

Smoking linked to increased brain lesions and brain shrinkage in MS

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People who smoke and have multiple sclerosis (MS) may be at increased risk of brain shrinkage and increased brain lesions related to the disease, according to a study published in the August 18, 2009, print issue of *Neurology*, the medical journal of the American Academy of Neurology. Smoking has already been linked to an increased risk of developing MS.

Researchers studied 368 people in New York with an average age of 44 who had been diagnosed with MS for an average of 12 years.

Participants underwent [brain scans](#) and were asked about their [smoking](#) history. Of the group, 240 were non-smokers, 96 were current [smokers](#) and 32 were past smokers. Current smokers were considered people who smoked more than 10 cigarettes per day in the three months leading up to the study and past smokers were those who smoked for at least six months sometime before the start of the study. The average current smoker in the study had been smoking for 18 years.

The study found that smokers with MS had a greater breakdown of the barrier between the brain and blood and had nearly 17 percent more brain lesions on their scans compared to non-smokers with MS. Smokers with MS had 13 percent larger ventricles and a smaller brain size compared to non-smokers with MS.

"These results show that smoking appears to quite literally injure the [brain](#) in a person with [multiple sclerosis](#) and increases the risk of disease severity and progression," said study author Robert Zivadinov, MD, PhD, Associate Professor with State University of New York School of

Medicine and Biomedical Sciences in Buffalo. Zivadinov is also the Director of the Buffalo Neuroimaging Analysis Center, the Jacobs Neurological Institute and a member of the American Academy of [Neurology](#). "Our study stresses the importance of anti-smoking education in schools, where many smokers start, and more targeted programs to help people with MS to quit smoking so they can have a better quality of life."

The study also found that smokers were likely to have more problems with motor functioning, such as walking and taking part in daily activities, than non-smokers.

Source: American Academy of Neurology ([news](#) : [web](#))

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