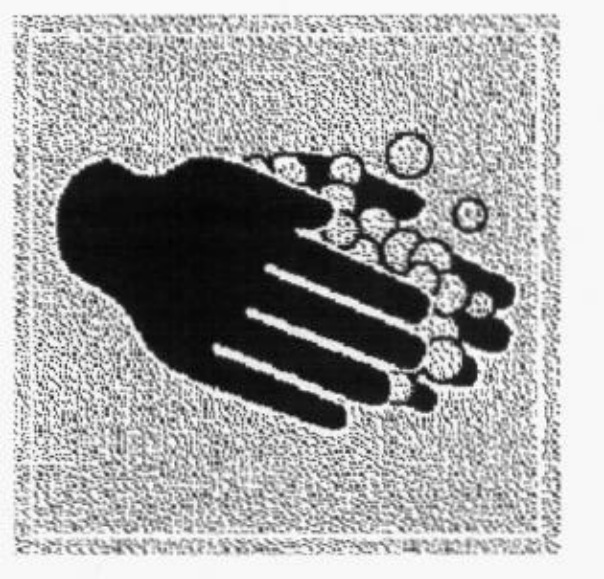

Prevention and Control of Communicable Diseases

A Guide for School Administrators, Nurses, Teachers and Child Care Providers

July 2005

Missouri Department of Health and Senior Services

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FOREWORD

HELP CONTROL COMMUNICABLE DISEASES

Vaccines are now available to control the majority of diseases that have caused illness and death in children in the past. Medical treatments help to control many others, but schools and child care centers must continue to play an important role in controlling the spread of communicable disease. By enforcing the state communicable disease regulations, excluding children who are ill, and promptly reporting all suspected cases of communicable disease, personnel working with children can help ensure the good health of the children in their care.

Be alert for signs of illness such as elevated temperature, skin rashes, inflamed eyes, flushed, pale or sweaty appearance. If a child shows these or other signs of illness, pain or physical distress, he/she should be evaluated by a health care provider. Children or staff with communicable diseases should not be allowed to attend or work in a school or child care setting until they are well. Recommendations for exclusion necessary to prevent exposure to others are contained in this booklet in the section "School Attendance" for each disease.

Please report all suspected cases of communicable disease promptly to your city, county or district health unit. Prompt reporting is the first step to insuring appropriate outbreak control measures.

Additional information on the latest laws and regulations pertaining to communicable diseases may be accessed through the Department of Health and Senior Services website: www.dhss.mo.gov, then click on *Laws, Regulations and Manuals.* The information concerning individual communicable diseases is contained in the *Communicable Disease Investigation Reference Manual.*

AIDS/HIV INFECTION
(Reportable Disease – Report to Local Health Agency)

IMMUNIZATION: None.

INCUBATION PERIOD: Variable. 6-12 weeks for HIV seroconversion.
1-15 years or greater from HIV infection to diagnosis of AIDS.

SYMPTOMS: Failure to thrive, generalized lymphadenopathy (swollen lymph glands), enlarged liver and/or spleen, central nervous system disease, recurrent invasive bacterial infections, opportunistic infections, specified malignancies, more.

PERIOD OF COMMUNICABILITY:
From 6-12 weeks after infection till death.

MODE OF TRANSMISSION:
NOT by routine social or community contact with an HIV-infected person. Transmitted person-to-person through sexual contact, sharing of HIV-contaminated needles and syringes, transfusion of infected blood via needlesticks, open wounds, or mucous membrane contact with HIV-infected blood/body fluids, mother to infant transmission before or around time of birth, and breastfeeding.

SCHOOL ATTENDANCE: *
Except for blood exposure, HIV infection is not acquired through the usual types of contacts which occur in the school setting. Therefore:

- Children and adolescents infected with HIV should generally be allowed to attend pre-school/school without restrictions, provided the child's physician gives approval;
- The need for a more restricted school environment for some infected children should be evaluated on a case-by-case basis with consideration of conditions that may pose an increased risk to others, such as aggressive biting behavior or the presence of exudative, weeping skin lesions that cannot be covered;
- Only the child's parents, other guardians, and physician have an absolute need to know that the child is HIV-infected;
- All schools/child care facilities should adopt and follow routine standard precautions for handling blood or blood-contaminated fluids regardless of whether students with HIV infection are known to be in attendance (see *Standard Precautions*);
- Children infected with HIV develop progressive immunodeficiency, which increases their risk of experiencing severe complications from some infections. The child's physician should regularly assess the risk of an unrestricted environment on the health of the HIV-infected student, including evaluation of possible contagious diseases in the school (e.g., measles, chicken pox, tuberculosis);

SCHOOL ATTENDANCE (CONT.): *

- HIV infection should be treated like other chronic illnesses that require special education and other related services;
- Continuity of education must be assured whether at school or at home; and
- Because of the stigmata associated with this disease, maintaining confidentiality is essential. Disclosures of information should be only with the informed consent of the parents or legal guardians and age-appropriate assent of the student.

* Taken from 2003 Red Book, Report of the Committee on Infectious Diseases, Twenty-Fourth Edition. American Academy of Pediatrics

CONTACT/FOLLOW-UP:

Any person who experiences a skin injury from a sharp object or mucous membrane exposure to blood or bloody secretions from an HIV-infected (seropositive) individual, or any other person, must be immediately referred for medical evaluation, counseling and possible preventive treatment [Occupational Safety and Health Administration (OSHA) Blood-Borne Pathogen Standard/Missouri Department of Health and Senior Services]. Notification of sexual and needle-sharing partners by infected person or Department of Health and Senior Services/designee.

CAMPYLOBACTOR ENTERITIS
(Reportable Disease – Report to Local Health Agency)

IMMUNIZATION: None.

INCUBATION PERIOD: Usually 2-5 days, but can range from 1-10 days depending on dose ingested.

SYMPTOMS: Diarrhea, frequently bloody; abdominal pain; malaise; fever; nausea and vomiting. Illness usually lasts no more than 10 days, generally 2-5 days.

PERIOD OF COMMUNICABILITY:
Throughout the course of infection. Individuals not treated with antibiotics can excrete organisms for as long as 7 weeks. Communicability is greatest during acute phase of illness.

MODE OF TRANSMISSION:
By ingestion of organisms in undercooked chicken and pork, contaminated food and water, or raw milk from fecal-carrier animals. From contact with infected pets (especially puppies and kittens), farm animals, or infected infants. Person-to-person transmission can occur, especially in infants.

SCHOOL ATTENDANCE:
Symptomatic child care employees should NOT be permitted to work until diarrhea has ceased. Exclusion of asymptomatic convalescent stool-positive individuals is indicated only for those with questionable handwashing habits. Children with diarrhea should be excluded till diarrhea ceases or be cared for in a separate protected area until diarrhea subsides. In settings where children are not toilet-trained, it is prudent to treat with antibiotics. Symptomatic children should be excluded until 2 days following initiation of antibiotics or until the child is without diarrhea.

CONTACT/FOLLOW-UP:
As above.

CHICKEN POX
(Reportable Disease – Report to Local Health Agency)

IMMUNIZATION: Recommended for children 12 months of age and older.

INCUBATION PERIOD: Usually 13-17 days, but ranges from 10-21 days.

SYMPTOMS: Sudden onset of mild fever, rash on second day as superficial raised pimples which shortly become filled with clear fluid. Later, scabs form. There may be successive crops of rash, more on the trunk, up to the tenth day of disease.

PERIOD OF COMMUNICABILITY:
As long as 5 days but usually 1-2 days before onset of rash, and not more than 5 days after onset of rash OR until all lesions are crusted.

MODE OF TRANSMISSION:
From person-to-person by direct contact with vesicle fluid OR by droplet or airborne spread from respiratory tract of infected person. Also direct contact with vesicle fluid of persons with herpes zoster (shingles).

SCHOOL ATTENDANCE:
May return when all lesions are crusted, and there are no new lesions, generally day 6 after onset of rash.

CONTACTS/FOLLOW-UP:
Susceptible individuals should be considered infectious 10-21 days following exposure. Susceptible individuals having serious medical conditions or if pregnant should be referred to their private physician for evaluation for preventive therapy (VZIG) within 96 hours to prevent or modify disease.

Chicken pox is now a reportable disease in Missouri and must be reported to the Local Public Health Department.

COMMON COLD

IMMUNIZATION: None.

INCUBATION PERIOD: Usually 48 hours, but ranges from 12-72 hours.

SYMPTOMS: Runny nose, sneezing, watery eyes, irritated nose and throat, coughing, elevated temperature, chills, aches, and fatigue.

PERIOD OF COMMUNICABILITY:
Unknown, but most contagious during presence of acute symptoms such as coughing and sneezing.

MODE OF TRANSMISSION:
Primarily by direct contact with discharge from respiratory tract of infected persons by airborne route, probably by droplets as well.

SCHOOL ATTENDANCE:
Exclude if fever is greater than 100 degrees F or if excessive coughing is present. Need not be excluded if symptoms are mild/moderate and child is able to participate in routine activities.

CONTACTS/FOLLOW-UP:
Observe for other respiratory or viral illnesses such as strep throat, influenza, or chicken pox which may begin with symptoms similar to the common cold. Child's health status should be monitored.

CONJUNCTIVITIS (BACTERIAL)
(Pink Eye)

IMMUNIZATION: None.

INCUBATION PERIOD: Usually 24-72 hours.

SYMPTOMS: Reddening of the white of the eye and inner eyelids, with or without purulent (pus) drainage.

PERIOD OF COMMUNICABILITY:
Entire course of active infection.

MODE OF TRANSMISSION:
Direct contact with discharge from the eye or upper respiratory tract of an infected person; from contaminated fingers, clothing, other items.

SCHOOL ATTENDANCE:
Preferably child should not attend school until examined by a physician and approved for re-admission. Otherwise, child should be excluded from school during acute stage of infection.

CONTACT/FOLLOW-UP:
No recommendations.

COXSACKIE VIRUS INFECTION
(Hand-Foot-Mouth Disease, Aseptic Meningitis, Enterovirus or Echoviruses Infections)

IMMUNIZATION: None.

INCUBATION PERIOD: 3-6 days.
For acute hemorrhagic conjunctivitis – 24-72 hours.

SYMPTOMS: Variable.

- Respiratory – common cold, sore throat, blister-like lesions on throat (with or without difficulty in swallowing), fever, vomiting and prostration, inflammation of oral mucosa, pneumonia, paroxysmal pain in intercostal muscles;
- Neurologic – aseptic meningitis;
- Gastrointestinal – abdominal pain, vomiting, diarrhea, hepatitis;
- Eye – acute hemorrhagic conjunctivitis;
- Heart – myopericarditis;
- Skin – rash.

PERIOD OF COMMUNICABILITY:
A person is most contagious during the acute stage of illness. Virus is shed through respiratory secretions for one week and feces for up to six weeks.

MODE OF TRANSMISSION:
Direct contact with nose/throat discharge and feces. Fomite contamination and transmission can also occur. Mother-to-infant transmission before or around time of birth.

SCHOOL ATTENDANCE:
Exclude during acute stage of illness or until child is able to participate in routine activities. Then follow good handwashing and hygiene practices, especially after diaper changing or assisting child following restroom use. Be sure child's hands are washed.

CONTACTS/FOLLOW-UP:
Check for other cases in groups of preschool children. Reassure parents this infection is self-limited, mild, and in most instances, asymptomatic with no serious health effects following the disease period.

DIPHTHERIA-PHARYNGEAL
(Reportable Disease – Report to Local Health Agency)

IMMUNIZATION: Part of standard childhood immunization schedule. Booster doses (Td) are recommended every 10 years.

INCUBATION PERIOD: Usually 2-5 days, occasionally longer.

SYMPTOMS: Fever, sore throat, grayish white patches on tonsils or palate. May have nasal discharge, fatigue, headache, and swollen lymph nodes.

PERIOD OF COMMUNICABILITY:
Variable. If untreated usually 2 weeks or less, seldom more than 4 weeks. Effective antibiotic therapy can limit communicability to 4 days. Elimination of organism should be documented by two consecutive negative cultures after completion of therapy.

MODE OF TRANSMISSION:
Primarily from intimate/close contact with discharge from nose, throat, and eye of carrier or infected person. Rarely from contact with articles soiled from discharge of infected person.

SCHOOL ATTENDANCE:
Exclude until two consecutive negative cultures of the nose and of the throat (with second set of cultures taken not less than 24 hours apart) are secured following effective antibiotic therapy.

CONTACTS/FOLLOW-UP:

- Adult contacts whose occupations involve handling food, especially milk, or close association with non-immunized children, should be excluded from that work until bacteriologic examination proves them not to be carriers.
- All close contacts should have cultures taken and should be kept under surveillance for 7 days. A single dose of penicillin (injection) or a 7-10 day course of erythromycin (oral) is recommended for all persons exposed to diphtheria, regardless of their immunization status. If cultures are positive, they should be treated with antibiotics, and those who handle food or work with children should be excluded from work or school until bacteriologic examination proves them not to be carriers.
- Previously immunized contacts should receive a booster dose of diphtheria toxoid, and a primary series should be initiated in non-immunized contacts, using Td, DT, DTP or DTP-Hib vaccine depending on age.

E COLI O157:H7 DIARRHEA
(Reportable Disease – Report to Local Health Agency)

IMMUNIZATION: None.

INCUBATION PERIOD: From 10 hours-6 days, usually 3-4 days.

SYMPTOMS: Diarrhea, initially non-bloody progressing to grossly bloody, severe abdominal pain, and in one third of cases, fever. Late sequelae includes hemolytic-uremic syndrome (HUS).

PERIOD OF COMMUNICABILITY:
While organism still present in feces.

MODE OF TRANSMISSION:
Fecal-oral route; contaminated food, water or other beverage via unwashed hands of infected persons or carriers, or fecal contamination (by humans or animals) of water supply. Undercooked meat and unpasteurized milk are also vehicles for spread of this germ.

Strict attention to handwashing before handling food, drinks, and after using the toilet is essential.

SCHOOL ATTENDANCE:
For single cases, exclusion until diarrhea has stopped and 2 stool cultures are negative for E Coli O157:H7.

If outbreak is present, child care center should be closed to new admissions. Care must be taken to prevent transfer of children to other child care centers. Consult DHSS, Division of Environmental Health and Communicable Disease Prevention.

CONTACTS/FOLLOW-UP:
Observe all children for signs of diarrhea. If diarrhea is present, exclude from school until culture is taken and results are known.

FEVER BLISTER/COLD SORES
(Herpes Simplex Latent Infection)

IMMUNIZATION: None.

INCUBATION PERIOD: 2-12 days.

SYMPTOMS: Superficial clear vesicles (fluid-filled blisters) on an erythematous base, usually on the face and lips which crust and heal within a few days.

PERIOD OF COMMUNICABILITY:
Until lesions are crusted, generally 4-5 days. Virus is present in highest concentration in the first 24 hours after appearance of vesicles.

MODE OF TRANSMISSION:
Contact with saliva of infected person or carrier and mouthing of toys by young children.

SCHOOL ATTENDANCE:
Only children who cannot control oral secretions should be excluded from child care or school. If herpes lesions are abundant on face or in the mouth, or the child has difficulty chewing or swallowing, they should be evaluated by a physician. Restrict contact with other children who have eczema or skin conditions.

CONTACT/FOLLOW-UP:
No recommendations.

"FIFTH DISEASE"
(Erythema Infectiosum, Parvovirus B19)

IMMUNIZATION: None.

INCUBATION PERIOD: Usually 4-14 days; may be as long as 21 days.

SYMPTOMS: May include low-grade fever, non-specific headache and tiredness; within the next week, a red rash generally appears on the face giving a "slapped cheek" appearance. The rash may then extend to the body and tends to fade and reappear. Sometimes, the rash is lacy in appearance and may be itchy. The rash may persist for over a week, and may recur in response to sunlight or a warm bath. Some persons may have vague signs of illness or no symptoms at all.

PERIOD OF COMMUNICABILITY:
Infectious for 1-3 days prior to the onset of the rash. Persons with suppressed immune systems who have chronic infection and severe anemia may be communicable for months to years.

MODE OF TRANSMISSION:
Primarily by direct contact with discharge from respiratory tract of infected persons.

SCHOOL ATTENDANCE:
No exclusion is necessary – may exclude for elevated temperature.

CONTACTS/FOLLOW-UP:
No restrictions. For many years, "Fifth Disease" was viewed as an unimportant rash illness of children. Recent studies have shown that the virus may be responsible for serious complications in persons with chronic red blood cell disorders and persons with impaired immune systems. Pregnant women should be informed of the relatively low potential risks to the fetus and to contact their physician. When outbreaks occur in situations where there is prolonged contact, such as in homes, schools and child care centers, the above high-risk persons should contact their physician for advice.

GIARDIASIS
(Reportable Disease – Report to Local Health Agency)

IMMUNIZATION: None.

INCUBATION PERIOD: Usually 1-4 weeks; median 7-10 days.

SYMPTOMS: Can be asymptomatic.
Variable intestinal symptoms. Acute watery diarrhea with abdominal pain, or in chronic disease, prolonged, intermittent diarrhea characterized by passage of foul-smelling feces (diarrheal or soft) associated with flatulence, bloating, anorexia, fatigue and significant weight loss.

PERIOD OF COMMUNICABILITY:
Entire period of infection, usually 1-4 weeks but can be months.

MODE OF TRANSMISSION:
Person-to-person via hand-to-mouth transfer of cysts from feces, especially in institutions and child care centers. May also occur as a result of ingesting contaminated water (from humans or animals) or food and by sharing objects (toys, diaper changing tables) contaminated with infested feces.

SCHOOL ATTENDANCE:
Persons with diarrhea should be excluded until diarrhea has ceased. Children with positive stool cultures, who do not have diarrhea, do not need to be excluded.

CONTACTS/FOLLOW-UP:
If outbreak occurs, (2 or more cases), contact Local Health Agency who will do an epidemiologic investigation to detect and treat all infected symptomatic children, staff and family members.

Notify parents of children who have been in direct contact with a symptomatic, stool culture-positive child. They should contact their physician if their child develops diarrhea or signs of chronic illness that may be associated with giardia infection (watery diarrhea; abdominal cramps; bloated abdomen; swelling; significant weight loss; retarded growth; and/or anemia).

HEAD LICE
(Pediculosis Capitis)

IMMUNIZATION: None.

INCUBATION PERIOD: "Nits" (eggs) hatch in a week and reproduce 8-10 days after hatching.

SYMPTOMS: Irritation and itching of the scalp. Presence of insects and eggs or "nits" in the hair, especially at the nape of the neck and about the ears. Lice may appear lighter on persons with fair hair and darker on persons with dark hair.

PERIOD OF COMMUNICABILITY:
Communicable when live lice are present and moving, and/or viable nits (within ¼ inch from scalp) are present on the child.

MODE OF TRANSMISSION:
Direct head-to-head contact, e.g., crowded sleeping conditions; may also be spread by contact with infested headgear, towels, hairbrushes, combs, pillows, bedding, earphones, etc.

SCHOOL ATTENDANCE:
"No Nit" policies requiring that children be free of nits before they return to school or child care have not been effective and are not recommended. Children should not be excluded or sent home early from school because of head lice. When nits are present, the infestation may have been present for weeks to months. Parents of affected children (live lice or viable nits) should be notified and informed that their child should receive treatment with a pediculocide before returning to school the next day. Removal of nits often takes days to weeks.

CONTACTS/FOLLOW-UP:
When head lice are found in a setting, all close contacts of the infested child should be examined for signs of itching, redness, nits and lice. All household and other intimate contacts should be examined. Parents/caregivers must be given resources to address the issue of head lice, with attention to literacy and language barriers. Community and school education should be comprehensive and ongoing.

HEPATITIS A (HAV)
(Reportable Disease – Report to Local Health Agency)

IMMUNIZATION: Two inactivated vaccines available but not currently part of Missouri's immunization schedule for children.

INCUBATION PERIOD: Generally 28-30 days, ranges from 15-50 days.

SYMPTOMS: Many infections are asymptomatic, especially in young children. Mild to severe symptoms may include any or all of the following: sudden onset of fever, weakness, loss of appetite, nausea, dark urine, abdominal discomfort, followed by jaundice (yellowing of eyes and skin).

PERIOD OF COMMUNICABILITY:
Largely contagious two weeks before symptoms appear until one week after jaundice. If jaundice is not present, person should be considered infectious for the two weeks before symptoms started until two weeks after the start of symptoms (total of four weeks).

MODE OF TRANSMISSION:
The hepatitis A virus must enter through the mouth and be multiplied in the body and passed in the feces. The virus can then be carried on an infected person's hands and can be spread by direct contact, or by eating or drinking food or beverages that were handled by the infected individual. It can also be spread by drinking water contaminated with human sewage. The ritual sharing between users of both injectable and inhalable drugs provides an ideal method for the transmission of the virus.

SCHOOL ATTENDANCE:
Children and adults with confirmed hepatitis A infection should be excluded while symptomatic, and at least 1 week from onset of jaundice or 2 weeks after onset of illness.

CONTACTS/FOLLOW-UP:
(Per Local Health Department)
Immune Globulin (IG) is an effective control measure and is recommended for all household, sexual (heterosexual or homosexual), drug users, and other at-risk contacts (close friends) within 14 days of exposure to hepatitis A.

Child care centers: Special control measures apply. If hepatitis A is diagnosed in a household contact of a child in child care, that child should be tested for IgM antibody to hepatitis A virus; this measure may facilitate early detection of an outbreak.

Guidelines for Use of IG in Child Care Centers:

1. Where all children are more than two years old or toilet trained:
   When a case of hepatitis A is identified in an employee or child, IG (0.02 ml/kg) is recommended for all employees in contact with the index case and all children in the same room as the index case.

2. Where children are not yet toilet trained, IG (0.02 ml/kg) is recommended for all employees and enrolled children when:
   a. there is one case of HAV infection in a child care employee or child;

   or

   b. there are cases of HAV infection in one or more household contacts of two of the enrolled children.

   During the six weeks after the last case is identified, any new employees and newly enrolled children should receive IG.

   Child Care Attendance:
   Children and adults with acute HAV infection should be excluded from the center until 1 week after onset of the illness, until the IG prophylaxis program has been completed, or until directed by the responsible health department. Although precise data concerning the onset of protection after a dose of IG are not available, allowing recipients to return to the child care setting after the receipt of IG seems reasonable.

   Affected child care centers should not close down, since this would permit infected children to return to their homes and neighborhoods without their illness being recognized. Closing one center may result in spread to other centers. Cooperation between public health agencies and child care operators is essential to successful outbreak control.

   Family child care operators should follow the prevention and control measures described above.

   School and preschools:
   Schoolroom exposure is usually not an important means of transmitting hepatitis A. Routine administration of IG is not indicated for pupils and teachers in contact with a case. However, a thorough interview must be done to determine if any of the classmates may also be close personal contacts and be at significant risk and therefore need IG.

HEPATITIS B (HBV)
(Reportable Disease – Report to Local Health Agency)

IMMUNIZATION: Part of standard childhood immunization schedule.

INCUBATION PERIOD: Generally 60-90 days, ranges from 45-180 days and on occasion as long as 9 months.

SYMPTOMS: Can be asymptomatic for all ages. Infection in children is symptomatic in less than 10% of cases.

Typical signs and symptoms include any or all of the following: fatigue, loss of appetite, dark urine, light stools, nausea, vomiting, yellowing of eyes/skin (jaundice), and abdominal pain – all indistinguishable from other types of hepatitis.

PERIOD OF COMMUNICABILITY:
Several weeks before symptoms appear and generally for several months afterward. For persons who become chronic carriers, infectivity is for life. Persons testing "e" antigen (HBeAg) positive are highly infectious.

MODE OF TRANSMISSION:
Spread by direct contact with infected body fluids (blood, semen, vaginal secretions, saliva), and most commonly by needle sharing, needle stick injury, sexual contact, or mother-to-infant perinatal transmission. Because HBV is stable on environmental surfaces for equal to or greater than 7 days, transmission can occur via contact with contaminated objects/items.

SCHOOL ATTENDANCE:
Because hepatitis B is not spread by casual contact, exclusion from school is not generally warranted or justified. Children who are HBV carriers and who have no behavioral or medical risk factors, such as unusually aggressive behavior (biting), generalized dermatitis, or a bleeding problem, should be admitted without restrictions.

CONTACTS/FOLLOW-UP:
(Per Local Health Department)
If case is pregnant, careful follow-up must be done to assure appropriate treatment of the newborn. It is recommended that immunized household and intimate contacts be immunized. Hepatitis B immunoglobulin (HBIG) should be simultaneously administered dependent upon type of exposure.

IMPETIGO

IMMUNIZATION: None.

INCUBATION PERIOD: Variable, usually 1-10 days depending upon causative organism.

SYMPTOMS: Skin lesions with several stages including raised pimples filled with fluid or pus and crusted areas. The infecting organism may be streptococci or staphylococci or both.

PERIOD OF COMMUNICABILITY:
As long as purulent lesions continue to drain.

MODE OF TRANSMISSION:
Direct contact with drainage from lesions, possibly through contact with contaminated objects.

SCHOOL ATTENDANCE:
Exclude until skin lesions are healed, or until 24 hours after medical treatment has been initiated. Current recommendations may include systemic antibiotic medication in addition to topical antibiotics.

CONTACT/FOLLOW-UP:
Search for draining lesions.

INFLUENZA
(Reportable Disease – Report to Local Health Agency)
OR
UPPER RESPIRATORY INFLUENZA-LIKE ILLNESS

IMMUNIZATION: Influenza vaccine may be given to any child 6 months of age or older. It is recommended by CDC that all children aged 6 to 23 months be vaccinated.

Vaccine is strongly recommended for children 6 months of age or older who have underlying medical conditions, including disorders of the lung and cardiovascular systems, and who are members of households with high-risk adults or siblings. The vaccine is also recommended for children 6 months to 18 years on chronic aspirin therapy. NO vaccine is available for the other respiratory viruses that cause influenza-like illnesses.

INCUBATION PERIOD: Short, usually 1-3 days.

SYMPTOMS: Sudden onset of fever; sore throat; muscle aches; runny or stuffy nose; cough; and headache. Gastrointestinal symptoms, such as nausea, vomiting and diarrhea are much more common among children than adults.

PERIOD OF COMMUNICABILITY:
Probably 3-5 days, can be up to 7 days from clinical onset.

MODE OF TRANSMISSION:
The flu spreads in respiratory droplets caused by coughing and sneezing. It is usually spread person-to-person, though occasionally a person may become infected by touching something with virus on it, and then touching their mouth or nose.

SCHOOL ATTENDANCE:
Exclude for duration of fever and until child is able to resume routine daily activities.

CONTACT/FOLLOW-UP:
If Type A Influenza, recommend medical evaluation for chemoprophylaxis with amantadine or remantadine.

MEASLES (HARD MEASLES, RUBEOLA)
(Reportable Disease – Report to Local Health Agency)

IMUNIZATION: Refer to current immunization schedule.

INCUBATION PERIOD: Varying from 7-18 days from date of exposure to onset of fever; usually 14 days until rash appears.

SYMPTOMS: Patient first develops fever and cold symptoms, cough, runny nose, and/or conjunctivitis (prodromal period). Fever usually reaches 101°F or greater. On the third to seventh day of illness, a blotchy, dark red rash appears, usually beginning on the face and spreading to the rest of the body. Rash lasts 4-7 days.

PERIOD OF COMMUNICABILITY:

A highly communicable disease from slightly before beginning of prodromal period to 4 days following appearance of rash. Minimal after 2nd day of rash.

If vaccine related – not communicable.

MODE OF TRANSMISSION:

Airborne by droplet spread, also direct contact with nasal or throat secretions of infected persons. Less commonly, by articles freshly soiled with nose and throat secretions.

SCHOOL ATTENDANCE:

Exclusion for at least 4 days after appearance of rash.

CONTACTS/FOLLOW-UP:

When a case of measles occurs in a school or child care, all students' immunization records should be reviewed promptly. Susceptible contacts should be immunized immediately to control spread of the disease. Immunization within 3 days of exposure is strongly recommended for susceptible students or household contacts. Immune globulin may be used within 6 days of exposure for susceptible household or other contacts at high risk of complications or for whom measles vaccine is contraindicated.

MEASLES (RUBELLA, GERMAN MEASLES)
(Reportable Disease – Report to Local Health Agency)

IMMUNIZATION: Refer to current immunization schedule.

INCUBATION PERIOD: From 14-23 days, usually 16-18 days.

SYMPTOMS: Mild infectious disease with low-grade fever, rash of three days duration or less, headache, tiredness, runny nose, and red eyes. Aching and/or swelling of joints may occur, especially in adults. Children may have few or no symptoms. Rubella is easily confused with other rash illnesses.

PERIOD OF COMMUNICABILITY:
About 1 week before and at least 4 days after onset of rash. Moderately communicable. Infants with congenital rubella syndrome (CRS) can shed virus for months. Persons with suspected rubella should avoid contact with women of child-bearing age during the period of communicability.

MODE OF TRANSMISSION:
Contact with discharge from nose or throat of infected person. Also by droplet spread or direct contact with infected persons.

SCHOOL ATTENDANCE:
Exclusion for 7 days after appearance of rash.

CONTACTS/FOLLOW-UP:
When a case of rubella occurs in a school or day care, all immunization records should be reviewed promptly. Susceptible students should be immunized for protection in the future. Vaccine does not prevent illness. **Pregnant contacts should consult their physicians immediately**.

Infection of susceptible pregnant women, especially in the first trimester of pregnancy, is significant because the infection may produce defects in the unborn fetus. The purpose of immunizing children is to reduce the likelihood of susceptible pregnant women being exposed to the disease. Live rubella virus vaccine should not be given to pregnant women.

MENINGTIS (ASEPTIC)
(Viral, Nonbacterial Meningitis)
(Reportable Disease – Report to Local Health Agency)

IMMUNIZATION: None.

INCUBATION PERIOD: Variable due to wide assortment of infectious agents.

SYMPTOMS: Rarely serious, characterized by febrile illness with complaints of stiff neck, headache, sometimes nausea and vomiting. Active illness seldom exceeds 10 days.

PERIOD OF COMMUNICABILITY:
During period of acute illness.

MODE OF TRANSMISSION:
Fecal-oral and by direct contact including respiratory droplets from nose and throat of infected person.

SCHOOL ATTENDANCE:
Exclude from school while acutely ill.

CONTACTS/FOLLOW-UP:
No recommendations.

MENINGITIS
Haemophilus influenzae b (Hib)
(Reportable Disease – Report to Local Health Agency)

IMMUNIZATION: Part of standard immunization schedule. Required for child care attendance. Not required for school attendance.

INCUBATION PERIOD: Unknown but most likely short, 2-4 days.

SYMPTOMS: Fever, vomiting, headache, neck stiffness, and severe weakness. Bulging fontanelle (temples) in infants.

PERIOD OF COMMUNICABILITY:

As long as organisms are present in nasal pharynx (prolonged). Non-communicable within 24-48 hours after starting effective antibiotic therapy.

MODE OF TRANSMISSION:

Person-to-person by direct contact with respiratory secretions, or through inhalation of droplets of respiratory tract secretions.

Portal of entry is most commonly the nasopharynx.

SCHOOL ATTENDANCE:

Exclusion until 24-48 hours following start of effective antibiotic therapy.

CONTACTS/FOLLOW-UP:
(Per Local Health Department)

Observe contacts for signs of illness, especially fever. Preventive antibiotics are recommended for all household contacts in households where one or more infants (other than index case) are less than 12 months of age or that have a child 1-3 years of age, inadequately immunized.

Preventive antibiotics may be advisable for staff and children in child care center classrooms when 1 case has occurred. Preventive antibiotics are recommended when 2 cases occur among children in the same classroom and when exposed children are inadequately immunized.

MENINGOCOCCAL DISEASE
(Meningitis, Septicemia)
(Reportable Disease – Report to Local Health Agency)

IMMUNIZATION: Available and recommended only for those above age two when the disease is caused by one of these serotypes (A, C, W-135, or Y), **and** the disease results in a large institution or community outbreak.

INCUBATION PERIOD: Commonly 3-4 days, varies from 2-10 days.

SYMPTOMS: Sudden onset of fever, intense headache, nausea and often vomiting, neck stiffness, and frequently a petechial rash (pinpoint, nonraised, purplish spots).

Delirium and coma can also occur. Occasionally, cases exhibit sudden prostration, bruising and shock at the onset of illness.

PERIOD OF COMMUNICABILITY:
Until organisms no longer present in nose and mouth.
or
Until 24 hours following the start of effective antibiotic therapy.

MODE OF TRANSMISSION:
Direct contact with oral secretions, including respiratory droplets from nose and throat of infected or colonized person. Many persons carry the germ in their nose and throat (are colonized) without signs of illness, while others may develop serious symptoms.

SCHOOL ATTENDANCE:
Exclusion until 24 hours following effective antibiotic therapy and child is able to participate in routine daily activities.

CONTACTS/FOLLOW-UP:
Household, child care and nursery school contacts are at increased risk of contracting invasive meningococcal disease. They and persons who have had contact with the infected person's oral secretions (i.e., through kissing, sharing of food or beverages) during the 7 days before onset of disease are advised to receive preventive antibiotic therapy.

Casual contact as might occur in a regular classroom, office or factory setting rarely requires preventive medication.

MONONUCLEOSIS, INFECTIOUS

IMMUNIZATION: None.

INCUBATION PERIOD: From 4-6 weeks.

SYMPTOMS: Sore throat, swollen lymph glands, and fever. Disease generally mild in young children.

PERIOD OF COMMUNICABILITY:
Prolonged, may be up to a year or more.

MODE OF TRANSMISSION:
Person-to-person by contact with saliva (i.e., kissing, mouthing of toys) of infected person.

SCHOOL ATTENDANCE:
Infected children may attend school.

CONTACTS/FOLLOW-UP:
Not required.

MUMPS
(Reportable Disease – Report to Local Health Agency)

IMMUNIZATION: Refer to current immunization schedule.

INCUBATION PERIOD: From 12-25 days, most commonly 18 days.

SYMPTOMS: Fever, swelling and tenderness of one or more salivary glands. Mumps can cause complications such as meningitis, arthritis, nephritis, pancreatitis, and permanent deafness.

PERIOD OF COMMUNICABILITY:
Maximum infectiousness occurs about 48 hours before onset of illness to 9 days after swelling begins. Virus is in urine up to 14 days after onset of illness.

MODE OF TRANSMISSION:
By droplet spread and direct contact with saliva of infected person.

SCHOOL ATTENDANCE:
Exclusion for 9 days after swelling begins (less if swelling has subsided) if susceptible contacts are present.

CONTACTS/FOLLOW-UP:
Exclusion of susceptibles from the 12th through 25th day after exposure if susceptibles are present. Susceptible contacts should be immunized for protection against future exposure.

PERTUSSIS
(WHOOPING COUGH)
(Reportable Disease – Report to Local Health Agency)

IMMUNIZATION: Part of standard childhood immunization schedule.

INCUBATION PERIOD: From 6-20 days, usually 7-10 days.

SYMPTOMS: Early symptoms are a "cold," with sneezing and coughing. Within one or two weeks, the characteristic "whoop" begins. Coughing attack may end in vomiting. Coughing can last up to 1-2 months or longer. In infants, apnea is common.

PERIOD OF COMMUNICABILITY:
Whooping cough is especially infectious during its early stages, before the "whooping" begins. Decreases thereafter, becoming negligible in about 3 weeks. When treated with erythromycin or other effective antibiotic, infectiousness usually is 5 days or less after onset of therapy.

MODE OF TRANSMISSION:
Primarily by direct contact with discharge from respiratory tract of infected persons by airborne route, probably by droplets as well.

SCHOOL ATTENDANCE:
Exclusion for 3 weeks after onset of typical paroxysms (whoop), if patient was not treated with antibiotics. If treated with erythromycin, exclude for 5 days after onset of therapy.

CONTACTS/FOLLOW-UP:
Exclusion of susceptible children from school and public gatherings for 14 days after last exposure or until case or contact has received 5 days of appropriate antibiotic therapy.

- Close contacts under 7 years of age who have not received 4 DTP doses, or have not received a DTP dose within 3 years, should be given a dose as soon after exposure as possible. DTaP may be given to children 15 months of age, but less than 7 years, who have received at least 3 doses of whole-cell vaccine. A 14-day course of erythromycin for household and other close contacts, regardless of immunization status, is recommended.
- A search for early, missed and atypical cases is indicated where a non-immune infant or young child is or might be at risk.

PINWORMS
(Enterobiasis)

IMMUNIZATION: None.

INCUBATION PERIOD: 2 weeks-2 months.

SYMPTOMS: Intense rectal itching (primary symptom); may also include general irritability, restlessness, poor sleep, bed-wetting, perianal dermatitis, and excoriation secondary to itching.

PERIOD OF COMMUNICABILITY:
As long as female worms are discharging eggs on perianal skin. Eggs remain infective in an indoor environment for about 2 weeks.

MODE OF TRANSMISSION:
Ingestion of eggs caused by scratching of rectal area and transferring eggs to mouth by putting fingers in the mouth. Those in close contact to infected individual may be exposed to contaminated objects. Transmission may also occur through contact with soiled clothing or bed linens.

SCHOOL ATTENDANCE:
Following appropriate treatment, child does not need to be excluded.

CONTACTS/FOLLOW-UP:
Other children observed by parents or child care personnel who have rectal itching should be checked for pinworms and treated if infection is present. Personnel should be made aware of the means of transmission and the potential for infection. Good hygiene among the children and personnel with washing of hands, bedclothes and toys should be emphasized. Parents should be advised that pinworm infections are common and often unavoidable in any group setting. They should be educated regarding the mode of transmission, symptoms, means of diagnosis and treatment options. Parents should be reassured that the diagnosis of pinworms in their child or in another child is not necessarily an indication of poor hygienic conditions. Susceptibility is universal.

RESPIRATORY SYNCYTIAL VIRUS (RSV)
ACUTE FEBRILE RESPIRATORY DISEASE

IMMUNIZATION: None.

INCUBATION PERIOD: From 1-10 days, generally 4-6 days.

SYMPTOMS: Fever, and one or more symptoms such as chills or chilliness, headache, general aching, anorexia, some gastrointestinal upset in infants. Localized symptoms such as runny nose, sore throat, laryngitis, bronchitis, and pneumonia may occur.

PERIOD OF COMMUNICABILITY:
Hours prior to and for the duration of active illness. Young children may be infectious for 1-3 weeks after symptoms subside.

MODE OF TRANSMISSION:
Usually person-to-person through coughs, sneezes, and kissing, indirectly by hands or other articles contaminated with respiratory discharge from infected person.

SCHOOL ATTENDANCE:
Exclude during period of active symptoms, especially elevated temperature. Do not exclude children unless they are unable to participate comfortably in activities.

CONTACTS/FOLLOW-UP:
Emphasize the importance of good handwashing practices by children and staff.

RINGWORM OF THE SCALP
(Tinea capitis)

IMMUNIZATION: None.

INCUBATION PERIOD: 10-14 days. The condition may spread for 3-4 months, and then spontaneous regression may occur.

SYMPTOMS: Round, scaly, localized patches on the scalp with short, broken-off hairs. Redness and scaliness may be present and range from mild to severe. Examination under suitable filtered ultraviolet light shows characteristic fluorescence.

PERIOD OF COMMUNICABILITY:
As long as active lesions are present or viable fungus persists on contaminated materials (may persist for a long time).

MODE OF TRANSMISSION:
Direct skin-to-skin contact, or indirect contact from upholstered seats, toilet articles such as brushes and combs, or clothing and hats **contaminated with hair** from infected persons or animals. Dogs, cats, and cattle may harbor the organism.

SCHOOL ATTENDANCE:
Exclude until effective treatment is started. Usually requires prescription oral medication and antifungal shampoos or other topical treatment.

CONTACTS/FOLLOW-UP:
Watch for development of infection in other children and caregivers who provide direct, physical care to young children. Have family check pets and farm animals for infection and treat if infected.

RINGWORM OF THE SKIN
(Tinea corporis)

IMMUNIZATION: None.

INCUBATION PERIOD: 4-10 days. The condition may persist and recur for many years.

SYMPTOMS: Small, reddish, itchy, scaly patches that gradually expand outward, clearing in the middle, forming a flat, spreading ring-shaped lesion with scaling margins and clear centers. New lesions may form in the middle of an expanding ring. Usually appear as a single lesion.

PERIOD OF COMMUNICABILITY:
As long as active lesions are present.

MODE OF TRANSMISSION:
Direct skin-to-skin contact, or indirect contact from contaminated articles such as brushes, combs, clothing, towels, bedding and pillows. Dogs, cats, and cattle may harbor the organism.

SCHOOL ATTENDANCE:
Exclude until effective treatment is started. Usually treated with antifungal topical creams or ointments. In severe cases, may require oral prescription medication.

CONTACTS/FOLLOW-UP:
Watch for development of infection in other children and caregivers who provide direct, physical care to young children.

Parents should be notified that there has been a case or cases of ringworm, and advised to watch for the development of symptoms. If found, they should seek medical attention for diagnosis and treatment. Infected children should be excluded from swimming or other activities likely to lead to the exposure of others.

SALMONELLOSIS
(Reportable Disease – Report to Local Health Agency)

IMMUNIZATION: None.

INCUBATION PERIOD: Usually 12-36 hours; ranges from 6-72 hours.

SYMPTOMS: Headache, abdominal discomfort, fever, diarrhea, nausea, and sometimes vomiting.

PERIOD OF COMMUNICABILITY:
Extremely variable throughout course of infection which may be days to several weeks. In infants, carrier-state may persist for months.

MODE OF TRANSMISSION:
Ingestion of organisms in food derived from infected food-animals or contaminated by feces of an infected person or animal. Includes raw and undercooked eggs/egg products, raw milk and milk products, contaminated water, meat and meat products, or poultry and poultry products. Pet turtles, iguanas and chicks are also potential sources of salmonella.

Fecal-oral transmission from person-to-person, especially when diarrhea is present.

SCHOOL ATTENDANCE:
Exclusion of all attendees and staff who have diarrhea, until diarrhea has ceased.

Children and staff without diarrhea who are excreting salmonella do not need to be excluded unless an outbreak occurs and it is not controlled through improved hygiene.

CONTACTS/FOLLOW-UP:
If case is a child care provider or attendee, stool specimens from other attendees and staff should be obtained for culturing.

If multiple, symptomatic infected persons are identified, it may be necessary to exclude them or cohort them in the program.

Infected persons should be excluded from food handling until diarrhea ceases. If they have salmonella typi, they must also have two successive negative stool cultures.

SCABIES

IMMUNIZATION: None.

INCUBATION PERIOD: 2-6 weeks before onset of itching in primary infections; may recur in 1-4 days.

SYMPTOMS: Intense itching. An infectious eruption found most frequently on front of the wrists, webs of the fingers, elbows and folds of the skin. Rash is non-specific and easily misdiagnosed.

PERIOD OF COMMUNICABILITY:
From day 1 until day following adequate treatment.

MODE OF TRANSMISSION:
Skin-to-skin contact, occasionally via transfer from undergarments or bedclothes, bedding of infected person.

SCHOOL ATTENDANCE:
Exclude until the day after adequate treatment is completed.

CONTACTS/FOLLOW-UP:
Single infections in a family are **un**common. Treat bedmates, family contacts, other close contacts having repeated skin-to-skin contact. Launder bedclothes, sheets, and clothes worn in past 3 days by infested person. Launder bedclothes and sheets following treatment of contacts.

SHIGELLOSIS
(Reportable Disease – Report to Local Health Agency)

IMMUNIZATION: None.

INCUBATION PERIOD: Usually 1-3 days, varies from 1-7 days.

SYMPTOMS: Can be asymptomatic.
Mild infection – watery or loose stools for several days.
Small-bowel infection – sudden onset of fever, headache, profuse watery diarrhea, and sometimes toxemia. Convulsions can occur – important complication in children.
Large-bowel infection – abdominal cramps, tenderness, mucoid stools with or without blood, or ineffective and painful straining when trying to pass stool.
Rarely bacteremia, Reiter's syndrome, hemolytic-uremic syndrome, colon perforation, and toxic encephalopathy.

PERIOD OF COMMUNICABILITY:
During acute infection and until organisms no longer present in feces – usually 4 weeks following illness. Appropriate antibiotic therapy reduces infectivity to a few days.

MODE OF TRANSMISSION:
Mainly by direct or indirect fecal-oral transmission from an infected or colonized person who fails to wash hands and under fingernails after having a bowel movement. Infected persons can then contaminate food, beverages and inanimate objects to spread disease to others. Other modes of transmission include homosexual activity, fecal contamination of milk and water, and by flies which can transfer organisms from latrines to a non-refrigerated food item.

SCHOOL ATTENDANCE:
Exclude all staff and attendees with diarrhea until 24 hours after diarrhea ceases. If several persons are infected, a cohort system should be considered until two consecutive stool cultures, 24 hours apart, and not sooner than 48 hours following discontinuation of antibiotic therapy, are negative. Children and staff without diarrhea who are excreting shigella do not need to be excluded unless an outbreak occurs and it is not controlled through improved hygiene.

CONTACTS/FOLLOW-UP:
Contacts of shigellosis-infected persons who appear to be ill should be excluded from food handling and the care of children until diarrhea ceases and 2 successive negative stool cultures are obtained, 24 hours apart.

SHINGLES
(Herpes Zoster)

IMMUNIZATION: None.

INCUBATION PERIOD: Highly variable – months to years – as a latent form (reactivation) of chicken pox.

SYMPTOMS: Grouped vesicular lesions that appear along one to three sensory dermatomes (nerve paths) with mild to severe pain. In immuno-compromised persons, lesions can become generalized and result in vesicular complications.

PERIOD OF COMMUNICABILITY:
As long as lesions are wet, not scabbed, generally one week after onset of lesions.

MODE OF TRANSMISSION:
Direct contact with secretions of lesions of persons without history of chicken pox and/or are immunodeficient.

SCHOOL ATTENDANCE:
Exclusion only if lesions cannot be covered and only until lesions are crusted.

CONTACTS/FOLLOW-UP:
No exclusion necessary if environment is controlled and no one is susceptible to chicken pox.

No recommendations for generally healthy susceptible children/adults.

STREPTOCOCCAL SORE THROAT AND SCARLET FEVER

IMMUNIZATION: None.

INCUBATION PERIOD: Short, usually ranging 1-3 days.

SYMPTOMS: Streptococcal sore throat is scarlet fever infection without a rash. All symptoms are the same except the rash and peeling do not occur. Sudden onset, with sore throat, fever, tonsillitis or pharyngitis, and tender lymph glands in the neck. Rash, if it appears, usually does so within 24 hours upon neck, chest and in the folds of the axilla, elbows and groin. It appears as a fine, pinpoint rash that can be felt (like sandpaper). The face is flushed, with paleness around the mouth. The red papillae of the tongue may show through white coating ("strawberry tongue").

PERIOD OF COMMUNICABILITY:
In untreated, uncomplicated cases, 10-21 days; in untreated persons with purulent discharges, weeks or months; with adequate antibiotic therapy, generally no more than 24 hours from start of therapy.

MODE OF TRANSMISSION:
Mainly contact with respiratory droplets of infected person or carrier. Rarely through casual contact.

SCHOOL ATTENDANCE:
Children should not return to school until at least 24 hours after beginning antibiotic treatment, and until they are afebrile. Stress importance of need to complete prescribed treatment.

CONTACTS/FOLLOW-UP:
Symptomatic contacts should be cultured to assure adequate antibiotic treatment if culture is positive for strep.

TUBERCULOSIS DISEASE
(Reportable Disease – Report to Local Health Agency)

IMMUNIZATION: Not generally recommended.

INCUBATION PERIOD: From infection to development of a positive reaction to a TB skin-test is about 2-10 weeks. Highest risk for disease is in the first 2 years following infection. In most instances, untreated infection becomes dormant and never progresses to disease in the healthy host.

SYMPTOMS: Most children are asymptomatic. Symptoms of obvious lung disease might include fever, cough, poor appetite, and weight loss. Chest x-rays are needed to confirm active disease. The disease may spread to other organs.

PERIOD OF COMMUNICABILITY:
Children with primary tuberculosis are generally not infectious (they don't cough or produce sputum). For adults – as long as tubercle bacilli are being discharged in the sputum. Laryngeal TB is highly contagious.

MODE OF TRANSMISSION:
In adults, via airborne droplet nuclei produced by infected person during expiratory efforts, such as coughing, singing, sneezing.

SCHOOL ATTENDANCE:
Children with TB infection or disease can attend school or child care if they are receiving chemotherapy. They can resume all activities (extracurricular) when clinical symptoms have disappeared and acceptable plan for completing the course of therapy has been developed.

CONTACTS/FOLLOW-UP:
Children younger than 4 years of age with positive tuberculin skin tests or with clinical tuberculosis disease should be the starting point for epidemiologic investigation, which is usually accomplished by the local health department. Close contacts of the tuberculin-positive child should be skin tested, and persons with a positive reaction should be investigated for the presence of tuberculosis. Since children with primary tuberculosis are usually not contagious, their contacts are not likely to be infected unless they also have been in contact with the adult source. After the presumptive adult source for the child's disease is identified, other contacts of that person should be skin tested to identify those needing anti-tuberculosis treatment. Chest x-rays of tuberculin-positive contacts should be obtained, and treatment for disease or preventive therapy should be started.

Persons exposed to a potentially infectious case of tuberculosis, especially persons with impaired immunity, and all household contacts younger than 4 years of age who are exposed to any adult with active tuberculosis should undergo tuberculin skin testing, have a chest x-ray, and be given INH preventive therapy even if the skin test is negative, once clinical disease is excluded.

STANDARD PRECAUTIONS
(Including Blood Spill Clean-up)

"Standard Precautions" is the term now used to acknowledge that any person's body fluids, including blood, may be infectious, and includes the need to use personal protective devices such as gloves, masks or clothing to prevent exposure to body substances. These precautions include:

- Wearing disposable gloves for contact or anticipated contact with any person's blood or body fluids;
- Wearing protective gown/apron if soiling of clothes is likely;
- Wearing goggles and/or mask as appropriate when splashing of blood/bloody fluids is likely; and
- Always WASHING HANDS after removing gloves or when hands have come in contact with blood or any body fluid/excretion.

Blood Spill Clean-up

Follow instructions located inside blood spill clean-up kits, if provided.
If no instructions are available, proceed using the following steps:

(a) Don appropriate protective apparel – at minimum, a pair of disposable gloves, possibly disposable gown/apron if clothes are likely to be soiled.
(b) Use an absorbent or ample supply of paper towels to soak up blood spill and discard in plastic bag. If blood cannot be compressed from the towels or does not drip from the towels, waste will not meet the definition of regulated waste and may be discarded in regular trash. If the opposite is true, be sure soiled waste is placed in a biohazard bag.
(c) Cleanse spill area with soap and water or detergent plus disinfectant solution.
(d) Wipe with hospital-grade disinfectant labeled effective in killing human immunodeficiency (HIV) and hepatitis B viruses or a bleach solution freshly diluted (1 part bleach to 10 or 100 parts water). A 1:64 dilution is 1/4 cup bleach in 1 gallon (16 cups) water.
(e) Allow above to air dry.
(f) Discard clean-up towels/wipes into plastic bag.
(g) Remove disposable gloves and discard in plastic bag.
(h) Put on second pair of disposable clothes, tie off plastic bag and place it inside another plastic bag (biohazard or unlabelled, depending on whether waste meets the definition of regulated waste).
(i) Carry waste to appropriate receptacle.
(j) Remove gloves and discard in regular waste.
(k) WASH HANDS with soap and water.

* Regulated waste as defined in OSHA Occupational Exposure to Blood-borne Pathogens Rule, December 6, 1991:

Regulated waste means liquid or semi-liquid blood or other potentially infectious materials; contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed; items that are caked with dried blood or other potentially infectious materials and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or other potentially infectious materials.

APPENDICES

Law Pertaining to Required Immunizations in Schools

Law Pertaining to Required Immunizations in Child Care Facilities

Law Pertaining to Consent for Immunizations

Law Pertaining to Children with Contagious Diseases - Exclusion

Rule Governing Exclusion from School and Readmission

Rule regarding Measures for Control of Communicable Diseases

Rule regarding Immunization Requirements for School Children

Rule regarding Day Care Immunization

Missouri School Immunization Requirements

Immunization Requirements for Children Enrolled in Child Care and Preschool Facilities

Recommended Childhood and Adolescent Immunizations Schedule

MISSOURI REVISED STATUTES

Chapter 167
Pupils and Special Services
Section *167.181*

August 28, 2004

Immunization of pupils against certain diseases compulsory --exceptions--records--to be at public expense, when--fluoride treatments administered, when--rulemaking authority, procedure.

167.181. 1. The department of health and senior services, after consultation with the department of elementary and secondary education, shall promulgate rules and regulations governing the immunization against poliomyelitis, rubella, rubeola, mumps, tetanus, pertussis, diphtheria, and hepatitis B, to be required of children attending public, private, parochial or parish schools. Such rules and regulations may modify the immunizations that are required of children in this subsection. The immunizations required and the manner and frequency of their administration shall conform to recognized standards of medical practice. The department of health and senior services shall supervise and secure the enforcement of the required immunization program.

2. It is unlawful for any student to attend school unless he has been immunized as required under the rules and regulations of the department of health and senior services, and can provide satisfactory evidence of such immunization; except that if he produces satisfactory evidence of having begun the process of immunization, he may continue to attend school as long as the immunization process is being accomplished in the prescribed manner. It is unlawful for any parent or guardian to refuse or neglect to have his child immunized as required by this section, unless the child is properly exempted.

3. This section shall not apply to any child if one parent or guardian objects in writing to his school administrator against the immunization of the child, because of religious beliefs or medical contraindications. In cases where any such objection is for reasons of medical contraindications, a statement from a duly licensed physician must also be provided to the school administrator.

4. Each school superintendent, whether of a public, private, parochial or parish school, shall cause to be prepared a record showing the immunization status of every child enrolled in or attending a school under his jurisdiction. The name of any parent or guardian who neglects or refuses to permit a nonexempted child to be immunized against diseases as required by the rules and regulations promulgated pursuant to the provisions of this section shall be reported by the school superintendent to the department of health and senior services.

5. The immunization required may be done by any duly licensed physician or by someone under his direction. If the parent or guardian is unable to pay, the child shall be immunized at public expense by a physician or nurse at or from the county, district, city public health center or a school nurse or by a nurse or physician in the private office or clinic of the child's personal physician with the costs of immunization paid through the state Medicaid program, private insurance or in a manner to be determined by the department of health and senior services subject to state and federal appropriations, and after consultation with the school

superintendent and the advisory committee established in section 192.630, RSMo. When a child receives his or her immunization, the treating physician may also administer the appropriate fluoride treatment to the child's teeth.

6. Funds for the administration of this section and for the purchase of vaccines for children of families unable to afford them shall be appropriated to the department of health and senior services from general revenue or from federal funds if available.

7. No rule or portion of a rule promulgated under the authority of this section shall become effective unless it has been promulgated pursuant to the provisions of chapter 536, RSMo. Any rule or portion of a rule, as that term is defined in section 536.010, RSMo, that is created under the authority delegated in this section shall become effective only if it complies with and is subject to all of the provisions of chapter 536, RSMo, and, if applicable, section 536.028, RSMo. This section and chapter 536, RSMo, are nonseverable and if any of the powers vested with the general assembly pursuant to chapter 536, RSMo, to review, to delay the effective date or to disapprove and annul a rule are subsequently held unconstitutional, then the grant of rulemaking authority and any rule proposed or adopted after August 28, 2001, shall be invalid and void.

(L. 1963 p. 200 § 8-18, A.L. 1972 H.B. 1255, A.L. 1973 H.B. 342, A.L. 1992 S.B. 611, A.L. 1993 H.B. 522 merged with S.B. 52, A.L. 1995 S.B. 3, A.L. 1996 H.B. 904, et al., A.L. 2001 H.B. 567 merged with S.B. 393)

(Source: L. 1961 p. 349 §§ 1 to 6)

Effective 7-10-01

CROSS REFERENCES: Consent to immunization may be delegated to other persons, when, RSMo 431.058 Day care centers, immunization requirements, exceptions, exemption procedure, reports, RSMo 210.003 Mandatory insurance coverage of immunizations, exceptions, RSMo 376.1215

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Missouri General Assembly

MISSOURI REVISED STATUTES

Chapter 210
Child Protection and Reformation
Section *210.003*

August 28, 2004

Immunizations of children required, when, exceptions--duties of administrator, report.

210.003. 1. No child shall be permitted to enroll in or attend any public, private or parochial day care center, preschool or nursery school caring for ten or more children unless such child has been adequately immunized against vaccine-preventable childhood illnesses specified by the department of health and senior services in accordance with recommendations of the Immunization Practices Advisory Committee (ACIP). The parent or guardian of such child shall provide satisfactory evidence of the required immunizations.

2. A child who has not completed all immunizations appropriate for his age may enroll, if:

(1) Satisfactory evidence is produced that such child has begun the process of immunization. The child may continue to attend as long as the immunization process is being accomplished according to the ACIP/Missouri department of health and senior services recommended schedule; or

(2) The parent or guardian has signed and placed on file with the day care administrator a statement of exemption which may be either of the following:

(a) A medical exemption, by which a child shall be exempted from the requirements of this section upon certification by a licensed physician that such immunization would seriously endanger the child's health or life; or

(b) A parent or guardian exemption, by which a child shall be exempted from the requirements of this section if one parent or guardian files a written objection to immunization with the day care administrator. Exemptions shall be accepted by the day care administrator when the necessary information as determined by the department of health and senior services is filed with the day care administrator by the parent or guardian. Exemption forms shall be provided by the department of health and senior services.

3. In the event of an outbreak or suspected outbreak of a vaccine-preventable disease within a particular facility, the administrator of the facility shall follow the control measures instituted by the local health authority or the department of health and senior services or both the local health authority and the department of health and senior services, as established in Rule 19 CSR 20-20.040, "Measures for the Control of Communicable Diseases".

4. The administrator of each public, private or parochial day care center, preschool or nursery school shall cause to be prepared a record of immunization of every child enrolled in or attending a facility under his jurisdiction. An annual summary report shall be made by January fifteenth showing the immunization status of each child enrolled, using forms provided for this purpose by the department of health and senior services. The immunization

records shall be available for review by department of health and senior services personnel upon request.

5. For purposes of this section, satisfactory evidence of immunization means a statement, certificate or record from a physician or other recognized health facility or personnel, stating that the required immunizations have been given to the child and verifying the type of vaccine and the month, day and year of administration.

6. Nothing in this section shall preclude any political subdivision from adopting more stringent rules regarding the immunization of preschool children.

(L. 1988 S.B. 797 § 1)

Effective 9-1-88

CROSS REFERENCES: Consent to immunization may be delegated to other persons, when, RSMo 431.058 Mandatory insurance coverage of immunizations, exceptions, RSMo 376.1215

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MISSOURI REVISED STATUTES

Chapter 431
General Provisions as to Contracts
Section *431.058*

August 28, 2004

Consent to immunization of child, who may give, when--definitions --reliance by health care provider--limitations on liability, when.

431.058. 1. As used in this section, the following terms mean:

(1) "Child", a child less than eighteen years of age;

(2) "Health care provider", a person licensed to practice medicine and surgery by the state board of registration for the healing arts, a person who holds a temporary permit to practice medicine and surgery is sued by the state board of registration for the healing arts, a person engaged in a postgraduate training program in medicine and surgery approved by the state board of registration for the healing arts, a medical care facility licensed by the department of health and senior services, a health maintenance organization issued a certificate of authority by the director of insurance, a licensed professional nurse, a licensed practical nurse and a registered physician's assistant. The term "health care provider" shall also include the following entities: a professional corporation organized pursuant to the professional corporation law of Missouri by persons who are health care providers, a Missouri limited liability company organized for the purpose of rendering professional services by its members who are health care providers, a partnership of persons who are health care providers or a Missouri not-for-profit corporation organized for the purpose of rendering professional services by persons who are health care providers;

(3) "Parent":

(a) A child's parent by birth or adoption;

(b) A child's legal guardian; or

(c) Any person who under court order is authorized to give consent for a child.

2. A parent may delegate in writing the parent's authority to consent to the immunization of a child to another adult.

3. Subject to the provisions of subsections 3 to 6 of this section, any adult may consent to the immunization of a child if a parent is not reasonably available and the authority to consent is not denied under subsection 4 of this section.

4. A person may not consent to the immunization of a child under subsection 3 of this section if:

(1) The person has actual knowledge that the parent has expressly refused to give consent to the immunization; or

(2) The parent has told the person that the person may not consent to the immunization of the child or, in the case of a written authorization, has withdrawn the authorization in writing.

5. For purposes of this section, a parent is not reasonably available if the location of the parent or legal guardian is unknown and could not be ascertained, despite diligent searching.

6. A person authorized to consent to the immunization of a child under the provisions of subsections 3 to 6 of this section shall confirm in writing that the parent is not reasonably available, and the written confirmation shall be included in the child's medical record.

7. A grandparent, brother or sister, aunt or uncle or stepparent of a child who is the primary caregiver of a child and who may consent to the immunization of the child pursuant to the provisions of subsection 2 of this section may delegate in writing the authority to consent to immunization of the child to another adult.

8. A health care provider may rely on a document from another state, territory or country that contains substantially the same information as is required in any immunization consent rules and regulations of the department of health and senior services if the document is presented for consent by a person as authorized pursuant to the provisions of this section.

9. A person who consents to immunization of a child under this section shall provide the health care provider with sufficient and accurate health information about the child for whom the consent is given and, if necessary, sufficient and accurate health information about the child's family to enable the person providing the consent and the health care provider to determine adequately the risks and benefits inherent in the proposed immunization and determine whether the immunization is advisable.

10. The responsibility of a health care provider to provide information to a person consenting to the immunization of a child as provided by this section is the same as the health care provider's responsibility to a parent.

11. Except for acts of willful misconduct or gross negligence, a person who consents to the immunization of a child as provided by this section shall not be liable for damages arising from any such immunization administered by a person authorized by law to administer immunizations in this state.

(L. 1996 H.B. 904, et al. § 2)

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Missouri General Assembly

MISSOURI REVISED STATUTES

Chapter 167
Pupils and Special Services
Section *167.191*

August 28, 2004

Children with contagious diseases not to attend school--penalty.

167.191. It is unlawful for any child to attend any of the public schools of this state while afflicted with any contagious or infectious disease, or while liable to transmit such disease after having been exposed to it. For the purpose of determining the diseased condition, or the liability of transmitting the disease, the teacher or board of directors may require any child to be examined by a physician, and exclude the child from school so long as there is any liability of such disease being transmitted by the pupil. If the parent or guardian refuses to have an examination made by a physician at the request of the teacher or board of directors, the teacher or board of directors may exclude the child from school. Any parent or guardian who persists in sending a child to school, after having been examined as provided by this section, and found to be afflicted with any contagious or infectious disease, or liable to transmit the disease, or refuses to have the child examined as herein provided, is guilty of a misdemeanor, and, upon conviction, shall be punished by a fine of not less than five nor more than one hundred dollars.

(L. 1963 p. 200 § 8-19)

(Source: RSMo 1959 § 163.360)

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Missouri General Assembly

19 CSR 20-20.030 Exclusion From School and Readmission

PURPOSE: This rule requires the exclusion of persons from school who have a reportable disease or who are liable to transmit a reportable disease. The methods of readmission to school are also established.

*Editor Note: The secretary of state has determined that the publication of this rule in its entirety would be unduly cumbersome or expensive. The entire text of the material ref*erenced has been filed with the secretary of state. This material may be found at the Office of the Secretary of State or at the headquarters of the agency and is available to any interested person at a cost established by state law

(1) Persons suffering from a reportable disease or who are liable to transmit a reportable disease listed in 19 CSR 20-20.020(l)—(3) shall be barred from attending school.

(2) Any person excluded from school under section (1) of this rule may be readmitted to school by one (1) of the following methods:

(A) Certification in writing by an attending physician attesting to the person's noninfectiousness;

(B) After a period of time equal to the longest period of communicability of the disease as established in the 1990 fifteenth edition of the *Control of Communicable Diseases in Man* published by the American Public Health Association; the 1991 twenty-second edition of the *Report of the Committee on Infectious Diseases* published by the American Academy of Pediatrics; or the following recommendations of the Immunization Practices Advisory Committee published by the Centers for Disease Control in the *Morbidity and Mortality Weekly Report:General Recommendations on Immunization*, April 7, 1989; *Update on Adult Immunization*, November 15, 1991; *New Recommended Schedule for Active Immunization of Normal Infants and Children*, September 19, 1986: *Pertussis Vaccination:Acellular Pertussis Vaccine for Reinforcing and Booster Use—Supplementary ACIP Statement*, February 7, 1992; *Diphtheria, Tetanus and Pertussis: Recommendations for Vaccine Use and Other Preventive Measures*, August 8, 1991; *Haemophilus b Conjugate Vaccines for Prevention of Haemophilus influenza Type b Disease Among Infants and Children Two Months of Age and Older*, January 11, 1991; *Immunization of Children Infected With Human Immunodeficiency VIirus—Supplementary ACIP Statement*, April 1, 1988; *Immunization of Children Infected with Human T-Lymphotropic Virus Type III/Lymphadenopathy – Associated Virus*, September 26, 1986; *Prevention and Control of Influenza*, May *15*, 1992; *Measles Prevention: Recommendations of the Immunization Practices Advisory Committee (ACIP)*, December 29, 1989; *Meningococcal Vaccines*, May 10, *1985; Mumps Prevention*, June 9, 1989; *Pneumococcal Polysaccharide Vaccine*, February 10, 1989; *Poliomyelitis Prevention: Enhanced-Potency Inactivated* Polioimyelitis Vaccine Supplementary—Statement, December 11, 1987; *Poliomyelitis Prevention*, January 29, 1982; *Rabies Prevention*, March 22, 1991 ; *Rubella*

Prevention, November 23, 1990; *Varicella-Zoster Immune Globulin for the Prevention of Chickenpox,* February 24, 1984; *Hepatitis B Virus: A Comprehensive Strategy for Eliminating Transmission in the United States Through Universal Childhood Vaccination,* November 22, 1991; *Plague Vaccine,* June 11, 1982; *Typhoid Immunization,* July 13, 1990; *Typhus Vaccine,* June 2, 1978; and *Yellow Fever Vaccine,* May 4, 1990; or

(C) When the local health authority declares that the designated health emergency is ended, after consultation and concurrence of the director of the Department of Health or his/her designated representative.

*AUTHORITY sections 192.005.2. and 192.020, RSMo 1994. * This rule was previously filed as 13 CSR 50-101.041. Original rule filed Dec. 11, 1981, effective May 13 1982. Amended: Filed Sept. 16, 1982, effective Jan. 14, 1983. Amended: Filed Aug.* 4 *1986, effective Oct. 11, 1986. Amended: Filed April 4, 1988, effective June 27, 1988. Emergency amendment filed Jan. 13, 1989, effective Jan. 23, 1989, expired May 22, 1989. Amended: Filed Jan. 13, 1989, effective May 11, 1989. Amended: Filed Oct. 3 1989, effective Feb. 25, 1990. Amended: Filed Nov. 2, 1990, effective March 14, 199/. Amended: Filed July 12, 1991, effective Oct. 31, 1991. Amended: Filed Aug. 14, 1992, effective Feb. 26, 1993.*

**Original authority: 192.005.2., RSMo 1985, amended 1993 and 192.020, RSMo 1939, amended 1945, 1951.*

19 CSR 20-20.040 Measures for the Control of Communicable, Environmental and Occupational Diseases

PURPOSE: This rule defines investigative and control measures for reportable diseases and establishes who is responsible for them.

Editor's Note: The following material is incorporated into this rule by reference:
1) ***Mortality and Mortality Weekly Report*** *(Atlanta: Centers for Disease Control).*

In accordance with section 536.031(4), RSMo, the full text of material incorporated by reference will be made available to any interested person at the Office of the Secretary of State and the headquarters of the adopting state agency

(1) In controlling the diseases and findings listed in 19 CSR 20-20.020, the director shall comply with the methods of control section of one (1) of the two (2) books listed in 19 CSR 20-20.030(2)(B) or the recommendations of the Immunization Practices Advisory Committee (ACIP) published by the Centers for Disease Control in the *Morbidity and Mortality Weekly Report* listed in 19 CSR 20-20.030(2)(B). The director shall use the legal means necessary to control, investigate, or both, any disease or condition listed in 19 CSR 20-20.020 which is a threat to the public health.

(2) It shall be the duty of the local health authority, the director of the Department of Health or the director's designated representative on receiving a report of a communicable, environmental or occupational disease to

(A) Inspect any premises that they have reasonable grounds to believe are in a condition conducive to the spread of any communicable disease;

(B) Confer with the physician, laboratory or person making the report;

(C) Collect for laboratory analysis any samples or specimens that may be necessary to confirm the diagnosis or presence of the disease or biological, chemical or physical agents and to determine the source of the infection, epidemic or exposure. Health program representatives and other personnel employed by the Department of Health, after training and certification to perform venipuncture, and after specific authorization from a physician, are authorized to perform venipuncture utilizing procedures within the scope of the training they have been given. The content and scope of this training shall be established by the Department of Health. Training shall be provided by a physician or his/her designee and the certificate shall be signed by the physician. Nothing in this rule shall limit the authority of local public health departments to establish their own training policies, with or without certification, or to limit their voluntary participation in the certification program developed by the Department of Health, nor shall it apply to venipuncture for other purposes;

(D) Make a complete epidemiological, environmental or occupational industrial hygiene investigation and record of the findings on a communicable disease or exposure report form;

(E) Establish and maintain quarantine, isolation or other measures as required;

(F) Provide the opportunity to be immunized to all contacts of persons suffering from those diseases for which there is a reliable and approved means of immunization;

(G) Establish appropriate control measures which may include isolation, quarantine, disinfection, immunization, closure of establishment and other measures considered appropriate by medical experts for the protection of public health;

(H) Establish, as the local health authority, whenever a case of unrecognized illness is reported or otherwise brought to the attention of the local health authority or the Department of Health and investigation presents symptoms of a communicable disease, but sufficient time has not elapsed to render a positive diagnosis, after consultation with the director or his/her designated representative, the control measures applicable in actual cases of the suspected communicable disease, until a positive diagnosis can be established, If a disease proves to be noncommunicable, the temporary control measures shall be terminated at once;

(I) Assume direct responsibility as director of health to make necessary investigation and immediately institute appropriate control measures necessary for the protection of the public health in occurrence of outbreaks or unusual clusters of illness involving more than one (1) county or a general regional area; and

(J) Investigate, as the local health authority, the disease within the local jurisdiction with assistance from the director of the Department of Health or his/her designated representative when any outbreak or unusual occurrence of a reportable disease is identified through reports required by 19 CSR 20-20.020. If, in the judgment of the director, the disease outbreak or

unusual occurrence constitutes a medical emergency, the director may assume direct responsibility for the investigation,

(3) It shall be the duty of the local health authority, upon identification of a case of a reportable disease or upon receipt of a report of that disease, to take actions and measures as may be necessary according to any policies which have been or may be established by the director of the Department of Health, within the provisions of section (2) and subsections (2)(A)—(J) of this rule.

(A) When the local health authority is notified of a reportable disease or has reason to suspect the existence of a reportable disease within the local jurisdiction, the local health authority, either in person or through a designated representative, shall make an investigation as is necessary and immediately institute appropriate control measures as set forth in section (2) and subsections (2)(A)—(J) of this rule.

(B) The local health authority shall use every reasonable means to determine the presence of a communicable disease or the source of any disease listed in 19 CSR 20-20.020 or of any epidemic disease of unknown cause. In the performance of this duty, the local health authority shall examine or cause to be examined any person reasonably suspected of being infected or of being a source or contact of infection and any person who refuses examination shall be quarantined or isolated.

(C) Control measures implemented by the local health authority shall be at least as stringent as those established by the director of the Department of Health and shall be subject to review and alteration by the director. If the local health authority fails to carry out appropriate control measures, the director or his/her designated representative shall take steps necessary to protect the public health.

(4) It shall be the duty of the attending physician, immediately upon diagnosing a case of a reportable communicable disease, to give detailed instructions to the patient, members of the household and attendants regarding proper control measures. When a person dies while infected with a communicable disease, it shall be the duty of the attending physician to learn immediately who is to prepare the body for burial or cremation and then notify the funeral director, embalmer or other responsible person regarding the communicable disease the deceased had at the time of death. A tag shall also be affixed to the body providing the name of the communicable disease likely to have been present at the time of death.

(5) Every practitioner of the healing arts and every person in charge of any medical care facility shall permit the director of the Department of Health or the director's designated representative to examine and review any medical records which are in the practitioner's or person's possession or to which the practitioner or person has access, upon request of the director or the director's designated representative in the course of investigation of reportable diseases in 19 CSR 20-20.020.

*AUTHORITY sections 192.006 and 192.020, RSMo 2000. * This rule was previously filed as 13 CSR 50-101.050. Original rule filed July 15, 1948, effective*

Sept. 13, 1948. Rescinded and readopted: Filed Dec. 11, 1981, effective May 13, 1982. Amended: Filed Sept. 16, 1982, effective Jan. 14, 1983. Amen4ed: Filed March 21, 1984, effective July 15, 1984. Amended: Filed June 2, 1988, effective Aug. 25, 1988. Amended: Filed Nov. 15, 1989, effective Feb. 11, 1990. Amended: Filed Aug. 14, 1992, effective April 8, 1993. Amended: Filed Sept. 15, 1995, effective April 30, 1996. Emergency amendment filed June 13, 2002, effective July 1, 2002, expires Dec. 27, 2002. Amended: Filed June 13, 2002, effective Nov. 30, 2002.

**Original authority: 192. 006. 1. , RSMo 1993, amended 1995 and 192.020, RSMo 1939, amended 1945, 1951.*

19 CSR 20-28.010 Immunization Requirements for School Children

PURPOSE: This rule establishes minimum immunization requirements for all school children in accordance with recommendations of the Advisory Committee on Immunization Practices (ACIP) and helps assure that appropriate actions are taken by schools to enforce section 167.181, RSMo.

(1) As mandated by section 167.181, RSMo, each superintendent of a public, private, parochial or parish school shall have a record prepared showing the immunization status of every child enrolled in or attending a school under the superintendent's jurisdiction. The school superintendent shall make a summary report to the Department of Health and Senior Services no later than October 15 of each school year. This date is necessitated by the law which prohibits the enrollment and attendance of children who are in noncompliance. This report shall include immunization information by grade or age by vaccine antigen (diphtheria, tetanus, pertussis, polio, measles, rubella, mumps, hepatitis B, and varicella), number of children enrolled, number of children adequately immunized, number of children in progress, and number of children exempt. Each school superintendent or chief administrator shall submit a summary report for all schools under the administrator's jurisdiction. Separate reports for each school should not be submitted, although separate lists shall be maintained in each school for auditing purposes.

(A) Exclusion of students in noncompliance, section 167.181, RSMo. Students cannot attend school unless they are properly immunized and can provide satisfactory evidence of the immunization or unless they are exempted. Transfer students in noncompliance shall not be permitted to enroll or attend school. Students who were enrolled during the previous school year shall be denied attendance for the current school year if not in compliance. Homeless children may be enrolled in school for no more than twenty-four (24) hours prior to providing satisfactory evidence of immunization. For the purpose of this paragraph, a homeless child shall be defined as a child who lacks a fixed, regular and adequate nighttime residence; or who has a primary nighttime residence in a supervised publicly or privately operated shelter or in an institution providing temporary residence or in a public or private place not designated for or ordinarily used as a regular sleeping accommodation for

human beings. The school administration should exercise its power of pupil suspension or expulsion under section 167. 161, RSMo and possible summary suspension under section 167. 171, RSMo until the violation is removed.

(B) This rule is designed to govern any child—regardless of age—who is attending a public, private. parochial or parish school. If the specific age recommendations are not mentioned within this rule, the Missouri Department of Health and Senior Services should be consulted.

(C) It is unlawful for any child to attend school unless the child has been immunized according to this rule or unless the parent or guardian has signed and placed on file a statement of medical or religious exemption with the school administrator,

1. Medical exemption. A child shall be exempted from the immunization requirements of this rule upon certification by a licensed doctor of medicine or doctor of osteopathy that either the immunization would seriously endanger the child's health or life or the child has documentation of laboratory evidence of immunity to the disease, The Department of Health and Senior Services Form Imm.P. 12, included herein, shall be on file with the school immunization health record for each child with a medical exemption. This need not be renewed annually.

2. Religious exemption. A child shall be exempted from the immunization requirements of this rule as provided in section 167.181, RSMo if one (1) parent or guardian objects in writing to the school administrator that immunization of that child violates his/her religious beliefs. This exemption on Department of Health and Senior Services Form Imm.P. 11A included herein, shall be placed on file with the school immunization health record.

3. Immunization in progress. Section 167.181, RSMo provides that students may continue to attend school as long as they have started an immunization series and satisfactory progress is being accomplished. A Department of Health and Senior Services Form lmm.P.14, included herein, shall be on file with the school immunization health record of each student with immunization in progress. Failure to meet the next scheduled appointment constitutes noncompliance with the school immunization law and exclusion should be initiated immediately. Refer to sub-section (1)(A) of this rule regarding exclusion of students in noncompliance.

(2) For school attendance, children shall be immunized against diphtheria, tetanus, pertussis, polio, measles, rubella, mumps, hepatitis B, and varicella, according to the latest Advisory Committee on Immunization Practices (ACIP) Recommended Childhood Immunization Schedule—United States and the latest ACIP General Recommendations on Immunization. As the immunization schedule and recommendations are updated, they will be available from and distributed by the Department of Health and Senior Services.

(A) Pertussis vaccine is not required for children seven (7) years of age and older.

(B) Hepatitis B vaccine shall be required for all children starting kindergarten or who were five *(5)* or six (6) years of age as of and after the beginning of the 1992—93 school year.

(C) Varicella vaccine shall be required for all children starting kindergarten or who were five *(5)* or six (6) years of age as of and after the beginning of the 2005-06 school year.

(3) The parent or guardian shall furnish the superintendent or school administrator satisfactory evidence of immunization or exemption from immunization against diphtheria, tetanus, pertussis, polio, measles, mumps, rubella, hepatitis B, and varicella.

(A) Satisfactory evidence of immunization means a statement, certificate or record from a physician or other recognized health facility or personnel stating that the required immunizations have been given to the person and verifying the type of vaccine. All children shall be required to provide documentation of the month, day and year of vaccine administration. However, if a child has had varicella (chickenpox) disease, the parent, the guardian, a licensed doctor of medicine or doctor of osteopathy may sign and place on file with the superintendent or school administrator a written statement documenting previous varicella (chickenpox) disease. The statement may contain wording such as: "This is to verify that (name of child) had varicella (chickenpox) disease on or about (date) and does not need varicella vaccine

AUTHORITY: sections 167.181, RSMo Supp. 2003, and 192.006 and 192.020, RSMo 2000. This rule was previously filed as 13 CSR 50-110.010. Original rule filed April 24, 1974, effective May 4, 1974. Rescinded and readopted: Filed April 17, 1980, effective Aug. 11, 1980. Amended: Filed Feb. 1, 1983, effective May 12, 1983. Amended: Filed Oct. 3, 1986, effective Dec. 25, 1986. Amended: Filed July 1, 1987, effective Sept. 11, 1987. Amended: Filed Aug. 4, 1988, effective Oct. 13, 1988. Amended: Filed May 31, 1989, effective Aug. 24, 1989. Amended: Filed Nov. 2, 1990, effective March 14, 1991. Amended: Filed April 2, 1991, effective Aug. 30, 1991. Amended: Filed Nov. 4, 1992, effective Aug. 1, 1993. Emergency amendment filed July 12, 1993, effective Aug. 1, 1993, expired Sept. 9, 1993. Amended: Filed April 5, 1993, effective Sept. 9, 1993. Emergency amendment filed May 3, 1994, effective May 13, 1994, expired Sept. 9, 1994. Emergency amendment filed July 28, 1994, effective Aug. 6, 1994, expired Dec. 3, 1994. Amended: Filed April 18, 1994, effective Nov. 30, 1994. Amended: Filed May 3, 1994, effective Nov. 30, 1994. Emergency amendment filed Nov. 29, 1994, effective Dec. 8, 1994, expired April 6, 1995. Amended: Filed Aug. 15, 1994, effective Feb. 26, 1995. Amended: Filed Aug. 16, 1996, effective Jan. 30, 1997. Amended: Filed Jan. 14, 1999, effective July 30, 1999. Amended: Filed Sept. 16, 2002, effective Feb. 28, 2003. Amended: Filed Sept. 23, 2003, effective April 30, 2004.*

**Original authority: 167.181, RSMo 1963, amended 1972, 1973, 1992, 1993, 1995, 1996, 2001; 192.006, RSMo 1993, amended 1995; and 192.020, RSMo 1939, amended 1945, 1951.*

MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES
SECTION OF VACCINE-PREVENTABLE AND
TUBERCULOSIS DISEASE ELIMINATION

MEDICAL IMMUNIZATION EXEMPTION

FOR DOCTORS OF MEDICINE OR DOCTORS OF OSTEOPATHY ONLY

REQUIRED UNDER THE STATE IMMUNIZATION LAWS (Section 167.181 and Section 210.003, RSMo) FOR SCHOOL, PRESCHOOL, DAY CARE AND NURSERY SCHOOL ATTENDANCE

THIS IS TO CERTIFY THAT	NAME OF PATIENT (PRINT OR TYPE)

SHOULD BE EXEMPTED FROM RECEIVING THE FOLLOWING CHECKED IMMUNIZATION(S) BECAUSE:

☐ The child has documented laboratory evidence of immunity to the disease. (Attach the lab slip to this form.)
☐ In my medical judgment, the immunization(s) checked would endanger the child's health or life.

☐ Diphtheria ☐ Tetanus ☐ Pertussis ☐ Td ☐ Polio ☐ Hib
☐ MMR ☐ Measles ☐ Mumps ☐ Rubella ☐ Hepatitis B ☐ Other
☐ Varicella

1. Unimmunized children have a greater risk of getting these vaccine-preventable diseases which can lead to serious complications.
2. Unimmunized children are subject to exclusion from child care facilities and school when outbreaks of vaccine-preventable diseases occur.

PHYSICIAN NAME (PRINT OR TYPE)	PHYSICIAN REGISTRATION NO.
SIGNATURE OF PHYSICIAN	DATE

MO 580-0807 (1-02) Imm.P.12

MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES
SECTION OF VACCINE-PREVENTABLE AND
TUBERCULOSIS DISEASE ELIMINATION

IMMUNIZATIONS IN PROGRESS

FOR PHYSICIANS AND PUBLIC HEALTH NURSES ONLY

REQUIRED UNDER THE STATE IMMUNIZATION LAWS (Section 167.181 and Section 210.003, RSMo Cum. Supp. 1990) FOR SCHOOL, PRESCHOOL, DAY CARE AND NURSERY SCHOOL ATTENDANCE

THIS IS TO CERTIFY THAT	NAME OF CHILD (PRINT OR TYPE)

received the following immunization(s) on _____ (MONTH/DAY/YEAR) as required by State Immunization Laws

☐ DIPHTHERIA ☐ TETANUS ☐ PERTUSSIS ☐ Td ☐ POLIO ☐ Hib
☐ MMR ☐ MR ☐ MEASLES ☐ MUMPS ☐ RUBELLA ☐ Hepatitis B
☐ VARICELLA

and is scheduled to return on _____ (MONTH/DAY/YEAR) for the following immunization(s) _____

NOTE: This child is in compliance with Missouri Immunization Laws as long as he/she continues to receive the appropriate immunization(s) at the correct intervals according to the Missouri Department of Health Immunization Schedule.

PHYSICIAN NAME (PRINT OR TYPE)	PHYSICIAN SIGNATURE
PUBLIC HEALTH NURSE NAME DATE	CITY OR COUNTY OF ASSIGNMENT

MO 580-0828 (10-01) Imm.P.14

MISSOURI DEPARTMENT OF HEALTH
SECTION OF VACCINE-PREVENTABLE AND
TUBERCULOSIS DISEASE ELIMINATION

RELIGIOUS IMMUNIZATION EXEMPTION

REQUIRED UNDER THE STATE IMMUNIZATION LAW (Section 167.181, RSMo) FOR SCHOOL ATTENDANCE

THIS IS TO CERTIFY THAT	NAME OF CHILD (PRINT OR TYPE)

SHOULD BE EXEMPTED FROM RECEIVING THE FOLLOWING CHECKED IMMUNIZATION(S) BECAUSE IMMUNIZATION VIOLATES MY RELIGIOUS BELIEFS:

☐ Diphtheria ☐ Tetanus ☐ Pertussis ☐ Td ☐ Polio ☐ Other
☐ MMR ☐ Measles ☐ Mumps ☐ Rubella ☐ Hepatitis B

1. Unimmunized children have a greater risk of getting these vaccine-preventable diseases which can lead to serious complications.
2. Unimmunized children are subject to exclusion from school when outbreaks of vaccine-preventable diseases occur.

PARENT/GUARDIAN NAME (PRINT OR TYPE)	PARENT/GUARDIAN SIGNATURE	DATE

MO 580-1723 (4-00) Imm.P.11A

19 CSR 20-28.040 Day Care Immunization Rule

PURPOSE: This rule establishes immunization requirements in accordance with recommendations of the Advisory Committee on Immunization Practices (ACIP) for all children attending public, private or parochial day care, preschool or nursery schools caring for ten or more children, and describes actions to be taken to ensure compliance with section 210.003, RSMo.

(1) As mandated by section 210.003, RSMo, the administrator of each public, private or parochial day care center, preschool or nursery school caring for ten (10) or more children shall have a record prepared showing the immunization status of every child enrolled or attending a facility under the administrator's Jurisdiction. The administrator shall also make an annual summary report to the Department of Health on form Imm.P. 32 no later than January *15.* Immunization information is required in ten (10) categories: diphtheria, tetanus, pertussis (DTaP); polio; hepatitis B (HB); *Haeinophilus infiuenzae* type b (Hib); measles, mumps, rubella (MMR); and varicella (VZV).

(2) No child shall enroll in or attend a public, private or parochial day care center, preschool or nursery school caring for ten (10) or more children unless the child has been adequately immunized according to this rule. Children attending elementary school who receive before, after school care, or both, shall meet the immunization require-meats established in the School Immunization Rule, 19 CSR 20-28.010. Preschool-age children shall be immunized against diphtheria, tetanus, pertussis, polio, hepatitis B, *Haemophilus infiuenzae* type b, measles, mumps, rubella, and varicella according to the latest Recommended Childhood Immunization Schedule—United States, approved by the Advisory Committee on Immunization Practices (ACIP). As the schedule is updated, it will be available from and distributed by the Department of Health.

(3) Section 210.003, RSMo provides that a child who has not completed all appropriate immunizations may enroll if—

(A) Satisfactory evidence is produced that the child has begun the process of immunization. The child may continue to attend as long as the immunization process is being accomplished according to the ACIP/Department of Health recommended schedule. Failure to meet the next scheduled appointment constitutes noncompliance with the day care immunization law and action shall be initiated immediately by the administrator to have the child excluded from the facility.

(B) The parent or guardian has signed and placed on file with the day care administrator a statement of exemption which may be either of the following:

1. A medical exemption, by which a child shall be exempted from the requirements of this rule upon certification by a licensed doctor of medicine or doctor of osteopathy, that either the immunization would seriously endanger the child's health or life,

or the child has documentation of laboratory evidence of immunity to the disease. The Department of Health form Imm.P. 12 shall be on file with the immunization record of each child with a medical exemption. The medical exemption need not be renewed annually; or

2. A parent or guardian exemption, by which a child shall be exempted from the requirements of this rule if one (1) parent or guardian files a written objection to immunization with the day care administrator. The Department of Health form Imm.P. 11 shall be on file with the immunization record of each child with a parental exemption. The parental exemption form must be renewed annually,

(4) The parent or guardian shall furnish the day care administrator satisfactory evidence of completion of the required immunizations, exemption from immunization, or progress toward completing all required immunizations against diphtheria, tetanus, pertussis, polio, hepatitis B, *Haemophilus infiuenzae* type b, measles, mumps, rubella, and varicelia. Satisfactory evidence of immunization means a statement, certificate or record from a physician or other recognized health facility stating that the required immunizations have been given to the person and verifying type of vaccine and the dates, including the month, day and year of each immunization, However, if a child has had varicella (chickenpox) disease, the parent, the guardian, a licensed doctor of medicine or doctor of osteopathy may sign and place on file with the day care administrator a written statement documenting previous varicella (chickenpox) disease. The statement may contain wording such as: "This is to verify that (name of child) had varicella (chickenpox) disease on or about (date) and does not need varicella vaccine."

*AUTHORITY. - sections 192.006 and 210.003, RSMo 2000. * Emergency rule filed Aug. 1, 1995, effective Aug. 11, 1995, expired Dec. 8, 1995. Original rule filed April 1 7, 1995, effective Nov. 30, 1995. Emergency amendment filed June 14, 2000, effective June 24, 2000, expired Feb. 22, 2001. Amended: Filed June 14, 2000, effective Nov. 30, 2000. Amended: Filed Jan. 3, 2001, effective July 30, 2001.*

Original authority: 192.006, RSMo 1993, amended 1995; 210.003, RSMo /988.

Missouri School Immunization Requirements 2005-06

- All students must present documentation of month, day, and year of each immunization before they attend school.
- All immunizations must be up-to-date before students are permitted to attend classes.
- The Advisory Committee on Immunization Practices allows a 4-day grace period, so students in all grade levels may receive immunizations up to 4 days before they are due.
- For children beginning kindergarten during or after the 2003-04 school year, required immunizations should be administered according to the current ACIP Schedule (http://www.cdc.gov/nip/recs/child-schedule.htm#Printable). (See reverse side for a copy of the schedule.)
- To remain in school, students "in progress" must have an Imm.P.14 form on file and must receive immunizations as soon as they become due.
- Religious (Imm.P.11A) and medical (Imm.P.12) exemptions are allowed. The appropriate exemption card must be on file.

Grades	Immunizations	
K	4-5 DTaP/DTP/DT/Td[1] 3+ polio[2] 2 MMR (measles, mumps, rubella)	3 hepatitis B 1 varicella (chickenpox) or proof of disease[3]
1-2	4-5 DTaP/DTP/DT/Td[1] 3+ polio[2]	2 MMR (measles, mumps, rubella) 3 hepatitis B
3-6	4 DTaP/DTP/DT/Td[1] 3+ polio[2]	2 measles, 1 mumps, 1 rubella, 3 hepatitis B[4]
7-12	3 DTaP/DTP/DT/Td[5] 3+ polio[2]	2 measles, 1 mumps, 1 rubella, 3 hepatitis B[4]

1. Last dose on or after fourth (4th) birthday and last dose of pertussis before seventh (7th) birthday. Maximum needed: six (6) doses.

2. Last dose on or after fourth (4th) birthday. If a combination of IPV/OPV is received, four (4) doses are required. Maximum needed: four (4) doses.

3. A statement signed by parent/guardian or physician indicating the month and year the child had chickenpox disease.

4. Students who are 11-15 years of age may receive two doses adult formulation Merck Recombivax Hepatitis B vaccine on the following schedule:
   Dose 1, initial visit
   Dose 2, 4-6 months after Dose 1

5. Td booster required ten (10) years after last dose of DTaP, DTP, DT, or Td.

Section for Communicable Disease Prevention
(573) 751-6439 (866) 628-9891

Immunization Requirements for Children Enrolled In Missouri Child Care and Preschool Facilities*

Young children are more susceptible to serious complications associated with certain diseases and have different immunization requirements than older children.

The following table indicates immunizations required for children attending child care and preschool facilities. This table is for use in completing the day care survey, and is **NOT** a recommended schedule. It should only be used to determine whether a child is in compliance with Missouri child care regulations.

See the Advisory Committee on Immunization Practices (ACIP) Recommended Childhood Adolescent Immunization Schedule – United States July-December 2004, on reverse side for the recommended vaccine schedule.

Age Groups	**By the time the child is**	**Immunizations**
2 months	**2 months**, they should have –	1 Hepatitis B
3-4 months	**3 months**, they should have –	1 DTaP/DT, 1 Polio, 1 or 2 Hepatitis B, 1 Hib
5-6 months	**5 months**, they should have –	2 DTaP/DT, 2 Polio, 2 or 3 Hepatitis B, 1 or more Hib
7-15 months	**7 months**, they should have –	3 DTaP/DT, 2 Polio, 2 or 3 Hepatitis B, 1 or more Hib
16-59 months	**16 months**, they should have –	4 DTaP/DT, 3 Polio, 1 MMR, 3 Hepatitis B, 1 Varicella, at least 1 Hib after 12 months of age
60 months to Kindergarten	**60 months**, they should have –	4 DTaP/DT, 3 Polio, 1 MMR, 3 Hepatitis B, 1 Varicella

*The Advisory Committee on Immunization Practices (ACIP) allows a 4-day grace period, so child care and preschool attendees may receive immunizations up to 4 days before they are due.

Recommended Childhood and Adolescent Immunization Schedule UNITED STATES • 2005

Vaccine ▼ / Age ▶	Birth	1 month	2 months	4 months	6 months	12 months	15 months	18 months	24 months	4–6 years	11–12 years	13–18 years
Hepatitis B[1]	HepB #1	HepB #2	HepB #2	HepB #2	HepB #3	HepB #3	HepB #3	HepB #3	HepB Series	HepB Series	HepB Series	HepB Series
Diphtheria, Tetanus, Pertussis[2]			DTaP	DTaP	DTaP		DTaP	DTaP		DTaP	Td	Td
Haemophilus influenzae type b[3]			Hib	Hib	Hib	Hib	Hib					
Inactivated Poliovirus			IPV	IPV	IPV	IPV	IPV	IPV		IPV		
Measles, Mumps, Rubella[4]						MMR #1	MMR #1			MMR #2	MMR #2	
Varicella[5]						Varicella	Varicella	Varicella	Varicella	Varicella	Varicella	
Pneumococcal Conjugate[6]			PCV	PCV	PCV	PCV	PCV		PCV	PPV	PPV	PPV
Influenza[7]					Influenza (Yearly)	Influenza (Yearly)	Influenza (Yearly)	Influenza (Yearly)	Influenza (Yearly)	Influenza (Yearly)	Influenza (Yearly)	Influenza (Yearly)
Vaccines below this line are for selected populations												
Hepatitis A[8]									Hepatitis A Series	Hepatitis A Series	Hepatitis A Series	Hepatitis A Series

This schedule indicates the recommended ages for routine administration of currently licensed childhood vaccines, as of December 1, 2004, for children through age 18 years. Any dose not administered at the recommended age should be administered at any subsequent visit when indicated and feasible.

Indicates age groups that warrant special effort to administer those vaccines not previously administered. Additional vaccines may be licensed and recommended during the year. Licensed combination vaccines may be used whenever any components of the combination are indicated and other components of the vaccine are not contraindicated. Providers should consult the manufacturers' package inserts for detailed recommendations. Clinically significant adverse events that follow immunization should be reported to the Vaccine Adverse Event Reporting System (VAERS). Guidance about how to obtain and complete a VAERS form is available at **www.vaers.org** or by telephone, **800-822-7967**.

Range of recommended ages

Only if mother HBsAg(–)

Preadolescent assessment

Catch-up immunization

DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION

CDC

The Childhood and Adolescent Immunization Schedule is approved by:
Advisory Committee on Immunization Practices www.cdc.gov/nip/acip
American Academy of Pediatrics www.aap.org
American Academy of Family Physicians www.aafp.org

FIGURE. Recommended childhood and adolescent immunization schedule,[1] by vaccine and age — United States, 2005

Vaccine	Birth	1 mo	2 mos	4 mos	6 mos	12 mos	15 mos	18 mos	24 mos	4–6 yrs	11–12 yrs	13–18 yrs
Hepatitis B[2]	HepB #1	only if mother HBsAg (-)										
		HepB #2			HepB #3				HepB series			
Diphtheria, tetanus, pertussis[3]			DTaP	DTaP	DTaP		DTaP			DTaP	Td	Td
Haemophilus influenzae type b[4]			Hib	Hib	Hib[4]	Hib						
Inactivated poliovirus			IPV	IPV	IPV					IPV		
Measles, mumps, rubella[5]						MMR #1				MMR #2	MMR #2	
Varicella[6]						Varicella			Varicella			
Pneumococcal[7]			PCV	PCV	PCV	PCV			PCV	PPV		
Influenza[8]					Influenza (yearly)				Influenza (yearly)			
Vaccines below red line are for selected populations												
Hepatitis A[9]									Hepatitis A series			

Range of recommended ages — Catch-up immunization — Preadolescent assessment

1. This schedule indicates the recommended ages for routine administration of currently licensed childhood vaccines, as of December 1, 2004, for children aged ≤18 years. Any dose not administered at the recommended age should be administered at any subsequent visit when indicated and feasible. ▬ Indicates age groups that warrant special effort to administer those vaccines not previously administered. Additional vaccines might be licensed and recommended during the year. Licensed combination vaccines may be used whenever any components of the combination are indicated and other components of the vaccine are not contraindicated. Providers should consult package inserts for detailed recommendations. Clinically significant adverse events that follow immunization should be reported to the Vaccine Adverse Event Reporting System; guidance is available at http://www.vaers.org or by telephone, 800-822-7967.

2. Hepatitis B (HepB) vaccine. All infants should receive the first dose of HepB vaccine soon after birth and before hospital discharge; the first dose may also be administered by age 2 months if the mother is hepatitis B surface antigen (HBsAg) negative. Only monovalent HepB may be used for the birth dose. Monovalent or combination vaccine containing HepB may be used to complete the series. Four doses of vaccine may be administered when a birth dose is administered. The second dose should be administered at least 4 weeks after the first dose, except for combination vaccines, which cannot be administered before age 6 weeks. The third dose should be administered at least 16 weeks after the first dose and at least 8 weeks after the second dose. The final dose in the vaccination series (third or fourth dose) should not be administered before age 24 weeks. ***Infants born to HBsAg-positive mothers*** should receive HepB and 0.5 mL of hepatitis B immune globulin (HBIG) at separate sites within 12 hours of birth. The second dose is recommended at age 1–2 months. The final dose in the immunization series should not be administered before age 24 weeks. These infants should be tested for HBsAg and antibody to HBsAg at age 9–15 months. ***Infants born to mothers whose HBsAg status is unknown*** should receive the first dose of the HepB series within 12 hours of birth. Maternal blood should be drawn as soon as possible to determine the mother's HBsAg status; if the HBsAg test is positive, the infant should receive HBIG as soon as possible (no later than age 1 week). The second dose is recommended at age 1–2 months. The last dose in the immunization series should not be administered before age 24 weeks.

3. Diphtheria and tetanus toxoids and acellular pertussis (DTaP) vaccine. The fourth dose of DTaP may be administered as early as age 12 months, provided 6 months have elapsed since the third dose and the child is unlikely to return at age 15–18 months. The final dose in the series should be administered at age ≥4 years. **Tetanus and diphtheria toxoids (Td)** is recommended at age 11–12 years if at least 5 years have elapsed since the last dose of tetanus and diphtheria toxoid-containing vaccine. Subsequent routine Td boosters are recommended every 10 years.

4. *Haemophilus influenzae* type b (Hib) conjugate vaccine. Three Hib conjugate vaccines are licensed for infant use. If PRP-OMP (PedvaxHIB® or ComVax® [Merck]) is administered at ages 2 and 4 months, a dose at age 6 months is not required. DTaP/Hib combination products should not be used for primary immunization in infants at ages 2, 4, or 6 months but can be used as boosters after any Hib vaccine. The final dose in the series should be administered at age ≥12 months.

5. Measles, mumps, and rubella (MMR) vaccine. The second dose of MMR is recommended routinely at age 4–6 years but may be administered during any visit, provided at least 4 weeks have elapsed since the first dose and both doses are administered beginning at or after age 12 months. Those who have not previously received the second dose should complete the schedule by age 11–12 years.

6. Varicella vaccine. Varicella vaccine is recommended at any visit at or after age 12 months for susceptible children (i.e., those who lack a reliable history of chickenpox). Susceptible persons aged ≥13 years should receive 2 doses administered at least 4 weeks apart.

7. Pneumococcal vaccine. The heptavalent **pneumococcal conjugate vaccine (PCV)** is recommended for all children aged 2–23 months and for certain children aged 24–59 months. The final dose in the series should be administered at age ≥12 months. **Pneumococcal polysaccharide vaccine (PPV)** is recommended in addition to PCV for certain groups at high risk. See *MMWR* 2000;49(No. RR-9).

8. Influenza vaccine. Influenza vaccine is recommended annually for children aged ≥6 months with certain risk factors (including, but not limited to, asthma, cardiac disease, sickle cell disease, human immunodeficiency virus [HIV], and diabetes), health-care workers, and other persons (including household members) in close contact with persons in groups at high risk (see *MMWR* 2004;53[No. RR-6]). In addition, healthy children aged 6–23 months and close contacts of healthy children aged 0–23 months are recommended to receive influenza vaccine because children in this age group are at substantially increased risk for influenza-related hospitalizations. For healthy persons aged 5–49 years, the intranasally administered, live, attenuated influenza vaccine (LAIV) is an acceptable alternative to the intramuscular trivalent inactivated influenza vaccine (TIV). See *MMWR* 2004;53(No. RR-6). Children receiving TIV should be administered a dosage appropriate for their age (0.25 mL if aged 6–35 months or 0.5 mL if aged ≥3 years). Children aged ≤8 years who are receiving influenza vaccine for the first time should receive 2 doses (separated by at least 4 weeks for TIV and at least 6 weeks for LAIV).

9. Hepatitis A vaccine. Hepatitis A vaccine is recommended for children and adolescents in selected states and regions and for certain groups at high risk; consult your local public health authority. Children and adolescents in these states, regions, and groups who have not been immunized against hepatitis A can begin the hepatitis A immunization series during any visit. The 2 doses in the series should be administered at least 6 months apart. See *MMWR* 1999;48(No. RR-12).

Approved by the **Advisory Committee on Immunization Practices** (http://www.cdc.gov/nip/acip), the **American Academy of Pediatrics** (http://www.aap.org), and the **American Academy of Family Physicians** (http://www.aafp.org). Additional information about vaccines, including precautions and contraindications for vaccination and vaccine shortages, is available at http://www.cdc.gov/nip or from the National Immunization Information Hotline, 800-232-2522 (English) or 800-232-0233 (Spanish).

Footnotes
Recommended Childhood and Adolescent Immunization Schedule
UNITED STATES • 2005

1. **Hepatitis B (HepB) vaccine.** All infants should receive the first dose of HepB vaccine soon after birth and before hospital discharge; the first dose may also be administered by age 2 months if the mother is hepatitis B surface antigen (HBsAg) negative. Only monovalent HepB may be used for the birth dose. Monovalent or combination vaccine containing HepB may be used to complete the series. Four doses of vaccine may be administered when a birth dose is given. The second dose should be administered at least 4 weeks after the first dose, except for combination vaccines which cannot be administered before age 6 weeks. The third dose should be given at least 16 weeks after the first dose and at least 8 weeks after the second dose. The last dose in the vaccination series (third or fourth dose) should not be administered before age 24 weeks.

   Infants born to HBsAg-positive mothers should receive HepB and 0.5 mL of hepatitis B immune globulin (HBIG) at separate sites within 12 hours of birth. The second dose is recommended at age 1–2 months. The final dose in the immunization series should not be administered before age 24 weeks. These infants should be tested for HBsAg and antibody to HBsAg (anti-HBs) at age 9–15 months.

   Infants born to mothers whose HBsAg status is unknown should receive the first dose of the HepB series within 12 hours of birth. Maternal blood should be drawn as soon as possible to determine the mother's HBsAg status; if the HBsAg test is positive, the infant should receive HBIG as soon as possible (no later than age 1 week). The second dose is recommended at age 1–2 months. The last dose in the immunization series should not be administered before age 24 weeks.

2. **Diphtheria and tetanus toxoids and acellular pertussis (DTaP) vaccine.** The fourth dose of DTaP may be administered as early as age 12 months, provided 6 months have elapsed since the third dose and the child is unlikely to return at age 15–18 months. The final dose in the series should be given at age ≥4 years. **Tetanus and diphtheria toxoids (Td)** is recommended at age 11–12 years if at least 5 years have elapsed since the last dose of tetanus and diphtheria toxoid-containing vaccine. Subsequent routine Td boosters are recommended every 10 years.

3. ***Haemophilus influenzae* type b (Hib) conjugate vaccine.** Three Hib conjugate vaccines are licensed for infant use. If PRP-OMP (PedvaxHIB® or ComVax® [Merck]) is administered at ages 2 and 4 months, a dose at age 6 months is not required. DTaP/Hib combination products should not be used for primary immunization in infants at ages 2, 4 or 6 months but can be used as boosters after any Hib vaccine. The final dose in the series should be administered at age ≥12 months.

4. **Measles, mumps, and rubella vaccine (MMR).** The second dose of MMR is recommended routinely at age 4–6 years but may be administered during any visit, provided at least 4 weeks have elapsed since the first dose and both doses are administered beginning at or after age 12 months. Those who have not previously received the second dose should complete the schedule by age 11–12 years.

5. **Varicella vaccine.** Varicella vaccine is recommended at any visit at or after age 12 months for susceptible children (i.e., those who lack a reliable history of chickenpox). Susceptible persons aged ≥13 years should receive 2 doses administered at least 4 weeks apart.

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7. **Influenza vaccine.** Influenza vaccine is recommended annually for children aged ≥6 months with certain risk factors (including, but not limited to, asthma, cardiac disease, sickle cell disease, human immunodeficiency virus [HIV], and diabetes), healthcare workers, and other persons (including household members) in close contact with persons in groups at high risk (see *MMWR* 2004;53[RR-6]:1-40). In addition, healthy children aged 6–23 months and close contacts of healthy children aged 0–23 months are recommended to receive influenza vaccine because children in this age group are at substantially increased risk for influenza-related hospitalizations. For healthy persons aged 5–49 years, the intranasally administered, live, attenuated influenza vaccine (LAIV) is an acceptable alternative to the intramuscular trivalent inactivated influenza vaccine (TIV). See *MMWR* 2004;53(RR-6):1-40. Children receiving TIV should be administered a dosage appropriate for their age (0.25 mL if aged 6–35 months or 0.5 mL if aged ≥3 years). Children aged ≤8 years who are receiving influenza vaccine for the first time should receive 2 doses (separated by at least 4 weeks for TIV and at least 6 weeks for LAIV).

8. **Hepatitis A vaccine.** Hepatitis A vaccine is recommended for children and adolescents in selected states and regions and for certain high-risk groups; consult your local public health authority. Children and adolescents in these states, regions, and high-risk groups who have not been immunized against hepatitis A can begin the hepatitis A immunization series during any visit. The 2 doses in the series should be administered at least 6 months apart. See *MMWR* 1999;48(RR-12):1-37.

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Healthy and Safe Families Unit

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