

Vaccine may trigger infant epilepsy onset

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Reuters



The researchers say parents should not avoid vaccinating their children as the babies would likely have developed seizures regardless (*Source: Nicky Loh/Reuters*)

Childhood vaccines may trigger early onset of a severe form of infant epilepsy, but researchers say the disorder is ultimately caused by defective genes and lifesaving vaccines should not be withheld from these children.

The Australian researchers say they feared the study published in the [Lancet Neurology](#) medical journal would scare parents away from getting their children vaccinated, but stress the babies in the study would likely have developed seizures within months regardless of the vaccine.

The disorder, called Dravet syndrome, generally begins with seizures around six months of age. These children have poor language and motor skills and difficulty relating to others.

Up to 80% of them have mutations in the SCN1A gene.

Anne McIntosh of the [University of Melbourne](#)'s Epilepsy Research Centre and colleagues examined the medical records of 40 Dravet syndrome patients with the genetic mutation who had been vaccinated against whooping cough, or pertussis.

They say 30% of these children developed their first seizures within two days of receiving the vaccine, but symptoms of their disorder were no worse than the other children who had their first seizures later on.

"In about 30% of people, it appears that (first seizures) came on rather quickly after the vaccination. But the overall message is that the outcome to the patients did not differ regardless of whether the onset of the disorder was shortly after the vaccination, or later on," says McIntosh.

"These kids already had that genetic abnormality, (so) regardless of the relationship with the vaccine, they would have actually had that disorder happen to them anyway," she adds.

"Essentially, there is no proof that people should not be vaccinated ... from concerns about it causing the onset of that disease."

Sensitive issue

Reports linking childhood vaccines to any sort of disorder are always sensitive because they can result in parents refusing to get their children vaccinated. This has caused a resurgence of dangerous diseases, including mumps, measles and whooping cough, in Britain, the United States and elsewhere.

In 1998 British doctor Andrew Wakefield published a study in *The Lancet*, suggesting the combined measles, mumps and rubella or MMR vaccine might be linked to autism and bowel disease.

The assertion has been widely discredited for years, journal has withdrawn the paper and Britain's General Medical Council has ruled Wakefield acted dishonestly and irresponsibly.

But the damage has been done - the number of MMR vaccinations in the United States and Europe plunged, prompting a resurgence of both measles and mumps.

This Australian study by McIntosh and colleagues follows an earlier investigation into whether the pertussis vaccine, which is routinely given to children together with diphtheria and typhoid vaccines (DTP), may have led to cases of encephalopathy.

The earlier investigation, led by Samuel Berkovic of the Epilepsy Research Centre at the University of Melbourne, found that 12 of 14 patients with so-called vaccine encephalopathy were actually suffering from Dravet syndrome. Eleven of these 12 children were also found to have the SCN1A gene variant.

In an accompanying commentary, Max Wiznitzer from the [Rainbow Babies & Children's Hospital](#) in Cleveland, Ohio, says McIntosh's study is "consistent with the conclusion that outcome is determined by the underlying disorder and not by proximity to vaccine administration".

Wiznitzer, who was not involved in the study, says "effective and accurate information and communication" could help maintain public confidence in vaccines.

Source: <http://www.abc.net.au/science/articles/2010/05/05/2890848.htm>