

Title: MMR vaccination does not cause autism.

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Abstract: There is no increased risk of autism or autism-spectrum disorder associated with the MMR vaccine. The MMR vaccine remains a safe and effective vaccine for children worldwide.

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## What is the MMR vaccine?

The MMR vaccine protects children and adults from three diseases: measles, mumps, and rubella.

**These three diseases were very common causes of serious illness, such as blindness, pneumonia, infertility, congenital disease, and death before a vaccine was introduced in 1971.**

## Should my child get the MMR vaccine?

An expert panel recommends that all children receive two doses of the MMR vaccine. **While measles, mumps, and rubella are uncommon in the United States since the introduction of the vaccine, there have been outbreaks reported, even in Minnesota.** Outbreaks occur when immunization rates are low among certain communities. The only way to prevent these illnesses is with vaccination.

## For more information:

The Centers for Disease Control and Prevention (CDC) provides helpful resources for parents with questions about vaccination:

<http://www.cdc.gov/vaccines/>



The American Academy of Pediatrics also has a helpful website:

<http://www.aap.org/immunization/>



## MMR Vaccination Facts



## I've heard the MMR vaccine causes autism...

There have been reports that the MMR vaccine is responsible for increased rates of autism. However, there is clear evidence that the MMR vaccine does not cause autism.

## If there is no link between the vaccine and autism, why was it reported in the first place?

In 1998, a study was published in a popular medical journal that suggested a link between the MMR vaccine and autism. However, there were several problems with the way the study was performed and this led to bad results. The journal has taken back the results of the study.<sup>1</sup>

<sup>1</sup> Retraction—ileal-lymphoid-nodular hyperplasia, non-specific colitis, and pervasive developmental disorder in children. *Lancet* 2010; 375: 445.



## Evidence to support the safety of the MMR vaccine:

There have been several studies that showed no difference in rates of autism between groups who received the vaccine and those who did not.

The largest study looked at over 500,000 children.<sup>2</sup> It confirmed the results of previous studies that there is no link between the MMR vaccine and autism.

<sup>2</sup> Madsen KM, Hviid A, Vestergaard M, et al. A population-based study of measles, mumps, and rubella vaccination and autism. *NEJM* 2002;347 (19):1477-1482.

## Rising rates of autism

It is true that there are increasing rates of autism, **but there is no evidence that this increase is linked to the MMR vaccine.** Based on current research, the increase in autism is most likely due to factors that occur before the child is born.

## Summary

The MMR vaccine is a safe and effective way to prevent serious illness. There is no link between the MMR vaccine and autism.

## Cases of Measles in the United States Before and After Routine Immunization

