

CHILDHOOD VACCINES: WHAT THEY ARE AND WHY YOUR CHILD NEEDS THEM

Many parents worry about the effects various vaccines will have on their children. Below is a primer on common childhood vaccines and their purposes.

What is a vaccine?

When germs enter the body, the immune system recognizes them as foreign substances (antigens). The immune system then produces the right antibodies to fight the antigens.

Vaccines contain antigens that cause diseases. However, the antigens in vaccines are weakened or killed. This means they cannot produce the signs or symptoms of the disease, but they do stimulate the immune system to create antibodies. These antibodies help protect you if you are exposed to the disease in the future.

Vaccines not only help keep your child healthy, they help all children by stamping out serious childhood diseases.

Are vaccines safe?

Vaccines are generally quite safe. The protection provided by vaccines far outweighs the very small risk of serious problems. Vaccines have made many serious childhood diseases rare today. Talk to your family doctor if you have any questions.

Do vaccines have side effects?

Some vaccines may cause mild temporary side effects such as fever, or soreness or a lump under the skin where the shot was given. Your family doctor will talk to you about possible side effects with certain vaccines.

When should my child be vaccinated?

Recommendations about when to have your child vaccinated change from time to time. You can get a copy of the most current child (1-page PDF file; About PDFs) or adolescent (1-page PDF file; About PDFs) vaccination schedules from an organization such as the American Academy of Family Physicians or the American Academy of Pediatrics, or you can ask your family doctor. Vaccinations usually start when your child is 2 months old and most are finished by the time he or she is 6 years old.

Are there any reasons my child should not be vaccinated?

In some special situations, children shouldn't be vaccinated. For example, some vaccines shouldn't be given to children who have certain types of cancer or certain diseases, or who are taking drugs that lower the body's ability to resist infection.

If your child has had a serious reaction to the first shot



in a series of shots, your family doctor will probably talk with you about the pros and cons of giving him or her the rest of the shots in the series.

Talk to your doctor if you have any questions about whether your child should receive a vaccine.

What is the flu vaccine?

The flu vaccine is available by shot or by nasal spray. The flu shot contains dead viruses. The nasal-spray vaccine contains live but weakened viruses. You cannot get the flu from the flu shot or the nasal-spray vaccine.

The flu vaccine is given at the beginning of the flu season, usually in October or November. The flu shot is safe for children 6 months of age and older. The nasal spray vaccine is safe for children 2 years of age and older. Because flu viruses change from year to year, it is very important for your child to get the vaccine each year so that he or she will be protected. Children are more likely to have complications from the flu.

What is the DTaP vaccine?

The DTaP vaccine is 3 vaccines in one shot. It protects against diphtheria, tetanus and pertussis. It's given as a series of five shots.

Diphtheria is a disease that attacks the throat and heart. It can lead to heart failure and death. Tetanus is also called "lockjaw." It can lead to severe muscle spasms and death.

Pertussis (also called "whooping cough") causes severe coughing that makes it hard to breathe, eat and drink. It can lead to pneumonia, convulsions, brain damage and death.

Having your child immunized when he or she is young (which means making sure he or she gets all of the DTaP shots) protects your child against these diseases for about 10 years. After this time, your child will need booster shots.

What is the Td vaccine?

The Td vaccine is used as a booster to the DTaP vaccine. It helps prevent tetanus and diphtheria. It's

given when your child is 11 years old or older and every 10 years throughout life.

What is the MMR vaccine?

The MMR vaccine protects against the measles, mumps and rubella. It's given as two shots.

Measles causes fever, rash, cough, runny nose and watery eyes. It can also cause ear infections and pneumonia. Measles can also lead to more serious problems, such as brain swelling and even death.

Mumps causes fever, headache and painful swelling of one or both of the major saliva glands. Mumps can lead to meningitis (infection of the coverings of the brain and spinal cord) and, very rarely, to brain swelling.

Rubella is also called the German measles. It causes slight fever, a rash and swelling of the glands in the neck. If a pregnant woman catches rubella, it can cause her to lose her baby or have a baby who is blind or deaf, or has trouble learning.

What is the Hib vaccine?

The Hib vaccine helps prevent *Haemophilus influenzae* type b, a leading cause of serious illness in children. It can lead to meningitis, pneumonia and a severe throat infection that can cause choking. The Hib vaccine is given as a series of 3 or 4 shots.

What is the varicella vaccine?

The varicella vaccine helps prevent chickenpox. It is given to children once after they are 12 months old or to older children if they have never had chickenpox or been vaccinated. The varicella vaccine is given as a series of 2 shots.

What is the HBV vaccine?

The HBV vaccine helps prevent hepatitis B virus (HBV), an infection of the liver that can lead to liver cancer and death. The vaccine is given as a series of 3 or 4 shots. The HBV vaccine and Hib vaccine can also be given together in the same shot.