

## The MMR Vaccine Is Not Associated With Risk for Autism

From: Hviid A, Hansen JV, Frisch M, Melbye M. Measles, mumps, rubella vaccination and autism. A nationwide cohort study. *Ann Intern Med*. 2019. [Epub ahead of print]. doi:10.7326/M18-2101

This article was published at *Annals.org* on 5 March 2019.

### What is the problem and what is known about it so far?

Many parents choose not to vaccinate their children because of worry about autism, even though the 1998 study claiming to show that children who receive the measles, mumps, rubella (MMR) vaccine were at increased risk for autism was fraudulent. Low MMR vaccination coverage has led to measles epidemics, which can be deadly. Unvaccinated people who develop measles can pass the infection to babies who have not yet been vaccinated. Many studies have shown no link between the MMR vaccine and autism, but a criticism has been that they did not specifically examine whether MMR vaccination could trigger autism in specific groups of susceptible children.

### Why did the researchers do this particular study?

To see whether there was a relationship between MMR vaccine and autism not only in all children, but also in specific groups of susceptible children.

### Who was studied?

657,461 children born in Denmark from 1999 through December 31, 2010.

### How was the study done?

The researchers used population registries to collect information on MMR and other childhood vaccinations, autism diagnoses, sibling history of autism, and several factors thought to be related to a higher risk for autism. They then looked to see whether autism developed in children who got the MMR vaccine compared with those who did not during the follow-up period.

### What did the researchers find?

During follow-up, 6517 children were diagnosed with autism. The chances of developing autism were the same in children who received the MMR vaccine and those who did not. Similarly, there was no increased risk for autism after MMR vaccination in subgroups of children according to sibling history of autism, autism risk factors, or other childhood vaccinations or during specific periods after vaccination.

### What were the limitations of the study?

The study used registry data and not medical records or direct examination of the children by research staff. The research was funded by the Novo Nordisk Foundation.

### What are the implications of the study?

The risk for autism was no different in children who got the MMR vaccine than in children who did not. This remained true even among children who had risk factors for autism, such as a sibling with autism or an older father.

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*Ann Intern Med*. doi:10.7326/P19-0002