

# MMR, Crohn's & autism

This leaflet aims to give you some background to claims about a supposed link between measles, mumps and rubella vaccine (MMR), autism and Crohn's disease (bowel).

The World Health Organisation, British and American health authorities, as well as independent experts, have reviewed the existing data and scientific studies. They all concluded that there was no link between the MMR vaccine, autism and Crohn's disease.

## A link to Crohn's disease

It was reported in an article published in 1993 that Crohn's disease sufferers had an abnormality in the blood supply in their gut. The researchers proposed that viral infections might cause this abnormality. Like Crohn's disease, the measles virus can also cause ulcerations along the gut. When the researchers thought they found the measles virus in samples taken from Crohn's disease sufferers, they made a link between Crohn's disease and measles.

## Further investigations

The original research group, as well as two other research groups, re-examined the material used in the initial study using more sensitive and more measles specific tests. This time, no evidence of the measles virus was found. The researchers concluded that the measles virus does not appear to be present in Crohn's disease tissues.

## The reality

If there was a link between measles and Crohn's disease, then you would expect measles sufferers to have a

higher rate of Crohn's disease. In reality it doesn't happen.

Two separate studies concluded there was no link between people contracting measles in the womb and developing Crohn's disease later in life. In fact, none of the subjects studied went on to develop Crohn's disease after contracting measles in the womb.

The survivors of a 1940 measles epidemic in England and Wales were surveyed and no evidence was found to support the idea of an increased risk of contracting Crohn's disease in this group.

## The vaccine reality

It has also been suggested that the MMR vaccine may predispose children to developing Crohn's disease. Some of the best scientific research comes from Finland where two doses of MMR have been given routinely to children since 1982. In 1998 researchers there said: "If early exposure to MMR vaccine increased the risk we would expect an increasing incidence of Crohn's disease in these age groups." No increase was found.

## The link to autism

The theory that MMR vaccine is linked to autism relies on evidence that measles virus damages the bowel. In the studies to link MMR to autism and also Crohn's disease, no evidence was found to support this conclusion.

The two British studies that suggested a link were small and unrepresentative. They followed only 12 children and 170 children. The author himself, Dr Andrew Wakefield, wrote that they



were unable to prove an association between MMR vaccine and autism.

## Further investigation

In Sweden an investigation studied the incidences of autism. The duration of the study included the time that children would receive both doses of MMR. It concluded that there was no increase in the incidence of autism associated with the MMR vaccination.

## The reality

Signs of autism usually develop after the child reaches 14 months.

Considering that children receive their first dose of MMR vaccine at 12 months, it is understandable that parents of a seemingly normal child blame MMR when trying to understand why there has been a change in their son or daughter.

## In conclusion

**\$** There is no evidence to indicate any link between measles virus infection and Crohn's disease.

**\$** There is no evidence to indicate any link between MMR vaccination and Crohn's disease or autism.

Several hundred million doses of the MMR vaccine have been given worldwide since its introduction and extensive data have consistently demonstrated its safety and effectiveness.

tently demonstrated its safety and effectiveness.

There will always be emotional arguments for not vaccinating children. Please take the time to talk to your doctor about your concerns or if you have any further questions.

## Need more information?

Ask your family doctor or your local Public Health Unit. You can also look up these websites:

[www.ncirs.usyd.edu.au/facts/f-mmr.html](http://www.ncirs.usyd.edu.au/facts/f-mmr.html)

[www.who.int/vaccines-diseases/safety/hotspot/mmrstatement.htm](http://www.who.int/vaccines-diseases/safety/hotspot/mmrstatement.htm)

[www.doh.gov.uk/mmrresponse.htm](http://www.doh.gov.uk/mmrresponse.htm)

[www.immunisation.org.uk/pdf/mmr2.pdf](http://www.immunisation.org.uk/pdf/mmr2.pdf)

[www.cdc.gov/od/nvpo/fs\\_tableVII\\_doc3.htm](http://www.cdc.gov/od/nvpo/fs_tableVII_doc3.htm)

[www.cdc.gov/nip/vacsafe/concerns/autism/autism-mmr.htm](http://www.cdc.gov/nip/vacsafe/concerns/autism/autism-mmr.htm)

## References

Wakefield AJ, Murch SH et al. *Ileal-lymphoid-nodular hyperplasia, non-specific colitis, and pervasive developmental disorder in children. Lancet 1998; 351: 637-41*

*Letter from the Chief Medical Officer, Department of Health, to all doctors. Measles, MMR vaccine, Crohn's disease and autism. 27 March 1998 PL/CMO/98/02*