

Immunizations: What, Why and the Myths

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Immunizations, or vaccines as they're also known, safely and effectively use a small amount of a weakened or killed virus or bacteria or bits of lab-made protein that imitate the virus in order to prevent infection by that same virus or bacteria.

When you get an immunization, you're injected with a weakened form of (or a fragment of) a disease. This triggers your body's immune response, causing it to either produce antibodies to that particular ailment or induce other processes that enhance immunity.

Then, if you're ever again exposed to the actual disease-causing organism, your immune system is prepared to fight the infection. A vaccine will usually prevent the onset of a disease or else reduce its severity.

Why Should Someone Get Immunized?

The goal of public health is to prevent disease. It's much easier and more cost-effective to *prevent* a disease than to treat it. That's exactly what immunizations aim to do.

Immunizations protect us from serious diseases and also prevent the spread of those diseases to others. Over the years immunizations have thwarted epidemics of once common infectious diseases such as measles, mumps, and whooping cough. And because of immunizations we've seen the near eradication of others, such as polio and smallpox.

Some vaccines need to be given only once; others require updates or "boosters" to maintain successful immunization and continued protection against disease.

Which Immunizations Do My Children Need?

Because proof of immunization is often a prerequisite for enrollment in school or day care, it's important to keep your children up to date on their vaccines. The benefit of doing so is that your children will be protected from diseases that could cause them serious health problems. The recommended immunizations for children 0-6 years of age include:

- Hepatitis B
- Rotavirus
- Diphtheria, tetanus, pertussis
- *Haemophilus influenzae* type B
- Pneumococcal
- Poliovirus
- Influenza
- Measles, mumps, rubella

- Varicella (chickenpox)
- Hepatitis A
- Meningococcal (for certain high-risk groups)

At one time or another, each of the diseases addressed by these vaccines posed a serious health threat to children, taking their lives by the thousands; today most of these diseases are at their lowest levels in decades, thanks to immunizations.

It's important to keep your child's immunizations on schedule and up to date, but if your child misses a scheduled dose he or she can "catch up" later.

What About Immunization Side Effects?

Today, vaccines are considered safe. As with any medication, they can have side effects. In most cases these are usually mild. Most common minor reactions to an immunization are:

- Soreness or redness around the injection site
- Low-grade fever

Side effects like these usually disappear in a few days. In extremely rare instances a high fever, in excess of 104 F, can occur with a vaccine. Fevers like this will not harm your children, but they can make them uncomfortable and upset.

Children have also been known to have serious allergic reactions to a vaccine. These usually happen very soon after getting the vaccine, and doctors' offices are well equipped to handle such reactions. If you think your child has or may have an allergy to any component in a vaccine, be sure to share that information with your doctor.

Medical providers agree that the proven preventive benefits of vaccines far outweigh the risks of the minimal side effects associated with them.

How Effective Are Immunizations?

Vaccines are very effective at preventing disease, but they don't work all the time. Most of the recommended childhood immunizations are 90%-100% effective, according to the CDC.

However, for reasons that are not completely understood, sometimes a child will not become fully immunized against a disease after receiving a vaccine. This is all the more reason to get children vaccinated. Children in whom the vaccine is 100% effective protect those few who have not been completely immunized, lessening everyone's chance of exposure to the disease.

Even in cases where a vaccine has not given your child 100% immunity, the symptoms, if your child is exposed to an infectious disease, will still usually be milder than if he or she had not been immunized at all.

Vaccine Myths and Misinformation

Misconception #1: "We don't need to vaccinate against rare diseases."

Few parents today have even heard of all of the diseases we vaccinate against, let alone seen a case of the measles, diphtheria, or whooping cough.

This leads some to ask, "Why am I giving my child a vaccine against a disease that doesn't even exist?"

The answer is that it's the vaccines that keep these diseases so rare. Avoiding having your child immunized because of myths and misinformation about vaccine safety puts your child and public at risk. In communities where vaccine rates have dropped, these infectious diseases have quickly returned.

Misconception #2: "The preservative thimerosal makes vaccines risky."

Another concern about vaccines involves the use of a mercury-based preservative called thimerosal. Thimerosal has been used as a preserving agent in some vaccines and other products since the 1930s. According to the CDC, no harmful effects have been reported from the amount of thimerosal used in vaccines, other than expected minor reactions like redness and swelling at the injection site.

However, in July 1999, the Public Health Service (PHS) agencies, the American Academy of Pediatrics (AAP), and vaccine manufacturers agreed to reduce or eliminate thimerosal in vaccines as a precautionary measure.

It's important to note that since 2001, with the exception of some flu vaccines, no U.S. vaccines used to protect preschool children against infectious disease contain thimerosal as a preservative. A preservative-free version of the inactivated flu vaccine (containing trace amounts of thimerosal) is available.

Misconception #3: "Vaccines cause autism."

Because symptoms of autism spectrum disorder, a learning disorder, usually occur around the same time as the first measles, mumps, rubella (MMR) and other immunizations in children, some have assumed that there is a link between thimerosal and autism.

However, the MMR vaccines have never contained thimerosal, and neither have the vaccines for chickenpox or inactivated polio. In 2004, an Institutes of Medicine report concluded that there is no association between autism and vaccines that contained thimerosal as a preservative.

Diseases such as measles, mumps, and rubella can cause serious health problems, disabilities, and even death. Your children face a much greater risk from an infectious disease than they do from its vaccine.

Immunizations and Bioterrorism

Recent fears of a potential terrorist attack using a biological agent, such as anthrax or smallpox, have lead some to wonder if they need to be immunized against these diseases.

Currently, the CDC believes that the risks to the general population are low and so hasn't made vaccinations for these diseases available to the public. The CDC, however, recommends immunization against these diseases for certain individuals that may be at high risk for exposure, such as lab workers or members of the military.

Source: WebMD Medical Reference Reviewed on May 31, 2016

Contact [Sullivan Benefits](#) for assistance on how to educate your employees and their family members about the importance of immunizations for all ages. Prevention is key!

Congratulations, just taking the time to read this article is a positive step toward introducing wellness and the benefits available from a healthier lifestyle. Thank you for your time and THINK WELLNESS!