Immunization: Get the facts

Immunization fact #1

The measles-mumps-rubella (MMR) vaccine does NOT cause autism

Evidence-based reviews performed by the U.S. Institute of Medicine have shown that any alleged associations between the measles-mumps-rubella (MMR) vaccine and autism in children is not supported. In these reviews, research studies that have shown associations were flawed. For example, a Danish research team studied children born between 1991 and 1998 (153,231 children) and concluded that there is no difference in the rate of autism spectrum disorders in children vaccinated or not vaccinated. Although the reason for this increase in autism is not yet conclusively known, one explanation may be the broader learning disorders within autism spectrum disorders.

REFERENCES

Immunization fact #2

Multiple injections do NOT overwhelm the immune system

Every day our bodies come into contact with millions of germs, causing our immune system to work continuously to protect us. Therefore, exposure to antigens (parts of a virus or dead bacteria) in vaccines is easily handled by our immune systems. In fact, our immune system needs to be challenged continuously to stay vigorous. A multitude of injections is no number of antigens in today’s vaccines. For example, in 1980 the diphtheria, tetanus and pertussis (DPT) vaccine had 3073 antigens. At present, infants receiving recommended vaccines starting at two months of age come into contact with only 34 antigens—just 34 antigens among the millions handled every day by our immune systems.

REFERENCES

Immunization fact #3

Vaccines do NOT contain cells from aborted fetuses

Human cell lines were commonly used in the early stages of production of some vaccines to increase safety by reducing reactions to unfamiliar foreign proteins to the immune system. However, modern biotechnology provides new approaches to cultivating viruses for vaccine production. For example, vaccine manufacturers now use live virus vaccine, and are now looking towards mammalian cell lines that can be grown and reproduced in laboratories for vaccine production. All cell lines are removed during the purification stage of vaccine development.

REFERENCES

Immunization fact #4

Vaccines do NOT contain harmful tracers of preservatives or residual products

Some vaccines contain... Preservatives which help keep vaccines from getting contaminated with germs Thimerosal Thimerosal is an ethyl mercuric derivative. It is a preservative used only in multi-dose vials of vaccines, and not in single-dose vials or syringes. Live doses of thimerosal have not been shown to produce any negative health effects. In 2010, no vaccine in Canada since March 2001 for routine use in children contains thimerosal, with the exception of the influenza vaccine. DTaP, polio and Hib vaccines have not contained thimerosal since 1997-1998. The MMR vaccine used in Canada has never contained thimerosal. Residuals of the vaccine production process which are required to make the vaccine but are removed from the final product Formaldehyde Formaldehyde is sometimes used in the manufacturing process of vaccines to inactivate viruses and toxins. However, it is mostly removed during the purification process. Formaldehyde occurs naturally in the human body and helps with metabolism. There is approximately ten times the amount of formaldehyde in a baby’s body at any time there is in a vaccine.

REFERENCES

Immunization fact #5

Vaccines do NOT contain harmful additives or adjuvants

Some vaccines contain... Additives to help vaccines stay effective while being stored Gelatin Some vaccines contain gelatin to protect them against freezing and thawing. Gelatin is a protein derived from collagen in animal bones and cartilage. Adjuvants to help the body create a better immune response 90% of adverse events are directly related to the injection process and system and increase the response to a vaccine. There are many known adjuvants in vaccine production, including aluminum salts and gelatin. Without an adjuvant like aluminum, people would require more frequent doses of vaccines to be protected against viruses and bacteria. Aluminum salts Aluminum salts are naturally present in our environment, including in soil, food, water, and air. People take small to imperceptible. The safety of aluminum salts has been established over the past 70 years with millions of people being vaccinated with aluminum-containing vaccines. Squalene Squalene is a naturally occurring substance often found in plants, animals and humans, as well as foods and cosmetics. It is a compound produced by the liver and circulates freely throughout the bloodstream. Squalene has been added as an adjuvant to some seasonal influenza vaccines in Canada to increase the immune response and improve their efficacy for certain age groups.

REFERENCES

Vaccine Education Center at the Children’s Hospital of Philadelphia 2009. Aluminum in vaccines. Online at http://www.chop.edu/vaccine Aluminium salts are a naturally occurring substance, as well as foods and cosmetics. It is a compound produced by the liver and circulates freely throughout the bloodstream. Squalene has been approved by the FDA for use in vaccines. Squalene has been added as an adjuvant to some seasonal influenza vaccines in Canada to increase the immune response and improve their efficacy for certain age groups.