

PROS for Vaccines

1. **Vaccines can save children's lives.** The American Academy of Pediatrics states that "most childhood vaccines are 90%-99% effective in preventing disease." According to Shot@Life, a United Nations Foundation partner organization, vaccines save 2.5 million children from preventable diseases every year.
2. **The ingredients in vaccines are safe in the amounts used.** Ingredients, such as thimerosal, formaldehyde, and aluminum, can be harmful in large doses but they are not used in harmful quantities in vaccines.
3. **Major medical organizations state that vaccines are safe.** These organizations include: CDC, Food and Drug Administration (FDA), Institute of Medicine (IOM), American Medical Association (AMA), American Academy of Pediatrics (AAP), UNICEF, US Department of Health and Human Services (HHS), World Health Organization (WHO). The US Department of Health and Human Services states, "Vaccines are some of the safest medical products available." [51]
4. **Adverse reactions to vaccines are extremely rare.** The most common side effect of vaccines, anaphylaxis (a severe allergic reaction), occurs in one per several hundred thousand to one per million vaccinations.
5. **Vaccines protect the "herd."** Herd immunity (or community immunity) means that when a "critical portion" (the percent of people who need to be vaccinated to provide herd immunity) of a population is vaccinated against a contagious disease it is unlikely that an outbreak of the disease will occur so most members of the community will be protected.
6. **Vaccines save children and their parents time and money.** Vaccines cost less in time and money to obtain than infectious diseases cost in time off of work to care for a sick child, potential long-term disability care, and medical costs
7. **Vaccines protect future generations.** Vaccinated mothers protect their unborn children from viruses that could potentially cause birth defects, and vaccinated communities can help eradicate diseases for future generations.
8. **Vaccines eradicated smallpox and have nearly eradicated other diseases such as polio.** Children are no longer vaccinated against smallpox because the disease no longer exists due to vaccination.
9. **Vaccine-preventable diseases have not disappeared so vaccination is still necessary.** The CDC notes that many vaccine-preventable diseases are still in the United States or "only a plane ride away."
10. **Vaccines provide economic benefits for society.** The CDC estimates that children vaccinated between 1994 and 2014 have yielded net savings of \$1.38 trillion in "societal costs," including money saved by preventing lost productivity due to disability and early death.

CONS against Vaccines

1. **Vaccines can cause serious and sometimes fatal side effects.** According to the CDC, all vaccines carry a risk of a life-threatening allergic reaction (anaphylaxis) in about one per million children.
2. **Vaccines contain harmful ingredients.** Some physicians believe thimerosal, an organic mercury compound found in trace amounts in one flu vaccine for children and other vaccines for adults, is linked to autism.
3. **The government should not intervene in personal medical choices.** Medical decisions for children should be left to the parents or caregivers.
4. **Mandatory vaccines infringe upon constitutionally protected religious freedoms.** Several religions oppose vaccines and mandatory vaccinations.
5. **Vaccines can contain ingredients some people consider immoral or otherwise objectionable.** Some vaccines for DTaP, Hep A, RV, Hib, HPV, IPV, flu, MMR, and chicken pox are made using animal products like [chicken eggs](#), [bovine casein](#), [insect cells](#), [Cocker Spaniel cells](#), [pig gelatin](#), and cells from [African Green monkeys](#), making those vaccines conflict with some vegetarian and vegan philosophies. Others consider it problematic that some vaccines are produced using [human albumin](#), a blood plasma protein.
6. **Vaccines are unnatural, and natural immunity is more effective than vaccination.** Even pro-vaccine organizations state that natural vaccination causes better immunity. [100]
7. **The pharmaceutical companies, FDA, and CDC should not be trusted to make and regulate safe vaccines.** The primary goal of pharmaceutical companies is to sell drugs and make a profit.
8. **Diseases that vaccines target have essentially disappeared.** There is no reason to vaccinate against diseases that no longer occur in the United States.
9. **Most diseases that vaccines target are relatively harmless in many cases, thus making vaccines unnecessary.** The chickenpox is often just a rash with blisters. The measles is normally a rash accompanied by a fever. Rubella is often just a virus with a rash and low fever. Rotavirus can normally be treated with hydration and probiotics.

Excerpted from <http://vaccines.procon.org/>