

DEMENTIA RISK FACTORS

Cardiovascular disease has been the #1 cause of death worldwide for the last 100 years, but dementia is #7 and is the most rapidly increasing chronic disease in the developed world. There are over 200 types of dementia. Alzheimer's Disease is the most common (~ 60%), followed by Vascular Dementia (20%) and Lewy Body Dementia (5%). Other common types include Fronto-Temporal Dementia, Alcohol Induced Dementia and Parkinson's Related Dementia. In the US, Alzheimer's Disease is by far the costliest disease to manage since people can live with it for many years and rely almost 100% on help.

Billions have been spent on developing drugs but not even one has improved let alone cured any form of dementia. The most recent drug at best slows progression but it comes at a great cost, both financially (\$50-100,000 a year) and from side effects like bleeding in the brain (10% of patients). Prevention is key and now is the time to start since the damage leading to dementia starts 30 years before symptoms develop.

A 2020 Lancet study reviewed the factors contributing to dementia. They reported that 40% of the risk is attributable to 12 factors we have direct control over, called "modifiable risk factors". 60% of the risk is attributable to age (the older you are, the greater the risk) as well as genetics. Clearly, you can't do anything about age. As we learn more about how our lifestyle choices can impact how genes are expressed, even inherited genes are not as important as the modifiable risk factors. Dr. Dean Ornish showed that in just a few weeks, improving lifestyle factors like diet, stress management, exercise and social interactions, can alter the expression of over 500 genes, inhibiting genes which cause harm and expressing the genes which are protective. He also showed in a 2024 trial that those lifestyle changes can actually reverse some early dementia symptoms. This has never been seen before.

Below is a list of the 12 identified modifiable risk factors in order of their impact on the development or progression of cognitive decline and dementia. The additional 3 impact greatly on all the previous 12.

1. **HEARING LOSS.** In addition to the lack of brain stimulation, the isolation hearing loss causes is very bad for brain health. Someone in mid-life with only a mild untreated hearing loss doubles their risk of developing dementia. Hearing aids have also been shown to improve balance and reduce fracture risk. Consider getting hearing aids even if your loss is mild.
2. **LESS EDUCATION.** The greater your education level, the lower the risk. However, continuing to learn new skills as we age such as a new job, languages, musical instruments, sports... are very important when it comes to staving off cognitive decline and dementia.
3. **SMOKING.** Every single disease process is negatively impacted by this terrible habit. Because it causes cardiovascular disease, it impairs blood flow to the inner ear, in addition to being directly toxic to the inner ear nerve endings and all blood vessels in your body.
4. **DEPRESSION.** The link is partly age and duration related. Changes in brain structure, such as the hippocampus, the memory center, are seen in chronic depression, making dementia worse.
5. **SOCIAL ISOLATION.** Humans evolved in societies. Social isolation was not sustainable for the vast majority of us. Lack of human interaction and stimulation is a significant factor. Married couples and those involved in social organizations like religion have lower dementia rates.
6. **TRAUMATIC BRAIN INJURY.** Concussions and other brain trauma such as bleeding or strokes, result in damage to brain tissue as well as disrupting millions of neuronal connections in the brain. Even the "minor" recurrent trauma from heading a soccer ball or playing football has an effect.
7. **AIR POLLUTION.** Poor air quality contributes to various conditions like dementia, heart disease and cancer. Breathing the air in Beijing, China causes the same health risks of smoking 1 pack of

cigarettes a day. But it's not just smog. Burning wood in the winter also increases rates of chronic disease. Get a good HEPA air filter for your bedroom, even if you have a whole house filter.

8. **HYPERTENSION.** The number one killer worldwide, elevated blood pressure, damages arteries leading to poor blood flow and reduced oxygen and nourishment supply to all our organs, including the inner ear and the brain. The second most common type of dementia is vascular dementia, a direct result of arterial disease affecting the brain
9. **PHYSICAL INACTIVITY.** There is a clear relationship between lack of physical activity and dementia. Most of the populations who live the longest and are the healthiest, with the least amount of dementia, don't actually exercise, but they move constantly. Most of don't live in such environments but the good news is that regular exercise improves cognitive function. Do whatever you like, just do it regularly.
10. **DIABETES.** The most common complications and cause of death of diabetics is cardiovascular disease. This contributes to vascular disease in the brain. In addition, elevated blood sugars are toxic to all tissues and organs. Lastly, insulin has a significant impact on brain tissue directly as well as glucose management in the brain.
11. **OBESITY.** The rate of obesity in the US amongst adults is 42%, with 20% of kids being obese. Adding up those who are overweight, 75% of Americans have an unhealthy weight. Fat doesn't just sit there, doing nothing. Fat cells produce inflammatory compounds and hormones like estrogen, increasing cancer risk of various hormone related cancers like breast and prostate. The good news is that even losing just a few pounds leads to reduced dementia risk.
12. **ALCOHOL.** Simply put, alcohol is a toxin to every cell in your body, including brain cells. There is a clear relationship between excessive alcohol consumption (more than an average of 1 drink a day for women and 2 drinks a day for men) worsens all diseases, especially dementia.
13. **SLEEP.** Chronically reduced and poor-quality sleep is associated with various chronic diseases, especially cognitive decline and dementia. Sleep is when our brains clean up and remove the damaging proteins which build up during the day. And sleep medications do not reduce the risks because, although they may cause you to sleep longer, the quality of your sleep is poor.
14. **STRESS.** To be alive is to be stressed, however how we deal with stress is the key. If you deal with it poorly, excessive stress hormones and inflammatory compounds are produced.
15. **DIET.** Listed last, this is the **MOST IMPORTANT** of all the lifestyle habits which reduce the risks of all chronic diseases, including cognitive decline and dementia.
 - **Focus on a predominantly whole foods, plant-based diet.**
 1. **Fruit, especially berries (not fruit juice which is equivalent to soda).**
 2. **Greens (arugula, kale, cruciferous vegetables...).**
 3. **Whole grains. The more they are processed, the worse they are for you.**
 4. **Nuts and seeds. They do contain a good amount of fat so don't overdo it.**
 5. **Beans. They're all good, especially soy, lentils, chickpeas and black beans.**
 6. **Water. Filtered, just avoid plastic bottles since they leach chemicals.**
 - **Eliminate processed foods. The more processed it is, the worse it is for you.**
 - **Minimize added sugar, including honey and artificial sweeteners, and salt.**
 - **Minimize fat and cholesterol, the majority of which comes from animal products like meat, fish, dairy and eggs. In other words, minimize eating animal products.**

A great reference is "[***The Alzheimer's Solution***](#)" by Drs. Dean and Ayesha Sherzai.