

Dementia – Early onset risks and causes

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A person may live a long life with a lucid mind and good memory. However, many senior citizens have dementia, or severe intellectual deterioration involving progressive memory loss and inability to concentrate. Rarely, dementia affects people in their 50s. Various factors may cause such early dementia.

ALZHEIMER'S DISEASE

Alzheimer's disease is a major cause of dementia in 50-year-olds. About one-third of younger dementia recipients have Alzheimer's disease.

Plaques and tangles - protein deposits between nerve cells that interfere with neural communication - develop in Alzheimer patients' brains, and cause a progressive loss of intellectual skills.

In some cases, a gene mutation causes an early manifestation of Alzheimer's disease. Those who have Down syndrome are especially at risk of Alzheimer's. Other suspected factors are an unwholesome lifestyle or an unwholesome environment.

NEUROTOXINS

The Chamorro people of Guam have historically suffered a high incidence of degenerative neural diseases called amyotrophic lateral sclerosis or ALS - better known as Lou Gehrig's disease - and parkinsonism-dementia complex or P-D.

ALS causes motor disabilities and P-D manifests itself in early onset dementia. Typically, symptoms appear when the patient is 40 or 50 years old. A possible cause is the Chamorro people's consumption of flour made from seeds of *Cycas circinalis*, a neurotoxic plant, according to the Commission on Behavioural and Social Sciences and Education.

Others believe that the Chamorro people ingest the

neurotoxin when they eat flying fox bats after the bats have eaten an abundance of cycad seeds.

VASCULAR DEMENTIA

If blood vessels in the brain receive damage, vascular dementia may result. Damage to blood vessels is the second leading cause of dementia in younger people, according to the Alzheimer's Society. Brain cells need oxygen for their survival, and they depend on blood vessels to deliver this precious commodity.

Since damaged blood vessels cannot deliver oxygen effectively, brain-cell death ensues, and dementia follows. Blood vessels commonly receive damage from strokes. Other contributing causes are diabetes, high blood pressure, heart disease and high cholesterol levels.

OTHER CAUSES

Other factors may cause dementia in 50-year-olds. Prolonged deprivation of proper nutrients may lead to a form of dementia called Korsakoff's syndrome. Alcoholics may develop this condition, as alcohol often becomes the staple in their diet to the exclusion of other nutrients.

Excessive alcohol use can become a direct cause of dementia through the harm it causes to brain cells. Damage to the brain's anterior portion may cause frontal-temporal dementia.

In several forms of early onset dementia, irregularly shaped prions are the cause. Prions are proteins that can turn into nearly indestructible bodies that kill brain cells, leaving gaps in brain tissue that give it a spongy appearance.

Mad cow disease and Creutzfeldt-Jakob disease are examples of prion-caused dementia. AIDS rarely leads to dementia, but it does happen on occasion, according to the Alzheimer's Society.