

# Myths About Vaccine

**Myth 1:**

**"Too many vaccines will overwhelm my child's immune system!"**

Every day children are exposed to millions of germs, and those germs cause our immune system to work and to protect us.

Being exposed to a few antigens (parts of weak or dead viruses or bacteria) in vaccines is easily handled by a child's immune system. In fact, it is important that our immune system is challenged in order to stay strong.

Today, thanks to modern science, the number of antigens in our vaccines is far less than years ago. In 1980, for example, the diphtheria, tetanus, and pertussis (dTap) vaccine alone had 3017 antigens. Today, at a child's 2 month visit, there are a total of 34 antigens in all the suggested vaccines for that age - just 34 among the millions handled every day by our immune systems.

According to Dr. Paul Offit, Chief of Infectious Diseases and Director of the Vaccine Education Center at the Children's Hospital of Philadelphia, "Children have an enormous ability to respond safely to challenges to the immune system from vaccines. A baby's body is bombarded by germs, from bacteria in food to the dust they breathe. Compared to what they encounter and deal with during the day, vaccines are literally a drop in the ocean."

**Myth 2:**

**"The MMR vaccine may cause autism!"**

According to the U.S. Institute of Medicine, research has not found any link between the measles-mumps-rubella (MMR) vaccine and autism disorders in children.

A Montreal study of 27,749 children, born from 1987 to 1998, found no link between autism rates and a 1-dose or 2-dose measles, mumps, rubella vaccine schedule.

In Denmark, a Danish study of all children born between 1991 and 1998 (537,303 children) found no difference in the rates of autism between vaccinated and unvaccinated children.

While some reports have tried to connect thimerosal (*thi-mur-uh-sal*), an ethyl mercury by-product used as a preservative, in the MMR vaccine to autism, the MMR vaccine used in Canada has **never** contained thimerosal. Also, dTap, polio and Hib vaccines have not contained thimerosal since 1997-98.

Although the reason for the increase in autism is unknown, one reason could be the broader definition and inclusion of many more behaviours and learning disorders within autistic spectrum disorders.

...More



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**Myth 3:**  
**"Vaccines contain harmful additives!"**

**Formaldehyde**

Formaldehyde (*for-mal-duh-hid*) may be used early in the manufacturing process to inactivate some viruses and toxins, however, purification removes almost all of the formaldehyde.

Formaldehyde occurs naturally in the human body and helps with metabolism. There is about 10 times more formaldehyde in a baby's body at any time than there is in a vaccine.

**Aluminum**

Aluminum salts (aluminum hydroxide, aluminum phosphate, or potassium aluminum sulfate) are an adjuvant added to a vaccine to boost and strengthen the immune system's response.

An adjuvant makes it possible to reduce the amount of antigens in a vaccine. Vaccine monitoring over the past 70 years has proven adjuvants are safe. Aluminum is the most plentiful element in the earth's crust and is found in air, food and water. It is found in breast milk and infant formula in the equal amounts as vaccines.

**Thimerosal**

Thimerosal (*thi-mur-uh-sal*) is an ethyl mercury by-product used as a preservative. Except for the influenza vaccine, no vaccine made in Canada since March 2001 for routine use in children contains thimerosal. dTap, polio and Hib vaccines have not contained it since 1997-98. The MMR vaccine used in Canada has never contained thimerosal.

Low doses of thimerosal have not been shown to damage the nervous systems in humans.

**Myth 4:**  
**"Vaccines contain cells from aborted fetuses!"**

Vaccines do **not** contain human cells or tissue.

Human cell lines are used in the early stages of production of some vaccines\* because viruses need a living cell to grow. Later, during the purification process, all cells are removed.

The virus for the vaccine is grown in a human cell line, then killed or damaged so it cannot cause disease. This cell line came from legal abortions in the early 1960s and continues today from the original source. The abortions were not performed for the purpose of vaccine discovery or vaccine production.

No new fetal tissue is required in the ongoing production of vaccines because a cell line can reproduce itself and can be used for a very long time.

For more information on myths about vaccines, call Community Health Services Department at 519 383-8331, toll free 1-800-667-1839 or visit [www.lambtonhealth.on.ca](http://www.lambtonhealth.on.ca)

\*MMR, Varicella, Hepatitis A, Rabies, Quadracel and TdP

*Adapted from: C.C.I.A.P. (Canadian Coalition for Immunization Awareness and Promotion)*