



Vaccinations and Autism: A Further Update

Dr Avril Brereton

A recent study by Schechter and Grether, (2008) has found that autism spectrum disorders have continued to rise in the state of California US, despite the removal of mercury – containing thimerosal from childhood vaccines. The study was supported by the California Department of Public Health, Richmond, US.

Autism spectrum disorders continued to rise in the state of California, US, even after mercury-containing thimerosal was removed from childhood vaccines, suggesting that exposure to the compound is not a cause of autism, as claimed by some groups.

Diagnosed cases of autism spectrum disorders, which include autism and related conditions, have been rising steadily in the last few years. Children usually receive their childhood vaccinations in the period leading up to the age range when the symptoms typical of autism start to become noticeable. Some groups have maintained autism is caused by or triggered by exposure to the mercury based preservative in the vaccine. Thimerosal contains nearly 50 per cent of ethylmercury by weight and was used to kill or prevent the growth of a range of pathogens. By 2001, Thimerosal was removed from most vaccines in North America and Europe. It was gradually replaced by other non mercury compounds, and some new vaccines are preservative free.

Schechter and Grether analysed data from the California Department of Developmental Services on childhood autism cases in California from 1995 to March 2007.

They found that:

- For each year of age from 3 to 12, the estimated prevalence of childhood autism went up through the study period.
- For children born in 1993, the prevalence of autism at age 3 was 0.3 per 1,000 children.
- This compared with 1.3 per 1,000 children with autism at age 3 who were born 10 years later, in 2003.
- The highest estimated prevalence occurred in 2006, when 4.5 out of every 1,000 children born in 2000 were estimated to have autism.

- Although it is too early to calculate prevalence for ages 6 and up for children born after 2000, the prevalence at ages 3 to 5 years has risen steadily for each birth year since 1999.
- Thimerosal was phased out over the same period as the 3 to 5 years old autism cases rose steadily.
- Based on quarterly figures, the rate of autism cases among 3 to 5 year olds increased each quarter from January 1995 (0.6 per 1,000 live births) to March 2007 (4.1 per 1,000 live births).

The authors concluded that:

“Although our analysis of Department of Developmental Services data shows an increase in autism in California despite the removal of thimerosal from most vaccines, we support the continued quest for the timely discovery of modifiable risk factors for autism and related conditions.” They also cautioned that the evaluation of the trends needs to continue in order to confirm their findings for the children born more recently.

In an accompanying editorial, Dr Eric Fombonne, of the Montreal Children’s Hospital, wrote that fears about childhood vaccines appear to persist even though the evidence does not warrant it. Fombonne assured parents of autistic children that their children’s autism did not come about as a result of childhood vaccinations and that children should continue to be vaccinated.

“In the last decade, two hypotheses on autism-immunization links were raised that have had a profound impact in the field of autism research and practice and on public health at large.” One fear was about the measles component of the triple measles-mumps-rubella (MMR) vaccine and the other was about the mercury in thimerosal. In 2004 the Institute of Medicine issued a report that favoured the rejection of both hypotheses. Later independent studies have also supported this view.

More information about this finding appears on the Medical News Today information page. The web address is: www.medicalnewstoday.com/articles/93217.php

References

Schechter, R. and Grether, J. (2008) Continuing Increases in Autism Reported to California’s Developmental Services System: Mercury in Retrograde. *Arch Gen Psychiatry* 65: 15-16.

Fombonne. E. (2008). Thimerosal Disappears but Autism Remains. *Arch Gen Psychiatry* 65: 15-16.