



## **Facts for Parents About Autism and Vaccine Safety From the American Academy of Pediatrics (AAP)**

The AAP understands that vaccine safety is an ongoing concern for parents of young children, and supports ongoing research in this area. In addition, the AAP supports further research into the causes of autism. The following information is to help parents and caregivers to understand some of the common issues and questions surrounding this topic.

### WHAT IS AUTISM?

- Autism is not a specific disease, but rather a collection of disorders of brain development called “autism spectrum disorders,” or ASDs.

Autism has a strong genetic basis.

- Studies show that the incidence of autism has risen. The apparent increase in autism may be due to a combination of factors. For example, more and more behaviors and disorders are being included in the definition of ASD than in the past. Also, the public and the medical profession recognize these disorders more often.
- According to the Centers for Disease Control and Prevention (CDC), about 1 in 150 children have an ASD.
- Although many theories have been discussed, the cause or causes of autism are not known
- More research is being done every year to try to identify the causes and improve efforts to prevent, diagnose and treat ASDs. The nation’s top experts in pediatric neurology, genetics, and other fields are moving closer to answers about this group of disorders.
- Early diagnosis is crucial. Pediatricians should screen all children for ASDs at 18 and 24 months. They should also listen carefully to parents about their child’s development. Parents are the most reliable sources of information.

- When a child is diagnosed with ASD, the child’s family and caregivers should be given information and support. The child should be involved in autism intervention programs as early as possible to get the most benefit.

#### WHAT IS MITOCHONDRIAL DISEASE?

- A recent case that went through the federal Vaccine Injury Compensation Program involved a child with a mitochondrial disorder or mitochondrial disease. This case has raised questions about what environmental triggers might bring on or worsen autism-like symptoms in children with such disorders. This case is sealed and details are not public. Mitochondrial cases are extremely rare and should not be used to justify vaccine refusal. If more details are released, the AAP may be able to comment on specifics of the case.

#### WHAT ABOUT VACCINE SAFETY?

- From time to time, rumors circulate that thimerosal, a mercury-based preservative once used in several vaccines (and still used in some flu vaccine), could contribute to ASDs. However, valid scientific studies have shown there is no link. For example, a recent study in California showed that, even though thimerosal was removed from most childhood vaccines by 2002, cases of ASD did not decrease. The American Academy of Pediatrics (AAP), the American Medical Association (AMA), the CDC, and the Institute of Medicine (IOM) agree that science does not support a link between thimerosal in vaccines and autism. For the IOM report, please go to <http://www.iom.edu/CMS/3793/4705/4717.aspx>
- The National Institute of Child Health and Human Development says, “To date there is no definite, scientific proof that any vaccine or combination of vaccines can cause autism. It’s important to know that vaccines actually help the immune system to defend the body.”
- Some parents are concerned about “combination” vaccines, which protect against more than one disease with a single shot. For example, the MMR vaccine protects against measles, mumps and rubella. These vaccines have been studied carefully and found to be safe. All vaccines contain antigens, which cause the immune system to do its work to fight (and protect the body from) infections. It is important to remember that children are exposed to multiple antigens in many ways during normal activities, such as playing outside or eating food. Healthy children’s immune systems are equipped to handle these multiple exposures.
- It is most important that parents and pediatricians continue to rely on immunizations to protect all children from preventable—and potentially deadly—illnesses. Many vaccine-preventable diseases can have dangerous consequences, including seizures, brain damage, blindness, and even death. These diseases still exist even though many young parents today have never seen a case, due to the success of the nation’s current

immunization program. Death and harm from chickenpox, measles, meningitis and other diseases are still a threat to children who are not protected.

- A parent's decision to skip or delay vaccines is not advisable, as this could leave the child vulnerable to disease for a longer period of time. Parents should follow the immunization schedule provided by the CDC, the AAP, the American Academy of Family Physicians (AAFP), and the Advisory Committee on Immunization Practices each year. This schedule is designed by experts to ensure maximum protection and safety for children at various ages. Parents should discuss any concerns with their child's pediatrician.
- In a small number of patients, a particular vaccine may be associated with one or more adverse effects. Pediatricians continue to report such effects, other than mild reactions such as swelling at the injection site or mild fever, to the Vaccine Adverse Event Reporting System. Any adverse effects are acted upon immediately when there appears to be an association.

More information for parents and caregivers is available on the AAP Web site at the following links:

On Autism:

<http://www.aap.org/healthtopics/Autism.cfm>

On Vaccines:

<http://www.cispimmunize.org/>

*Note on the recent case from the Vaccine Injury Compensation Program, discussed at a news conference on 3/6/08:*

*According to the Centers for Disease Control and Prevention (CDC), this was a unique case and information about it has not been accurately characterized in the media and other public forums. It represents one special case and does not change the immunization recommendations for children in whom vaccines are otherwise recommended. More information is available at the CDC Web site: [www.cdc.gov](http://www.cdc.gov)*

*The patient in the case has an underlying mitochondrial disorder, which affects the way that cells are able to produce energy. According to the United Mitochondrial Disease Foundation, "there are no scientific studies documenting that childhood vaccinations cause mitochondrial diseases or worsen mitochondrial disease symptoms. In the absence of scientific evidence, the UMDF cannot confirm any association between mitochondrial diseases and vaccines."*

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