MS and Dementia Risk

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Dementia and Alzheimer's Risk in MS Patients

Brain fog, cloudy thinking, forgetfulness – however you know it by best, cognitive impairment is a reality for the majority of MS sufferers. Experts believe up to 65% of people with MS have trouble remembering information they had previously learned, and it’s not uncommon to have “blank” moments that leave you at a complete loss for words.

Alzheimer’s disease is a progressive dementia – that is, it worsens over time, and there is no known cure for the cognitive decline. It’s not uncommon to confuse the symptoms of progressive dementia with those of MS, but that can lead to unnecessary worry and frustration.

It’s important to understand the differences between the two diseases, as well as how they are related, in order to spot serious problems and protect against mental decline.

Cognitive Impairment in MS

The erratic neural signaling that’s responsible for loss of coordination, weakness, and paralysis in MS is also to blame for problems with thought and memory. And while a tendency to forget may seem like a relatively mild side effect, it can severely impact quality of life: studies show that cognitive impairment is the leading cause of occupational disability, leading to unemployment for millions of sufferers within the first 10 years of diagnosis.

Perhaps even more unnerving than potential work problems is how cognitive impairment might affect your basic mental abilities. After all, independence and happiness are fundamentally tied to brain function, and many MS patients worry that the first signs of cognitive decline point to a dark and dependant future.

Is There a Link between MS and Dementia?

There are different types of dementia: some are genetic (such as Alzheimer’s), some develop from abnormal protein formation, and others can even come from an infection. MS stems from an immune system misfire, where the body attacks nerve cells; when those nerve cells are in the brain, the degradation can result in dementia symptoms.

The good news is that there’s no evidence to suggest a link between MS and Alzheimer’s disease. Recent studies agree that MS patients are no more or less likely to develop progressive dementia than other people. But while MS won’t become Alzheimer’s disease, those living with multiple sclerosis are not immune to progressive cognitive diseases.

Just like the rest of the population, genetic and environmental factors may contribute to your risk of developing dementia, and unfortunately, many MS patients live with fear that any slight cognitive change could point to big problems. Work to reduce that worry with a better understanding of the differences between the cognitive

problems of MS and those that come with Alzheimer's.

Next page: the differences between MS cognitive dysfunction and Alzheimer's, and protecting yourself against dementia.

MS Cognitive Dysfunction vs Alzheimer's

There are some similarities between MS-related cognitive difficulties and the brain degradation that comes with Alzheimer's, but the two conditions differ in a few key areas:

- **Pattern of progression.** Cognitive problems with MS may seem like they're getting worse, but after a certain point they don't progress further. In contrast, Alzheimer's continues to damage the structure and chemistry of the brain, and cognitive function will gradually decline as time goes on.
- **Affected area of the brain.** Symptoms and severity can depend on the area of the brain that sustains damage. In Alzheimer's patients, what's known as the grey matter is most affected (this is where the neurons reside). MS targets brain cells, too, but the "white matter" is the typical target: the myelin that coats brain and nerve cells, and the underlying axons. However, the grey matter begins to suffer in later stages of the disease.
- **Type of memory problems.** MS affects people differently, and that means it's difficult to predict exactly how your memory will suffer. However, in many cases, long-term memory is relatively untouched by the disease – you may forget recently learned names, places, and ideas, but it's rare to lose long-term memories and face and name recognition. However, Alzheimer's infamously involves "erased" memories, where your ability to identify faces and names of loved ones falters, and is eventually lost.
- **Attention span changes**. Most Alzheimer's patients become easily distracted early on in the disease. They may wander off in conversation, turn their attention elsewhere abruptly, or seem to ignore what's going on around them. In MS, attention span can be affected, but in a much milder way, and it doesn't tend to get progressively worse. Rather, you may have good days and bad days when it comes to focus.
- **Confusion and irritability.** Confusion and irritability is another hallmark of early Alzheimer's disease, but these changes in mood and behaviour are much less pronounced in MS. It can certainly be frustrating trying to recall a specific piece of information to no avail, and you may struggle in conversation when you have difficulties finding words, but rest assured that your MS is not destroying your mental faculties for good.

Protecting Against Dementia

Unfortunately, there's a large genetic component in many types of dementia, and you cannot do anything to change your genes. On the other hand, your environment also has a role to play in your long-term mental health, and in some cases, you can reduce your risk of developing dementia by adjusting your lifestyle.

- **Better blood pressure control.** In the case of vascular dementia (the second most common type), cognitive malfunction comes from a blockage in blood flow to the brain. Blood vessel conditions, infection of a heart valve, or a stroke can damage blood vessels and interfere with blood flow, but these threats can be eliminated by taking steps to lower your blood pressure and improve your heart health.
- **Head protection.** Sometimes repetitive trauma to the head can lead to brain damage and progressive dementia down the road. Generally, this condition is seen in boxers, soldiers, or extreme sports enthusiasts. In many cases, a helmet can muffle the blows enough to protect your brain, so always arm yourself with appropriate head protection.
- **Treat infections quickly.** Brain infections like encephalitis and meningitis can attack brain cells and bring on symptoms of dementia, as can diseases like syphilis and Lyme disease – if they go untreated. The key is to fight off the infection before it infiltrates the brain and wreaks havoc on neural communication. In turn, you should be aware of symptoms of common infections, and consult your doctor if new physical symptoms show up suddenly.
- **Drink moderately.** Heavy drinking has been linked to an increased risk of developing dementia, but studies show that moderate alcohol consumption (one drink a day for women, and no more than two

drinks a day for men) can have a protective effect on brain and heart health. Just keep in mind MS and alcohol consumption don't always agree with one another.

As is the case with many diseases, diet and exercise can play a significant role in your chances of developing a cognitive disease. Not only will a healthy diet prevent clogged arteries and high cholesterol – two predictors of dementia – it will also give you the energy and nourishment you need to counter the weakness and mental stress that comes with MS.