Multiple sclerosis may start later for those who spend teenage summers in the sun

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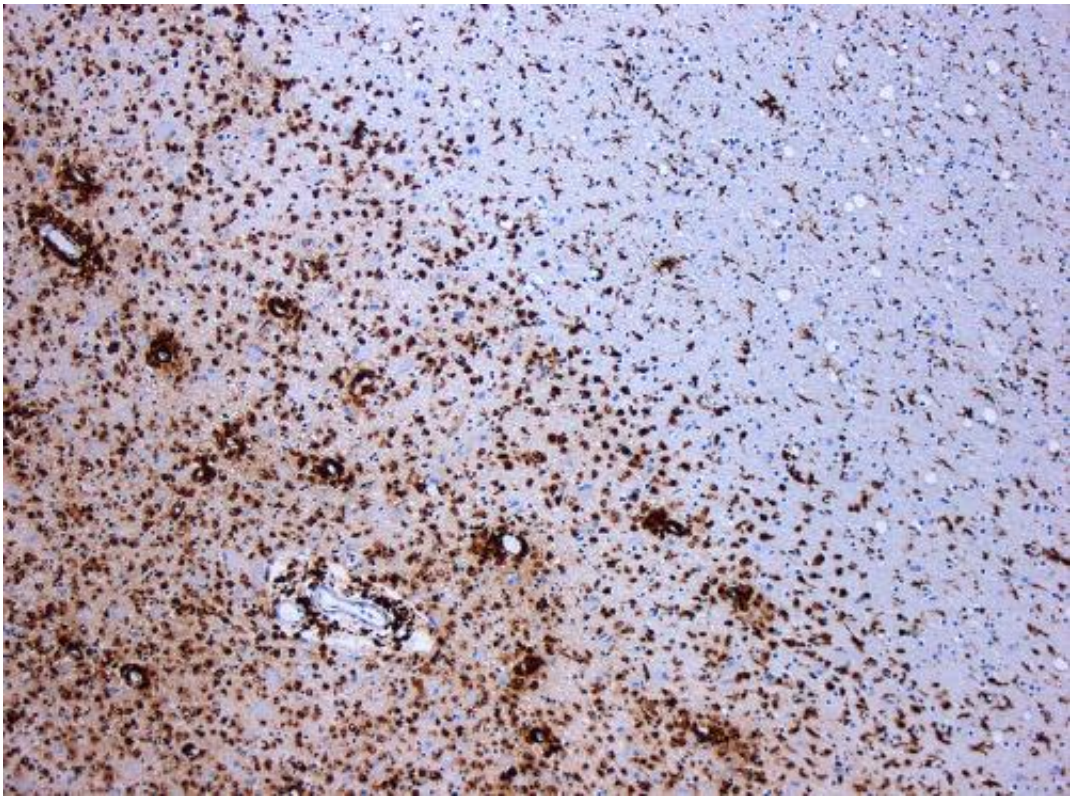

Demyelination by MS. The CD68 colored tissue shows several macrophages in the area of the lesion. Original scale 1:100. Credit: CC BY-SA 3.0 Marvin 101/Wikipedia

A study of people with multiple sclerosis (MS) found that those who spent time in the sun every day during the summer as teens developed the disease later than those reporting not spending time in the sun every

day. The study, which was published in the October 7, 2015, online issue of *Neurology*, the medical journal of the American Academy of Neurology, also found that people who were overweight at age 20 developed the disease earlier than those who were average weight or underweight.

"The factors that lead to developing MS are complex and we are still working to understand them all, but several studies have shown that vitamin D and sun exposure may have a protective effect on developing the disease," said study author Julie Hejgaard Laursen, MD, PhD, of Copenhagen University Hospital in Denmark. "This study suggests that sun exposure during the teenage years may even affect the age at onset of the disease."

For the study, 1,161 people with MS in Denmark filled out questionnaires and gave blood samples. They were put into two groups based on their sun habits during their teenage years: those who spent time in the sun every day and those who did not spend time in the sun every day. They were also asked about their use of vitamin D supplements during their teenage years and how much fatty fish they ate at age 20.

The people who spent time in the sun every day had an average onset of MS that was 1.9 years later than those who did not spend time in the sun every day. A total of 88 percent of the participants were in the sun every day group. They developed MS at an average age of 32.9, compared to 31 for those who were not in the sun every day.

Those who were overweight at age 20 developed the disease an average of 1.6 years earlier than those who were average weight and 3.1 years earlier than those who were underweight. Eighteen percent of the participants were overweight; they developed the disease at an average age of 31.2.

"It appears that both UVB rays from sunlight and vitamin D could be associated with a delayed onset of MS," Laursen said. "However, it's possible that other outdoor factors play a role, and these still have to be identified."

Laursen said previous studies have shown a relationship between MS risk and obesity in childhood and the teenage years. Obese people are known to have lower blood levels of vitamin D. "The relationship between weight and MS might be explained by a vitamin D deficiency, but there's not enough direct evidence to establish this yet," Laursen said.

"A limitation of the study is the risk of recall bias because participants were asked to remember their sun, eating and supplement habits from years before," Laursen said. "In particular, someone with a long history of MS and onset of the disease at an early age, may wrongly recall a poor sun exposure. Additionally, only Danish patients were included into the study, so there should be caution when extending the results to different ethnic groups living in different geographic locations."

Provided by American Academy of Neurology

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