Exercise & Mental Activity

Physical exercise benefits the mind and the body. Aerobic exercise improves cardiovascular health and promotes growth of brain cells. Improvements in circulation can increase flow of oxygen and essential nutrients to the brain. Even starting later in life can help! Aerobic exercise (like walking, swimming, cycling) is the most beneficial.

Remaining mentally and socially active

Challenging mental activities or professions can slow the rate of decline. Lifelong learning increases the ability of the brain to compensate for damage. Remaining socially active and connected can promote healthier aging.

The Memory & Language Lab

In the Memory & Language Lab, we explore issues pertaining to healthy aging in two ways:

1. We are committed to promoting knowledge about healthy aging and lifestyle changes or choices through free presentations in the community.

2. We conduct basic research on how memory and language change as we age. Such studies contribute to building a larger body of knowledge that helps researchers and practitioners understand healthy aging more in depth.

If you are interested in learning more or in participating, please contact us at:
(207) 859-5580 or email memorylanguage@gmail.com or visit our website at http://web.colby.edu/memoryandlanguagelab/

Memory & Healthy Aging

Jen Coane, PhD
Memory and Language Lab

Department of Psychology
Colby College
Waterville, Maine, 04901
jcoane@colby.edu
(207) 859-5556

Supported by Goldfarb Center Collaborative Research Grant 01.2450
Types of Memory

Short Term Memory
Memory for small amounts of information, such as a phone number or a short grocery list. We can remember information in short term memory by rehearsing it, but if we get distracted, we forget it rapidly.

Episodic Memory
Memory for specific events – the “who, what, when, and where” type of memory. It requires forming associations among the different elements of an experience. Remembering people’s names, who told you and so on what depend on this type of memory.

Semantic Memory
This is where we maintain all the facts, trivia, verbal knowledge, and knowledge of the world.

Prospective Memory
Remembering to perform an action in the future, such as taking medication or making a phone call.

Dietary and Nutritional Information

Brains require nutrients as much as (if not more) than bodies. They consume 20-30% of nutrients at rest, more during activities, and depend on a steady source of glucose. Lack of nutrients can negatively affect development and aging.

As we age, our nutritional intake can decrease – either because of reduced appetite or difficulties in preparing meals. A healthy diet is essential to obtain the necessary nutrients (like vitamins and minerals). Studies suggest that supplements are not very effective overall, unless there are deficiencies.

Many essential nutrients do not appear to have a direct effect on aging – Vitamin E and Omega 3 acids, in particular do not appear to delay cognitive decline.

A healthy diet – like the Mediterranean Diet – that provides all essential nutrients, is associated with better health in aging.

Some medications can negatively affect memory and attention. These are drugs that have an “anticholinergic” effect and are commonly prescribed to older adults.

How memory changes as we age
With aging, certain aspects of remembering change. For example, cognitive processes tend to become slower, thus requiring additional time or effort. There are also changes in our ability to attend to important information and in our ability to ignore or suppress irrelevant information.

As we age remembering specific units of information becomes harder – in other words, we might remember the gist of an event or story, but have problems with the details. A common complaint for many older adults is remembering people’s names – which involves remembering very specific information.

In sum, older adults often perform worse than younger adults on tasks that depend on episodic memory. Conversely, other abilities, such as language or general knowledge, supported by semantic memory, generally improve or remain constant in aging.