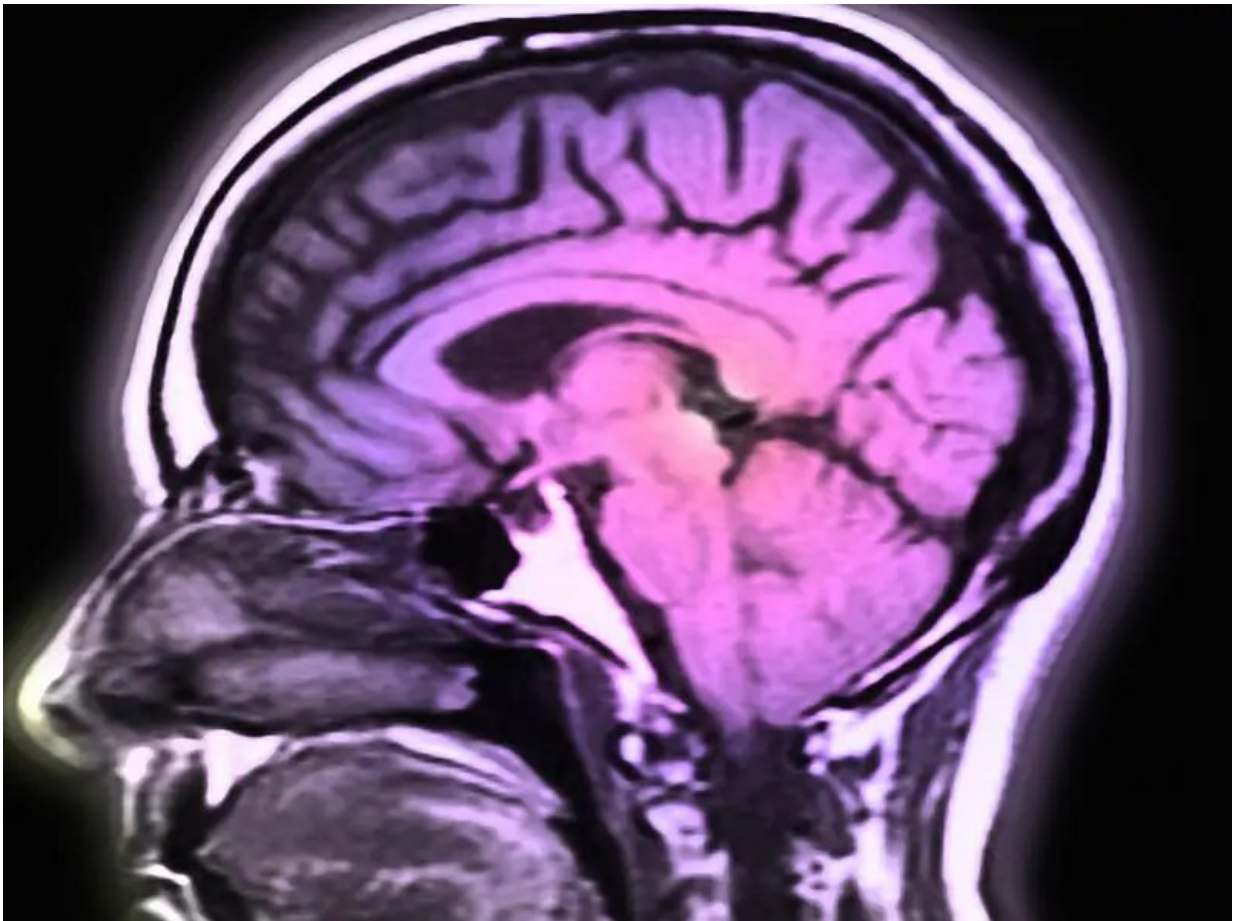


Brain changes from multiple sclerosis may occur in preteens

April 6 2020



(HealthDay)—Greater genetic predisposition for multiple sclerosis (MS)

is associated with altered brain white matter development at an early age, according to a study published online March 12 in the *Annals of Neurology*.

C. Louk de Mol, from the Erasmus University Medical Center Rotterdam in the Netherlands, and colleagues evaluated the association between MS polygenic risk scores and brain imaging outcomes in a large, population-based pediatric sample (ages 8 to 12 years old). Participants underwent genotyping and T1-weighted volumetric (1,136 individuals) and/or diffusion tensor imaging (1,088 individuals).

The researchers observed no associations between the genetic risk for MS and regional volumes. There was a [positive association](#) noted between the MS polygenic risk scores and global fractional anisotropy. Findings showed higher fractional anisotropy and lower radial diffusivity in several tracts. These results were replicated in an independent sample of 186 children.

"This is the first study to show that greater [genetic predisposition](#) for MS is associated with higher global brain [white matter](#) fractional anisotropy at an early age in the [general population](#)," the authors write. "Our results suggest a preadolescent time window within neurodevelopment in which MS risk variants act upon the brain."

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

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