Fact Sheets for Families

Vaccine Safety

Childhood immunization has been called one of the most important public health achievements of the 20th century. Vaccination prevents three million deaths in children each year worldwide. Most parents believe in the benefits of immunization for their children; however, some still have concerns about vaccine safety or misconceptions about immunizations. By choosing not to immunize their children parents put their children at risk and increase the possibility of harming other people.

**Common Parental Concerns**

Parents may be concerned about vaccine side effects, their child’s discomfort, too many vaccines given at one time or following a complex schedule. Others may wonder about the safety of vaccinating infants with minor illnesses, or the need for vaccines against diseases that do not seem to exist.

**Mercury in Vaccines and the Relationship Between Vaccines and Autism**

The Immunization Safety Review Committee, an independent expert committee, put together by the Institute of Medicine (IOM) was asked by the Centers for Diseases Control and Prevention (CDC) and the National Institutes of Health (NIH) to review evidence about whether vaccines cause certain health problems. The committee looked at whether the MMR (measles-mumps-rubella) vaccine causes autism and whether vaccines with the preservative thimerosal cause neurodevelopment disorders, including autism, attention deficit hyperactivity disorder (ADHD) and speech or language delay. The committee concluded in 2004 that thimerosal-containing vaccines were not a cause of autism or other neurodevelopmental disorders.

The evidence from numerous studies indicates that vaccines are not associated with autism. There is also no proof that any material used to make or preserve the vaccine plays a role in causing autism. Several recent studies including a study published in January, 2008 by the California Department of Public Health also reaffirmed the vaccine safety. Thimerosal is no longer used as a preservative in any of the recommended childhood vaccines. Since thimerosal was removed as a preservative in 1999, cases of autism have actually increased.

**What this Means to You**

Myths and misinformation about vaccine safety can confuse parents who are trying to make sound decisions about their children’s health and wellbeing. Although some vaccines may cause mild reactions, such as temporary fever or discomfort around the shot site, serious reactions are very rare. Children can also usually get vaccinated even if they have a mild illness like a cold, earache, mild fever, or diarrhea. The benefits provided by most vaccines extend beyond benefit to the individual who is immunized. There is also a significant public health benefit, especially in child care settings. Vaccines work best when most members of the community are vaccinated. The American Academy of Pediatrics (AAP) strongly endorses universal immunization.

by A. Rahman Zamani, MD, MPH

**References and Resources for Further Information**

The CDC’s National Immunization Program website (www.cdc.gov/ncbddd/autism/) has many materials about vaccines and autism. You can also get information on vaccines and vaccine safety by calling 1-800-CDC-INFO.

The Institute for Vaccine Safety (www.vaccinesafety.edu) at the Johns Hopkins University School of Public Health provides an independent assessment of vaccines and vaccine safety.