



Frederick A. Lauppe Jr., M.D.  
Sandra A. Hollenberg, M.D.  
Pramila Agrawal, M.D.  
Carrie Knoll, M.D.  
James Warren, M.D.

Appointments (909) 629-5067 • Bookkeeping (909) 620-1935 • Fax (909) 865-7688

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## *Immunize Your Children*

**POLIO** can cause muscle weakness and paralysis. It can also be fatal. Polio is spread by contact with the stool of a person who has the virus. This can happen while changing diapers, eating contaminated food or drinking contaminated water.

**DIPHTHERIA** can cause difficulty breathing, paralysis, and heart problems. In one out of ten cases it is fatal. Diphtheria is spread by contamination of cuts or wounds.

**PERTUSSIS** (whooping cough) causes violent coughing and choking spells that make it hard to breathe, eat or drink. It is most severe for young infants, and about half need to be hospitalized. They can develop pneumonia, seizures and brain damage. It can also be fatal. Pertussis is spread by the cough, saliva or mucus of a person who has it.

**TETANUS** (lockjaw) can cause muscle spasms and difficulty swallowing. In three out of ten cases it is fatal. Tetanus is spread by contamination of cuts or wounds.

**MEASLES** causes a body rash, fever and cough. It can also cause pneumonia, brain damage, hearing loss, or death. Measles is spread by the cough, saliva or mucus of a person who has it.

**MUMPS** causes swollen and painful glands under the jaw, fever and headache. Rarely, mumps can cause inflammation of the brain and spinal cord, and hearing loss. It can also cause pain in the testicles and sterility for teen or adult males. Mumps is spread by the cough, saliva, or mucus of a person who has it.

**RUBELLA** (German measles) causes a body rash, fever, and swollen “glands” (lymph nodes). If a pregnant woman gets rubella, it can cause miscarriage or stillbirth, or the baby may be born blind, deaf, mentally-retarded, or with heart defects. Rubella is spread by the cough, saliva or mucus of a person who has it.

**HEMOPHILIUS INFLUENZA TYPE B (HIB)** causes meningitis (infection of the lining of the brain and spinal cord), pneumonia, and infections of the blood, joints and throat. It is most severe for infants and children under five years old—one in four cases results in brain damage and one in twenty is fatal. HIB is spread by the cough, saliva or mucus of a person who has it.

**HEPATITIS B** can cause jaundice (yellow eyes and skin), fever, loss of appetite, vomiting, and joint pain. In one out of ten people with hepatitis B, the virus stays in the liver and blood for the rest of their lives. They can develop severe liver disease, cancer, or liver failure and death. Hepatitis B is spread when blood, sexual fluids or saliva from an infected person get into another person from sex, sharing needles, or bloody injuries. Pregnant women with hepatitis B can also pass it to their babies.

**CHICKEN POX** causes an itchy skin rash (pox) and fever. It is most severe for adults and people with immune problems—it can cause pneumonia, infection of the brain and liver, and death. If a pregnant woman catches chicken pox, it can cause birth defects or severe infection for the newborn, which can be fatal. Chicken pox is spread by the cough, saliva or mucus of a person who has it.

**MENINGOCOCCAL MENINGITIS** bacteria are transmitted through air droplets and direct contact with persons already infected with the disease. Direct contact also occurs with shared items, such as cigarettes, drinking glasses, or through intimate contact such as kissing. Meningitis can occur in two forms—as either an inflammation that affects the brain and spinal cord or as bacteria in the blood. Permanent brain damage, hearing loss, learning disability, limb amputation, kidney failure or death can occur. Meningitis can strike at any age; however, certain groups have a greater risk for contracting the disease: college students, particularly freshmen, who live in campus residence halls, anyone in close contact with a known case, anyone with a compromised immune system, and anyone traveling to endemic areas of the world where meningitis is prevalent.

**INVASIVE PNEUMOCOCCAL DISEASES** are a group of potentially life-threatening infections, all caused by the same microscopic bacterium, *Streptococcus pneumoniae*, which can cause meningitis and bacteremia (bacteria in the blood stream). Every year approximately 1,400 cases of meningitis occur in children under 5 years of age. Several hundred children die from this disease and even more are left with permanent disabilities, such as seizures, deafness and mental retardation. Bacteremia affects approximately 17,000 children under the age of 5 years. It can be passed among children through sneezing or hand to mouth contact. Factors that can increase your child's risk are: day-care attendance and recent antibiotic use. Children with cancer, kidney disease, diabetes, sickle cell disease and who are immunocompromised by chemotherapy or HIV are at higher risk..

**HEPATITIS A** is a serious liver disease caused by the Hepatitis A virus (HAV). HAV is found in the stool of persons infected with hepatitis A. It is usually spread by close personal contact and sometimes by eating food or drinking water containing HAV. Symptoms of hepatitis A are: mild “flu-like” illness, jaundice and severe stomach pains and diarrhea. People who are infected with hepatitis A are often hospitalized and in rare cases, it may cause death. Anyone 2 years and older who is traveling or working in countries with high rates of hepatitis A, such as Central or South America, the Caribbean, Mexico, Asia, Africa and Southern or Eastern Europe should consider the vaccine. The vaccine series should be started at least **one month before traveling**. Immunization for all children starting at age 2 is recommended in California.