BUSTED Vaccine Myths

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So many diseases are out of sight and out of mind that you might wonder if vaccines are even needed these days. And there is the nagging worry that these routine shots could do more harm than good. Why are vaccines under fire? It's primarily due to their success. As diseases are eliminated, people don't feel compelled to get vaccines. So, diseases like measles and polio are making a dangerous comeback. Here are some myths about vaccines—and the truth behind them.

Myth #1

Getting so many vaccines will overwhelm my child's immune system.

A child can receive up to 23 shots by the time she's 2 years old, so some parents worry that a child's developing immunity might be affected. The truth is children have an enormous capacity to respond safely to challenges to the immune system from vaccines. Babies are bombarded daily with immunologic challenges—from the bacteria in the food they eat to the dust they breathe. Comparatively, vaccines are literally a drop in the ocean! Bottom line: Its completely safe for your child to get simultaneous vaccine combinations.

Myth #2

As long as other children are getting vaccinated, mine don't need to be.

Skipping vaccines puts your child at greater risk for potentially life-threatening diseases. Disease prevention depends on a certain number of children being immunized – referred to as herd immunity. This means that 95% of the population needs to be immunized, but the national vaccination rate has been decreasing. Where exemptions from school vaccines are on the rise, kids who are not immunized are at much greater risk for disease—for example, they are 22 times as likely to come down with measles.

Myth #3

Now that major illnesses have largely disappeared, we really don't need vaccines anymore.

Don't bet on it. Even with relatively high vaccination rates in the U.S., there are still outbreaks of diseases like measles and pertussis, and children have died of the infection. And unvaccinated children can spread the infection to vulnerable family members who can't fight it off, such as a 6-month old or grandparent living at home. Air travel has extended the range of diseases from countries where people aren't immunized—we're all one airplane ride away from being exposed to many diseases.

Myth #4

Vaccines cause autism and other disorders.

This concern got started by a case report from England in the 90's. But it has been roundly discredited. The idea has persisted because autism tends to emerge around the time the MMR vaccine is given. Numerous studies have shown that vaccines do not cause autism—autism risk is the same if a child gets the vaccine or not.

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Myth #5

My baby might get the disease it's supposed to prevent.

Most vaccines given today contain killed viruses or bacteria—not live agents that could replicate. That's true of the scariest diseases, including polio which used to have a weakened polio virus which caused polio in 1 out of 2 million people. A few vaccines do contain live weakened virus, like MMR and chicken pox, so a mild fever and rash are possible. But it is much less severe than if a child naturally contracted measles or chicken pox.

Myth #6

Vaccines can contain preservatives that are dangerous.

Vaccine preservative concerns have centered on thimerosal, a compound that protects the vaccine from bacterial contamination and contains a type of mercury called ethylmercury. Mercury in large quantities is known to be harmful to a child's developing brain, but we have learned that it is methylmercury that can be problematic, not ethylmercury. These concerns about mercury led to the removal of thimerosal in 1999 from nearly all childhood vaccines. Even if your baby received a vaccine (such as the flu vaccine) that contained thimerosal, the overwhelming majority of data support a lack of association between thimerosal and neurological problems.

Myth #7

You shouldn't give a vaccine to a child who has a cold.

It would seem reasonable to think that a sick child shouldn't get the added burden of a vaccine if she's fighting off a cold. But studies have shown that having a mild illness doesn't affect a child's ability to react to the vaccine. If the child has a serious infection and a high fever (above 102), it's best to wait, however.

Myth #8

I had chicken pox when I was a kid and it isn't a big deal.

True, like several childhood diseases, chicken pox isn't a big deal for most kids. But on rare occasions, kids can die from it. Pre-vaccination days, children also were occasionally hospitalized with serious complications, including pneumonia and dangerous skin infections, such as necrotizing fasciitis—the "flesh-eating' bacteria. Having had chicken pox also exposes you to the reemergence of the virus later in life as shingles, a painful skin disease. The risk of shingles is decreased with vaccination against chicken pox.

Myth #9

Vaccines can provide 100% disease protection.

Not quite. No vaccine is 100% effective. But if the entire population is vaccinated, it makes it hard for a bacteria or virus to find someone who is susceptible and cause disease, and it makes it harder for it to spread or hang around. The more people who are vaccinated, the safer we all are.

Myth #10

It's best to wait until children are older before starting to give them vaccines.

Immunization schedules are designed to protect the most vulnerable people from disease. If you wait to give the vaccine to your child, you may leave the child vulnerable to the disease. Just like you should put your baby to sleep on her back, and you should strap her into a car seat, yes, you should make sure she gets every vaccine on the schedule.