



Alzheimer's Disease

Alzheimer's disease is a brain disorder characterized by the development of progressive memory loss and gradual loss of the ability to function independently. As the disease progresses, people become unable to care for themselves. Alzheimer's is the leading cause of dementia in North America and Western Europe and is a degenerative type of dementia. The cause of this disorder is not known, but some risk factors have been found - female gender, family history of dementia, downs syndrome, head trauma, thyroid disease, myocardial infarction, and lower educational level. Some studies have suggested that it may be related to an accumulation of aluminum in the brain,¹ yet aluminum toxicity has been studied in humans, and it is quite distinct from Alzheimer's disease.²

Treatment:

Dietary modification: Evidence based medicine has proven that patients who eat a diet with a higher level of **beta carotene** and **ascorbic acid** do better on tests of memory. While dietary intake of fruits and dark leafy green vegetables is the best way to accomplish this, adding a supplement may be the only way to ensure adequate dietary intake in most elderly patients.⁶ Although there is no proven connection between Alzheimer's disease and aluminum exposure, it seems prudent to take steps to minimize exposure to this metal.

Nutritional supplements:

- **Phosphatidylserine**, is a naturally occurring compound present in the brain. Though it is clearly not a cure, phosphatidylserine (100 mg three times per day) has been shown to improve mental function (such as ability to remember names and ability to recall the location of frequently misplaced objects) in individuals with Alzheimer's disease.³ While the phosphatidylserine used in these studies was obtained from the brain of cows, a **soy plant source of phosphatidylserine** is used in the U.S. - however, its effectiveness has not yet been documented.⁴
- **Vitamin E** may slow the progression of Alzheimer's disease, according to researchers from the Alzheimer's Disease Cooperative Study. A two-year double-blind study of 341 individuals with Alzheimer's disease of moderate severity found that high doses of 2,000 IU per day of vitamin E extended the time patients were able to care for themselves, such as bathing, dressing, and other necessary daily functions, compared to those taking a placebo.⁵ Vitamin E also boosts the immune system and prevents infections, a good way to help illness mediated deterioration of alzheimer's patients!¹⁹ See our excellent [Vitamin E Article](#) for more information.

- **Acetyl-L-carnitine** - the acetyl group contributes to the production of the neurotransmitter acetylcholine. Several clinical trials suggest that acetyl-L-carnitine delays the progression of Alzheimer's disease,⁸ improves memory,⁹ and enhances overall performance in some individuals with Alzheimer's disease.¹⁰ One double-blind study found that acetyl-L-carnitine slowed progression of the disease in people under the age of sixty-five but paradoxically appeared to have the opposite effect in older patients.¹¹ Overall, however, most research indicates improvement in short-term studies and reduction in the rate of deterioration in longer studies (lasting one year).¹² A typical supplemental amount is 1 gram taken three times per day (total amount equaling 3 grams per day). Alzheimer's research has been done with the acetyl-L-carnitine, rather than the L-carnitine form of this nutrient. Acetyl-L-carnitine is safe, although there are a few reports of skin rash, increased appetite, and body odor in individuals taking acetyl-L-carnitine.¹⁸
- **Coenzyme Q10** - mitochondrial function appears to be impaired in Alzheimer's disease and because Co Q10 improves this function, one group of researchers has supplemented Co Q10 with iron and vitamin B6 in Alzheimer's disease. They reported that the progression of the disease was prevented for one and a half to two years.¹³ Congestive heart failure patients taking coenzyme Q10 should not abruptly discontinue taking supplements without first consulting a physician. Preliminary information regarding the use of high amounts of coenzyme Q10 in humans suggests the possibility of anticancer activity.^{20 21 22}
- **Zinc** - preliminary research had suggested that people with Alzheimer's disease should avoid zinc supplements,¹⁴ though this point has been controversial.¹⁵ More recently, preliminary evidence in four patients actually showed improved mental function with zinc supplementation.¹⁶ Until more is known, people with Alzheimer's disease should not consume zinc supplements in dosages higher than the RDI.
- **NADH** - A small uncontrolled study showed that oral NADH improved mental function in people with Alzheimer's disease.¹⁷

Herbs that may be helpful:

- **Ginkgo biloba** is a leading treatment for early-stage Alzheimer's disease in Europe. While not a cure for this serious condition, Ginkgo biloba extract may improve memory and quality of life and slow progression in the early stages. Additionally, three older double-blind studies have shown that Ginkgo is helpful for persons in early stages of Alzheimer's disease, as well as the closely related multi-infarct dementia.^{23 24 25} Patients with other types of dementia including problems due to poor blood flow to the brain may also respond to Ginkgo. A more recent study casts some doubt on the effectiveness of Ginkgo in improving memory in HEALTHY patients without dementia over age 60.²⁹ Ginkgo is essentially devoid of any

- serious side effects. Mild headaches lasting for a day or two and mild upset stomach have been reported in a very small percentage of people first using Ginkgo. There are no known contraindications to the use of Ginkgo by pregnant and lactating women. People taking anticoagulants such as Coumadin or aspirin should inform their doctor before starting Ginkgo, combination of these can produce longer bleeding times.
- **Asian ginseng** (100–200 mg per day of the standardized herbal extract) Asian ginseng has the longest history of use in traditional Chinese medicine and is commonly used for older individuals showing signs of memory loss. Asian ginseng improves and sharpens mental concentration and performance, including attention and memory.^{27 28} While not as thoroughly researched as GBE for this condition, studies show that ginseng is effective at improving memory and also countering depression in the elderly. Used as recommended, Asian ginseng is generally safe. In rare instances, ginseng may cause overstimulation and possibly insomnia. Consuming caffeine with ginseng increases the risk of overstimulation and may cause gastrointestinal upset. Persons with uncontrolled high blood pressure should not use ginseng. Long-term use of ginseng may cause menstrual abnormalities and breast tenderness in some women. Ginseng is not recommended for pregnant or lactating women.
 - **Eleuthero (Siberian ginseng)** (2–3 grams per day of the dried root or 300–400 mg per day of the concentrated solid extract standardized on eleutherosides B and E). Eleuthero has minimal side effects, a mild, transient diarrhea has been reported in a small number of users. It may cause insomnia in some people and is not recommended for those with uncontrolled high blood pressure.
 - **Ashwagandha** has been shown to improve memory, although it has not been studied in Alzheimer's patients.²⁶

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