

## Shands HealthCast - April 2008 Can Childhood Vaccines Cause Autism?

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### **Intro:**

Welcome to another Shands HealthCast brought to you by Shands HealthCare. This HealthCast features a discussion about the link between immunizations and autism with Dr. Mobeen Rathore, a University of Florida College of Medicine - Jacksonville professor of pediatrics. To schedule a new patient appointment for pediatric immunizations, please call our new patient appointment hotline toll free at (888) 742-6378 or visit <http://jax.shands.org>.

### **Dr. Rathore:**

Immunizations against infectious diseases in general are the most valuable and cost-effective interventions offered by medicine. As a result of vaccines, smallpox has been eradicated. Several diseases including polio have been eliminated in the Western hemisphere, and almost all vaccine preventable diseases have been so significantly decreased in the U.S. that most people have not even heard of or seen most of these diseases. Measles is one such disease that has almost been eliminated in the U.S.

However, unless high levels of immunizations are maintained, there's a very clear danger that measles, which is an extremely contagious disease, can return. This has been amply evidenced that several outbreaks of the past few years that started in unimmunized children and quickly spread into the community. Even in Jacksonville 15 years ago, there was a major outbreak of measles. Measles vaccine is part of the MMR vaccine that in addition to measles, it includes mumps and rubella or German measles vaccines.

Many parents are concerned about the possible link between MMR and autism. Although there is no scientific evidence to support this concern, nevertheless this misinformation continues to circulate. Since signs of autism tend to appear at 12-15 months of age, the same age when the children are immunized with MMR, many parents are concerned that the MMR vaccine may cause autism.

Several very meticulous and well-done studies have found no causal relationship between MMR vaccine and autism. The unfortunate pseudo-link between MMR and autism was initially reported in 1998 in a study from the United Kingdom. This study included that only 12 autistic children and raised the concern about MMR causing bowel problems in children, which lead to autism. Not only did this study have so few children to reach any dependable and scientifically plausible conclusion of a link between MMR and autism, in some of these autistic children, including in the study, autism was present before their bowel problems appeared. In 2004, 10

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of the 13 authors of this study retracted their results by stating that the results of the study do not support a causal relationship between MMR and autism. Unfortunately, damage was already done.

Several studies subsequently done in Europe and the U.S. have not shown any causal relationship with MMR and autism. One study in the UK that included 498 children with autism, from the time period starting prior to the introduction of MMR immunization for children and including the period after introduction of MMR vaccine and child immunization schedule. This study found no difference in the prevalence of autism. Whether these children did or did not receive MMR, there was no increase in autism after the introduction of MMR vaccine and the childhood immunization schedule. Studies from Canada and the U.S. have also shown no causal relationship between MMR and autism.

In 2004 the Institute of Medicine, after extensive review by arguably the best scientists in the field of immunization, epidemiology and autism, concluded that childhood vaccines are not associated with autism, and that there is no relationship with autism or MMR. A panel of experts assembled by the American Academy of Pediatrics came to the same conclusion. While researching the cause of autism must continue, at the same time we must continue to immunize our children with MMR since there is no proven link between MMR and autism.

Not immunizing our children with MMR not only places at risk those children not immunized with MMR, but also those children who are immunized but in whom the vaccine did not take. Since no vaccine is 100 percent effective, a certain number of immunized children will be at risk. We can best protect our children and the community by immunizing every child with MMR and other vaccines.

For additional information regarding vaccines or any risks factors associated with vaccines, we recommend that you contact your child's physician.