

VACCINATIONS: MYTHS VS FACTS

MYTH: Vaccines cause autism.

FACT: Vaccines do not cause autism.

- ✓ The researcher, Andrew Wakefield, who raised the notion in 1998 that the MMR vaccine might cause autism has lost his medical license and his research has been proven false.
- ✓ Autism Speaks, the largest autism advocacy organization in the United States, states, *“Scientists have conducted extensive research over the last two decades to determine whether there is any link between childhood vaccinations and autism. The results of this research is clear: Vaccines do not cause autism.”*

MYTH: Vaccines contain toxins that make them unsafe.

FACT: The ingredients used in vaccines are safe.

- ✓ Years of medical research have proven the safety and effectiveness of vaccines.
- ✓ Millions of children and adults are vaccinated every year – safely.
- ✓ Even after vaccines enter the market, there is ongoing evaluation to ensure their safety. The United States’ long-standing vaccine safety program closely and constantly monitors the safety of vaccines.

MYTH: Vaccines cause major side effects.

FACT: The most common side effects from vaccines are swelling or tenderness at the injection site and fever.

- ✓ The benefits of vaccinations have been proven to outweigh the extremely small risk of an allergic reaction.
- ✓ Serious allergic reactions are very rare, happening in about 1 person out of a million.

MYTH: People should toughen up and experience the disease prevented by vaccines.

FACT: Vaccine-preventable diseases have many serious complications that can be avoided through vaccination.

- ✓ Vaccines stimulate the immune system to produce an immune response similar to natural infection, but they do not cause the disease or put the vaccinated person at risk of its potential complications.
- ✓ Vaccine preventable diseases lead to death and lifelong disability.
- ✓ Widespread vaccination protects vulnerable people who can’t get vaccines for medical reasons.

MYTH: Children receive too many vaccinations.

FACT: The vaccinations provided to school-aged children protect them from becoming sickened by the following diseases: diphtheria, pertussis, tetanus, poliovirus, measles, mumps, rubella, varicella, and meningococcal disease.

- ✓ Thirty years ago, vaccines protected young children from only seven diseases. Today, we can protect them from at least 14 dangerous diseases because of medical advances. Many shots are also “boosters” of the same vaccine to give children the best possible protection.
- ✓ As the number of vaccines increased, the total number of antigens in vaccines have decreased from approximately 3217 in 1960 to approximately 126 in 2000.



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continued

MYTH: Children do not need vaccines because the diseases they prevent are so rare.

FACT: These diseases still exist, even if they are rare.

- ✓ Thanks to vaccine programs, all vaccine-preventable diseases have declined. But when immunization rates drop, these diseases can come back.
- ✓ These diseases (e.g., measles and polio) are still seen in other parts of the world where vaccination is low. Due to our ability to travel worldwide, these rare diseases can be easily re-introduced into our communities.
- ✓ By keeping our vaccinations up to date, we can significantly decrease our risk of catching and spreading these diseases.

MYTH: Children in other countries are healthier because they do not vaccinate.

FACT: When countries have decreased their vaccination rates, they experience devastating disease outbreaks.

- ✓ Italy discontinued required vaccinations in 2005, but re-established them in 2017 after a decrease in measles vaccination resulted in a measles outbreak that sickened ~5,000 people.
- ✓ Japan removed vaccination requirements in 1994, but maintains very high vaccination rates, reaching 100% of the population for certain diseases.

MYTH: Vaccines contribute to infant mortality.

FACT: Vaccines have not been shown to cause sudden infant death syndrome (SIDS)

- ✓ Babies receive multiple vaccinations when they are between 2 to 4 months old. This age range is also the peak age for sudden infant death syndrome (SIDS). The timing of the 2-month and 4-month shots and SIDS has led some people to question whether they might be related. Studies have found that vaccines do not cause and are not linked to SIDS.
- ✓ The major cases of infant mortality in South Dakota and nationally are congenital malformations, extreme immaturity, and accidents (primarily accidental suffocation and strangulation).

MYTH: Vaccines contain aborted fetal tissue.

FACT: Vaccines do not contain human cells or tissue.

- ✓ The Pharmaceutical Research and Manufacturers of America states: *"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 in which to grow. These cell lines were derived from fetal tissue more than 40 years ago. The same two cell lines are reproduced and used repeatedly so that no new fetal tissue is required in the ongoing production of vaccines."*
- ✓ The Catholic Church's Pontifical Academy of Life issued a statement in 2005 that vaccines with origins from aborted fetal tissue can be used *"insomuch as is necessary in order to avoid a serious risk not only for one's own children but also, and perhaps more specifically, for the health conditions of the population as a whole – especially for pregnant women"*.



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