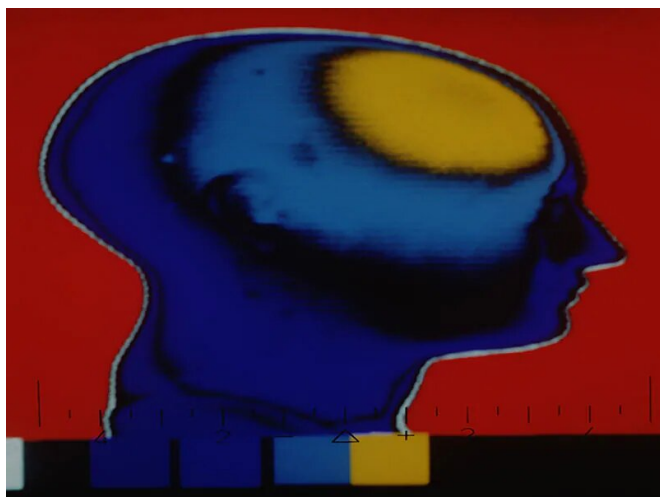


Model explores how statins alter multiple sclerosis outcomes

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Status Scale (EDSS), which explained 69 percent of the overall treatment effect. Brain atrophy was responsible for 31 percent of the total treatment effect on EDSS ($p = 0.037$).

"This suggests that simvastatin's beneficial effects in MS are independent of its effect on lowering peripheral [cholesterol levels](#), implicating a role for upstream intermediate metabolites of the cholesterol synthesis pathway," the authors write.

More information: [Abstract/Full Text](#)

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(HealthDay)—Simvastatin's beneficial effects on clinical outcomes and brain atrophy in patients with multiple sclerosis (MS) are largely independent of cholesterol levels, according to a post hoc study published in the May 28 issue of the *Proceedings of the National Academy of Sciences*.

Arman Eshaghi, M.D., from University College London, and colleagues assessed whether the lowering of cholesterol levels plays a role in simvastatin's effects on [brain atrophy](#) and disability in secondary progressive multiple sclerosis (SPMS) by applying computational models to the results of the Multiple Sclerosis-Simvastatin Trial. Participants (140 SPMS patients randomly assigned to receive either simvastatin or placebo) underwent brain [magnetic resonance](#) imaging at baseline and after one and two years.

The researchers found that when deconstructing the total treatment effect into indirect effects, simvastatin had a direct effect (independent of serum cholesterol) on the Expanded Disability

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