CDC encourages parents who have questions about children's immunizations to discuss them with a trusted health care provider. National surveys indicate that parents do, overwhelmingly, rely on their child's health care provider to help them make vaccination decisions. These decisions should be made with full understanding of vaccine risks and benefits to individuals and communities. The following are brief explanations for commonly held misbeliefs about the value and safety of vaccination.

• I've heard that because of better sanitation, diseases had already begun to disappear before vaccines were widely used. Therefore, vaccines are not really needed.

   Good sanitation does decrease some diseases. The number of disease cases may have natural "up" and "down" cycles, but a permanent drop in disease coincides with wide use of vaccines. For example, the form of meningitis associated with Haemophilus influenzae type b dropped more than 95% in the last five years, following introduction of the vaccine. The U.S. measles epidemic in 1989-1991, which caused 120 deaths, occurred primarily in urban communities, where many children were not vaccinated. Japan, Great Britain, and Sweden suffered pertussis epidemics following a drop in pertussis vaccine use.

• I've heard that the majority of people who get vaccine-preventable diseases have been vaccinated.

   Vaccination is not 100% effective. In our population, there are far more people who are vaccinated than those who are not vaccinated. Rates of disease preventable by vaccine are higher among unvaccinated people than vaccinated people. Because of the differences in the sizes of these groups in the U.S. (i.e., many many more vaccinated people than unvaccinated) the few cases of disease that occur may be higher among people whose vaccination failed to protect them, than among those not vaccinated.

• I've heard there are "hot lots" of vaccine that are associated with more adverse reactions.

   The Food and Drug Administration safety-tests all lots of vaccine for both public and private distribution, and has a system to recall a lot if problems are reported. To date, no lots have required a recall for safety. Remember, lot sizes differ in size greatly; therefore, the number of adverse reactions attributed to a single lot has no meaning, unless you know the size of the lot, how much of the lot has been used, the types of reactions, and other factors.

• Aren't DTP immunizations linked to Sudden Infant Death Syndrome (SIDS)?

   The Institute on Medicine reviewed controlled studies comparing immunized with nonimmunized children and reported that there is not an elevated risk for SIDS among immunized children. Parents concerned about SIDS should learn about the Back to Sleep campaign, which encourages parents to put their babies on their backs to sleep. This measure helps to prevent SIDS.

• Vaccine-preventable diseases have been virtually eliminated from the United States, so there is no need for my child to be vaccinated.

   That's wrong! When vaccination levels in a community decrease, the risk for disease outbreaks increases. The 1989-1991 measles epidemic, which killed 120, occurred in underimmunized groups. The germs that cause disease are constantly circulating in our environment. Vaccinations prevent the disease from occurring.

• I'm concerned that multiple vaccinations--giving many baby shots at one time for different diseases--may overload my child's immune system, which helps fight disease.

   Our immune systems are confronted with multiple foreign substances every day, so multiple vaccinations do not represent much of an added burden and would not cause the immune system to
The issues of multiple vaccinations have been studied. The Advisory Committee on Immunization Practices, which decides such questions, will not recommend multiple vaccinations unless studies show the combinations to be both safe and effective.

- I read somewhere that vaccines cause many harmful side effects, illnesses, and death, not to mention long-term effects we know nothing about.

  Vaccines are very safe. Most reactions are minor and treatable. There are so few deaths that could plausibly be connected to vaccine, and the risk is so small, that it is hard to assess statistically.

  Vaccines are as safe today as our science currently can achieve. We continually work on trying to identify any possible long-term effects and to make vaccines safer. The fact is that children are much more likely to be harmed by the disease than by the vaccine to prevent the disease.

- I'm very concerned about vaccinating my child. Are there any safe and effective alternatives to vaccination?

  Vaccination has been proven, over decades, to be one of the safest and most powerful disease prevention tools available. CDC and the Food and Drug Administration are not aware of any alternative methods to safely and effectively prevent these serious infectious diseases long term.

  Some individuals and groups propose that "natural" substances that "boost" a child's immune system is an alternative to vaccination. However, many people with healthy immune systems have died from diseases that could have been prevented with vaccination. To protect a child from chickenpox, for example, the child's immune system must have produced antibodies against the varicella virus. That requires either exposure to the circulating disease virus or vaccination. To date in 1997, five previously healthy persons have died from chickenpox.

  A child left unvaccinated is left to battle a disease organism without the help of the antibodies the child's immune system would have previously developed through vaccination. While many unvaccinated children will survive such a battle, many will only do so after suffering severe complications that may lead to disabilities.

  The American Academy of Pediatrics, The American Academy of Family Physicians, and CDC recommend that children routinely be vaccinated against 10 serious diseases. The American Chiropractic Association advises the public that vaccination has been shown to be a cost effective and clinically practical public health preventive procedure for certain viral and microbial diseases. They also note that vaccine use is not without risk and support informed awareness about risks and benefits and individual choice.

For more (reliable!) information:

- National Immunization Information Hotline: (800) 232-2522
- Centers for Disease Control’s National Immunization Program: http://www.cdc.gov/nip
- Vaccine Safety (also from the CDC): http://www.cdc.gov/nip/vacsafe/
- Immunization Action Coalition: http://www.immunize.org/
- Institute for Vaccine Safety: http://www.vaccinesafety.edu/
- Food and Drug Administration: http://www.fda.gov/cber/vaers(vaers.htm
- Infectious Disease Society of America: http://www.idsociety.org/vaccine/index.html
- World Health Organization: http://www.who.int/gpv/

Some Web sites with unreliable information about immunization:

- National Vaccine Information Center: http://www.909shot.com/
- Parents Requesting Open Vaccine Education: http://home.swbell.net/prove/