

As people age, they often start losing their memory. A neurotransmitter called acetylcholine is involved in the memory process. Acetylcholine helps thinking, learning and remembering.

In Alzheimer's disease, the brain cells which produce acetylcholine, a neurotransmitter responsible for memory and learning, are lost. This destruction of brain cells is the result of inflammation and free radical damage in the brain. There is also a loss of these brain cells, as well as a deficiency of acetylcholine, in dementia.

Acetylcholine is also involved in muscle movement. It is the neurotransmitter that transmits messages from nerve cells to muscle cells. Myasthenia gravens is an autoimmune disorder in which the receptors for acetylcholine in the muscle cells are deactivated. This results in progressive weakening of muscle tissue, leading to possible paralysis and respiratory failure.

Brain Protex contains ingredients which help to protect the brain from free radical damage and preserve acetylcholine production in the brain. This formula may aid in preventing Alzheimer's disease and dementia in the elderly, and may slow the progress of these diseases once they have begun (although it is unlikely to act as a cure). It may also be helpful in myasthinia gravens. For some people, it may simply aid memory and learning functions.

The ingredients in this formula are:

# **Chinese Club Moss**

This Chinese herb has a traditional history of use for treating memory loss, dementia and mental illness. It has also been used to treat inflammation and fever, suggesting it has anti-inflammatory qualities. Modern research has found a compound in the plant called huperzine A, which inhibits the enzyme acetycholinesterase. This enzyme breaks down acetylcholine. By inhibiting it, more acetylcholine is held in the brain synapses.

Research suggests that huperzine A may be helpful in Alzheimer's disease. In one US study where 29 Alzheimer's patients were given huperzine A, more than half seemed to show improvement. Research in China suggests that 60 percent of people with Alzheimer's disease show significant cognitive improvement.

Other research suggests this alkaloid from the Chinese club moss may help protect brain cells from certain types of toxic chemicals. It may also be helpful for dementia and for improving memory function in general. So far the research has not shown any side effects from the use of this compound. Brain Protex contains an extract standardized to 1% huperzine A.

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## Ginkgo biloba

Research in Europe has shown that ginkgo has the ability to enhance mental function. It has proven helpful with difficulty in concentration, absent-mindedness, loss of memory, confusion and dizziness. It improves blood flow to the brain and helps protect tissues from free radical damage. Ginkgo has even been shown to help stabilize patients with Alzheimer's disease and dementia for six to eight months.

### Lycopene and Alpha Lipoic Acid

As an antioxidant, lycopene is twice as effective as betacarotene. It helps prevent oxidation of lipids (fats) in the body. Alpha lipoic acid is another antioxidant. It has been used to treat diabetic neuropathy in Germany and may help prevent toxins from damaging nerve tissues.

#### Soybean lecithin complex

This mixture contains phosphatidyl-serine, choline, ethanolamine and inositol. Choline is converted to acetylcholine in the presence of b-vitamins. Phosphatidyl serine is a lipid which helps slow age-related memory loss. It enhances cognitive functions like attention, short-term memory, telephone number recall, paragraph recall, reading concentration, and name-face recognition.

#### Rhododendron caucasicum

People living in the Republic of Georgia, a former part of the Soviet Union, have been documented as having longer life spans than people living in other parts of the world. They often live to be over 100 and continue to be functional in old age.

One of the secrets may be their consumption of snow rose (Rhododendron caucasicum) on a regular basis. Over thirty years of research have been conducted on the phenylpropanoids found in this herb. This research shows that Rhododendron helps improve circulation to the muscles and the brain. It reduces brain damage from chemical and biological causes and acts as a free radical scavenger. Rhododendron is used in foreign hospitals to treat heart disease, depression, neurosis, psychosis and concentration problems.

Usage: Recommended use of this product is 2 capsules twice daily with meals.

# Selected References

Herbal Therapy and Supplements by Merrily A. Kuhn and David Winston PDR for Nutritional Supplements by Physician's Desk Reference Activating the Healing Response by Steven Horne

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