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Multiple Sclerosis Onset Possibly Linked to Earlier Infection

Mononucleosis in teens may precipitate MS that remains undiagnosed for many years after the infection strikes.

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Doctors don't fully understand why some people develop multiple sclerosis (MS), a disabling autoimmune disease with symptoms that vary from person to person. However, researchers have found that glandular fever in youth between ages 11 and 19 was linked to a significant rise in MS risk after age 20, according to new study findings published in the journal JAMA Network Open, reports TheConversation.com.

Better known as infectious mononucleosis (mono) or "kissing disease," glandular fever also primarily affects teens and young adults and is characterized by symptoms including fever, sore throat, swollen glands, extreme fatigue and a persistent infection of the tonsils.

For the study, a team of scientists from Örebro University, Stockholm University, the Karolinska Institute and the University College London focused on 6,000 people from among 2.5 million individuals living in Sweden who were diagnosed with MS after age 20. Researchers conducted a comparison of siblings who developed glandular fever, noting their ages and the presence of any other infections.

Results showed that individuals between ages 11 and 15—a range that coincides with puberty—who had mono exhibited an elevated risk for MS. In addition, their chance of developing multiple sclerosis dipped as they became older and was almost eliminated by age 25.

"This study provides stronger evidence that a severe bout of glandular fever (and likely other serious infections) during the teenage years—particularly around puberty—can trigger MS, even though, often, MS may not be diagnosed for at least 10 years after the infection," said Scott Montgomery, PhD, an honorary professor of epidemiology at University College London and one of the study authors.

Montgomery noted that many individuals between ages 11 and 15 with glandular fever were diagnosed with MS after age 30. "This is because the damage to the brain caused by MS develops slowly, until it makes someone sick enough to receive a diagnosis of MS," he explained.

“Glandular fever during the teenage years may trigger MS because it can get into the brain,” Montgomery added. “And the damage it causes to nerve cells may cause the immune system to start attacking a part of the nerves that insulates them—called the myelin sheath.”

Scientists believe that the destruction of the myelin sheath causes the majority of MS symptoms, which can include vision problems, abnormal sensations, weakness and impaired coordination.

To learn more about infections that might affect multiple sclerosis risk in young people, read “Severe Viral Infections in Teens May Trigger Multiple Sclerosis.”
