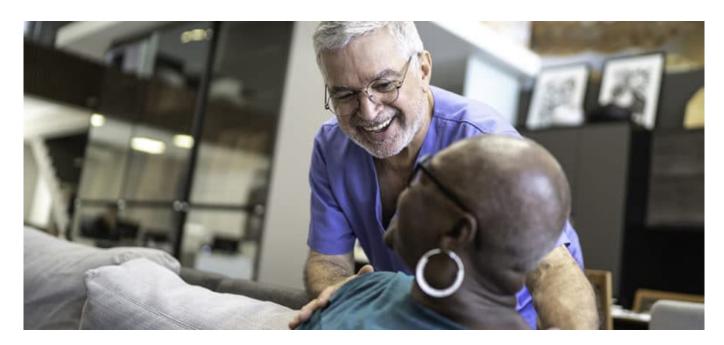
7 steps to lower your risk of dementia



Studies show that lifestyle factors have more impact on whether you'll develop Alzheimer's than genetics, says Meghan Beier, PhD, an assistant professor at Johns Hopkins University School of Medicine's Division of Rehabilitation Psychology and Neuropsychology.

A growing body of research shows those same lifestyle factors can also have an impact on MS-related cognitive issues. The following health and wellness steps can help improve cognition

and reduce the chances of developing Alzheimer's or dementia.



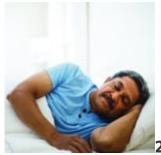
1. Eat mindfully

A study published in 2015 in the journal Alzheimer's & Dementia shows that the Mediterranean-DASH Intervention for Neurodegenerative Delay diet — less clunkily referred to as the MIND diet — slows the cognitive decline associated with aging and can decrease the likelihood of a transition to dementia. The study authors say this diet is so effective, it can reduce your cognitive age by a whopping 7.5 years.

In the first study of diet to incorporate neuroimaging in MS, Vicky Leavitt, PhD, assistant professor of neuropsychology at Columbia University's Irving Medical Center, and her fellow researchers found that people with early-stage MS who followed a MIND diet had larger

thalamic volume — meaning they had less neurodegeneration as shown on an MRI — than those who didn't adhere to the diet. The study was published in 2021 in the journal Multiple Sclerosis and Related Disorders. The researchers define the MIND diet as containing the following "brain-healthy" foods: green leafy vegetables, other vegetables, nuts, berries, beans, whole grains, seafood, poultry, olive oil and wine. The diet eschews five "unhealthy" food groups: red meat, butter and margarine, cheese, pastries and sweets, and fried and fast food.

But even if you're a fan of burgers and bonbons, rest assured you don't have to follow this diet perfectly. The research shows even partial adherence can be beneficial for your cognitive well-being.



2. Get adequate shuteye

Most adults need seven to nine hours of sleep a night, but Laura Hancock, PhD, assistant professor in the Department of Neurology at the University of Wisconsin School of Medicine, says many of her patients with MS tell her they tend to feel better with nine hours or more. "Fatigue and lack of sleep interfere with the efficiency of your brain," she says. "If you're well-rested, you're setting your brain up with the right conditions to perform at its best."



3. Work it out

Just as exercise can improve the physical and emotional symptoms of MS, it can also boost cognitive skills. If approved by your doctor, try 150 minutes of exercise a week, broken into increments that work for you, Hancock says. Any type of activity counts, including hand cycling, seated exercise, walking, dancing, swimming, yoga or tai chi.



4. Play mind games

The adage "if you don't use it, you lose it" applies both physically and mentally to people with MS.

There's plenty of research showing that mentally challenging tasks like puzzles, trivia games and digital cognitive-training games like BrainHQ can improve cognition and lower the risk of dementia. Simply learning something new or incorporating new strategies into your daily routines, such as taking a different route to work or therapy, may also help.



5. Tell a story

The Kessler Foundation has developed a modified story memory technique that can improve memory by as much as 10% in people with MS. Typically, a healthcare professional formally teaches the technique over 10 sessions, but you can also practice the skills on your own.

The goal is to take unrelated information and put it together into a story you can visualize. Nancy Chiaravalloti, PhD, director of neuropsychology, neuroscience and traumatic brain injury research at the Kessler Foundation, says research shows this technique uses additional parts of the brain to help remember information.

For instance, if you need to go to the bank; pick up your child at school; and buy apples, cups and tuna at the supermarket, you make it into a story in your mind and visualize that information. You could tell yourself you're going to the ATM to get money, then to the store to mix apples and tuna in a cup, and then you're going to serve those cups of food to 10 kids.

"It's a little bit weird, but it makes the information easier to remember," Chiaravalloti says. "Our research shows that after someone makes a story like this, they perform better on neuropsychological tests. It's not a cure, but it decreases the impact of cognitive issues."



6. Take your DMT

Research on disease-modifying therapies tends to focus on the drugs' physical effects, but there is some secondary research on cognitive effects.

A 2021 trial published in the journal Neurology found that people with secondary progressive MS who took siponimod (Mayzent) had significant improvement on a test that detects

cognitive impairment.

Chiaravalloti's 2008 Lancet Neurology review cited several studies showing that interferon beta-1a (Avonex, Rebif) has some benefit for cognitive function — particularly processing speed, learning and memory.



7. Be social

Not only can social interaction reduce your risk of depression (that's a risk factor for Alzheimer's), but research shows it can also improve overall cognition.

In a study conducted by Leavitt and other researchers, people with MS were given a test measuring how available they thought people in their social network were to listen to their problems with empathy and understanding. According to the study published in 2020 in the Journal of Neurology, those who scored highest on the test also scored higher on cognition tests.

Another study found that having a social network made up of a combination of loose and strong connections — both casual acquaintances and close friends — is related to better language function and larger amygdala volume, a part of the brain associated with emotions. The study, also conducted by Leavitt and the same team, was published in 2021 in the Multiple Sclerosis Journal, "Overall, it appears that being embedded in a network of loosely connected acquaintances with weak interpersonal ties enhances one's access to fresh ideas and opportunities, therefore improving performance in different [brain] domains ... potentially reducing the deleterious effects of MS pathology on cognitive function," the authors noted.

In other words, whether you're a social butterfly or someone who likes to cocoon with close friends, you'll get cognitive benefits.

The bottom line is that MS-related cognitive deficits have the potential to progress — but you can have an impact on if, how or when that progression occurs through your everyday actions.

"Having MS is like running a race each day, so do what's right in front of you," Leavitt says. "Focus on the here and now and what you can control today."

Learn how to <u>distinguish multiple sclerosis cognitive issues from dementia or Alzheimer's</u> disease.