workout. It will create for you a memory that others will envy.

**About the Author:**

*Nancy D. O'Reilly, PsyD, is a clinical psychologist, researcher and founder of the online resource WomenSpeak.com, based on a decade of research. A member of the American Psychological Association with more than 25 years of experience, Dr. O'Reilly counsels clients on topics ranging from mental health and stress to relationships and careers. She hosts a radio program on Voice America called "Timeless WomenSpeak." For more information, visit her website: [www.womenspeak.com](http://www.womenspeak.com) or call: 1 417-886-7061.*

**Correction:**

An article in the April 16th edition of *Ahead of the Curve* stated that "in 1996, the major integrated forest products companies owned 95% of the non-public timberland in the U.S."

According to *Forest Facts & Figures, 2001*, in 1997 approximately 504 million acres of forested lands were classified as "timberlands." Of those, 358 million acres were privately held with industry owning 67 million acres (19% of privately-owned lands) and non-industry owning 291 million acres (81% of privately-owned lands.)

The article was correct, however, in saying that the vertically-integrated forest products industry percent of ownership has dropped drastically in recent years.