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Parenting the Preschooler
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Immunization Update

Numerous childhood diseases can be prevented through routine vaccination during a child's first five years of life. The vaccines that most children receive routinely at this time are: DTaP (diphtheria, tetanus and acellular pertussis), Hib (hemophilus influenza type B), IPV (polio), HepB (hepatitis B), MMR (measles, mumps and rubella) and Varicella (chickenpox). With the exception of tetanus, these diseases are all highly contagious and can be spread rapidly. Ensuring that children receive proper immunizations at the right times can protect children from these diseases and their serious complications.

The following table shows the most commonly recommended schedule for giving vaccines. Your doctor's or nurse's schedule may be slightly different.

When Do Children Need Shots?						
Age ➤	Birth	2	4	6	12-15	4-6
		months				years
Hep-B (Hepatitis B)	✓	✓		✓		
DtaP (Diphtheria, Tetanus, acellular Pertusis)		✓	✓	✓	✓	✓
Hib (Haemophilus Influenza Type b)		✓	✓	✓	✓	
IPV (Inject. Polio Vaccine)		✓	✓		✓	✓
MMR (Measles, Mumps, Rubella)					✓	✓
Varicella (Chicken pox)					✓	

Exemption from receiving vaccines may be obtained for medical, religious, or personal conviction reasons. A physician must sign the medical waiver; a parent, guardian or adult student must sign religious and personal conviction waivers. Should there be an outbreak of vaccine-preventable disease, the Department of Health and Social Services may direct schools to exclude unimmunized students and those who have waivers on file. Students may remain excluded until the outbreak subsides.

It is important that an accurate record is kept of all immunizations received for each child, whether they are given in a physician's office or in a clinic setting. Many public health departments and physicians' offices are members of immunization registries wherein immunizations are entered into a computer database, which is then shared with other registry members. This provides immediate access to the complete immuniza-tion history.

HEPATITIS B

Hepatitis B is a serious disease that can cause both short term (acute) and long term (chronic) illness. The acute stage can lead to loss of appetite, tiredness, diarrhea, vomiting, jaundice (yellowing skin and eyes) and pain in muscles, joints and stomach. The chronic illness can lead to liver damage, liver cancer and death. About 1.25 million people in the U.S. have chronic Hep B infection and each year it is estimated that 200,000 people get infected. It is estimated that Hepatitis B infection causes 11,000 hospital stays and 4,000-5,000 deaths every year.

DIPHTHERIA, TETANUS AND PERTUSSIS

The DTaP vaccine is a combination vaccine that offers protection against three separate diseases. Diphtheria causes a thick coating in the back of the throat that can lead to breathing problems, paralysis, heart failure and death. Tetanus causes painful tightening of the muscles and can lead to "locking" of the jaw thus preventing a person from opening his mouth or swallowing. Tetanus can lead to death. Pertussis or whooping cough causes coughing spells so bad that it becomes difficult to eat, drink or breathe. This can last for weeks and in some cases leads to pneumonia, seizures, brain damage and death.

HAEMOPHILUS INFLUENZAE TYPE B

Hib disease is caused by a bacteria and usually strikes children under 5 years old. Before the vaccine, Hib disease was the leading cause of bacterial meningitis among children under 5 years in the U.S. Meningitis is an infection of the brain and spinal cord coverings, which can lead to lasting brain damage and deafness. The disease can also cause pneumonia, swelling in the throat and infections of the blood, joints, bones and covering of the heart. Before the Hib vaccine, about 20,000 children in the U.S. under 5 got Hib disease each year and nearly 1,000 people died.

POLIO

There are two kinds of polio vaccine; IPV (inactivated polio vaccine) which is the shot recommended in the U.S. today, and a live OPV (oral polio vaccine), which is drops that are swallowed. Until recently OPV was recommended for most children in the U.S. However, for a few people (about one in 2.4 million) OPV actually causes polio. Since 1979, the only poliovirus-induced paralysis in this country has been that caused by the OPV. Since the risk of getting polio in the U.S. is now extremely low, as of January 2000, ACIP (Advisory Committee on Immunization Practices) has recommended an all IPV schedule for routine polio immunization. Since it is not a live virus, the IPV shot cannot cause polio. All children should receive four doses of IPV at 2 months, 4 months, 6-18 months and 4-6 years of age.

MEASLES, MUMPS AND RUBELLA

The MMR is also a combination vaccine that protects against the measles, mumps and rubella (German measles). These three diseases have the potential for serious complications as well. Measles can lead to pneumonia, seizures, brain damage and death. Mumps can cause deafness, meningitis, sterility in young men and rarely, death. And rubella can have profound effect on pregnant women causing miscarriage or birth defects.

CHICKEN POX

Varicella (chicken pox) is a highly contagious disease caused by the varicella zoster virus, a member of the herpesvirus family. Although it is usually a self-limited disease that lasts 4-5 days and is characterized by fever, malaise and a characteristic rash, there are serious risks associated with chickenpox. CDC (Center for Disease Control) statistics show that each year approximately 175,000 complications, 9,300 hospitalizations and 100 deaths occur from chickenpox. Since 1995, a chickenpox vaccine has been licensed for use in the U.S. The vaccine, although not yet mandatory, is recommended for children 12 to 18 months of age and older children who have not had chickenpox. All parents of young children and older children who have not yet had the chickenpox disease are urged to talk to their physicians about receiving the vaccine.

Sources:

American Academy of Pediatrics – Press Release 6/6/00
CDC Vaccine Information Sheets (42 U.S.C.ch. 300aa-26) Center For Disease Control, Atlanta GA
Dept. Health & Family Services, Div. Public Health, DPH4021

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