**Vaccine Safety**

Vaccines are safe and effective.Vaccines, like any medicine, can cause side effects, but most are either mild and serious problems are very rare. Some health problems that follow vaccinations are not caused by vaccines.

**How do vaccines work?**

Vaccines use very small amounts of antigens to help the immune system recognize and learn to fight serious diseases. Antigens are parts of germs that cause the body’s immune system to go to work.

**How can we be confident that vaccines are safe?**

The Centers for Disease Control and Prevention (CDC) and the Food and Drug Administration (FDA) closely monitor to ensure that vaccines are safe and effective. Before a vaccine is licensed in the United States, studies are done to test their safety. Once vaccines are licensed, the CDC and FDA continuously monitor them using several safety systems.

**Do vaccines ever cause a serious reaction?**

Yes, but the likelihood is extremely low, usually less than one in one million. That means in the United States, among the four million babies born each year, less than four could be affected. Most severe reactions are an allergy to something in the vaccine. Some vaccines have no known serious reactions at all.

**Which vaccinations are required for school-age children?**

* Diphtheria
* Tetanus
* Meningococcal
* Pertussis
* Polio
* Measles
* Mumps
* Rubella
* Varicella (chickenpox)

**Can a vaccinated person still get sick during an outbreak?**

Yes. Not every vaccine is 100% effective and the protection from some vaccines weakens over time. It’s important to get vaccinations and recommended boosters on time, which helps make illness less likely.

**How effective are the required vaccines for school-age children?**

Of the nine vaccines required for children to attend school, seven are 95% effective or better. The remaining two (mumps and pertussis) are 80% effective or better.

**Why does Maine CDC support a bill that includes vaccines for diseases that are not transmissible in a school setting?**

State law is clear that purpose of our immunization requirements is to protect the health of the public and individuals. Nothing in state law or rule limits the requirements only to diseases that can be transmitted person to person.

**Other resources**

* CDC answers to commonly asked questions about vaccines, including those related to additives, autism, seizures and others. Visit [www.cdc.gov/vaccinesafety/concerns](http://www.cdc.gov/vaccinesafety/concerns).
* CDC answers to commonly asked questions about the MMR vaccine: [www.cdc.gov/vaccinesafety/vaccines/mmr](http://www.cdc.gov/vaccinesafety/concerns).
* CDC fact sheet about MMR vaccine: <https://www.cdc.gov/vaccines/hcp/patient-ed/conversations/downloads/vacsafe-mmr-color-office.pdf>