Ginkgo biloba extract does not prevent Alzheimer's dementia

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Ginkgo biloba extract does not significantly reduce the likelihood of diagnosis of Alzheimer's disease in older people, according to the results of the largest ever Alzheimer's prevention study in Europe, published in *Lancet Neurology*.

The study examined whether a twice-daily dose of 120 mg standardised ginkgo biloba extract – derived from the leaves of the Ginkgo biloba tree – affected the number of participants who were diagnosed with Alzheimer's disease, compared with those who took a placebo. The randomised, double-blind trial took place over five years, involving 2854 people in France who were 70 years old or over, and who had presented to their primary care physician with memory complaints.

1406 patients were given the ginkgo biloba extract, and 1414 given a placebo, designed to have a similar taste and appearance to the ginkgo biloba pills. Over five years, researchers used standard tests to assess the patients' memory, cognitive function and dementia status.

After five years, 61 (4%) participants in the ginkgo biloba group had been diagnosed with probable Alzheimer's disease, compared with 73 (5%) participants in the placebo group. The difference was not statistically significant, and the researchers also found no significant difference between the groups in the number of participants who had died or had a stroke.

The study appears to confirm the findings of a 2009 trial which took place in the USA* and showed similar results. Together, the results suggest that use of ginkgo extract by elderly people who complain of memory loss will not significantly affect the likelihood of diagnosis of Alzheimer's disease.

According to lead author Professor Bruno Vellas of the Hôpital Casselardit, in Toulouse, France, "Effective and safe prevention strategies are urgently needed to tackle the growing public health burden of Alzheimer's disease, and the efficacy of any such intervention needs to be shown through randomised controlled trials. This is only the third Alzheimer's prevention trial to be completed, and is the first to be done outside the USA, so further research in this area is urgently needed."

"While our trial appears to have shown that regular use of ginkgo biloba does not protect elderly patients from progression to Alzheimer's disease, more studies are needed on long term exposure. The fact that prevalence of this debilitating disorder is expected to quadruple by 2050 suggests that research into preventative therapies for this disease needs to receive urgent attention."

In a linked Comment, Professor Lon Schneider, Director of the University of Southern California's (USC) Alzheimer's Disease Research and Clinical Center, states that "If ginkgo biloba were a drug, and not marketed as a food supplement, clinical testing for efficacy against Alzheimer's disease and cognitive impairment would have ended long ago. Nevertheless, the fact that ginkgo biloba extract is widely promoted, derived from a plant, and fairly safe were reasons enough for its use in two landmark prevention trials for Alzheimer's disease [i.e. the GuidAge study presented here, and the 2009 GEM study∗]... It would be unfortunate if users of ginkgo biloba, nevertheless, are led to believe that the extract prevents the dementia. Some users will rationalise that, in the absence of effective treatments, ginkgo biloba could still possibly help and, appearing safe, will not harm them. Other users of ginkgo biloba, however, might now consider letting it go."


*Lancet Neurology* paper:

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