

Nine factors for preventing Alzheimer's disease

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A recent study published in the British journal Lancet takes stock of the factors in our lifestyle which can significantly diminish the risk of dementias, including Alzheimer's disease.

COGNITIVE DECLINE

Dementia is the medical term used to describe lesions in the brain which alter behaviour, personality and the collection of cognitive functions. The best-known form of dementia is Alzheimer's disease, which manifests itself in losses of memory, difficulties in accomplishing some simple tasks as well as by behaviour that becomes increasingly stranger. With time, the progression of the disease is accompanied by a marked deterioration in the cognitive functions (problems with language, visual recognition and integration of information) and, in the more advanced stages, the patients lose all interaction with the exterior world before their death. It is estimated that in 2015 about 47 million people on earth will develop dementias such as Alzheimer's disease and that this number could triple by 2050, imposing a terrible burden on the health systems and on the families of the patients.

NOT ONLY A QUESTION OF AGE

Until very recently, Alzheimer's disease has been considered to be a consequence of two principal factors, i.e. aging and the presence of certain genes which can predispose one to developing this disease. These two factors certainly play a role: for example, it is well-documented that people who possess the ApoE4 gene variant are at higher risk of dementia, but this gene is only responsible for about 7% of Alzheimer cases and other factors must clearly be in play. The same holds true for aging: age is well understood to be an important risk factor, but several recent observations indicate that Alzheimer's disease is not just an inevitable consequence of aging and that numerous aspects of lifestyle can also enormously influence its progression. This is excellent news because it means that it is possible to considerably reduce the risk of suffering from this disease by modifying one's lifestyle.

RISK FACTORS

It is within this context that a group of 24 international experts recently published an update on the principal factors which can diminish the risk of developing dementias in general, including Alzheimer's disease⁽¹⁾. Rigorous analysis of the studies that have been published to date prompted the authors to propose that modifying these nine principal risk factors could significantly reduce the incidence of these diseases.

1. **Stop smoking.** Cigarettes have a catastrophic effect on cardiovascular health, which provokes a decrease in the supply of oxygen to the brain and damages the neurons. Certain neurotoxins contained within tobacco also contribute to these damages.

2. **Exercise.** Physical activity provides a neuroprotective effect due to its improvement of the blood supply to the brain as well its stimulating the growth of neurons involved in the memory processes.
3. **Maintain a healthy weight.** Several studies have shown that obese individuals are at greater risk of dementia, a consequence of the negative effects of excess weight on chronic inflammation and oxidative stress, which disturbs the entire body, including the brain.
4. **Control arterial pressure.** Hypertension creates a mechanical stress on the blood vessels which increases the risks of neurodegeneration and, consequently, dementia.
5. **Control blood sugar.** Diabetic individuals are at greater risk of dementia because chronic hyperglycemia is very toxic for cells, including neurons.
6. **Treat depression.** Depression affects the levels of several stress hormones as well as the structure of certain parts of the brain (hippocampus), which can accelerate the development of dementias.
7. **Maintain a social network.** Social isolation and solitude are important risk factors for hypertension, cardiovascular diseases and depression, three conditions which have been associated with the development of dementias.
8. **Continue learning.** Education permits the creation of what is called "reserve cognition", which maintains cerebral function despite the deterioration of neurons.
9. **Ensure proper hearing.** This may appear surprising, but several studies have shown that there is a strong correlation between deafness and the risk of dementia. The mechanisms responsible remain poorly understood, but it seems likely that hearing stimulates the intellectual functions and also slows the deterioration of neurons. According to the researchers, the use of hearing aids by patients who do not hear well could contribute to reducing this risk.



It should be noted that the reduction in dementias via altering the lifestyle factors enumerated above is a minimum and could even be more pronounced than is mentioned here. Several more recent population studies have suggested that the consumption of certain foods such as curcuma, red win, cocoa or even green tea are associated with an even greater diminution in the risk of cognitive decline, and the inclusion of these foods in our dining habits could further increase our protection against dementias such as Alzheimer's disease.

⁽¹⁾ Livingston, G et al. Dementia prevention, intervention and care. Lancet published online July 20 2017.