PEDIATRIC OFFICES OF:
SAVEL, KELLY, BOREMAN & ODOM, M.D.'S

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CHECK-UP AND IMMUNIZATION SCHEDULE

- 1 Month – Discuss Immunizations
- 2 Months – DTaP, IPV, HIB, HEP B, PREVNAR, & ROTAVIRUS (Oral)
- 4 Months – Same as 2 month Immunizations
- 6 Months – DTaP, IPV, HIB, PREVNAR, & ROTAVIRUS (Oral)
- Influenza at 6 months and Older
- 9 Months – Blood count – HEP B – Influenza
- 12 Months – MMR – VARIVAX – PREVNAR – HEP A – Influenza
- 15 Months – DTaP – Influenza
- 18 Months – HEP A – Influenza
- 2 & 3 Years – Review Immunizations; Influenza, HEP A
- 4 Years – Blood Count, Urinalysis, & Hearing Test
- Immunizations: DTaP – IPV – MMR – VARTVAX – Influenza – HEP A
- 5-11 Years – Review Immunizations; Influenza, HEP A
- 11 Years – TDAP; MENACTRA, Gardasil – females only, Influenza, HEP A
- 12-20 Years – Review Immunizations for the future = HEP A, Influenza, and any missed immunizations from previous years.

CHECK -UPS DUE ANNUALLY

Vaccine Abbreviations:

DTaP or TdaP	Diptheria-Tetanus-Pertussis-
IPV	Polio
HEP B	Hepatitis B
HIB	Hemophilus Influenza type b
PREVNAR	Pneumococcal
MMR	Measles-Mumps-Rubella
VARIVAX	Chickenpox
HEP A	Hepatitis A

(Vaccine informational statements from the CDC are Available upon request)

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Recommended Reference Readings for Infant and Childcare

CARING FOR YOUR BABY AND YOUNG CHILD; BIRTH TO AGE 5
Steven P. Shelov, Publisher Pantam Books

YOUR CHILDS HEAL TH, Barton D. Schmitt, Publisher, Bantam Books

Recommended Vaccine Website / Info

1. The Center for Disease Control and Prevention (CDC)
   www.cdc.gov/vaccines/hcp/vis

2. The Vaccine Education Center at The Children's Hospital of Philadelphia
   www.vaccine.chop.edu

3. The American Academy of Pediatrics (AAP)
   www.cispimmunize.org

4. National Network for Immunization Information (NNii)
   www.immunizationinfo.org

5. Immunization Action Coalition (IAC)
   www.immunize.org & www.vaccineinformation.org

6. Children's Vaccine Program
   www.childrensvaccine.org

7. Institute for Vaccine Safety
   www.vacc:inesafety.edu

VACCINE INFORMATION STATEMENT

Your Baby's First Vaccines

What You Need to Know

Many Vaccine Information Statements are available in Spanish and other languages. See www.immunize.org/vis

Hojas de Información Sobre Vacunas están disponibles en Español y en muchos otros idiomas. Visite www.immunize.org/vis

Your baby will get these vaccines today:

- ☐ DTaP
- ☐ Hib
- ☐ Hepatitis B
- ☐ Polio
- ☐ Rotavirus
- ☐ PCV13

(Provider: Check appropriate boxes.)

Ask your doctor about "combination vaccines," which can reduce the number of shots your baby needs.

Combination vaccines are as safe and effective as these vaccines when given separately.

These vaccines protect your baby from **8 serious diseases**:

- diphtheria
- tetanus
- pertussis (whooping cough)
- *Haemophilus influenzae* type b (Hib)
- hepatitis B
- polio
- rotavirus
- pneumococcal disease

About this vaccine information statement

Please read this Vaccine Information Statement (VIS) before your baby gets his or her immunizations, and take it home with you afterward. Ask your doctor if you have any questions.

This VIS tells you about the benefits and risks of six routine childhood vaccines. It also contains information about reporting an adverse reaction and about the National Vaccine Injury Compensation Program, and how to get more information about vaccines and vaccine-preventable diseases. (Individual VISs are also available for these vaccines.)

How vaccines work

Immunity from disease: When children get sick with an infectious disease, their immune system usually produces protective "antibodies," which keep them from getting the same disease again. But getting sick is no fun, and it can be dangerous or even fatal.

Immunity from vaccines: Vaccines are made with the same bacteria or viruses that cause disease, but they have been weakened or killed—or only parts of them are used—to make them safe. A child's immune system produces antibodies, just as it would after exposure to the actual disease. This means the child will develop immunity in the same way, but without having to get sick first.

Vaccine benefits: why get vaccinated?

Diseases have injured and killed many children over the years in the United States. **Polio** paralyzed about 37,000 and killed about 1,700 every year in the 1950s. **Hib disease** was once the leading cause of bacterial meningitis in children under 5 years of age. About 15,000 people died each year from **diphtheria** before there was a vaccine. Up to 70,000 children a year were hospitalized because of **rotavirus** disease. **Hepatitis B** can cause liver damage and cancer in 1 child out of 4 who are infected, and **tetanus** kills 1 out of every 5 who get it.

Thanks mostly to vaccines, these diseases are not nearly as common as they used to be. But they have not disappeared, either. Some are common in other countries, and if we stop vaccinating they will come back here. This has already happened in some parts of the world. When vaccination rates go down, disease rates go up.

CDC
U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

Childhood vaccines can prevent these 8 Diseases

1. DIPHTHERIA

Signs and symptoms include a thick covering in the back of the throat that can make it hard to breathe.

Diphtheria can lead to breathing problems, and heart failure.

2. TETANUS (Lockjaw)

Signs and symptoms include painful tightening of the muscles, usually all over the body.

Tetanus can lead to stiffness of the jaw so victims can't open their mouth or swallow.

3. PERTUSSIS (Whooping Cough)

Signs and symptoms include violent coughing spells that can make it hard for a baby to eat, drink, or breathe. These spells can last for weeks.

Pertussis can lead to pneumonia, seizures, and brain damage.

4. HIB (Haemophilus influenzae type b)

Signs and symptoms can include trouble breathing. There may not be any signs or symptoms in mild cases.

Hib can lead to meningitis (infection of the brain and spinal cord coverings); pneumonia; infections of the blood, joints, bones, and covering of the heart; brain damage; and deafness.

5. HEPATITIS B

Signs and symptoms can include tiredness, diarrhea and vomiting, jaundice (yellow skin or eyes), and pain in muscles, joints and stomach. But usually there are no signs or symptoms at all.

Hepatitis B can lead to liver damage, and liver cancer.

6. POLIO

Signs and symptoms can include flu-like illness, or there may be no signs or symptoms at all.

Polio can lead to paralysis (can't move an arm or leg).

7. PNEUMOCOCCAL DISEASE

Signs and symptoms include fever, chills, cough, and chest pain.

Pneumococcal disease can lead to meningitis (infection of the brain and spinal cord coverings), blood infections, ear infections, pneumonia, deafness, and brain damage.

8. ROTAVIRUS

Signs and symptoms include watery diarrhea (sometimes severe), vomiting, fever, and stomach pain.

Rotavirus can lead to dehydration and hospitalization.

Any of these diseases can lead to death.

How do babies catch these diseases?

Usually from contact with other children or adults who are already infected, sometimes without even knowing they are infected. A mother with **Hepatitis B** infection can also infect her baby at birth. **Tetanus** enters the body through a cut or wound; it is not spread from person to person.

Routine baby vaccines

Vaccine	Number of doses	Recommended ages	Other information
DTaP (diphtheria, tetanus, pertussis)	5	2 months, 4 months, 6 months, 15–18 months, 4–6 years	Some children should not get pertussis vaccine. These children can get a vaccine called DT.
Hepatitis B	3	Birth, 1–2 months, 6–18 months	Children may get an additional dose at 4 months with some "combination" vaccines.
Polio	4	2 months, 4 months, 6–18 months, 4–6 years	
Hib (*Haemophilus influenzae* type b)	3 or 4	2 months, 4 months, (6 months), 12–15 months	There are 2 types of Hib vaccine. With one type the 6-month dose is not needed.
PCV13 (pneumococcal)	4	2 months, 4 months, 6 months, 12–15 months	Older children with certain chronic diseases may also need this vaccine.
Rotavirus	2 or 3	2 months, 4 months, (6 months)	Not a shot, but drops that are swallowed. There are 2 types of rotavirus vaccine. With one type the 6-month dose is not needed.

Annual **flu vaccination** is also recommended for children 6 months of age and older.

Precautions

Most babies can safely get all of these vaccines. But some babies should not get certain vaccines. Your doctor will help you decide.

- A child who has ever had a serious reaction, such as a life-threatening allergic reaction, after a vaccine dose should not get another dose of that vaccine. *Tell your doctor if your child has any severe allergies, or has had a severe reaction after a prior vaccination.* (Serious reactions to vaccines and severe allergies are rare.)
- A child who is sick on the day vaccinations are scheduled might be asked to come back for them.

Talk to your doctor...

- before getting **DTaP** vaccine, if your child ever had any of these reactions after a dose of DTaP:
  - A brain or nervous system disease within 7 days,
  - Non-stop crying for 3 hours or more,
  - A seizure or collapse,
  - A fever of over 105°F.
- before getting **Polio vaccine**, if your child has a life-threatening allergy to the antibiotics neomycin, streptomycin or polymyxin B.
- before getting **Hepatitis B** vaccine, if your child has a life-threatening allergy to yeast.
- before getting **Rotavirus Vaccine**, if your child has:
  - SCID (Severe Combined Immunodeficiency),
  - A weakened immune system for any other reason,
  - Digestive problems,
  - Recently gotten a blood transfusion or other blood product,
  - Ever had intussusception (bowel obstruction that is treated in a hospital).
- before getting **PCV13** or **DTaP** vaccine, if your child ever had a severe reaction after any vaccine containing diphtheria toxoid (such as DTaP).

Risks

Vaccines can cause side effects, like any medicine.

Most vaccine reactions are **mild**: tenderness, redness, or swelling where the shot was given; or a mild fever. These happen to about 1 child in 4. They appear soon after the shot is given and go away within a day or two.

Other reactions: Individual childhood vaccines have been associated with other mild problems, or with moderate or serious problems:

DTaP vaccine

Mild problems: Fussiness (up to 1 child in 3); tiredness or poor appetite (up to 1 child in 10); vomiting (up to 1 child in 50); swelling of the entire arm or leg for 1–7 days (up to 1 child in 30)—usually after the 4th or 5th dose.

Moderate problems: Seizure (1 child in 14,000); non-stop crying for 3 hours or longer (up to 1 child in 1,000); fever over 105°F (1 child in 16,000).

Serious problems: Long term seizures, coma, lowered consciousness, and permanent brain damage have been reported. These problems happen so rarely that it is hard to tell whether they were actually caused by the vaccination or just happened afterward by chance.

Polio vaccine / Hepatitis B vaccine / Hib vaccine

These vaccines have not been associated with other mild problems, or with moderate or serious problems.

Pneumococcal vaccine

Mild problems: During studies of the vaccine, some children became fussy or drowsy or lost their appetite.

Rotavirus vaccine

Mild problems: Children who get rotavirus vaccine are slightly more likely than other children to be irritable or to have mild, temporary diarrhea or vomiting. This happens within the first week after getting a dose of the vaccine.

Serious problems: Studies in Australia and Mexico have shown a small increase in cases of intussusception within a week after the first dose of rotavirus vaccine. So far, this increase has not been seen in the United States, but it can't be ruled out. If the same risk were to exist here, we would expect to see 1 to 3 infants out of 100,000 develop intussusception within a week after the first dose of vaccine.

What if there is a serious reaction?

What should I look for?

- Look for anything that concerns you, such as signs of a severe allergic reaction, very high fever, or behavior changes.

  Signs of a severe allergic reaction can include hives, swelling of the face and throat, difficulty breathing, a fast heartbeat, dizziness, and weakness. These would start a few minutes to a few hours after the vaccination.

What should I do?

- If you think it is a severe allergic reaction or other emergency that can't wait, call 9-1-1 or get the person to the nearest hospital. Otherwise, call your doctor.
- Afterward, the reaction should be reported to the Vaccine Adverse Event Reporting System (VAERS). Your doctor might file this report, or you can do it yourself through the VAERS web site at **www.vaers.hhs.gov**, or by calling **1-800-822-7967**.

VAERS is only for reporting reactions. They do not give medical advice.

The National Vaccine Injury Compensation Program

The National Vaccine Injury Compensation Program (VICP) is a federal program that was created to compensate people who may have been injured by certain vaccines.

Persons who believe they may have been injured by a vaccine can learn about the program and about filing a claim by calling **1-800-338-2382** or visiting the VICP website at **www.hrsa.gov/vaccinecompensation**.

For more information

- Ask your doctor.
- Call your local or state health department.
- Contact the Centers for Disease Control and Prevention (CDC):
  - Call **1-800-232-4636** (**1-800-CDC-INFO**) or
  - Visit CDC's website at **www.cdc.gov/vaccines**

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Q&A

VOLUME 2, SPRING 2012

Too Many Vaccines? What you should know

The Children's Hospital of Philadelphia®

VACCINE EDUCATION CENTER

Today, young children receive vaccines to protect them against 14 different diseases. Because some vaccines require more than one dose, children can receive as many as 26 inoculations by 2 years of age and up to five shots at one time. For this reason, some parents now ask their doctors to space out, separate or withhold vaccines. The concern that too many vaccines might overwhelm a baby's immune system is understandable, but the evidence that they don't is reassuring.

Q. What are the active components in vaccines?

A. Vaccines contain parts of viruses or bacteria that induce protective immune responses. These active ingredients are called immunological components.

Vaccines that protect against bacterial diseases are made from either inactivated bacterial proteins (e.g., diphtheria, tetanus and whooping cough [pertussis]) or bacterial sugars called polysaccharides (e.g., *Haemophilus influenzae* type b [Hib] and pneumococcus). Each of these bacterial proteins or polysaccharides is considered an immunological component, meaning that each evokes a distinct immune response.

Vaccines that protect against viral diseases (e.g., measles, mumps, rubella, polio, rotavirus, hepatitis A, hepatitis B, chickenpox and influenza) are made of viral proteins. Just like bacterial proteins, viral proteins induce an immune response.

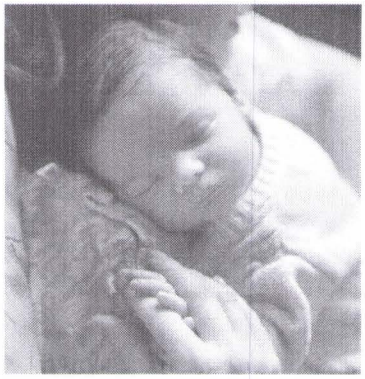
Q. Do children encounter more immunological components from vaccines today than they did 30 years ago?

A. No. Although children receive more vaccines now than ever before, most people would probably be surprised to learn that the number of immunological components in vaccines has dramatically decreased.

Thirty years ago, children received vaccines which protected against seven diseases: measles, mumps, rubella, diphtheria, tetanus, pertussis and polio. The total number of bacterial and viral proteins contained in these vaccines was a little more than 3,000.

Today, children receive vaccines that protect against 14 diseases, but the total number of immunological components in these vaccines is only about 150. This dramatic reduction is the result of scientific advances that have allowed for purer, safer vaccines.

Q. Can too many vaccines overwhelm an infant's immune system?



A. No. Compared to the immunological challenges that infants handle every day, the challenge from the immunological components in vaccines is minuscule. Babies begin dealing with immunological challenges at birth. The mother's womb is a sterile environment, free from viruses, bacteria, parasites and fungi. But after babies pass through the birth canal and enter the world, they are immediately colonized with trillions of bacteria, which means that they carry the bacteria on their bodies but aren't infected by them. These bacteria live on the skin, nose, throat and intestines. To make sure that colonizing bacteria don't invade the bloodstream and cause harm, babies constantly make antibodies against them.

Colonizing bacteria aren't the only issue. Because the food that we eat and the dust that we breathe contain bacteria, immunological challenges from the environment are unending. Viruses are also a problem. Children in the first few years of life are constantly exposed to a variety of different viruses that cause runny noses, cough, congestion, fever or diarrhea.

Given that infants are colonized with trillions of bacteria, that each bacterium contains between 2,000 and 6,000 immunological components and that infants are infected with numerous viruses, the challenge from the 150 immunological components in vaccines is minuscule compared to what infants manage every day.

For the latest information on all vaccines, visit our website at **vaccine.chop.edu**

Too Many Vaccines? What you should know

Q. How many vaccines can children effectively handle at one time?

A. A lot more than they're getting now. The purpose of vaccines is to prompt a child's body to make antibodies, which work by preventing bacteria and viruses from reproducing themselves and causing disease. So, how many different antibodies can babies make? The best answer to this question came from a Nobel Prize-winning immunologist at the Massachusetts Institute of Technology named Susumu Tonegawa, who first figured out how people make antibodies.

Tonegawa discovered that antibodies are made by rearranging and recombining many different genes, and found that people can make about 10 billion different antibodies. Given the number of antibody-producing cells in a child's bloodstream, and the number of immunological components contained in vaccines, it is reasonable to conclude that babies could effectively make antibodies to about 100,000 vaccines at one time. Although this number sounds overwhelming, remember that every day children are defending themselves against a far greater number of immunological challenges in their environment.

Q. How do we know that multiple vaccines can be given safely?

A. The Food and Drug Administration (FDA) requires extensive safety testing before vaccines are licensed. Before a new vaccine can be licensed by the FDA, it must first be tested by something called "concomitant use studies." Concomitant use studies require new vaccines to be tested with existing vaccines.

These studies are performed to make sure the new vaccine doesn't affect the safety or effectiveness of existing vaccines given at the same time, and vice versa. Because concomitant use studies have been required for decades, many studies have been performed showing that children can be inoculated with multiple vaccines safely.

Q. What is the harm of separating, spacing out or withholding vaccines?

A. Delaying vaccines can be risky. The desire by some parents to separate, space out or withhold vaccines is understandable. This choice, however, is not necessarily without consequence.

First, delaying vaccines only increases the time during which children are susceptible to certain diseases, some of which are still fairly common. Chickenpox, whooping cough (pertussis), influenza and pneumococcus still cause hospitalizations and deaths in previously healthy children every year. And before the chickenpox vaccine, every year about 70 children died from the disease.

Second, spacing out or separating vaccines will require children to visit the doctor more often for shots. Researchers have found that children experience similar amounts of stress, as measured by secretion of a hormone called cortisol, whether they are getting one or two shots at the same visit. This study suggests that although children are clearly stressed by receiving a shot, two shots aren't more stressful than one. For this reason, more visits to the doctor created by separating or spacing out vaccines will actually increase the trauma of getting shots.

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This information is provided by the Vaccine Education Center at The Children's Hospital of Philadelphia. The Center is an educational resource for parents and healthcare professionals and is composed of scientists, physicians, mothers and fathers who are devoted to the study and prevention of infectious diseases. The Vaccine Education Center is funded by endowed chairs from The Children's Hospital of Philadelphia. The Center does not receive support from pharmaceutical companies.

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