

Safeguarding Our Children

by **Gail R. Carlson**
Extension Health Education Specialist
University of Missouri-Columbia

Even in the best of times, balancing all the demands of modern life can be tricky for parents. But when a child becomes ill, a parent's world can get turned upside down. Young children, especially those under the age of 2, are more likely to get sick because their immune systems are not fully developed.

And unfortunately, some infectious diseases are spread easily — by other people, by animals, and even through airborne droplets that contain disease-causing bacteria and viruses.

Nevertheless, there are some things that parents can do to help strengthen their children's immune systems and reduce their risk of becoming ill.

Children who eat right, get enough rest, and participate in regular exercise are better able to fight off disease. Washing hands thoroughly and keeping our homes and living environments clean can also help. Some serious infectious diseases, however, can only be prevented by getting children immunized.

How does immunization work?

Within recent history, large numbers of children were killed by diseases such as small pox, polio, diphtheria, whooping cough and tetanus. Many others were left permanently disabled because of measles, rubella, and Hib (hemophilus influenza B). Today, vaccines are available to prevent these infectious diseases.

Immunization works by artificially triggering the body's defense response. When given a disease-specific vaccine, the body is able to build up an immunity to that disease. As a result, if the person comes into contact with this disease again, they are protected and won't become ill. Most vaccines are administered in small doses at specified times in early childhood in order to provide maximum protection and reduce the risk of side effects.

What are the risks involved in immunization?

All immunizations carry with them the possibility of side effects. No immunization is 100-percent safe or 100-percent effective. However, in comparison to the problems that can result if a child gets one of these infectious diseases, the side effects from the vaccines are minor.

Except for the oral polio vaccine, vaccines are given by injection. Reactions to vaccines are typically mild, but may include headaches, mild fever, and some redness and muscle soreness at the site of the injection. The symptoms generally last only a day or two. A mild rash, which can last 5 to 10 days, may develop after a child receives the measles vaccine.

Severe reactions to immunization can occur, but they are rare. If a child has ever had convulsions, has had a reaction to vaccines, or has a weakened immune system, the health care provider needs to know before any vaccinations are given.

Table 1. Recommended Childhood Immunization Schedule

United States, January 1995^{1,2}

| Vaccine | Months of Age | | | | | | | Years of Age | | |
|------------------------------------|---------------|-----|-----|-----|--|----|----|--------------------------------|-----------------|-------|
| | Birth | 2 | 4 | 6 | 12 | 15 | 18 | 4-6 | 11-12 | 14-16 |
| Hepatitis B | HB1 | HB2 | | HB3 | | | | | | |
| Diphtheria Tetanus Pertussis | | DTP | DTP | DTP | DTP or DTaP at 15 Months ³ | | | DTP or DTaP ³ | Td ³ | |
| H. Influenza (Type B) | | Hib | Hib | Hib | Hib ⁴ | | | | | |
| Poliovirus | | OPV | OPV | OPV | | | | OPV | | |
| Measles Mumps and Rubella | | | | | MMR | | | MMR ⁵ or | MMR | |

¹ This schedule was jointly agreed upon by the Advisory Committee on Immunization Practices, American Academy of Pediatrics, and American Academy of Family Physicians.

² Recommended vaccines are listed under the routinely recommended ages. The shaded areas indicate ranges of acceptable ages for vaccination. Talk to your health care provider about the schedule that is best for your child.

³ The fourth dose of DTP can be given as early as 12 months if 6 months has passed since the last vaccination. DTaP and Td are different forms of this vaccine that are recommended for children at these ages. DTaP can be used in children who are about 15 months and older.

⁴ This Hib booster can be given at any time between 12 and 15 months.

⁵ The first MMR can be given at any time between 12 and 15 months. The second MMR should be given at either 4-6 years or at 11-12 years.

Why is it necessary to have my child immunized?

With the exception of small pox, which has been wiped out in this country, the viruses and bacteria that cause infectious diseases such as polio and measles still exist in our environment.

Experience has shown that when there are large numbers of unimmunized children in an area, these diseases can spread very quickly.

A good example is the major measles outbreak that recently occurred in this country. Because the number of reported measles cases were low in the early 1980s, many parents thought it was not necessary to have their children immunized.

As a result, between 1989 and 1991, we saw a major increase in reported measles cases.

In this three-year period (1989-1991) 55,000 measles cases were reported. This outbreak resulted in 11,000 hospitalizations and 130 deaths.

Failure to vaccinate preschool-aged children was identified as one of the major causes of the outbreak.

By law, children in Missouri must be properly immunized before they can attend school or participate in child care, nursery and preschool programs.

It is possible for unimmunized children to remain in school and these early childhood programs only if an exemption card is on file at the facility.

What vaccines are given?

In Missouri, children are immunized against nine diseases — Hepatitis B, Diphtheria, Tetanus, Pertussis, H. Influenza (Type B), Poliovirus, Measles, Mumps, and Rubella.

Children who are immunized according to the schedule recommended by the Advisory Committee on Immunization Practices, American Academy of Pediatrics, and the American Academy of Family Physicians more than meet Missouri's immunization requirements for attendance at school and in early childhood programs.

More importantly, they are being protected against some very serious illnesses.

In Missouri, about 50 percent of two-year-olds have not met this recommended schedule. These children are at great risk of becoming ill if an infectious disease outbreak should occur.

While not an immunization, TB screening is also recommended for children at about age one, again at five years, and when a child enters high school and college.

In recent years, there has been an increase in the number of reported cases of tuberculosis. Early and periodic screening insures appropriate and timely treatment.

As a parent, how can I prepare my child for immunizations?

For children, disease is an abstract concept. Since the viruses and bacteria that cause disease can't be seen, they don't exist.

On the other hand, the pain associated with a vaccination is vivid and immediate. Children's reactions to this experience can differ greatly depending on their individual personalities.

Some will react quickly and loudly and then just seem to forget about it. Others will brood and fuss about it for days.

Allow your children time to deal with their feelings and help them cope with these experiences, which are a necessary part of life at this age.

The majority of the vaccinations are given to infants and toddlers. It will be difficult to prepare these younger children ahead of time. But you can reassure your child afterward and give him/her any extra love and attention that is needed.

By the time preschool-age children are ready for boosters, you can take a more active role in preparing them for their immunizations.

Talk to your child. Read stories about going to the doctor. Be honest if your child asks if he/she is going to get shots. Let children who have recently been to a doctor talk about their experiences or encourage them to act out their feelings with a doll or other toys.

If you are having your own negative feelings about having your child immunized, just remind yourself that everyone deserves a healthy life. By having your child immunized you are giving them a head start.

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