

# **MEMORY MOMENT**

*By Shannon Nosbisch, CDP, DCS*

People often ask us "Is there any way to prevent dementia?" While there is a lot we still don't know about these diseases, research is developing ways to reduce the risk of dementia as well as many other chronic diseases. Over the last several months, we have written a series of articles that focused on various strategies for better health. This is the first section of a couple of articles that discuss other medical conditions that may raise your risk for dementia and what you can do to help manage them and reduce your risk.

**Traumatic Brain Injury (TBI)** – The Alzheimer's Association says that research has linked moderate and severe traumatic brain injury to a greater risk of developing Alzheimer's or another dementia years after the original head injury. One study found that older adults with a history of moderate traumatic brain injury had a 2.3 times greater risk of developing Alzheimer's, while those who had a severe traumatic brain injury were at 4.5 times greater risk!

The leading causes of TBI were falls, being struck by an object and motor vehicle crashes. Indirect forces that jolt the brain within the skull can also cause TBI, like shock waves from battlefield explosions. Bullet wounds and injuries that penetrate the skull can cause brain injury.

Although most TBIs are classified as mild, because they are not life-threatening, they can still have serious and long-lasting effects. Anyone who experiences a head injury needs to seek medical attention immediately, even if it seems mild. Being unconscious for more than a minute, or experiencing seizures, repeated vomiting or symptoms that seem to worsen as time passes are warning signs.

**Ways to reduce your risk:** Falls are the most common cause of traumatic brain injury and older adults are especially at risk. According to the Alzheimer's Association, 56,000 seniors are hospitalized as a result of head injuries sustained in falls and 8,000 die as a result.

Measures to reduce the risk of falls include:

- Using a walker or other assistive device to compensate for mobility problems, muscle weakness or poor balance.
- Having your vision checked regularly and using glasses or contact lenses that correct for change.
- Working with your doctor or pharmacist to watch for medication side effects or interactions among drugs you are taking.
- Avoiding household hazards, such as clutter, loose rugs or poor lighting.

Other ways to reduce your risk of TBI are use a helmet and other protective equipment when biking, inline skating or playing contact sports. Make sure to wear your seat belt when riding in a vehicle.

**Alcohol-related Dementia** – Although research is suggesting that light to moderate alcohol use may be beneficial to brain health, excessive alcohol use can be a risk factor for dementia. Excessive alcohol consumption over a lengthy time period can lead to brain damage and increase your risk of developing dementia. People who drink heavily over a long period of time are more likely to have a reduced volume of the brain's white matter. This can lead to issues with brain function. Long-term heavy alcohol consumption can also result in a lack of vitamin thiamine B1 and Korsakoff's Syndrome, a memory disorder affecting short term memory.

Verywellmind.com states that Wernicke-Korsakoff syndrome is one of the alcoholic dementias. Wernicke's encephalopathy is characterized by a syndrome involving abnormal eye movements, unsteady gait and confusion. Alcohol itself does not cause Wernicke-Korsakoff syndrome as much as the damage to the brain cells caused by thiamine deficiency (vitamin B1). Korsakoff syndrome involves significant impairments of memory and other cognitive functions. The most distinguishing symptom is fabrication where the person makes up detailed, believable stories about experiences or situations to cover gaps in memory.

According to the National Institute on Alcohol Abuse and Alcoholism, drinking is considered to be in the moderate or low-risk range for women at no more than three drinks in any one day and no more than seven drinks per week. For men, it is not more than four drinks a day and no more than 14 drinks per week. Of

course, the type of alcohol you drink makes a difference. A standard-sized drink contains about 14 grams of pure alcohol. That equals 5 ounces of wine, 12 ounces of beer, 8 to 9 ounces of malt liquor and 1.5 ounces (one shot) of 80-proof spirits or “hard” liquor. Many glasses are more than the standard size, so caution is needed.

**Ways to reduce your risk:** If you or a loved one are struggling with substance use or addiction, contact the [Substance Abuse and Mental Health Services Administration \(SAMHSA National Helpline at 1-800-662-4357\)](#) for information on support and treatment facilities.

Quitting drinking will prevent additional loss of brain function and damage. Improving the diet can help, but it does not substitute for alcohol abstinence in preventing further alcoholic dementia.

**Dehydration** – The adult human body contains around 60% water. All the cells in the body, including our brain cells, depend on this water to carry out essential functions. If water levels are too low, our brain cells cannot function properly, leading to cognitive problems.

When a person is dehydrated, their brain has to work harder to complete a task. In healthy young adults, this manifests as fatigue and changes in mood, but in people with less cognitive reserve, such as the elderly, this can lead to a decline in cognitive performance. This includes impairments on attention, executive function and motor coordination.

Women of all ages are more sensitive to the effects of dehydration, but elderly women are especially vulnerable. Elderly men and women are both at higher risk for dehydration. The levels of water stored in the body decline with age due to changes in body composition, mainly the loss of muscle and gain of fat. Muscle tissue provides a large reserve of water since it is made up of nearly 80% water, while fat tissue is around 10%. The elderly are also less likely to notice they are dehydrated.

**Ways to reduce your risk:** To keep your brain hydrated, it is recommended that women consume 8 to 11 cups and men consume 10 to 15 cups of fluids per day, varying because of activity level and medication use. It is important to know that cognitive function can also be impaired by overhydration. Overhydration can lead

to drop in sodium levels that can induce delirium and other neurological complications, so fluid consumption should not exceed medically recommended guidelines. *Alzdiscovery.org*

**Smoking** – Studies over the years have shown that smoking negatively affects your health and also negatively affects brain health and memory in later life. The negative effects of smoking on the heart and blood vessels might account for the link between smoking and dementia. Smoking can tighten and damage blood vessels, which can restrict blood flow to the brain, depriving the brain of essential nutrients and oxygen. Smoking also increases oxidative stress which is a risk factor of Alzheimer’s disease. Smokers also have a high risk of insomnia and sleep apnea, both of which can increase the risk of dementia.

According to one study, men who had never smoked were 19% less likely to develop dementia. Those who had quit smoking for four years or more were 14% less likely to develop dementia. *Healthline.com* Observational studies have shown that people who smoke are at higher risk of developing all types of dementia and a much higher risk (up to 79%) for Alzheimer’s disease (*alzdiscovery.org*).

Second-hand smoke has been shown to increase the risk of cancer, cardiovascular disease and other effects. It will more than likely increase the risk for dementia, also.

**Ways to reduce your risk:** Talk with your doctor about creating a plan to stop smoking. *Quit.com* has many resources and ideas on the best and easiest ways to stop smoking.

*Effingham Area Alzheimer's Awareness (EAAA) is a volunteer-run, not-for-profit organization founded to provide education and support to all families, caregivers, and people with Alzheimer's disease and related dementia in Effingham County and the surrounding area. For more information about Effingham Area Alzheimer's Awareness, check out the website at [www.effinghamalz.org](http://www.effinghamalz.org). If you are a caregiver & have specific questions or situations you would like information on, please feel free to call Shannon Nosbisch at 217-663-0010 or Amy Sobrino at 618-363-8372.*