

Can strep throat make tics worse in kids?

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Exposure to the bacteria that causes strep throat does not appear to make Tourette syndrome and other chronic tic disorders worse in children and teens, according to a study published in the February 10, 2021, online issue of *Neurology*. However, exposure was associated with increased symptoms of hyperactivity and impulsiveness. Previous studies have suggested a possible link between strep infection and tic and behavioral disorders.

Tics are repetitive movements and vocalizations prompted by an irresistible urge to produce them. They are the defining feature of chronic tic disorders, including Tourette syndrome, which is a neurodevelopmental disorder that begins in childhood.

In this study, researchers studied group A streptococcus, which is a type of bacteria that causes [strep throat](#), impetigo and a variety of other infections.

"The link between streptococcus and tics in children is still a matter of intense debate," said study author Davide Martino M.D., Ph.D., of the University of Calgary in Alberta, Canada, and a member of the American Academy of Neurology. "We wanted to look at that question, as well as a possible link between strep and behavioral symptoms like [obsessive-compulsive disorder](#) (OCD) and [attention deficit hyperactivity disorder](#) (ADHD)."

The study involved 715 children and teens with [chronic tic disorders](#). Of those, 91% had a diagnosis of Tourette syndrome. ADHD was diagnosed in 258 participants and OCD was diagnosed in 227 participants.

Researchers then followed up with each child for an average of 16 months. The children were evaluated during clinic visits every four months, at which time throat swabs and blood samples were taken to see if they were infected with the strep bacteria. At the beginning of the study, 59 children

tested positive for strep bacteria. During the study, 103 children had a new exposure to strep bacteria.

Changes in tic severity were monitored through telephone interviews, in-person visits and diaries the parents kept.

Of the 715 children in the study, 308 experienced a worsening of symptoms. However, researchers did not find an association between strep exposure and tics getting worse. They also did not find an association between strep exposure and symptoms of OCD.

However, when researchers looked at behavioral measures, they did find an association between strep exposure and an increase of about 20% in ADHD symptoms of hyperactivity and impulsiveness.

"While our findings suggest that strep is not likely to be one of the main triggers for making tics worse, more research is needed into other possible explanations," Martino said. "For example, the social stress of having this disorder could be implicated in making tics worse more than infections. It's also possible another pathogen might be triggering an [immune response](#) associated with tic worsening."

A limitation of the study was that researchers collected data in several countries, which could mean differences in clinical procedures.

Provided by American Academy of Neurology

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