



Indiana State
Department of Health
Epidemiology Resource Center

Communicable Disease Reference Guide for
Schools: 2012 Edition

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Communicable Disease Reference Guide for Schools: 2012 Edition

A publication of the Indiana State Department of Health

August 2012

Indiana State Department of Health
2 North Meridian Street, 5-K
Indianapolis, In 46204

If you have questions regarding any of the diseases/conditions covered in this manual
please call the ISDH Surveillance and Investigation Division

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July 20, 2012

Dear School Nurses and Administrators,

In 2009, the Indiana State Department of Health (ISDH) partnered with the Indiana Department of Education (IDOE) to develop a comprehensive infectious disease school health manual. This manual provides the most current information related to infectious diseases likely to be found in school settings and guidance for communicating disease information to students, parents and staff. In particular, the manual identifies situations in which infected or exposed students or staff should be excluded from school-based activities.

The Communicable Disease Reference Guide for Schools 2012 Edition is available online on both the ISDH and IDOE websites. The manual is divided into different sections by disease to provide ease with reference. Each section can be printed separately if desired. The 2012 reference guide contains new information on *Clostridium difficile* infection, bed bugs, head lice, and human papilloma virus. Each disease section will also include new information on outbreak recommendations. New immunization information is included as a separate appendix.

For additional information regarding a communicable disease or other school-based health issue, please contact the IDOE Coordinator for School Health Issues at (317) 232-6610 or the ISDH School Health Liaison at (317) 234-2804. You can also contact a health care provider appointed by your school administration for more information on specific diseases or conditions.

We hope that school nurses, staff, and administrators find this manual to be a valuable resource and will use the manual to educate themselves on best infection control and disease prevention practices.

Sincerely,



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Overview

Purpose

The health of Indiana’s children is the foundation for success in education. Controlling the spread of communicable disease in the community is the legal responsibility of the Indiana State Department of Health (ISDH) and local health departments (LHD); however, public health officials rely upon the cooperation of schools, health care providers, and parents to prevent the spread of disease.

The purpose of the *Communicable Disease Reference Guide for Schools: 2012 Edition* is to provide the best medical information available to prevent the introduction of communicable disease in the school environment and reduce its spread. The *Communicable Disease Reference Guide for Schools: 2012 Edition* was written using the most current information from reliable public health and medical sources.

This manual is not intended to serve as a policy and procedure manual and should not be used as a substitute for the timely evaluation of suspected infections by a health care provider. Children who may be ill should always be referred for medical evaluation. This manual is intended to serve as a reference guide to school nurses and school officials regarding communicable disease issues.

Organization and Use of the Manual

The manual is divided into four sections:

Diseases and Conditions

This section contains information on specific disease conditions which the school nurse may encounter. Each disease condition includes information pertaining to its clinical description, incubation period, mode of transmission, period of communicability, exclusion requirements or recommendations, prevention of infection, and care suggestions. Links to ISDH Quick Facts Sheets and materials from the Centers for Disease Control and Prevention (CDC) pertaining to each condition are available under resources. All diseases that are required by Indiana law to be reported by health care providers and laboratories are denoted by a red stop sign  on

the condition page and are identified as being reportable to the local health department in the summary table. Although schools are not legally required to report cases of reportable communicable diseases, it is recommended that you notify the LHD if you are aware of a reportable case and the LHD has not already contacted you. Occasionally a report by a school to the LHD will be the first notification of a reportable illness.

Summary Chart

The summary chart concisely describes in table format the information contained in the individual disease or condition pages in section one. Where the summary chart indicates it is not necessary to inform the LHD about a disease or condition occurring in a student, this does not prohibit you from contacting the LHD for consultation and recommendations.

Rash Illness Chart

The rash illness chart describes in table format a summary description of common rash illnesses. In the first column of the table, the rash illness chart contains hyperlinks to pictures of each rash.

Appendix A

2012-2013 School Nurse Immunization Resource Packet.

Resources

General

The *Communicable Disease Reference Guide for Schools: 2012 Edition* is based on the best scientific, public health and medical information available, but cannot address all situations schools may encounter. Thus, other resources should be available for guidance in school health matters. A partial list of useful resources includes:

CDC website at: <http://www.cdc.gov>

The *Indiana Communicable Disease Reporting Rule for Physicians, Hospitals and Laboratories*, 410 IAC 1-2.3; December 12, 2008. The communicable disease rule should always be used as the primary guide regarding the control of communicable diseases in Indiana. This rule provides control measures that should be followed, and where applicable, requires students to be excluded from school if necessary to prevent the spread of diseases. This rule can be found at: [http://www.in.gov/isdh/files/comm_dis_rule\(1\).pdf](http://www.in.gov/isdh/files/comm_dis_rule(1).pdf) (Section 2.3) and is referenced often throughout this manual. Conditions that are not reportable include only recommendations for exclusion from school as there are no specific control measures are found in communicable disease laws or rules.

Control of Communicable Diseases Manual, 19th Edition, David Heyman, MD, editor, American Public Health Association. *Communicable Disease Reference Guide for Schools: 2012 Edition* is based primarily on recommendations contained in the *Control of Communicable Diseases Manual*. The procedures described in the *Control of Communicable Diseases Manual* should be followed to the extent they are not in conflict with Indiana law or rule, when the condition is not reportable, or when there are no specific legal requirements in Indiana law or rule.

Epidemiology and Prevention of Vaccine-Preventable Diseases. 12th Edition. CDC.

Red Book. 28th Edition. 2009 Report of the Committee on Infectious Diseases, American Academy of Pediatrics.

The ISDH web site has a link listing contact information for all **local health departments** at: <http://www.in.gov/isdh/24822.htm>

Local Health Department Communications

Local Health Department Staff - LHD and/or ISDH staff investigate each case of reportable illness. They will assist school staff with implementing exclusion requirements and control measures. It is therefore very important to maintain communication with LHDs concerning individual cases, clusters, and outbreaks of communicable diseases. **By Indiana law, absenteeism rates of 20% or greater must be reported to the LHD regardless of the cause.** More information on this law is available at [512 IAC 1](#).

In addition, LHD staff can provide assistance on non-reportable communicable diseases. LHD staff members value the input of school nurses in monitoring disease activity in the community and school environment.

Parent and Community Communications

LHDs have the ability to notify health care providers if their medical practices may be affected by a communicable disease in the community (e.g., the need to offer prophylaxis to contacts of a case of pertussis or *Neisseria meningitidis* or the increased incidence of salmonellosis and the need to test students if symptomatic.) It is very important that LHDs are aware of communications disseminated to parents/caregivers regarding any current health issues. The LHD also has the expertise to provide the most current medical advice available regarding communicable diseases. School nurses and administrators are strongly encouraged to contact their LHD prior to releasing any information to parents/caregivers regarding a reportable communicable disease occurring in their school. ISDH and LHD staff can provide assistance in drafting communications for parents and the school community. The use of ISDH Quick Fact sheets and the CDC materials available in this manual can be used as general information for distribution to parents/caregivers when necessary.

Blood-borne Pathogens

Hepatitis B Infection

(Acute and Chronic)*



Clinical Description

Hepatitis B is a serious disease of the liver that results from infection with the hepatitis B virus. Symptoms can include malaise, anorexia, fever, nausea, right upper quadrant abdominal pain, myalgia, jaundice and light-colored stools. Children usually have mild symptoms, such as anorexia or nausea and may be asymptomatic. Most people infected with hepatitis B virus will recover without any complications. However, some may develop chronic (long-term) hepatitis B infection that can lead to cirrhosis, liver cancer, liver failure, and death. The onset of hepatitis B is usually more insidious than hepatitis A.

Incubation Period

The incubation period is usually 45 - 180 days with an average of 60 - 90 days.

Mode of Transmission

Hepatitis B is transmitted when blood or other body fluids, such as semen and vaginal secretions from an infected person, come in direct contact with a susceptible person's mucous membranes, broken skin, or through contact with a contaminated sharp object. Infection also has been acquired through human bites.

Period of Communicability

A person can spread hepatitis B 1-2 months before and after the onset of symptoms. Persons with chronic hepatitis B infections are carriers of the virus. An indication of communicability is the presence of hepatitis B surface antigen (HBsAg) in a person's blood.

Exclusion/Reporting

Infected children should be receiving care from a provider during both the chronic and acute stages of the disease. According to Indiana law (IC 16-41-9-3), children may not be excluded from school activities based solely on their hepatitis B status. However, based on the severity of the symptoms which may exist, for the comfort and success of the student, it may be prudent to exclude them from school and school related activities. For other information on laws and rules regarding hepatitis B infection see Rule 410 IAC 1-2.3 Sec. 73: at [http://www.in.gov/isdh/files/comm_dis_rule\(1\).pdf](http://www.in.gov/isdh/files/comm_dis_rule(1).pdf).

Prevention/Care

- There is a safe and effective vaccine that can prevent hepatitis B infection. When the immunization series is administered with success, studies indicate that immunologic memory remains intact for more than 25 years and confers protection against clinical illness and chronic HBV infection.
- School immunization requirements for hepatitis B can be found at <https://myshare.in.gov/ISDH/LHDRResource/immunizations/Lists/Announcements/DispForm.aspx?ID=28&Source=https%3A%2F%2Fmyshare%2Ein%2Egov%2FISDH%2FLHDRResource%2Fimmunizations%2Fdefault%2Easpx>.
- Equipment contaminated with blood or other potentially infectious body fluids (or both) shall be appropriately disinfected or sterilized prior to reuse (see Rule 410 IAC 1-2.3-73(3)). Universal precautions to prevent exposure to blood and body fluids should be practiced.

Outbreaks

According to the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3-37), an outbreak is defined as the number of cases of disease occurring in a community, region, or particular population that exceeds what is normally expected. If an outbreak is suspected, contact your local health department.

Other Resources

Centers for Disease Control and Prevention (CDC):
<http://www.cdc.gov/Hepatitis/ChooseB.htm>

Hepatitis B Foundation:

<http://www.hepb.org>

Indiana State Department of Health Quick Fact:

<http://www.in.gov/isdh/25477.htm>

*Acute, but not chronic, infections are required to be reported under the Communicable Disease Reporting Rule.

Hepatitis C Infection

(Acute and Chronic)*



Clinical Description

Hepatitis C is a serious disease of the liver that results from infection with the hepatitis C virus. Clinical symptoms include vomiting, nausea, unexpected weight loss, dark urine, pale stool, fatigue, abdominal pain, and jaundice. Initial infection may be without symptoms (in more than 80% of cases) or mild; a high percentage (50-80%) of infected persons will develop chronic infection. Chronic infection can last a lifetime with no visible symptoms. About 50% of chronically infected persons develop cirrhosis or cancer of the liver.

Incubation Period

The incubation period ranges from 2 weeks - 6 months, most commonly being about 6 - 9 weeks. Hepatitis C infection may resolve without treatment in a small percentage of cases, usually within 6 months time. Persistent infection results in chronic hepatitis C infections, chronic infections may persist asymptotically for up to 20 years before onset of cirrhosis or cancer of the liver.

Mode of Transmission

Hepatitis C is usually transmitted when blood from an infected person, comes in direct contact with a susceptible person's mucous membranes, broken skin, or through contact with a contaminated sharp object. It may also be transmitted through sexual contact, and through the sharing of razors, toothbrushes, and contaminated needles.

Period of Communicability

A person infected with hepatitis C is contagious one or more weeks before the onset of symptoms and remains infectious for life unless the virus clears.

Exclusion/Reporting

There are no specific exclusion provisions in Indiana communicable disease laws or rules for hepatitis C. For other information on laws and rules regarding hepatitis C see Rule 410 IAC 1-2.3 Sec. 74 at: [http://www.in.gov/isdh/files/comm_dis_rule\(1\).pdf](http://www.in.gov/isdh/files/comm_dis_rule(1).pdf).

Prevention/Care

- Recommend hepatitis A and B vaccines for all hepatitis C infected persons.
- Don't share injection needles or lancets, toothbrushes or other items contaminated with blood. Avoid getting tattoos from non-licensed facilities.
- Universal precautions to prevent exposure to blood and body fluids should be practiced. Equipment contaminated with blood or other potentially infectious body fluids (or both) should be appropriately disinfected or sterilized prior to reuse (see Rule 410 IAC 1-2.3-73(3)).

Outbreaks

According to the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3-37), an outbreak is defined as the number of cases of disease occurring in a community, region, or particular population that exceeds what is normally expected. If an outbreak is suspected, contact your local health department.

Other Resources

Indiana State Department of Health Quick Facts:

http://www.in.gov/isdh/files/2012QuickFact_HCV.pdf

Centers for Disease Control and Prevention (CDC):

<http://www.cdc.gov/Hepatitis/ChooseC.htm>

*Acute infections are required to be investigated under the Communicable Disease Rule; it is strongly recommended that chronic infections be investigated as well.

HIV/AIDS

Clinical Description

Infection occurs when an individual acquires the human immunodeficiency virus (HIV). Within a few weeks of the initial infection, persons may experience a few days of clinical symptoms suggestive of a viral illness. Symptoms may include fever, rash, myalgia, neuralgia, headaches, and gastrointestinal disturbances. After this initial response, persons usually become asymptomatic, although suppression of the immune system is occurring. Opportunistic infections occur when immune suppression becomes severe. The final stage of HIV infection is known as acquired immunodeficiency syndrome (AIDS), and is characterized by development of certain infections or conditions associated with immune suppression.

Incubation Period

The incubation period is variable, from 1 week - 10 years or longer. HIV antibodies may not be detectable for 3 - 6 months after exposure, depending on the sensitivity of the antibody test. However, in most persons they are detectable in 2 - 8 weeks. In most instances, the virus itself begins to replicate upon entering the host and can be detected with an RNA test within 9 - 11 days after exposure. The antibody test is the routine test for HIV. http://www.cdc.gov/hiv/topics/testing/resources/qa/be_tested.htm#wait

Mode of Transmission

In a non-medical setting, HIV is transmitted from an infected person to another by four body fluids: blood, semen, vaginal secretions and breast milk. HIV may be passed from one person to another when infected fluids come in contact with an uninfected person's broken skin or mucous membranes in enough quantity to allow for the replication of the virus. There are three major ways of contracting HIV: (1) unprotected sexual encounters; (2) sharing needles with persons who are infected with HIV; (3) mother to child transmission during pregnancy, labor and delivery, or breast feeding.

Period of Communicability

A person can spread HIV to others before it is detectable with commonly used antibody tests, and anyone infected remains a life-long carrier of the virus. HIV-infected mothers should consult a health care provider. Prenatal treatment of pregnant women and post partum treatment of their infants reduces transmission of HIV from mother to the baby.

Exclusion/Reporting

According to IC 16-41-9-3, children must **not** be excluded from school activities based on their HIV status. <http://www.in.gov/legislative/ic/code/title16/ar41/ch9.html>

HIV is **not** reportable by school systems or to school systems. All confidentiality requirements found in IC 16-41-8 must be followed: <http://www.in.gov/legislative/ic/code/title16/ar41/ch8.html>

Prevention/Care

- Provide comprehensive, fact-based education to prevent HIV infection in children.
- Equipment contaminated with blood or other potentially infectious body fluids (or both) must be appropriately disinfected or sterilized prior to reuse (see Rule 410 IAC 1-2.3-73(3)). Universal precautions to prevent exposure to blood and body fluids should be practiced.
- Dispense medications to infected students in a discreet manner in accordance with the exact directions regarding time of day to be taken, dosage, and other specifications as indicated (i.e. the need to be given on empty stomach or with food).
- Children infected with HIV are more likely to have complications from the diseases prevented by routine vaccination. HIV infection is not a contraindication to vaccination unless the child has developed AIDS. Live viral vaccines such as MMR or varicella may be contraindicated in children with AIDS. Make sure students infected with HIV receive all recommended vaccinations. If you are uncertain about whether a child with HIV should receive a vaccine, please contact the child's infectious disease doctor.

Outbreaks

According to the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3-37), an outbreak is defined as the number of cases of disease occurring in a community, region, or particular population that exceeds what is normally expected. If an outbreak is suspected, contact your local health department.

Other Resources

Indiana State Department of Health Quick Facts:

<http://www.in.gov/isdh/images/hiv.pdf>

Centers for Disease Control and Prevention (CDC):

<http://www.cdc.gov/hiv/>

Conditions of the Skin

Conjunctivitis

Pink Eye

Clinical Description

Conjunctivitis, or pink eye, is an acute condition characterized by redness of the eye(s). Other symptoms can include tearing, irritation, and photophobia, which may be followed by swelling of the lids and/or a purulent discharge. Viral and bacterial infections, foreign bodies or allergies may cause the condition.

Incubation Period

For bacterial conjunctivitis, the incubation period ranges from 24 - 72 hours, and for viral conjunctivitis, the incubation period is usually 12 hours - 3 days.

Mode of Transmission

Contact with discharge from conjunctivae or upper respiratory tracts of infected persons; also contaminated fingers, clothing, and other articles, especially those coming in close contact with the eyes (i.e. make-up applicators, multiple dose eye medication applicators).

Period of Communicability

A person can spread conjunctivitis during the course of active infection. Depending upon the cause of the infection, communicability may be up to 14 days after onset.

Exclusion/Reporting

The American Academy of Pediatrics advises that children with purulent conjunctivitis (defined as pink or red conjunctiva with white or yellow discharge, often with matted eyelids after sleep and eye pain or redness of the eyelids or skin surrounding the eyes) be excluded until examined by a health care provider and approved for readmission. With bacterial conjunctivitis, health care providers usually recommend exclusion until 24 hours after starting topical antibiotic therapy.

Prevention/Care

- Use of hot or cold moist packs may relieve discomfort
- Encourage frequent hand-washing and prompt disposal of used tissues
- Refer for medical evaluation

Outbreaks

According to the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3-37), an outbreak is defined as the number of cases of disease occurring in a community, region, or particular population that exceeds what is normally expected. If an outbreak is suspected, contact your local health department.

Other Resources

Indiana State Department of Health Quick Facts:

http://www.in.gov/isdh/files/2012QuickFact_PinkEye.pdf

Mayo Clinic:

<http://www.mayoclinic.com/health/pink-eye/DS00258>

Fifth Disease

Erythema Infectiosum

Clinical Description

Fifth disease is usually a mild illness caused by the human parvovirus (B19). The disease is characterized by a facial rash with a "slapped cheek" appearance and a lace-like rash on the trunk and extremities that is often itchy. Reddening of the skin may recur due to nonspecific stimuli such as temperature or sunlight. Symptoms can include low-grade fever and mild cold symptoms. Parvovirus can also cause other conditions. In people with certain red blood cell abnormalities, such as sickle cell disease, this infection can cause an aplastic crisis. Infection with the virus can also cause chronic anemia in immunosuppressed people or arthralgia or arthritis in susceptible adults. Parvovirus infection during early pregnancy may cause intrauterine growth retardation, fetal hydrops and or death in the fetus, although this is very rare. Infection is most common in school-aged children. Clusters of cases can occur in schools, usually in late winter and spring.

Incubation Period

The incubation period is normally from 4 -14 days, but can be as long as 20 days.

Mode of Transmission

Transmission occurs through contact with infectious respiratory secretions, exposure to blood or blood products and from an infected mother to her fetus; however, droplet contact and close person-to-person contact are the most common modes of transmission.

Period of Communicability

An infected person can spread fifth disease during the week prior to the appearance of the rash. When the rash appears, a person can no longer spread the virus to others.

Exclusion/Reporting

Children with fifth disease are most communicable before onset of illness; once the rash appears, they are usually no longer contagious.

Prevention/Care

- Inform high risk people within the school when a case of fifth disease has been identified: persons with chronic hemolytic anemia, congenital or acquired immunodeficiencies, and pregnant women. Pregnant women should consult with their health care provider if exposed to a case of fifth disease. Serologic testing for parvovirus B19 can determine a pregnant woman's susceptibility to the virus.
- Encourage frequent hand washing and prompt disposal of used tissues.

Outbreaks

According to the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3-37), an outbreak is defined as the number of cases of disease occurring in a community, region, or particular population that exceeds what is normally expected. If an outbreak is suspected, contact your local health department.

Other Resources

Indiana State Department of Health Quick Fact Link:

http://www.in.gov/isdh/files/2012QuickFact_FifthDisease.pdf

Centers for Disease Control and Prevention (CDC) Link:

<http://www.cdc.gov/parvovirusB19/index.html>

<http://www.cdc.gov/parvovirusB19/pregnancy.html>

Hand, Foot and Mouth Disease (HFMD)

Vesicular Stomatitis with Exanthem

Clinical Description

HFMD is a mild illness occurring most often in children between the ages of 5 - 15 years of age caused by enteroviruses (most commonly Coxsackievirus A16 and Enterovirus 71). Cases may also occur in older adolescents and adults. HFMD is characterized by symptoms that can include sudden onset of fever, malaise, poor appetite, and sore throat followed by lesions in the mouth 1 - 2 days later. The lesions begin as small red spots that blister and may become ulcers. They are usually located on the tongue, gums, and inside of the cheeks and can be very painful. A skin rash then develops, which is usually located on the palms of the hands and soles of the feet. The sores may also appear on the buttocks. Serious conditions can result from infection with enteroviruses, including viral meningitis and encephalitis.

Incubation Period

The incubation period is usually 3 - 5 days.

Mode of Transmission

Transmission is through direct contact with discharges from the nose and throat, and through the fecal-oral route. Infections are most common in the summer and early fall.

Period of Communicability

A person can spread HFMD during the acute stage of illness and may be able to spread the virus for several weeks after symptoms resolve.

Exclusion/Reporting

There are no specific recommendations on the exclusion of children with HFMD from school. Children are often excluded from group settings during the first few days of illness, while they are most contagious. Exclusion during the first few days of illness may reduce spread, but will not completely interrupt it. Exclusion of ill persons does not prevent additional cases since the virus can be excreted for weeks after the symptoms disappear. Also, some persons excreting the virus, including most adults, may have no symptoms. Some benefit may be gained by excluding children who have blisters in their mouths and drool or who have weeping lesions on their hands.

Prevention/Care

- There is no specific treatment or vaccine for HFMD.
- Wash and sanitize or discard articles soiled by discharge.
- Encourage frequent hand washing, especially after handling discharges and after using the restroom.
- Certain foods and beverages can cause burning or stinging of the blisters. The following ideas may make eating and drinking more tolerable for the student:
 - Suck on popsicles or ice chips; eat ice cream or sherbet
 - Drink cold beverages, such as milk or ice water
 - Avoid acidic foods, citrus drinks and soda
 - Avoid salty or spicy foods and choose foods that are soft
 - Rinse mouth with warm water after meals

Outbreaks

According to the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3-37), an outbreak is defined as the number of cases of disease occurring in a community, region, or particular population that exceeds what is normally expected. If an outbreak is suspected, contact your local health department.

Other Resources

Indiana State Department of Health Quick Facts:

http://www.in.gov/isdh/files/2012QuickFact_HFMD.pdf

Centers for Disease Control and Prevention (CDC):

<http://www.cdc.gov/hand-foot-mouth/index.html>

Impetigo

Clinical Description

Impetigo is a skin eruption caused by either streptococcal or staphylococcal bacteria that may proceed through vesicular, pustular, and encrusted stages. Impetigo is characterized by red bumps, usually on the face (particularly around the nose and mouth) or extremities. The red bumps fill with pus, break open and form a honey-colored crust. The lesions are usually itchy, but not painful. The rash typically lasts 2 to 3 weeks.

Incubation Period

Symptoms usually begin 1 - 3 days after exposure for *Streptococcus*; usually 4 -10 days for *Staphylococcus*.

Mode of Transmission

Infection is spread by direct contact with secretions from lesions.

Period of Communicability

A person who is untreated can spread the bacteria for as long as drainage occurs from lesions. Infected individuals can no longer transmit the infection within 24 hours after the initiation of antibiotic therapy.

Exclusion/Reporting

Parents should be advised to keep contagious children home until 24 hours after starting topical or oral antibiotic therapy. Contacts of cases do not need to be excluded.

Prevention/Care

- Encourage frequent hand-washing.
- Educate students to avoid scratching and touching the infected area and then touching another area of the body. Other prevention/care suggestions include:
- Wear disposable gloves while applying any treatments to infected skin.
- Draining lesions should be covered at all times with a dressing.
- Call caregiver of child.
- Watch for additional cases.

Outbreaks

According to the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3-37), an outbreak is defined as the number of cases of disease occurring in a community, region, or particular population that exceeds what is normally expected. If an outbreak is suspected, contact your local health department.

Other Resources

Indiana State Department of Health Quick Facts:

http://www.in.gov/isdh/files/2012QuickFact_Impetigo.pdf

Centers for Disease Control and Prevention (CDC):

http://www.cdc.gov/ncidod/dbmd/diseaseinfo/groupastreptococcal_g.htm

Mayo Clinic:

<http://www.mayoclinic.com/health/impetigo/DS00464>

Methicillin-resistant *Staphylococcus aureus* (MRSA)

Clinical Description

Staphylococcus aureus (staph) bacteria commonly reside on the skin or in the nose of healthy individuals and do not cause infection. When these bacteria enter the body through a break in the skin, they can cause mild skin infections, such as pimples, abscesses, rashes, or boils. Staph can also cause serious infections, such as bloodstream and bone infections or pneumonia. Methicillin-resistant *Staphylococcus aureus* (MRSA) is a type of staph bacteria that is resistant to the antibiotic methicillin and other antibiotics related to penicillin.

Incubation Period

The incubation period is variable and indefinite.

Mode of Transmission

MRSA is spread by direct physical contact with an infected person, either by direct skin contact or indirect contact with inanimate object (such as towels, clothes, bandages, or sports equipment) that is soiled with wound drainage. The bacteria are not carried through the air, and they are not found in dirt or mud.

Period of Communicability

A person is able to spread MRSA if an open wound is not properly covered.

Exclusion/Reporting

There are no specific exclusion provisions found in Indiana communicable disease laws or rules for MRSA. Students should not be excluded from attending school unless directed by a health care provider, or if wound drainage cannot be covered and contained with a dry bandage, or if good personal hygiene can not be demonstrated. For information on laws and rules regarding *Staphylococcus aureus* see Rule 410 IAC 1-2.3 Sec. 98: at [http://www.in.gov/isdh/files/comm_dis_rule\(1\).pdf](http://www.in.gov/isdh/files/comm_dis_rule(1).pdf).

Prevention/Care

MRSA can be prevented by encouraging students and educators alike to follow these simple precaution methods at all times:

- Encourage frequent hand-washing.
- Keep infected areas covered with a clean, dry bandage.
- Avoid direct contact with another person's wound, drainage, or bandages.
- Avoid contact with surfaces contaminated with wound drainage.
- Do not share personal hygiene items, such as washcloths, towels, razors, toothbrushes, soap, deodorant, nail clippers, clothing, or uniforms.
- Clean shared athletic equipment and surfaces before use.
- See a health care provider if a wound shows signs of infection, such as redness, swelling, pain, or drainage.

Prompt referral to a health care provider for evaluation and treatment will prevent the infection from becoming worse.

Outbreaks

According to the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3-37), an outbreak is defined as the number of cases of disease occurring in a community, region, or particular population that exceeds what is normally expected. If an outbreak is suspected, contact your local health department.

Other Resources

Centers for Disease Control and Prevention (CDC):

<http://www.cdc.gov/mrsa/prevent/schools.html>

Indiana State Department of Health MRSA Resource Manual:

<http://www.in.gov/isdh/24808.htm>

Indiana State Department of Health Quick Facts:

<http://www.in.gov/isdh/25454.htm>

Pediculosis Capitis

Head Lice

Clinical Description

Pediculosis capitis is an infestation of adult lice or nits (eggs) in the hair on the head. The head louse lives close to the scalp and is most visible behind the ears or at the base of the neckline. Lice depend upon human blood to exist and can only survive up to two days away from the scalp. The main symptom of head lice infestation is itching.

Incubation Period

Optimally, eggs hatch in a week, and the resultant lice are capable of multiplying in 8 to 10 days. The typical adult louse lives 20 - 30 days and lays 4 to 5 eggs a day; however, the eggs will only hatch if they are less than 1 week old and are near the scalp.

Mode of Transmission

Transmission occurs by direct head to head contact with a person with a live infestation, or less frequently, direct contact with their personal belongings that are harboring lice, such as combs, hairbrushes, hats, towels, and pillowcases.

Period of Communicability

A person can spread lice as long as live lice remain on an infested person in the hair and are within ¼" from the scalp. Head lice are most common among children attending child care or elementary school.

Exclusion/Reporting

School nurses should work with their administration and local health department to implement a policy regarding head lice and attendance. The American Association of Pediatrics and the National Association of School Nurses advocate that "no-nit" policies should be discontinued. The CDC states that nits may be misdiagnosed, and if present, are cemented to the hair shaft and not likely to be transferred. They further state that the adverse effect of lost school days on students and families far outweighs any health risk. Head lice infestation is not listed as a reportable communicable disease under Rule 410 IAC 1-2.3 at [http://www.in.gov/isdh/files/comm_dis_rule\(1\).pdf](http://www.in.gov/isdh/files/comm_dis_rule(1).pdf).

Prevention/Care

- Instruct parents/guardians to use the pediculicides (lice medicine) as directed in the package insert. Infested persons should not use a combination shampoo/conditioner, or conditioner before using lice medicine and should not re-wash their hair for 1-2 days after the lice medicine is removed.
- Detection of live lice more than 24 hours after treatment suggests treatment failure. Parents should be advised to call their health care provider before retreating as a different pediculicide may be necessary.
- To avoid potential toxic reactions in people, repetitive use of over-the-counter (OTC) head lice control products is not recommended.
- Once an effective treatment has been applied, retreatment with the same pediculicide according to package directions (usually 7 to 10 days after the first treatment) may be necessary to kill recently hatched lice and rid the child of infestation.
- Household contacts should be evaluated for lice or nits, and if infested, should be treated at the same time as the child. Parents are encouraged to comb out and completely remove all nits.
- Parents should be instructed in home control measures, including laundering items in hot soapy water. Brushes and combs should be thoroughly cleaned or boiled.
- Insecticide treatment of the home and/or vehicles is not indicated.
- Presence of lice is not indicative of poor hygiene or unhygienic environment.
- Head lice rarely cause direct harm; they are not known to transmit infectious agents from person-to-person.

- There is a lack of scientific evidence as to whether suffocation of lice with occlusive agents, such as petroleum jelly or olive oil, is effective in treatment.

Other Resources

American Academy of Pediatrics publication on Head Lice:

<http://pediatrics.aappublications.org/content/110/3/638.full.pdf>

Centers for Disease Control and Prevention (CDC):

<http://www.cdc.gov/lice/>

Centers for Disease Control and Prevention (CDC) Link for Schools:

<http://www.cdc.gov/parasites/lice/head/schools.html>

Indiana State Department of Health Quick Facts:

<http://www.in.gov/isdh/files/2010HeadliceQF.pdf>

National Association of School Nurses, "Pediculosis Management in the School Setting":

<http://www.nasn.org/Portals/0/positions/2011pspediculosis.pdf>

Ringworm

Tinea

Clinical Description

Ringworm is an infection caused by a fungus which can affect the skin on the body (*Tinea corporis*), scalp (*Tinea capitis*), groin area (*Tinea cruris* "jock itch"), or feet (*Tinea pedis* "athlete's foot"). Ringworm usually begins as a small red bump or papule that spreads outward, so that each affected area takes on the appearance of a red, scaly outer ring with a clear central area. The lesions are frequently itchy, and can become infected if scratched.

Incubation Period

The incubation period varies depending on the type of ringworm. The incubation period for *Tinea capitis* is 10 to 14 days, *Tinea corporis* and *Tinea cruris* is 4 - 10 days, and the incubation period for *Tinea pedis* is unknown.

Mode of Transmission

Transmission is usually by direct contact with a human or animal source. *Tinea capitis* can also be transmitted by inanimate infected objects such as the back of seats, combs, brushes, or hats. *Tinea cruris*, *corporis* and *pedis* can be contracted from places such as shower stalls, benches, contaminated floors, and articles used by an infected person.

Period of Communicability

A person can spread ringworm as long as lesions are present and viable fungus persists on contaminated materials and surfaces.

Exclusion/Reporting

The 2009 American Academy of Pediatrics *Red Book* provides basic guidance on school attendance as follows:

Students with a fungal infection of the skin should be referred to a medical provider for treatment; however, students who fail to receive treatment do not need to be excluded unless the nature of their contact with other students could potentiate spread.

Ringworm is not listed as a reportable communicable disease under Rule 410 IAC 1-2.3 at

[http://www.in.gov/isdh/files/comm_dis_rule\(1\).pdf](http://www.in.gov/isdh/files/comm_dis_rule(1).pdf).

Prevention/Care

- Students infected with *tinea pedis* should be excluded from swimming pools, and from walking barefoot on locker room and shower floors until treatment has been initiated.
- Students with *tinea capitis* should be instructed not to share combs, hats, hair accessories, or hair brushes
- Clean and drain school shower areas frequently.

Other Resources

Indiana State Department of Health Quick Facts:

http://www.in.gov/isdh/files/Ringworm_QFV2_2010.pdf

National Institutes of Health:

<http://www.nlm.nih.gov/medlineplus/ency/article/001439.htm>

Scabies

Clinical Description

Scabies is a skin infection caused by the burrowing itch mite, *Sarcoptes scabiei*, which can only be seen with a microscope. It is characterized by itching, particularly at night, and blister-like sores in the burrows of the skin, which may become infected. These sores are especially prevalent in the webs between the fingers, the heels of the palms, the wrists, armpits, buttocks, genitalia, and elbows. Nipples may also be affected in older females.

Incubation Period

The incubation period for scabies ranges from 2 - 6 weeks for the first infection; for subsequent infections the incubation may be as short as a few days.

Mode of Transmission

Scabies is transmitted by close (including sexual) contact with an affected individual. Contact with bedding, towels, or clothing (including undergarments) of an infected person can be a means of spreading scabies.

Period of Communicability

A person can spread scabies from the time of infection until the mites and eggs are destroyed by treatment.

Exclusion/Reporting

Infested persons should be excluded from school until the day after treatment. Scabies is not listed as a reportable communicable disease under Rule 410 IAC 1-2.3 at

[http://www.in.gov/isdh/files/comm_dis_rule\(1\).pdf](http://www.in.gov/isdh/files/comm_dis_rule(1).pdf).

Prevention/Care

- Students or staff may return to school a day after treatment is started or as directed by the healthcare provider.
- Presence of scabies does not necessarily indicate poor hygiene or unhygienic environment.
- Clothing and bedclothes of the infected person and of all the people in their household should be well-laundered.
- Bed mattresses and upholstered furniture should be vacuumed thoroughly.
- Insecticide treatment of the home or any school facility is not recommended.
- Caregivers who have prolonged skin to skin contact with a student infested with scabies may benefit from prophylactic treatment.

Other Resources

Indiana State Department of Health Quick Facts:

http://www.in.gov/isdh/files/Scabies_QFV2_2010.pdf

Centers for Disease Control and Prevention (CDC):

<http://www.cdc.gov/parasites/scabies/>

Shingles

Herpes Zoster

Clinical Description

Herpes Zoster (Shingles) is the latent manifestation of the primary varicella infection (chickenpox) caused by the varicella zoster virus. Shingles is characterized as a rash on one side or both sides of the face or body, usually in patches along nerve pathways, or dermatomes, in crops similar to varicella lesions. The symptoms of shingles include pain, itching, or tingling in the area where the rash develops prior to blistering, and possible severe pain in the rash location even after the rash resolves. The rash usually clears within 2 - 4 weeks. Although uncommon, shingles can occur in school age children and vaccinated persons with a history of varicella disease.

Incubation Period

Shingles is reactivation of latent varicella zoster virus, so there is no applicable incubation period. Anyone who has recovered from varicella may develop shingles.

Mode of Transmission

Transmission of varicella zoster virus can occur through direct contact with the rash or fluid from a shingles lesion. An exposed, susceptible individual may contract chickenpox (varicella) from a shingles lesion, however, shingles itself cannot be contracted from another individual since it is reactivation of latent varicella zoster virus.

Period of Communicability

A person can no longer spread the herpes zoster virus once the rash lesions crust.

Exclusion/Reporting

If the site of the infection can be covered, individuals with shingles are not considered to be highly contagious and should not be excluded from school.

Prevention/Care

- People with shingles should keep the rash covered and not touch or scratch the rash.
- Wash hands properly and often.
- No shingles vaccine is available for children; however, administration of varicella vaccine will prevent infection if contact with a shingles case occurs.
- Zoster vaccine is recommended for use in persons ages 60 years and older.

Outbreaks

According to the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3-37), an outbreak is defined as the number of cases of disease occurring in a community, region, or particular population that exceeds what is normally expected. If an outbreak is suspected, contact your local health department.

Since shingles is not transmissible from person to person, there are no outbreak control recommendations. However, if a case of shingles transmits chickenpox to a susceptible person, please refer to the varicella chapter for details on outbreak control if there is subsequent transmission of chickenpox.

Other Resources

Centers for Disease Control and Prevention (CDC) information about shingles:

<http://www.in.gov/isdh/healthinfo/shingles.htm>

Indiana State Department of Health Quick Facts Information Sheet:

http://www.in.gov/isdh/files/2012QuickFact_Shingles.pdf

Streptococcal Sore Throat and Scarlet Fever

Clinical Description

Streptococcal sore throat is an acute syndrome with fever, exudative tonsillitis or pharyngitis, and tender cervical lymph nodes; however, it can occur with very few symptoms. Many sore throats resembling "strep throat" are not due to strep and may be caused by a viral infection. Scarlet fever is a combination of a streptococcal sore throat and a skin rash caused by a toxin produced by Group A *Streptococcus* bacteria (*Streptococcus pyogenes*). The disease is characterized by a fine, red rash that feels almost like sand-paper. It appears first on the upper body, then spreads to cover almost all of the body. In full-blown cases, this may occur over a period of several hours to several days. The rash fades on pressure and leads to flaking of the skin. With few exceptions, it is usually no more severe or dangerous than a strep throat without the rash. The main reason for concern with a streptococcal infection is the risk of developing rheumatic fever, which is markedly reduced by prompt treatment with appropriate antibiotics.

Incubation Period

The incubation period ranges from 1 - 3 days, rarely longer.

Mode of Transmission

The primary mode of transmission is by large respiratory droplets or direct contact with individuals who have strep throat or with carriers of the bacteria. Strep throat and scarlet fever are rarely transmitted through direct contact with objects. Individuals with acute respiratory tract (especially nasal) infections are particularly likely to transmit infection.

Period of Communicability

A person who is untreated can spread the disease as long as he or she is symptomatic, usually 10 to 21 days. Infected individuals can no longer transmit the infection within 24 to 48 hours after the initiation of antibiotic therapy.

Exclusion/Reporting

Children should not return to school until at least 24 hours after beginning antibiotic treatment when ill with noninvasive Group A *Streptococcus* infections. Asymptomatic children should not be excluded from school.

Prevention/Care

- Children with a sore throat and fever, and children with an unexplained fever over 101 degrees Fahrenheit should be referred for medical evaluation.
- Encourage good personal hygiene.

Outbreaks

According to the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3-37), an outbreak is defined as the number of cases of disease occurring in a community, region, or particular population that exceeds what is normally expected. If an outbreak is suspected, contact your local health department.

Other Resources

Indiana State Department of Health Quick Facts:

http://www.in.gov/isdh/files/2012QuickFact_StrepThroat.pdf

Centers for Disease Control and Prevention (CDC):

http://www.cdc.gov/ncidod/dbmd/diseaseinfo/groupastreptococcal_g.htm

Mayo Clinic:

<http://www.mayoclinic.com/health/strep-throat/DS00260>

<http://www.mayoclinic.com/health/scarlet-fever/DS00917>

Tick Borne Infections



Clinical Description

Ehrlichiosis is an infection caused by one of several bacteria transmitted by ticks. In Indiana the most common bacterium associated with disease is *Ehrlichia chaffeensis*, which is transmitted by *Amblyomma americanum*, the "lone-star tick". Other disease causing *Ehrlichias* may be transmitted by *Ixodes scapularis*, the "black-legged tick". Symptoms vary from mild or in-apparent infection to severe forms that may be fatal. Patients typically present with fever, headache, myalgia, depression and anorexia. Symptoms usually develop within 1 - 2 weeks of tick exposure.

Lyme disease is an infection caused by the bacterium *Borrelia burgdorferi* transmitted by the bite of a tiny tick, *Ixodes scapularis*, commonly known as the "black-legged tick." Lyme disease usually begins with a characteristic rash, a red papule that expands to a larger (> 5cm) reddened area, typically with partial central clearing (erythema migrans or "bulls-eye" rash). The rash may appear 2 to 31 days after the tick bite. If not treated promptly, additional symptoms may develop, such as fever, headache, pain in the joints or muscles, mild neck stiffness, or swollen lymph nodes. If left untreated, Lyme disease can lead to serious health problems.

Rocky Mountain Spotted Fever (RMSF) is an infection caused by the bacterium *Rickettsia rickettsii* that is transmitted to humans by the bite of an infected tick, *Dermacentor variabilis*, or the "American dog tick". Symptoms include a sudden onset of moderate to high fever, 2 - 14 days after tick attachment that ordinarily persists for 2 - 3 weeks. Significant malaise, deep muscle pain, severe headaches, chills, and conjunctival infections are typical in cases. A rash may appear 2 - 5 days after the fever begins, although some people may not experience the rash at all. The rash is not itchy and appears on the wrists, forearms, and ankles and then spreads to include the trunk; the palms and soles may also be affected. RMSF is a serious illness that can be fatal in the first eight days if not treated correctly and promptly.

Incubation Period

The incubation period for ehrlichiosis is 7 - 14 days. For Lyme disease, the incubation period ranges from 2 - 31 days, typically 7 - 10 days. For RMSF, the incubation period ranges from 2 - 14 days.

Mode of Transmission

These tick-borne infections are only transmitted through bites from infected ticks. A tick must be attached for several hours before it can transmit disease. Prompt removal of attached ticks can prevent transmission.

Period of Communicability

Tick borne diseases are not transmitted person-to-person.

Exclusion/Reporting

For information on laws and rules regarding tick borne diseases see Rule 410 IAC 1-2.3 Sec. 64, 80 and 94 at [http://www.in.gov/isdh/files/comm_dis_rule\(1\).pdf](http://www.in.gov/isdh/files/comm_dis_rule(1).pdf). There are no specific control measures for schools found in Indiana communicable disease laws or rules for tick-borne diseases. All cases of ehrlichiosis, Lyme disease, and RMSF should be reported to the local health department where student resides and ISDH.

Prevention/Care

- If a tick is found on a student, remove it immediately. To remove a tick, use tweezers to firmly grasp the body close to the skin and pull it straight out. If tweezers are not available, the fingers may be used as long as they are covered with a tissue, foil, or wax paper to prevent direct contact

with fluids from the tick. Do not twist or jerk the tick because the head may become embedded in the skin. Wash the area and your hands after the tick has been removed.

- Contact caregivers of the child about the tick bite. They should be instructed to seek medical evaluation if the student develops a febrile illness or rash over the next 3 to 4 weeks.

Outbreaks

According to the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3-37), an outbreak is defined as the number of cases of disease occurring in a community, region, or particular population that exceeds what is normally expected. If an outbreak is suspected, contact your local health department. All cases of Ehrlichiosis, Lyme disease, and Rocky Mountain Spotted Fever should be reported to the local health department where student resides.

Other Resources

Centers for Disease Control and Prevention (CDC):

<http://www.cdc.gov/ehrlichiosis>

<http://www.cdc.gov/lyme>

<http://www.cdc.gov/rmsf>

Indiana State Department of Health Quick Facts:

<http://www.in.gov/isdh/files/2010LymeQF.pdf>

<http://www.in.gov/isdh/files/2010RMSFQF.pdf>

<http://www.in.gov/isdh/files/2010EhrlichiosisQF.pdf>

Gastrointestinal Illness

Campylobacteriosis

Clinical Description

Campylobacteriosis is a diarrheal disease caused by the bacteria of the genus *Campylobacter*. The species that most commonly infects humans is *Campylobacter jejuni*. Symptoms can include diarrhea, which is sometimes bloody, stomach cramps, fever, nausea, and vomiting. *Campylobacter* symptoms usually last no longer than one week and medical treatment is not required.

Incubation Period

Symptoms usually appear 2 - 5 days after exposure, with a range of 1 - 10 days.

Mode of Transmission

Campylobacter is transmitted by food, most often from undercooked poultry, unpasteurized milk, or non-chlorinated water or the fecal-oral route.

Period of Communicability

A person can spread *Campylobacter* while experiencing symptoms.

Exclusion/Reporting

Symptomatic persons diagnosed with *Campylobacter* or symptomatic persons linked by person, place, or time to a case are excluded from attending school until:

- Asymptomatic for at least 24 hours
- Disease prevention education provided by the local health department

For more information on laws and rules regarding campylobacteriosis see the Communicable Disease Reporting Rule 410 IAC 1-2.3 Sec. 57 at: [http://www.in.gov/isdh/files/comm_dis_rule\(1\).pdf](http://www.in.gov/isdh/files/comm_dis_rule(1).pdf).

Prevention/Care

Encourage frequent hand washing, particularly after using the restroom, assisting someone with diarrhea and/or vomiting, after contact with animals, after swimming, and before and after food preparation.

Please refer to the ISDH Handwashing Campaign at <http://www.in.gov/isdh/24036.htm>. Treatment with antibiotics may shorten the duration of illness.

Outbreaks

According to the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3-37), an outbreak is defined as the number of cases of disease occurring in a community, region, or particular population that exceeds what is normally expected. If an outbreak is suspected, contact your local health department. A campylobacteriosis outbreak is two or more cases of a similar illness shown by an investigation to result from a common exposure, such as ingestion of a common food.

Other Resources

Centers for Disease Control and Prevention (CDC):

<http://www.cdc.gov/nczved/divisions/dfbmd/diseases/campylobacter/>

Indiana State Department of Health Quick Facts:

<http://www.in.gov/isdh/25500.htm>

Clostridium difficile Infections (CDI)

Clinical Description

Older adults who take antibiotics and also receive medical care are most at risk for acquiring CDI. Infection with *Clostridium difficile* (*C. difficile*) can result in symptoms ranging from asymptomatic carriage, watery diarrhea, pseudomembranous colitis, sepsis and death.

Incubation Period

The incubation period is unknown.

Mode of Transmission

C. difficile is acquired from the environment or from stool of another colonized or infected individual by the fecal-oral route.

Period of Communicability

The ability of *C. difficile* to form spores allows the bacteria to survive in the environment for weeks or months.

Exclusion/Reporting

Children are at a lower risk for CDI. Infected children should receive care from a provider. Children with *C. difficile* diarrhea should be excluded for the duration of diarrhea. Infection control measures should be enforced.

Prevention/Care

Meticulous hand hygiene, especially after using the restroom and before eating is the most important factor for decreasing transmission of CDI. Washing hands with soap and water is more effective in removing *C. difficile* spores. Regular, scheduled cleaning of surfaces in restrooms with bleach or another EPA-approved, spore-killing disinfectant is advised. A designated restroom should be considered for an infected child thus assuring appropriate hand hygiene and immediate surface cleaning upon use of the restroom.

Outbreaks

According to the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3-37), an outbreak is defined as the number of cases of disease occurring in a community, region, or particular population that exceeds what is normally expected. If an outbreak is suspected, contact your local health department.

Other Resources

Centers for Disease Control and Prevention (CDC):

http://www.cdc.gov/HAI/organisms/cdiff/Cdiff_infect.html

Indiana State Department of Health Quick Facts:

<http://www.in.gov/isdh/25495.htm>

Cryptosporidiosis



Clinical Description

Cryptosporidiosis is a diarrheal disease caused by microscopic parasites of the genus *Cryptosporidium*. The most common species that infect humans are *Cryptosporidium parvum* and *Cryptosporidium hominis*. Symptoms can include watery diarrhea, stomach cramps, fever, nausea, weight loss, and vomiting. Symptoms usually last two weeks or less; however, symptoms can subside and then return for up to 30 days.

Incubation Period

Symptoms usually begin 7 days, range of 1 - 12 days, after a person becomes infected.

Mode of Transmission

Cryptosporidium is transmitted by the fecal-oral route.

Period of Communicability

Some people with cryptosporidiosis may not have any symptoms, but they can still pass the disease to others. After infection, people can shed *Cryptosporidium* in their stool for months. People with weakened immune systems may not be able to clear the infection. This may lead to prolonged disease and even death.

Exclusion/Reporting

Symptomatic persons diagnosed with *Cryptosporidium* or symptomatic persons linked by person, place, or time to a case are excluded from attending school until:

- Asymptomatic for at least 24 hours
- Disease prevention education provided by the local health department
- Completion of antiparasitic therapy

For more information on laws and rules regarding cryptosporidiosis see the Communicable Disease Reporting Rule 410 IAC 1-2.3 Sec. 61 at: [http://www.in.gov/isdh/files/comm_dis_rule\(1\).pdf](http://www.in.gov/isdh/files/comm_dis_rule(1).pdf).

Prevention/Care

Encourage frequent hand washing, particularly after using the restroom, assisting someone with diarrhea and/or vomiting, after contact with animals, after swimming, and before and after food preparation. Please refer to the ISDH Handwashing Campaign at <http://www.in.gov/isdh/24036.htm>. Enforce exclusion of ill students and staff members.

Outbreaks

According to the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3-37), an outbreak is defined as the number of cases of disease occurring in a community, region, or particular population that exceeds what is normally expected. If an outbreak is suspected, contact your local health department. A cryptosporidiosis outbreak is two or more cases of a similar illness shown by an investigation to result from a common exposure, such as water at a common source.

Other Resources

Indiana State Department of Health Quick Facts:

<http://www.in.gov/isdh/25493.htm>

Centers for Disease Control and Prevention (CDC):

<http://www.cdc.gov/parasites/crypto/>



E. coli Infection (Shiga-toxin producing and HUS)

Clinical Description

Escherichia coli (*E. coli*) infection is a bacterial disease with the most severe infection caused by *E. coli* strains that produce a potent toxin. These strains are known as Shiga-toxin producing *E. coli* (STEC). Symptoms can include bloody or non-bloody diarrhea, stomach cramps, low-grade fever, nausea, weight loss, and vomiting. Approximately 8% of people infected with STEC can develop the condition hemolytic uremic syndrome (HUS). This condition can lead to kidney failure and death.

Incubation Period

Symptoms usually begin 3 - 4 days, range of 2 - 10 days, after exposure and last for approximately 5 - 10 days.

Mode of Transmission

E. coli is transmitted by contaminated food or beverages or person-to-person by the fecal-oral route.

Period of Communicability

A person can spread *E. coli* during acute illness and can shed *E. coli* in stool for up to three weeks after symptoms resolve.

Exclusion/Reporting

Symptomatic persons diagnosed with STEC, HUS, or symptomatic persons linked by person, place, or time to a case are excluded from attending school until:

- Asymptomatic for at least 24 hours
- Disease prevention education is provided by the local health department

For more information on laws and rules regarding STEC or HUS see the Communicable Disease Reporting Rule 410 IAC 1-2.3 Sec. 66 at: [http://www.in.gov/isdh/files/comm_dis_rule\(1\).pdf](http://www.in.gov/isdh/files/comm_dis_rule(1).pdf).

Prevention/Care

Encourage frequent hand washing, particularly after using the restroom, assisting someone with diarrhea and/or vomiting, after contact with animals, after swimming, and before and after food preparation. Please refer to the ISDH Handwashing Campaign at <http://www.in.gov/isdh/24036.htm>. Enforce exclusion of ill students and staff members.

Outbreaks

According to the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3-37), an outbreak is defined as the number of cases of disease occurring in a community, region, or particular population that exceeds what is normally expected. If an outbreak is suspected, contact your local health department. A STEC outbreak is two or more cases of a similar illness shown by an investigation to result from a common exposure, such as ingestion of a common food.

Other Resources

Indiana State Department of Health Quick Facts:

<http://www.in.gov/isdh/25489.htm>

Centers for Disease Control and Prevention (CDC):

<http://www.cdc.gov/ecoli/>

Giardiasis

Clinical Description

Giardiasis is a diarrheal disease caused by the microscopic parasite *Giardia intestinalis*. Symptoms can include diarrhea, gas, greasy stools that tend to float, bloating, stomach cramps, fever, nausea, and constipation. Symptoms usually last about 2 - 6 weeks.

Incubation Period

Symptoms usually begin within 7 - 10 days, range of 3 - 25 days, after exposure.

Mode of Transmission

Giardia is transmitted by contaminated food or water or person-to-person by the fecal-oral route.

Period of Communicability

A person can spread *Giardia* during while symptomatic. Infected people can also carry *Giardia* for weeks or months. They may or may not have symptoms and can unknowingly infect others.

Exclusion/Reporting

Symptomatic persons diagnosed with *Giardia* or symptomatic persons linked by person, place, or time to a case are excluded from attending school until:

- Asymptomatic for at least 24 hours
- Disease prevention education provided by the local health department
- Completion of antiparasitic therapy

For more information on laws and rules regarding giardiasis see the Communicable Disease Reporting Rule 410 IAC 1-2.3 Sec. 66.5 at: [http://www.in.gov/isdh/files/comm_dis_rule\(1\).pdf](http://www.in.gov/isdh/files/comm_dis_rule(1).pdf).

Prevention/Care

Encourage frequent hand washing, particularly after using the restroom, assisting someone with diarrhea and/or vomiting, after contact with animals, after swimming, and before and after food preparation.

Please refer to the ISDH Handwashing Campaign at <http://www.in.gov/isdh/24036.htm>. Enforce exclusion of ill students and staff members.

Outbreaks

According to the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3-37), an outbreak is defined as the number of cases of disease occurring in a community, region, or particular population that exceeds what is normally expected. If an outbreak is suspected, contact your local health department. A giardiasis outbreak is two or more cases of a similar illness shown by an investigation to result from a common exposure, such as water at a common source.

Other Resources

Indiana State Department of Health Quick Facts:

<http://www.in.gov/isdh/25485.htm>

Centers for Disease Control and Prevention (CDC):

<http://www.cdc.gov/parasites/giardia/>

Hepatitis A Infection

Clinical Description

Hepatitis A is a disease of the liver resulting from infection with the hepatitis A virus. Symptoms can include diarrhea, nausea, vomiting, fatigue, stomach cramps, fever, dark urine, pale or clay-colored stool, loss of appetite, and jaundice. There is no long-term carrier state with hepatitis A infection. Individuals may be asymptomatic, but still infectious.

Incubation Period

Symptoms usually occur suddenly and begin 28 - 30 days, range of 15 - 50 days, after exposure. Symptoms typically last less than two months.

Mode of Transmission

Hepatitis A is transmitted by the fecal-oral route.

Period of Communicability

A person can spread hepatitis A 14 days before and 7 days after the onset of jaundice, or if jaundice does not occur, 7 days before and 14 days after the onset of symptoms.

Exclusion/Reporting

Symptomatic persons diagnosed with hepatitis A or symptomatic persons linked by person, place, or time to a case are excluded from attending school:

- 14 days before or 7 days after onset of jaundice
- 7 days before and 14 days after symptom onset (if no jaundice)
- Disease prevention education is provided by the local health department

For more information on laws and rules regarding Hepatitis A see the Communicable Disease Reporting Rule 410 IAC 1-2.3 Sec. 72 at: [http://www.in.gov/isdh/files/comm_dis_rule\(1\).pdf](http://www.in.gov/isdh/files/comm_dis_rule(1).pdf).

Prevention/Care

Prophylaxis is recommended for household and sexual contacts and contacts exposed to food prepared by the case within two weeks of exposure. The hepatitis A vaccine is 100% effective after two doses.

Encourage frequent hand washing, particularly after using the restroom, assisting someone with diarrhea and/or vomiting, after contact with animals, after swimming, and before and after food preparation.

Please refer to the ISDH Handwashing Campaign at <http://www.in.gov/isdh/24036.htm>.

Outbreaks

According to the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3-37), an outbreak is defined as the number of cases of disease occurring in a community, region, or particular population that exceeds what is normally expected. If an outbreak is suspected, contact your local health department. A hepatitis A outbreak is two or more cases of a similar illness shown by an investigation to result from a common exposure, such as ingestion of a common food.

Other Resources

Indiana State Department of Health Quick Facts:

<http://www.in.gov/isdh/25478.htm>

Centers for Disease Control and Prevention (CDC):

<http://www.cdc.gov/Hepatitis/ChooseA.htm>

Norovirus Infection

Clinical Description

Noroviruses, the most common causes of viral gastroenteritis, are very contagious, with symptoms including watery diarrhea, stomach cramps, nausea, vomiting, headache, muscle aches, and fatigue. Most cases have no fever or a slight fever. Illness is self-limiting, and symptoms generally last 24 - 48 hours. Although, often termed "stomach flu", norovirus infection should not be confused with influenza, which is a respiratory illness.

Incubation Period

Symptoms usually begin 24 - 48 hours (range of 12 - 72 hours) after exposure.

Mode of Transmission

Norovirus is transmitted by the fecal-oral route.

Period of Communicability

A person can spread norovirus when experiencing symptoms and up to 72 hours after recovery. Some studies indicate that those infected can shed virus up to two weeks after recovery. Only a very small dose of virus is needed to cause infection.

Exclusion/Reporting

It is recommended that persons with diarrhea and/or vomiting be excluded from attending school until asymptomatic for at least 24 hours.

Prevention/Care

Encourage frequent hand washing, particularly after using the restroom, assisting someone with diarrhea and/or vomiting, after swimming, and before and after food preparation. Please refer to the ISDH Handwashing Campaign at <http://www.in.gov/isdh/24036.htm>. Enforce exclusion of ill students or staff members. Inform caregivers of children experiencing signs of dehydration to seek medical attention. Regular, scheduled cleaning of surfaces in restrooms with bleach or another EPA-approved, spore-killing disinfectant is advised.

Outbreaks

According to the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3-37), an outbreak is defined as the number of cases of disease occurring in a community, region, or particular population that exceeds what is normally expected. If an outbreak is suspected, contact your local health department. A norovirus outbreak is defined as two or more cases of a similar illness shown by an investigation to result from a common exposure, such as ingestion of a common food.

Other Resources

Indiana State Department of Health Quick Facts:

<http://www.in.gov/isdh/25448.htm>

Centers for Disease Control and Prevention (CDC):

<http://www.cdc.gov/norovirus/index.html>

Salmonellosis



Clinical Description

Salmonellosis is a diarrheal disease caused by bacteria from the genus *Salmonella*. Symptoms can include diarrhea, nausea, vomiting, stomach cramps, and fever. Most people recover within 4 to 7 days without medical treatment.

Incubation Period

Symptoms usually begin 12 - 36 hours, range of 6 - 72 hours, after exposure.

Mode of Transmission

Salmonella is transmitted by undercooked or contaminated food or beverages, person-to-person by the fecal-oral route, and contact with infected or carrier animals including amphibians, reptiles and poultry.

Period of Communicability

A person can spread *Salmonella* at anytime while symptomatic. Infected people may carry *Salmonella* in their bodies for weeks or months without symptoms and unknowingly infect others.

Exclusion/Reporting

Persons diagnosed with *Salmonella* or symptomatic persons linked by person, place, or time to a confirmed case are excluded from attending school until:

- Asymptomatic for at least 24 hours
- Disease prevention education is provided by the local health department

For more information, please see the Communicable Disease Reporting Rule 410 IAC 1-2.3 Sec. 96 at: [http://www.in.gov/isdh/files/comm_dis_rule\(1\).pdf](http://www.in.gov/isdh/files/comm_dis_rule(1).pdf).

Prevention/Care

Encourage frequent hand washing, particularly after using the restroom, assisting someone with diarrhea and/or vomiting, after contact with animals, after swimming, and before and after food preparation. Please refer to the ISDH Handwashing Campaign at <http://www.in.gov/isdh/24036.htm>. Enforce exclusion of ill students and staff members.

Outbreaks

According to the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3-37), an outbreak is defined as the number of cases of disease occurring in a community, region, or particular population that exceeds what is normally expected. If an outbreak is suspected, contact your local health department. A salmonellosis outbreak is two or more cases of a similar illness shown by an investigation to result from a common exposure, such as ingestion of a common food.

Other Resources

Indiana State Department of Health Quick Facts:

<http://www.in.gov/isdh/25435.htm>

Centers for Disease Control and Prevention (CDC):

<http://www.cdc.gov/nczved/divisions/dfbmd/diseases/salmonellosis/>

Shigellosis

Clinical Description

Shigellosis is an infectious disease caused by bacteria from the genus *Shigella*. Symptoms can include diarrhea, blood, pus, or mucus in the stool, sudden stomach cramps, nausea, vomiting, and fever. Illness typically lasts 4 - 7 days and cases should be treated with appropriate antimicrobial therapy to reduce shedding. Antibiotic resistance is common, so antibiotic sensitivities are strongly recommended.

Incubation Period

Symptoms usually begin 24 - 72 hours, range of 12 hours - 5 days, after exposure.

Mode of Transmission

Shigella is transmitted by the fecal-oral route.

Period of Communicability

A person can spread *Shigella* while symptomatic and continue to shed *Shigella* in their stool for several weeks after symptoms resolve if not treated with appropriate antibiotics. Some people may have no symptoms and can still spread the infection to others.

Exclusion/Reporting

Persons diagnosed with *Shigella* or symptomatic persons linked by person, place, or time to a confirmed case are excluded from attending school until:

- Asymptomatic for at least 24 hours
- Disease prevention education is provided by the local health department
- Antimicrobial therapy is completed for at least 48 hours with antimicrobial susceptibility testing, or
- 48 hours after completion of antimicrobial therapy, two stool samples collected more than 24 hours apart test negative.

For more information, please see the Communicable Disease Reporting Rule 410 IAC 1-2.3 Sec. 97 at: [http://www.in.gov/isdh/files/comm_dis_rule\(1\).pdf](http://www.in.gov/isdh/files/comm_dis_rule(1).pdf).

Prevention/Care

Encourage frequent hand washing, particularly after using the restroom, assisting someone with diarrhea and/or vomiting, after swimming, and before and after food preparation. Please refer to the ISDH Handwashing Campaign at <http://www.in.gov/isdh/24036.htm>. Enforce exclusion of ill students and staff members.

Outbreaks

According to the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3-37), an outbreak is defined as the number of cases of disease occurring in a community, region, or particular population that exceeds what is normally expected. If an outbreak is suspected, contact your local health department. A shigellosis outbreak is two or more cases of a similar illness shown by an investigation to result from a common exposure, such as ingestion of a common food.

Other Resources

Indiana State Department of Health Quick Facts:

<http://www.in.gov/isdh/25433.htm>

Centers for Disease Control and Prevention (CDC):

<http://www.cdc.gov/nczved/divisions/dfbmd/diseases/shigellosis/>

Other Conditions

Aseptic Meningitis

Viral Meningitis

Clinical Description

Viral meningitis is a disease marked by acute inflammation of the lining of the brain and spinal cord accompanied by symptoms that can include stiff neck, fever, headache, photophobia, vomiting, and fatigue. Most cases of viral meningitis are caused by members of a group of viruses known as enteroviruses. Often cases of viral meningitis are linked to less severe cases of upper respiratory illness and/or rash. Viral meningitis is not particularly contagious, although small clusters of cases can occur in the school setting, usually in the late summer/early fall.

Incubation Period

The incubation period varies depending on the virus involved. Enteroviral meningitis has an incubation period of 3 - 6 days.

Mode of Transmission

Transmission, when it does occur, is usually person-to-person by airborne droplets and direct contact with nose and throat discharges. Enteroviral meningitis can also be spread by the fecal-oral route for several weeks after the child has recovered.

Period of Communicability

The period of communicability varies depending on the virus.

Exclusion/Reporting

Almost all cases of viral meningitis are hospitalized during the acute stage of illness. It may be prudent to exclude from school attendance until a complete recovery is made.

Prevention/Care

- Educate caregiver concerning urgency of receiving medical evaluation.
- Encourage frequent hand-washing and prompt disposal of used tissues.
- Ensure students practice good personal hygiene, especially among groups such as athletic teams where water bottle sharing and other close contact situations are likely.
- Consider sending informational letters to caregivers (sample available from local health or state health departments).

Outbreaks

- According to the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3-37), an outbreak is defined as the number of cases of disease occurring in a community, region, or particular population that exceeds what is normally expected. Monitor the number of cases in schools and report instances of 2 or more cases that occur with a common affiliation (same class, sports team, etc.). If an outbreak is suspected, contact your local health department.

Other Resources

Indiana State Department of Health Quick Facts:

http://www.in.gov/isdh/files/2012QuickFact_ViralMenin.pdf

Centers for Disease Control and Prevention (CDC):

<http://www.cdc.gov/meningitis/viral.html>

Bed Bugs

Clinical Description

Bed bugs are reddish brown, flat insects that are about ¼ inch long when fully grown. Unlike lice and scabies mites, they **do not** live on the human body. They hide in cracks and crevices near sleeping areas, especially mattresses, box springs and headboards. Bed bugs usually feed on the blood of humans during the night-time hours then return to their hiding places. Some people may experience itching, pain and/or swelling of the skin where a bed bug bite occurs (such as the arms, face or back) within a day or two after a bite. Although the bites can cause considerable discomfort and loss of sleep, bed bugs **do not** transmit disease after feeding on multiple hosts.

Incubation Period

Bed bugs go through five immature or nymphal stages before becoming adults. A blood meal is required for a nymph to molt and progress to the next stage. Under ideal circumstances, development from egg to adult takes around one month. In a school environment, there are not suitable feeding hosts present at night, so development of an infestation in a school is unlikely.

Mode of Transmission

Bed bugs are renowned hitch-hikers. Bed bugs are spread through the acquisition of infested second-hand furniture or by hiding on items used during travel, such as suitcases, outerwear and other belongings. They can occasionally be brought into schools via a student's book bag, clothing or other personal items from an existing infestation in a home. Though the risk is low, bed bugs could be transferred to another student's belongings if they are stored in close proximity.

Period of Communicability

Transmission of bed bugs could occur at any time if present.

Exclusion/Reporting

It is not generally suggested that a student be excluded from school if a bed bug is found on their person or belongings. Parents or guardians should be notified to alert them of a potential infestation. Educational materials should also be provided. Bed Bugs are not listed as a reportable communicable disease under Rule 410 IAC 1-2.3 at [http://www.in.gov/isdh/files/comm_dis_rule\(1\).pdf](http://www.in.gov/isdh/files/comm_dis_rule(1).pdf).

Prevention/Care

If it is determined that a student has brought a bed bug into school, several steps may be taken to avoid spreading the infestation to others. If a home infestation is identified, the student's belongings should be stored separately until the home situation is remedied. Upon arrival at school, the student could be sensitively and discreetly examined each day by the school nurse for the presence of bed bugs on their belongings. In the home environment, items routinely transported from home to school could be stored in plastic bins at both locations to avoid picking up bugs. Routine pest control programs for roaches, ants, and other common household pests do not protect against bed bugs. Widespread treatment of a school specifically for bed bugs is generally not advised or effective. Consult a reputable pest control company if there is a concern.

Outbreaks

An infestation of bed bugs in a school is unlikely, but inspection by a reputable pest control company can be performed if desired.

Other Resources

Indiana State Department of Health Quick Facts:

<http://www.in.gov/isdh/files/BedBugsQF.pdf>

Centers for Disease Control and Prevention (CDC):

<http://www.cdc.gov/parasites/bedbugs/>

Michigan Department of Community Health Document on Bed Bugs in Schools

http://www.michigan.gov/documents/emergingdiseases/Bed_bugs_schools_293498_7.pdf

University of Kentucky Dept. of Entomology Bed Bug Page

<http://www.ca.uky.edu/entomology/entfacts/entfactpdf/ef636.pdf>

Purdue University Bed Bug Page

<http://extension.entm.purdue.edu/publichealth/insects/bedbug.html>

University of Florida "Bed Bugs and Book Bags" Educator Training

http://duval.ifas.ufl.edu/Bed_Bugs.shtml

Mononucleosis

Epstein-Barr Virus

Clinical Description

Mononucleosis is a disease caused by the Epstein-Barr virus (EBV). Symptoms can include fever, exudative pharyngitis, swollen glands, extreme fatigue and atypical lymphocytes in the blood. The spectrum of disease is extremely variable. Infections may go unrecognized in young children, whereas, in older children and young adults, clinical illness with the typical signs and symptoms are more common. An enlarged spleen is also typical in cases among adolescents and young adults. Occasionally, infection may be accompanied by a rash, which is more likely to occur in people treated with ampicillin. Complications may include aseptic meningitis, encephalitis, or Guillian-Barre syndrome. Fatigue lasting a few weeks may follow the infection. EBV also establishes a lifelong dormant infection in some cells of the body's immune system. The virus is a member of the herpesvirus group.

Incubation Period

From 4 - 6 weeks following exposure.

Mode of Transmission

Mononucleosis is spread by direct contact with the saliva of an infected person. Most individuals exposed to people with infectious mononucleosis have previously been infected with EBV and are not at risk for infectious mononucleosis

Period of Communicability

The period of communicability is indeterminate. A person may spread the virus through the exchange of saliva for many months after infection. In fact, many healthy people can carry and spread the virus intermittently for life. These people are usually the primary reservoir for person-to-person transmission. For this reason, transmission of the virus is difficult to prevent.

Exclusion/Reporting

For information on laws and rules regarding see Rule 410 IAC 1-2.3 Sec. 85: at [http://www.in.gov/isdh/files/comm_dis_rule\(1\).pdf](http://www.in.gov/isdh/files/comm_dis_rule(1).pdf).

Prevention/Care

- Encourage good personal hygiene and avoid exposure to saliva.
- There is no specific treatment for mononucleosis.
- Some interventions to assist in relief of symptoms include:
 - Student should get plenty of bed rest.
 - Drink lots of water and fruit juices to relieve fever and prevent dehydration.
 - Gargle with salt water to relieve sore throat.
 - Consider over-the-counter pain relievers. Do not give aspirin to children under the age of 16 years.

Outbreaks

According to the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3-37), an outbreak is defined as the number of cases of disease occurring in a community, region, or particular population that exceeds what is normally expected. If an outbreak is suspected, contact your local health department.

Other Resources

Centers for Disease Control and Prevention (CDC):

<http://www.cdc.gov/ncidod/diseases/ebv.htm>

Indiana State Department of Health Quick Facts:

<http://www.in.gov/isdh/files/Mono.pdf>

Pinworms

Clinical Description

Pinworm infection is caused by *Enterobius vermicularis*, a thin white roundworm that lives in the colon and rectum of humans. Pinworm infection is the most common worm infection in the United States. Symptoms of a pinworm infection include perianal itching and disturbed sleep; some individuals may be asymptomatic. Diagnosis is made by applying transparent adhesive tape to the perianal area and examining the tape microscopically for eggs.

Incubation Period

The incubation period from ingestion of an egg until an adult gravid female migrates to the perianal region is 1 - 2 months or longer.

Mode of Transmission

Pinworms are transmitted directly by the fecal-oral route and indirectly through clothing, bedding, food, or other articles (including toilet seats) contaminated with pinworm eggs.

Period of Communicability

As long as gravid females discharge eggs on perianal skin. Eggs remain infective in an indoor environment for about two weeks.

Exclusion/Attendance

There are no specific recommendations on the exclusion of children with pinworm infection from school.

Prevention/Care

- Encourage frequent hand washing, particularly after using the restroom and before and after food preparation; discourage nail biting and scratching of the anal area (please refer to the ISDH Hand washing quick fact) http://www.in.gov/isdh/files/Hand_washing_QF_2012.pdf.
- Change bed linens and underwear of infected person daily for several days after treatment, avoiding aerial dispersal of eggs. Wash and dry discarded linen on the hot cycle to kill eggs. Clean and vacuum sleeping and living areas daily for several days after treatment.

Outbreaks

According to the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3-37), an outbreak is defined as the number of cases of disease occurring in a community, region, or particular population that exceeds what is normally expected. If an outbreak is suspected, contact your local health department.

Other Resources

Indiana State Department of Health:

<http://www.in.gov/isdh/24606.htm>

http://www.in.gov/isdh/files/2012QuickFact_Pinworm.pdf

Centers for Disease Control and Prevention (CDC):

<http://www.cdc.gov/healthywater/hygiene/disease/pinworms.html>

Tuberculosis

Clinical Description

Tuberculosis (TB) is a disease caused by the bacterium *Mycobacterium tuberculosis*. Although TB usually infects the lungs (pulmonary), the disease can also affect other body parts (extrapulmonary). Without proper treatment, TB can be fatal.

The symptoms of active pulmonary TB include:

- a bad cough that lasts three weeks or longer
- coughing up blood (hemoptysis)
- night sweats
- fever
- pain in the chest
- weight loss or failure to gain weight
- weakness or fatigue
- chills

People with latent TB infection (LTBI) have TB bacteria in their bodies; however, because the bacteria are not active, these individuals are not sick. People with LTBI have no symptoms of active TB disease, have a positive tuberculin skin test (TST) or interferon gamma release assay (IGRA) and a normal chest radiograph. They cannot spread the bacteria to others. However, they may develop active TB disease in the future.

Incubation Period

Two to 10 weeks from infection to develop primary lesion or significant TST reaction or positive IGRA. Progression to active disease is greatest in the first two years after infection.

Mode of Transmission

People with active pulmonary TB can release TB bacteria into the air when they cough, sneeze, speak, or sing. These bacteria can stay in the air for several hours. Persons who breathe in the air that contains TB bacteria can become infected if the bacteria reach their lungs. Transmission from children younger than 10 years is unusual.

Period of Communicability

A person is able to spread TB from an assigned date of three months prior to symptom onset or a positive lab report. An individual is considered no longer infectious after effective treatment has been demonstrated for ≥ 2 weeks causing a significant reduction in symptoms.

Exclusion/Reporting

Active pulmonary tuberculosis cases and suspects who are sputum-smear negative, are not coughing, are clinically improving, and are known to be on adequate TB chemotherapy are defined as noninfectious. All other pulmonary TB cases and suspects must be isolated until no longer infectious. Infectious persons are excluded from school. For information on laws and rules regarding tuberculosis, please see the Communicable Disease Reporting Rule 410 IAC 1-2.3 Sec.106 (2) at:

[http://www.in.gov/isdh/files/comm_dis_rule\(1\).pdf](http://www.in.gov/isdh/files/comm_dis_rule(1).pdf) or contact your state or local health department.

Prevention/Care

- Avoid close contact or spending prolonged time with known active TB patients while infectious.
- Treatment of LTBI reduces the risk that TB infection will progress to active TB disease. Immunocompromised persons and children <5 years old are at high risk for developing active TB disease once infected. Every effort should be made to begin appropriate and complete appropriate treatment for LTBI.
- All active cases of TB disease require direct observed therapy (DOT).

Outbreaks

According to the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3-37), an outbreak is defined as the number of cases of disease occurring in a community, region, or particular population that exceeds what is normally expected. If an outbreak is suspected, contact your local health department. Any case or suspect case must be immediately reported to the local health department and the ISDH.

Other Resources

Centers for Disease Control and Prevention (CDC):

<http://www.cdc.gov/tb/default.htm>

Indiana State Department of Health Quick Facts:

http://www.in.gov/isdh/files/TB_QF2010.pdf

"Tuberculosis Handbook for School Nurses", order form link:

www.umdj.edu/globaltb

West Nile Virus

Clinical Description

Most West Nile Virus (WNV) infections are asymptomatic. Approximately 20% of infected people will develop a systemic febrile illness called West Nile fever (WNF), and less than 1% will develop neuroinvasive disease, such as aseptic meningitis, encephalitis, or flaccid paralysis. People with WNF typically have an abrupt onset of fever, headache, myalgia, weakness, and often abdominal pain, nausea or vomiting; a rash may also develop on the chest, stomach, and/or back. The acute phase usually resolves within several days, but fatigue and weakness can linger for weeks.

Incubation Period

The incubation period is usually 3 - 15 days.

Mode of Transmission

WNV is primarily transmitted to humans through the bite of infected mosquitoes. WNV may also be transmitted through blood transfusion, organ transplant, breastfeeding, and mother to unborn child.

Period of Communicability

WNV is not spread through casual contact from person-to-person.

Exclusion/Attendance

For information on laws and rules regarding arbo-viral disease see Rule 410 IAC 1-2.3 Sec. 65: at [http://www.in.gov/isdh/files/comm_dis_rule\(1\).pdf](http://www.in.gov/isdh/files/comm_dis_rule(1).pdf). There are no specific recommendations on the exclusion of children from school with WNV or other arbo-viral infection. Any suspect case of arbo-viral disease (WNV, Eastern Equine Encephalitis, Saint Louis encephalitis, or La Crosse Encephalitis) must be immediately reported to the local health department where the student resides and the Indiana State Department of Health.

Prevention/Care

- Avoid exposure to mosquitoes during hours of biting or use mosquito repellants.
- Destroy larvae, kill mosquitoes, and eliminate areas for mosquito breeding.

Outbreaks

According to the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3-37), an outbreak is defined as the number of cases of disease occurring in a community, region, or particular population that exceeds what is normally expected. If an outbreak is suspected, contact your local health department. Any suspect case of arbo-viral infection (WNV, Eastern Equine Encephalitis, Saint Louis Encephalitis, or La Crosse Encephalitis) must be immediately reported to the local health department and the ISDH.

Other Resources

Indiana State Department of Health Quick Facts:

http://www.in.gov/isdh/files/2012QuickFact_WestNile.pdf

Centers for Disease Control and Prevention (CDC):

http://www.cdc.gov/ncidod/dvbid/westnile/wnv_factsheet.htm

Vaccine Preventable Diseases

Diphtheria



Clinical Description

Diphtheria is an acute bacterial disease of the oral cavity, nose, or skin caused by *Corynebacterium diphtheriae*. Symptoms of respiratory diphtheria may begin slowly and include headache and general discomfort, fever, sore throat, and a yellow-white or gray membrane-like covering in the back of the throat. Other symptoms can include swollen lymph nodes in the neck and clear or bloody nasal discharge. Respiratory diphtheria is a serious infection and 5-10% of cases die from the disease. Cutaneous diphtheria is not a reportable condition.

Incubation Period

The incubation period is usually 2 - 7 days, occasionally longer.

Mode of Transmission

Respiratory diphtheria is spread by contact with the nose or throat secretions. Fully immunized people may be asymptomatic carriers or have mild sore throat.

Period of Communicability

An untreated case can spread diphtheria for 2-6 weeks; rarely, carriers may shed organisms for up to 6 months. Effective antibiotic therapy promptly terminates shedding.

Exclusion/Reporting

Whenever diphtheria is strongly suspected or proven, the local health department should be notified immediately. Individuals infected with diphtheria will be considered contagious until two cultures taken 24 hours apart are negative and they have completed a recommended course of antibiotics. Close contacts should be observed for seven days for signs and symptoms of disease, cultured for *C. diphtheriae*, and treated with oral antibiotics for prophylaxis. Contacts of diphtheria cases who are food handlers, daycare workers, or health care workers are excluded from work until laboratory testing indicates they are not carriers. For information on laws and rules regarding diphtheria, see the Communicable Disease Reporting Rule 410 IAC 1-2.3 Sec. 63 at: [http://www.in.gov/isdh/files/comm_dis_rule\(1\).pdf](http://www.in.gov/isdh/files/comm_dis_rule(1).pdf).

Prevention/Care

There are safe and effective vaccines available to prevent diphtheria. Children and staff should receive the recommended doses of DTaP, DT, or Tdap vaccines in order to build and boost immunity against diphtheria infections. School immunization requirements for diphtheria can be found [here](#).

Outbreaks

According to the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3-37), an outbreak is defined as the number of cases of disease occurring in a community, region, or particular population that exceeds what is normally expected. If an outbreak is suspected, contact your local health department. For diphtheria, one case would constitute an outbreak. Any case or suspected case is to be immediately reported to the local health department and/or the ISDH.

Other Resources

Indiana State Department of Health Diphtheria Information (including a disease Quick Fact):
<http://www.in.gov/isdh/25490.htm>

Centers for Disease Control and Prevention (CDC):

http://www.cdc.gov/ncidod/dbmd/diseaseinfo/diphtheria_t.htm
<http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/dip.pdf>
<http://www.cdc.gov/vaccines/vpd-vac/diphtheria/default.htm>

Human Papillomavirus (HPV)

Clinical Description

Most human papillomavirus (HPV) infections are asymptomatic and result in no clinical disease. However, HPV can produce benign warts of the skin and mucus membranes and are associated with anogenital cancers. Nongenital warts include common skin warts, plantar warts, and flat warts. In addition, HPV is the most common sexually transmitted infection in the US. Although the incidence of infection is high, most infections resolve spontaneously. A small proportion of infection people become persistently infected. More than 100 types of HPV have been identified. Most HPV types infect the skin and cause common warts. However, HPV is found in 99% of cervical cancers. Two types of HPV account for about 70% of cervical cancer. In addition, HPV infection is also associated with cancer of the vulva, vagina, penis, and anus, as well as cancer of the oral cavity.

Incubation Period

The incubation period is unknown but is estimated to range from three months to several years.

Mode of Transmission

HPV is transmitted by direct contact, usually sexual, with an infected person. Transmission occurs most frequently with sexual intercourse but can occur following nonpenetrative sexual activity. Nongenital warts are acquired through contact with HPV and minor trauma to the skin.

Period of Communicability

The period of communicability is unknown. The virus is most likely communicable during the acute infection and during persistent infection.

Exclusion/Reporting

HPV is not a reportable condition. There are no specific recommendations on the exclusion of children with HPV from school. State law (IC 20-34-4-3) requires schools provide information to parents of sixth grade girls about HPV. The letter that is sent home with the girls contains a survey which the parents should fill out and return to the school. The law requires that a summary of this information be submitted to ISDH on an annual basis. The letter to parents and the survey can be found at https://myshare.in.gov/ISDH/LHDResource/immunizations/School%20Nurse%20Documents/2012-2013%20School%20Nurse%20Reference%20Packet/2012-2013%20School%20Nurse%20Reference%20Packet_Portfolio.pdf

Prevention/Care

There are safe and effective vaccines available to prevent some of the most common types of HPV. While not a requirement for school entry, children should receive the recommended doses of the HPV vaccines. It's recommended that all girls and boys 11 - 12 years of age begin the three dose series. The vaccine is licensed for use in males and females aged 9-26 years.

Outbreaks

According to the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3-37), an outbreak is defined as the number of cases of disease occurring in a community, region, or particular population that exceeds what is normally expected. If an outbreak is suspected, contact your local health department.

Other Resources

Indiana State Department of Health HPV Information (including disease Quick Facts):
<http://www.in.gov/isdh/25465.htm>

Centers for Disease Control and Prevention (CDC):
<http://www.cdc.gov/hpv/>

Influenza

Clinical Description

Influenza is a respiratory disease caused by influenza viruses. Influenza viruses cause an infection of the upper airway and lungs. It can cause mild to severe illness, and at times can lead to death. Symptoms can include fever, cough, sore throat, muscle aches and headaches. Some people may have vomiting and diarrhea, though this is more common in children than adults

Incubation Period

The incubation period is usually 1 - 3 days.

Mode of Transmission

Influenza viruses are spread mainly by droplets when people with flu cough or sneeze. Influenza viruses are released into the air and can be inhaled by others. Sometimes people may become infected by touching something contaminated with influenza virus and then touching their mouth or nose.

Period of Communicability

A person can spread the influenza one day before symptoms develop until seven days after symptoms appear.

Exclusion/Reporting

Exclusion of the student should be based on the condition of the child and if there is a school policy that warrants exclusion for symptoms of influenza. There is no state law that mandates school exclusion. During an influenza pandemic the school superintendent and health officials may need to update the exclusion policy and reporting criteria. For information on laws and rules see Rule 410 IAC 1-2.3 Sec. 85: at [http://www.in.gov/isdh/files/comm_dis_rule\(1\).pdf](http://www.in.gov/isdh/files/comm_dis_rule(1).pdf).

Prevention/Care

- The best protection is an annual flu vaccination before flu season starts. Each year the vaccine contains the types of flu virus predicted to cause illness in the coming year. Therefore, it is important to be vaccinated each year. The vaccine takes 14 days for the full protective effect to occur.
- Cover: Teach students and staff to cough or sneeze into one's elbow or upper sleeve or use a tissue when coughing or sneezing. Immediately discard the used tissue in the wastebasket.
- Clean: Encourage frequent hand washing, particularly after coughing or sneezing. An alcohol-based hand cleaner will also work if water is not available.
- Contain: Encourage ill students and staff members not to attend school.

Outbreaks

According to the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3-37), an outbreak is defined as the number of cases of disease occurring in a community, region, or particular population that exceeds what is normally expected. If an outbreak is suspected, contact your local health department. Therefore, a baseline of absenteeism should be established by the school and if the rate is in excess of what is normally expected, the outbreak shall be reported to the health department. Additionally, unusual occurrences of any disease are to be reported immediately to the health department. An unusual occurrence of influenza could be an unusual presentation or the detection of influenza outside of normal influenza season. Typical influenza season occurs October through May.

Other Resources

Centers for Disease Control and Prevention:

- <http://www.cdc.gov/flu/>
- <http://www.cdc.gov/flu/keyfacts.htm>
- <http://www.cdc.gov/flu/protect/habits.htm>

Indiana State Department of Health Quick Facts:

- http://www.in.gov/isdh/files/2012QuickFact_Influenza.pdf

Indiana State Department of Health Influenza Website:

- <http://www.in.gov/isdh/25462.htm>

Measles

Rubeola

Clinical Description

Measles is an extremely contagious viral respiratory illness. Prodromal (early) symptoms include cough, runny nose, conjunctivitis, fatigue and fever prior to the development of Koplik's spots, which resemble grains of salt, in the mouth. A maculopapular rash beginning at the hairline spreads downward over the entire body by the 3rd - 7th day of the infection. Measles may cause serious complications, including ear infection, pneumonia, and encephalitis. In some cases, measles may be fatal.

Incubation Period

The incubation period is usually about 10 days, varying from 7 - 18 days.

Mode of Transmission

Measles is transmitted by direct contact with infectious droplets or, less commonly, by airborne spread. These droplets can remain infective up to two hours in the air.

Period of Communicability

A person can spread measles four days prior to the appearance of the rash up to four days following the appearance of the rash.

Exclusion/Reporting

Whenever measles is strongly suspected or confirmed, contact the local health department should be notified immediately. Infected persons are excluded from school and contact with other people outside the household for four days after appearance of the rash. Students who have not presented proof of immunity against measles are excluded until acceptable proof of immunity is presented, or in the case of medical or religious exemptions, until 14 days after the onset of the last reported measles case. Previously unvaccinated children who are vaccinated more than 72 hours of exposure are excluded until 14 days after vaccination. For information on laws and rules regarding measles, see the Communicable Disease Reporting Rule 410 IAC 1-2.3 Sec. 83 at: [http://www.in.gov/isdh/files/comm_dis_rule\(1\).pdf](http://www.in.gov/isdh/files/comm_dis_rule(1).pdf).

Prevention/Care

- Vaccinate with measles -mumps-rubella (MMR) vaccine at 12 - 15 months of age and again at 4 - 6 years of age. School immunization requirements can be found [here](#).
- Check immunization records for all students and staff to assure they have received two doses of a measles containing vaccine. To prevent transmission identify non immune students (medical or religious exemptions) for possible exclusion.
- Inform high risk staff and students when a case of measles has been identified. Exposed pregnant women should be tested for measles immunity, if unknown, and should be consult by their healthcare provider.

Outbreaks

According to the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3-37), an outbreak is defined as the number of cases of disease occurring in a community, region, or particular population that exceeds what is normally expected. If an outbreak is suspected, contact your local health department. For measles, one case constitutes an outbreak. Any case or suspected case is to be immediately reported to the local health department and/or the ISDH.

Other Resources

Indiana State Department of Health Measles Information (including a disease Quick Facts):

<http://www.in.gov/isdh/25456.htm>

Centers for Disease Control and Prevention (CDC):

<http://www.cdc.gov/measles/index.html>

<http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/meas.pdf>

Meningococcal Disease

Meningococcal Meningitis or Meningococemia

Clinical Description

Meningococcal meningitis is an acute inflammation of the lining of the brain and spinal cord caused by *Neisseria meningitidis* (*meningococcus*) bacteria. Symptoms include stiff neck, high fever, headache, nausea, vomiting, and possibly a petechial rash. Meningococemia is a life threatening bloodstream infection caused by *N. meningitidis*. Both meningococcal meningitis and meningococemia are considered medical emergencies.

Incubation Period

The incubation period (the time between exposure to disease and development of symptoms) is short, ranging from 2 - 10 days, most commonly 3 - 4 days.

Mode of Transmission

Not everyone exposed to meningococcal bacteria will develop disease. Transmission, when it does occur, is usually person-to-person by respiratory droplets from the nose and throat of infected people. Saliva exchange is the most common method of transmission. Transmission is highest among household contacts. Up to 10% of the general population has asymptomatic carriage of meningococcal bacteria at any given time.

Period of Communicability

A person who is infected with *N. meningitidis* or a carrier can transmit infection until bacteria are no longer present in discharges from the nose and mouth. The bacteria will disappear from the nose and throat within 24 hours after the initiation of appropriate antibiotic therapy.

Exclusion/Reporting

There are no specific exclusion provisions found in Indiana communicable disease laws or rules for meningococcal meningitis. Almost all cases of meningococcal diseases are hospitalized and treated with antibiotics. All cases and suspects must be immediately reported to the local health department. Close contacts of cases that are considered high-risk should be given prophylactic antibiotics to prevent possible infection. Asymptomatic contacts do not need to be excluded from school. For information on laws and rules regarding meningococcal disease, see Rule 10 IAC 1-2.3 Sec. 85: at [http://www.in.gov/isdh/files/comm_dis_rule\(1\).pdf](http://www.in.gov/isdh/files/comm_dis_rule(1).pdf).

Prevention/Care

- Immediately contact caregiver if student develops classic meningeal symptoms (fever, severe headache, stiff neck) and provide education concerning urgency of receiving medical evaluation.
- Prophylactic antibiotic treatment is needed for high risk close contacts and family members and should be started within 24 hours of identification of a confirmed diagnosis of meningococcal disease.
- Prophylactic antibiotic treatment is not recommended for school contacts in most circumstances – consult local or state health authorities for guidance regarding who should receive prophylaxis.
- Consider sending letter to parents (sample letter available from the ISDH).
- All children should be vaccinated with meningococcal (MCV4) at entry to 6th grade (11-12 years of age). The CDC recommends that all teens also receive a booster dose of MCV4 at age 16 years. For those who receive the first dose at age 13 through 15 years, a one-time booster dose should be administered, preferably at age 16 through 18 years, before the peak in increased risk. Adolescents who receive their first dose of MCV4 at or after age 16 years do not need a booster dose (<http://www.cdc.gov/vaccines/vpd-vac/mening/default.htm>).
- Schools are required to notify parents each year about meningococcal disease and the availability of meningococcal vaccine. See IC 20-30-5-18 at: <http://www.in.gov/legislative/ic/code/title20/ar30/ch5.html>

Outbreaks

According to the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3-37), an outbreak is defined as the number of cases of disease occurring in a community, region, or particular population that exceeds what is normally expected. If an outbreak is suspected, contact your local health department. The *Pink Book* reports “in the United States, meningococcal outbreaks account for less than 5% of reported cases (95%–97% of cases are sporadic)”. Any case or suspect must be immediately reported to the local health department and the ISDH.

Other Resources

Centers for Disease Control and Prevention (CDC):

<http://www.cdc.gov/meningitis/index.html>

CDC Vaccine information:

<http://www.cdc.gov/vaccines/vpd-vac/mening/default.htm>

Epidemiology and Prevention of Vaccine-Preventable Diseases

The Pink Book: Course Textbook - 12th Edition Second Printing (May 2012)

<http://www.cdc.gov/vaccines/pubs/pinkbook/mening.html#neisseria>

Indiana State Department of Health Quick Facts:

http://www.in.gov/isdh/files/2012QuickFact_Meningococcal.pdf

Mumps



Clinical Description

Mumps is a highly contagious viral illness. The main manifestation of mumps infection is painful inflammation of the parotid or other salivary glands that lie just above the back angle of the jaw, and below the ear. Involvement can be unilateral or bilateral. Infected people often have fever, headache, and mild respiratory symptoms. Some post-pubertal males may have testicular pain. Symptoms usually resolve after 7-10 days. Approximately one-third of infected, unvaccinated people don't show clinical signs of salivary gland swelling and may manifest primarily as a respiratory tract infection.

Incubation Period

The incubation period ranges from 12 - 25 days, averaging 18 days.

Mode of Transmission

Transmission is by droplet spread and by direct contact with saliva from an infected person. Droplet contact and close person-to-person contact are the modes of transmission.

Period of Communicability

A person can spread mumps seven days prior to the onset of parotitis through nine days after the onset of symptoms; however, a person is most contagious two days prior to the onset of parotitis to five days after the onset.

Exclusion/Reporting

Whenever mumps is strongly suspected or proven, the local health department should be notified promptly. Infected persons are excluded from school and contact with persons outside the household for nine days after onset of swelling. Exposed unvaccinated individuals are excluded from school or the workplace from the 12th - 25th day after exposure to prevent spread to other individuals. For information on laws and rules regarding mumps, see the Communicable Disease Reporting Rule 410 IAC 1-2.3 Sec. 86 at: [http://www.in.gov/isdh/files/comm_dis_rule\(1\).pdf](http://www.in.gov/isdh/files/comm_dis_rule(1).pdf).

Prevention/Care

- Vaccinate with mumps vaccine at 12 - 15 months of age and again at 4 - 6 years of age. School immunization requirements can be found [here](#).
- Call caregiver of child to ensure child has been evaluated by a health care provider.
- Check immunization records for [all students and staff](#) to assure they have received two doses of a mumps containing vaccine. To prevent transmission, identify non immune students (medical or religious exemptions) for possible exclusion.
- Mumps during the first trimester of pregnancy has been associated with an increased rate of spontaneous abortion. Exposed pregnant women should be tested for mumps immunity, if unknown, and should contact their healthcare provider.

Outbreaks

According to the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3-37), an outbreak is defined as the number of cases of disease occurring in a community, region, or particular population that exceeds what is normally expected. If an outbreak is suspected, contact your local health department. For mumps, one case constitutes an outbreak. Any case or suspected case must be promptly reported to the local health department and/or the ISDH.

Other Resources

Indiana State Department of Health Mumps Information (including disease Quick Facts):
<http://www.in.gov/isdh/25450.htm>

Centers for Disease Control and Prevention (CDC):
<http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/mumps.pdf>
<http://www.cdc.gov/vaccines/vpd-vac/mumps/default.htm>

Pertussis

Whooping Cough



Clinical Description

Pertussis is a respiratory infection caused by *Bordetella pertussis* bacteria. The disease typically begins with mild upper respiratory tract symptoms similar to the common cold. This stage lasts 1 - 2 weeks. In the next stage, the cough comes in multiple exhausting bursts (paroxysmal cough). Some people may experience vomiting following paroxysms. In young children, each cough may be followed by a "whooping" sound as the child breathes in. "Whooping" does not occur in all children and adults. This stage lasts 2 - 4 weeks, followed by a recovery phase of gradually diminishing coughing for 2 - 3 weeks, but may last for several months.

Incubation Period

The incubation period is from 4 - 21 days, but typically within 7 - 10 days.

Mode of Transmission

Transmission occurs primarily through contact with infectious respiratory secretions. Droplet contact and close person-to-person contact are the modes of transmission.

Period of Communicability

Pertussis is mostly communicable in the early stage of the illness. After three weeks, an individual is considered unable to spread the illness to others. When treated with an appropriate antibiotic, the period of communicability ends after five days of appropriate therapy; however, symptoms may remain even after the antibiotic regimen has been completed.

Exclusion/Reporting

Whenever pertussis is strongly suspected or confirmed, notify the local health department immediately. Infected persons are excluded from school and contact with persons outside the household until they have completed at least five days of effective treatment (azithromycin, erythromycin, clarithromycin, or trimethoprim/sulfamethoxazole). Infected persons not receiving prophylaxis are excluded from schools, day care centers, and public gatherings for 21 days after cough onset. Inadequately immunized household contacts less than seven years of age are excluded from schools, day care centers, and public gatherings for 14 days after the last exposure or until they have received five days of appropriate antibiotic therapy. For information on laws and rules regarding pertussis, see Rule 410 IAC 1-2.3 Sec. 88: at [http://www.in.gov/isdh/files/comm_dis_rule\(1\).pdf](http://www.in.gov/isdh/files/comm_dis_rule(1).pdf).

Prevention/Care

- There are safe and effective vaccines available to prevent pertussis. Children and staff should receive the recommended doses of DTaP or Tdap vaccines in order to build and boost immunity against pertussis infections. School immunization requirements can be found [here](#).
- Appropriate antibiotics can reduce the communicability of disease among individuals with pertussis and close contacts.
- Inform high risk student and staff within the school when a case of pertussis has been identified.

Outbreaks

According to the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3-37), an outbreak is defined as the number of cases of disease occurring in a community, region, or particular population that exceeds what is normally expected. If an outbreak is suspected, contact your local health department. According to the CDC's "Guidelines for the Control of Pertussis Outbreaks", a school outbreak is defined as two or more cases clustered in time in a school. Any case or suspected case must be immediately reported to the local health department and/or the ISDH.

Other Resources

Indiana State Department of Health Pertussis Information (including a disease Quick Facts):
<http://www.in.gov/isdh/25446.htm>

Centers for Disease Control and Prevention (CDC):

<http://www.cdc.gov/vaccines/pubs/pertussis-guide/guide.htm>

<http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/pert.pdf>

<http://www.cdc.gov/vaccines/vpd-vac/pertussis/default.htm>

Pneumococcal Disease

Invasive Pneumococcal Disease



Clinical Description

Pneumococcal infections are caused by *Streptococcus pneumoniae* bacteria. These infections can include pneumonia, meningitis, bacteremia, as well as sinus and ear infections. Symptoms can include chills, fever, headache, earache, pain in the chest, and cough. Only cases of invasive pneumococcal disease are reportable. Invasive means the bacteria was isolated from blood, spinal fluid, joint fluid, or other normally sterile sites.

Incubation Period

The incubation period is normally 1 - 3 days.

Mode of Transmission

Transmission occurs primarily through contact with nose or throat secretions from an infected person. It is not spread by casual contact or by simply breathing the air around an infected person.

Period of Communicability

A person can spread the bacteria as long as the organism is in the respiratory tract or until 24 hours after the initiation of antibiotic therapy.

Exclusion/Reporting

There are no specific exclusion provisions found in Indiana communicable disease laws or rules for pneumococcal disease. For information on laws and rules regarding pneumococcal disease, see Rule 410 IAC 1-2.3 Sec. 99: at [http://www.in.gov/isdh/files/comm_dis_rule\(1\).pdf](http://www.in.gov/isdh/files/comm_dis_rule(1).pdf).

Prevention/Care

- Vaccinate all children with the 13-valent vaccine (PCV13) at 2, 4, and 6 months with a booster at 12 - 15 months according to the routine childhood vaccination schedule.
- Vaccinate high-risk children (sickle cell anemia, HIV infection, chronic lung or heart disease) over the age of 2 years with the childhood PCV13 (given through 71 months of age) or a 23-valent polysaccharide pneumococcal vaccine (PPSV23).
- Enforce hand washing and disposal of used tissues.

Outbreaks

According to the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3-37), an outbreak is defined as the number of cases of disease occurring in a community, region, or particular population that exceeds what is normally expected. If an outbreak is suspected, contact your local health department.

Other Resources

Indiana State Department of Health Pneumococcal Information (including disease Quick Facts):
<http://www.in.gov/isdh/25443.htm>

Centers for Disease Control and Prevention (CDC):

<http://www.cdc.gov/vaccines/vpd-vac/pneumo/default.htm>
<http://www.cdc.gov/vaccines/vpd-vac/pneumo/dis-faqs.htm>

Rubella

German Measles

Clinical Description

Rubella is a mild rash illness caused by the rubella virus. Rubella is characterized by a rash that often fades or turns red and is most evident after a hot shower. Symptoms can include fever, joint pain (in adolescents and adults), and enlarged and tender lymph nodes at the back of the neck. Rubella is also the cause of significant congenital defects in infants whose mothers are exposed during pregnancy.

Incubation Period

The incubation period is normally from 12 - 23 days, usually from 16 - 18 days.

Mode of Transmission

Transmission occurs through direct or droplet contact with infectious nasopharyngeal secretions.

Period of Communicability

An infected person is contagious from seven days prior to the appearance of the rash through seven days after the rash appears.

Exclusion/Reporting

Whenever rubella is strongly suspected or confirmed, notify the local health department immediately. Infected persons are excluded from school and contact with other individuals outside the household for seven days after the onset of rash. Students who have not presented proof of immunity against rubella are excluded until acceptable proof of immunity is presented, or in the case of medical or religious exemptions, until 23 days after the onset of the last reported rubella case. For information on laws and rules regarding rubella, see the Communicable Disease Reporting Rule 410 IAC 1-2.3 Sec. 95 at: [http://www.in.gov/isdh/files/comm_dis_rule\(1\).pdf](http://www.in.gov/isdh/files/comm_dis_rule(1).pdf).

Prevention/Care

- Vaccinate with rubella vaccine at 12 - 15 months of age and again at 4 - 6 years of age. School immunization requirements can be found [here](#). If given as a single antigen vaccine, only one dose of rubella is required.
- Check immunization records for all students and staff to assure they have received two doses of a rubella containing vaccine. To prevent transmission identify non immune students (medical or religious exemptions) for possible exclusion.
- Inform high risk people within the school when a case of rubella has been identified. Exposed pregnant women should be tested for rubella immunity, if unknown, and should consult their healthcare provider.
- School personnel planning a pregnancy should be vaccinated 28 days prior to pregnancy.
- Call caregiver of child to ensure child has been evaluated by a health care provider.

Outbreaks

According to the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3-37), an outbreak is defined as the number of cases of disease occurring in a community, region, or particular population that exceeds what is normally expected. If an outbreak is suspected, contact your local health department. For rubella, one case constitutes an outbreak. Any case or suspected case must be immediately reported to the local health department and/or the ISDH.

Other Resources

Indiana State Department of Health Rubella Information (including disease Quick Facts):
<http://www.in.gov/isdh/25436.htm>

Centers for Disease Control and Prevention (CDC):
<http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/rubella.pdf>
<http://www.cdc.gov/vaccines/vpd-vac/rubella/default.htm>

Varicella

Chickenpox

Clinical Description

Varicella is a viral illness that is very contagious and is caused by the herpes zoster virus. Early symptoms can include fever and fatigue which begin about 10 - 21 days after exposure. These symptoms are followed by the appearance of flat, red spots which progress to an itchy rash with fluid-filled vesicles that are characteristic of the disease. Lesions appear in crops over several days and lesions will be present in several stages of development. As varicella vaccine coverage increases, most cases are now break-through cases, which are often less severe (less than 50 lesions and do not progress to the vesicular stage). Varicella can cause serious complications including pneumonia, encephalitis, secondary bacterial infections, and even death.

Incubation Period

The incubation period normally ranges from 10 - 21 days, but most commonly 14 - 16 days.

Mode of Transmission

Transmission occurs primarily through contact with infectious respiratory secretions and airborne droplets. Direct contact with open vesicles can also transmit infection.

Period of Communicability

A person can spread the herpes zoster virus 1 - 2 days before the onset of the rash until all of the lesions have crusted over or faded, typically seven days.

Exclusion/Reporting

Infected persons are excluded from schools and day care centers, public gatherings, and contact with susceptible persons until vesicles become dry or in cases of mild, "break-through" disease until the lesions have faded or disappeared. For more information, please see the Communicable Disease Reporting Rule 410 IAC 1-2.3 sec 110 at: [http://www.in.gov/isdh/files/comm_dis_rule\(1\).pdf](http://www.in.gov/isdh/files/comm_dis_rule(1).pdf).

Prevention/Care

- Vaccinate with a single dose of live, attenuated varicella vaccine at 12 - 15 months of age and revaccinate with a second dose at 4 - 6 years of age. School immunization requirements for varicella can be found [here](#).
- Review immunization records to identify susceptible individuals or those who have received only one dose of varicella vaccine.
- Varicella vaccine can be administered within 3 - 5 days of an exposure to prevent or modify the severity of disease.
- School personnel planning a pregnancy should be immunized one month prior to pregnancy.
- Promptly report all suspected individual cases and outbreaks to the local health department. Laboratory testing is recommended during outbreak situations.

Outbreaks

According to the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3-37), an outbreak is defined as the number of cases of disease occurring in a community, region, or particular population that exceeds what is normally expected. If an outbreak is suspected, contact your local health department. An outbreak of varicella is defined as five or more cases epidemiologically linked in persons younger than 13 years of age or three or more epidemiologically linked cases in persons over 13 years of age.

Other Resources

Centers for Disease Control and Prevention (CDC):

<http://www.cdc.gov/vaccines/vpd-vac/varicella/dis-faqs-gen.htm>

<http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/varicella.pdf>

Indiana State Department of Health Quick Facts:

http://www.in.gov/isdh/files/Chickenpox_QFV2_2010.pdf

Communicable Disease Summary Chart

| Disease/ Condition | Signs/ Symptoms | Incubation Period | Mode of Transmission | Period of Communicability | Exclusion/ Attendance | Prevention |
|--|---|--|--|---|---|--|
| Aseptic (Viral) Meningitis Refer to page 43 | Fever, severe headache and stiff neck | Varies depending on virus or cause. For enteroviral meningitis, 3-6 days | Person-to person by airborne droplets and direct contact with nose and throat discharges | Varies depending on virus or other organism | Patients generally too sick to attend school and can return when recovered | Hand washing and avoid direct contact with nasal and throat discharges |
| Bed Bugs Refer to page 44 | Presence of bed bug nymphs or adults on student, student belongings, or in the classroom. | Approximately one month to develop from egg to adult; School environment is not an ideal environment for this development due to lack of hosts at night. | Traveling on student belongings or occasionally clothing. | May be transferred at any time if present. | Exclusion of students is not generally recommended. Non-reportable condition. | Parent education, separation of student belongings from others, visual inspection of student and belongings upon arrival to school until home situation is remedied. |
| Campylobacteriosis  Refer to page 33 | Diarrhea (sometimes bloody), stomach cramps, fever, nausea, and vomiting | 2-5 days | Fecal-oral or foodborne | While symptomatic | Exclude while symptomatic | Hand washing and food safety |
| CDI Refer to page 34 | Watery diarrhea, fever, abdominal tenderness | Unknown | Fecal-oral | Spores survive in environment for weeks to months | Duration of <i>C. difficile</i> diarrhea | Meticulous hand hygiene and disinfection of surfaces |

Communicable Disease Summary Chart

| Disease/ Condition | Signs/ Symptoms | Incubation Period | Mode of Transmission | Period of Communicability | Exclusion/ Attendance | Prevention |
|---|---|---|--|---|---|--|
| Conjunctivitis Refer to page 17 | Redness of eye involving tearing, irritation, swelling and discharge | Bacterial: 1 - 3 days Viral: 12 hours - 3 days | Contact with discharge from conjunctivae or upper respiratory tract of infected persons. Fingers and inanimate objects can also be sources of transmission | Possibly up to 14 days but depending on cause | Exclusion recommended until examination by physician and then approved for readmission | Use precautions in handling eye discharge and hand washing |
| Cryptosporidiosis  Refer to page 35 | Watery diarrhea, stomach cramps, fever, nausea, slight fever, weight loss, and vomiting | 7 days (range of 1-12 days) | Fecal-oral | While shedding, up to several months | Exclude until completion of effective antiparasitic therapy | Hand washing and water precautions |
| Diphtheria  Refer to page 52 | Fever, sore throat, gray or yellow membrane on the throat | 2-7 days | Contact with respiratory droplets | 2 -6 months (without treatment) | Index Case: Excluded until 2 cultures 24 hrs apart are negative. Contacts: Observe, culture, and treat | Vaccinations up-to-date for DT, Td, DTaP, or Tdap. |
| Erythema Infectiosum (Fifth Disease) Refer to page 18 | Facial "slapped-cheek" rash with "lacy" rash on trunk and limbs | Normally 4-14 days, but up to 20 days | Contact with infectious upper respiratory secretions | The week prior to appearance of rash | Not recommended unless child has fever | Hand washing and proper disposal of used tissues |

Communicable Disease Summary Chart

| Disease/ Condition | Signs/ Symptoms | Incubation Period | Mode of Transmission | Period of Communicability | Exclusion/ Attendance | Prevention |
|--|--|----------------------------------|--|---|--|--|
| <i>E. coli</i> infection (shiga-toxin producing) and HUS  Refer to page 36 | Bloody or non-bloody diarrhea, stomach cramps, low-grade fever, nausea, weight loss, and vomiting | 3-4 days (range of 2-10 days) | Fecal-oral or foodborne | While shedding, up to 3 weeks | Exclude while symptomatic | Hand washing and food safety |
| Giardiasis  Refer to page 37 | Diarrhea, gas, greasy stools that tend to float, bloating, stomach cramps, fever, nausea, and constipation | 7-10 days (range of 3-25 days) | Fecal-oral | While shedding, up to several months | Exclude until completion of effective antiparasitic therapy | Hand washing and water precautions |
| Hand, Foot and Mouth Disease Refer to page 19 | Fever, malaise, sore throat and red blister spots that turn into ulcers in the mouth | 3-5 days | Fecal-oral or direct contact with infectious respiratory secretions. | During illness up to several weeks | Exclude during acute illness or while child who has blisters drools from the mouth or has weeping lesions on hands | Hand washing and avoid direct contact with nasal and throat discharges |
| Hepatitis A  Refer to page 38 | Diarrhea, nausea, vomiting, fatigue, stomach cramps, fever, dark urine, pale, clay-colored stool, loss of appetite, and jaundice | 28-30 days (range of 15-50 days) | Fecal-oral | 14 days before and 7 days after the onset of jaundice, or if jaundice does not occur, 7 days before and 14 days after the onset of symptoms | Exclude until after the defined infectious period | Hepatitis A vaccine and Hand washing |

Communicable Disease Summary Chart

| Disease/ Condition | Signs/ Symptoms | Incubation Period | Mode of Transmission | Period of Communicability | Exclusion/ Attendance | Prevention |
|---|--|--|---|---|---|---|
| Hepatitis B  Refer to page 11 | Malaise, fever anorexia, nausea, jaundice | 60-90 days | Direct contact with infected persons blood or body fluids | 1 – 2 months before and after the onset of symptoms | None | Hepatitis B vaccination and Universal Precautions used when there is contact with blood and other body fluids containing blood, semen, or vaginal secretions |
| Hepatitis C  Refer to page 13 | Nausea, vomiting, weight loss, fatigue, dark urine, pale stool, jaundice | 2 weeks - 6 months | Direct contact with infected persons blood or bodily fluids | At least one week before onset of symptoms and for the rest of their lifetime | None | Universal Precautions used when there is contact with blood and other body fluids containing blood, semen, or vaginal secretions |
| HIV/AIDS  Refer to page 14 | Initially viral flu- like symptoms. Many years later (up to 10 years) swollen lymph nodes, fatigue, fever, night sweats, unexplained weight loss, other co- infections, chronic diarrhea | Variable, 1 week - 10 years or longer | Transmission of HIV infected blood, semen, vaginal secretions or breast milk to an uninfected person's broken skin or mucous membranes in enough quantity to allow for the replication of the virus | Shortly after acquisition of the virus and for the rest of their life. | School children with HIV must be allowed to attend school and may only be excluded if the provision is found in IC16-41-9-3 (i.e. a disease that is transmissible through normal school contacts or poses a substantial threat to health and safety of school community). | Education beginning in elementary school Supportive faculty Universal Precautions used when there is contact with blood and other body fluids containing blood, semen, or vaginal secretions |

Communicable Disease Summary Chart

| Disease/ Condition | Signs/ Symptoms | Incubation Period | Mode of Transmission | Period of Communicability | Exclusion/ Attendance | Prevention |
|---|--|---|--|--|---|---|
| Human Papillomavirus (HPV) Refer to page 53 | Most infections are asymptomatic. May develop warts (genital and/or non-genital). Cancer may develop decades later | Unknown, but estimated to be 3 months to several years. | Direct contact, usually sexual, with infected person | Unknown, but thought to be communicable during acute and persistent infection. | None | Vaccination (2 vaccines are licensed. Gardasil is licensed for boys and girls 9-26 years. Cervarix is licensed only for girls 9-26 years.) Safe sex practices. |
| Impetigo Refer to page 21 | Skin lesions (red bumps) usually around the nose, mouth or extremities. Bumps break open and form a honey-colored crust | 1-3 days for streptococcal infection and 4-10 days for staphylococcal infection | Direct contact with secretions from lesions | In untreated cases as long as drainage from lesions occurs. | Recommended to keep child home until 24 hours after antibiotic therapy begun. | Cover draining lesions and wear disposable gloves when applying treatment to infected skin |
| Influenza Refer to page 54 | Fever greater than 100 degrees F, headache, tiredness, cough, sore throat, runny or stuffy nose, and muscle aches. Nausea, vomiting, and diarrhea also can occur in children | 1-3 days | Person to person by direct contact with infected secretions or via large or small droplet aerosols | 1 day prior to symptoms through 7 days from clinical onset | Exclusion of the student should be based on the condition of the child and if there is a school policy that warrants exclusion for symptoms of influenza. | Immunizations are available for most students and adults unless contraindicated Cover the mouth and nose in the nook of your elbow and discard tissues immediately |

Communicable Disease Summary Chart

| Disease/ Condition | Signs/ Symptoms | Incubation Period | Mode of Transmission | Period of Communicability | Exclusion/ Attendance | Prevention |
|---|---|---------------------------------|---|---|---|--|
| Measles  Refer to page 55 | Fever, runny nose, cough, rash by 3 rd day | 10-14 days (range of 7-18 days) | Contact with respiratory droplets | 4 days before rash onset to 4 days after rash onset | <i>Index Case:</i> Excluded until 4 days after rash onset <i>Contacts:</i> Contacts who are not immunized excluded until 14 days after last case. | Vaccine Available 2 doses of measles containing vaccine (MMR) |
| Meningococcal Disease  Refer to page 56 | Fever, severe headache and stiff neck | 2-10 days: commonly 3-4 days | Direct contact with saliva or respiratory droplets | Until meningococcus is no longer present in nasal/mouth discharge | None | Vaccine Available ACIP recommends routine vaccination of persons with quadrivalent meningococcal conjugate vaccine at age 11 or 12 years, with a booster dose at age 16 years. |
| Mononucleosis Refer to page 46 | Fever, exudative pharyngitis, swollen glands | 4-6 weeks | Direct contact with saliva of infected person | Indeterminate, could be many months after infection | None | Good personal hygiene and avoiding saliva sharing activities |
| MRSA Refer to page 22 | Abscesses, boils | Variable | Direct contact with infected person or inanimate object | Wound drainage very infectious | Yes, if recommended by HCP or if drainage cannot be covered or contained with a dry covering | Hand washing, open areas covered, avoid contact with others' drainage covering |

Communicable Disease Summary Chart

| Disease/ Condition | Signs/ Symptoms | Incubation Period | Mode of Transmission | Period of Communicability | Exclusion/ Attendance | Prevention |
|---|---|--|---|---|--|--|
| Mumps  Refer to page 58 | Swelling and pain of the parotid gland, fever, mild URI symptoms | 18 days (range of 12-25 days) | Direct contact with saliva or respiratory droplets | 2 days before through 9 days after the onset of parotitis | <i>Index case:</i> Exclude for 9 days following the onset of symptoms <i>Contacts:</i> Susceptible contacts shall be excluded from the 12 th – the 25 th day from exposure. | Vaccine Available 2 doses of mumps containing vaccine, (MMR) |
| Norovirus infection Refer to page 39 | Watery diarrhea, stomach cramps, nausea, vomiting, headache, muscle aches, and fatigue | 24-48 hours (range of 12-72 hours) | Fecal-oral | While shedding, up to 72 hours after symptoms cease | Exclude while symptomatic. | Hand washing |
| Pediculosis (Lice) Refer to page 24 | Main symptom is itching of scalp. Lice (or eggs) can be identified by close examination of scalp. | Eggs hatch in a week with resultant lice able to multiply within 8-10 days | Direct contact with person who has live infestation or sharing personal belongings that are harboring lice (i.e. hats, scarves) | As long as live lice are present or eggs in hair are within ¼ inch of scalp | No applicable state laws for exclusion. Follow school policy. | Inform parents of infestations and proper control measures for home elimination. |

Communicable Disease Summary Chart

| Disease/ Condition | Signs/ Symptoms | Incubation Period | Mode of Transmission | Period of Communicability | Exclusion/ Attendance | Prevention |
|---|---|---|---|--|--|---|
| <p>Pertussis</p>  <p>Refer to page 59</p> | <p>Initial cough, coryza, eye irritation, leading to a progressive cough that comes in bursts, may be followed by a 'whoop'</p> | <p>10 days (range of 4-21 days)</p> | <p>Direct contact with infectious respiratory secretions.</p> | <p>From onset of cough and cold-like illness through 5 days of appropriate antibiotic therapy. If not on antibiotics, 21 days from the onset of the cough.</p> | <p>Symptomatic Index case: Exclude for 5 days while receiving appropriate antibiotic therapy. Symptomatic Contacts of a Confirmed Case: Exclude for 5 days while receiving antibiotic therapy. Asymptomatic Direct Contacts: Do not exclude asymptomatic contacts. They should receive prophylaxis.</p> | <p>Vaccine Available Age appropriate vaccination: DTaP, Tdap</p> <p>Antibiotic prophylaxis for direct contacts</p> |
| <p>Pinworms</p> <p>Refer to page 47</p> | <p>Perianal itching and disturbed sleep</p> | <p>1 - 2 months or longer</p> | <p>Fecal-oral route and indirectly through clothing, bedding, food, or other articles (including toilet seats) contaminated with parasite eggs.</p> | <p>As long as gravid females discharge eggs on perianal skin. Eggs remain infective in an indoor environment for about 2 weeks.</p> | <p>None applicable</p> | <p>Hand washing</p> |

Communicable Disease Summary Chart

| Disease/ Condition | Signs/ Symptoms | Incubation Period | Mode of Transmission | Period of Communicability | Exclusion/ Attendance | Prevention |
|--|---|---|---|---|--|---|
| Pneumococcal Disease  Refer to page 61 | Fever, chills, cough, pain in the chest, disorientation | Normally 1-3 days | Direct contact with the nose and throat secretions of an infected person | Until after 24 hours of antibiotic therapy | None Applicable | Vaccine Available Age appropriate Vaccination Proper hand washing and tissue disposal |
| Ringworm Refer to page 26 | Small red bump or papule that spreads outward, taking on the appearance of a red scaly outer ring with a clear center | Depends on type: <i>Tinea capitis</i> -10 - 14 days <i>Tinea corporis</i> and <i>cruris</i> - 4-10 days <i>Tinea pedis</i> - unknown | Direct contact with human or animal source; also less commonly by inanimate objects | As long as lesions are present or viable fungus is present on contaminated objects and surfaces | Generally students can attend school with ringworm infections. | Varies depending on type; certain activities should be restricted. Clean and drain shower areas frequently. |
| Rubella (German Measles)  Refer to page 55 | Mild rash illness, significant risk to the fetus | 16-18 days (range of 12-23 days) | Direct or droplet contact with nose and throat secretions of an infected person | 7 days from the appearance of the rash through 7 days afterward | Index Case: Excluded for 7 days after the onset of the rash Susceptible Contacts: Students without proof of immunity shall be excluded until 23 days after last reported case | Vaccine Available 2 doses of a rubella containing vaccine (MMR) |

Communicable Disease Summary Chart

| Disease/ Condition | Signs/ Symptoms | Incubation Period | Mode of Transmission | Period of Communicability | Exclusion/ Attendance | Prevention |
|---|---|--|---|---|--|---|
| Salmonellosis  Refer to page 40 | Diarrhea, nausea, vomiting, stomach cramps, and fever | 12-36 hours (range of 6-72 hours) | Fecal-oral and foodborne | While symptomatic | Exclude while symptomatic | Hand washing and food safety |
| Scabies Refer to page 27 | Itching and blister-like sores in the burrows of the skin | 2 – 6 weeks | Direct contact with an infested person's skin, clothing or linens | From infection until eggs/mites are destroyed by treatment | Exclude until the day after treatment | Inform parents of infestations and proper control measures for home elimination. Prophylactic treatment of home contacts |
| Shigellosis  Refer to page 41 | Diarrhea, blood, pus, or mucus in the stool, sudden stomach cramps, nausea, vomiting, and fever | 24-72 hours (range of 12 hours - 5 days) | Fecal-oral | While shedding, up to several weeks | Exclude until: 1) After 48 hours of effective antimicrobial therapy 2) Or 2 negative stools, collected 24 hours apart and at least 48 hours after antimicrobial therapy | Hand washing |
| Shingles (Herpes Zoster) Refer to page 28 | Rash that develops lesions appearing along nerve pathways | Not applicable | Transmission can occur through direct contact with the rash resulting in a case of varicella. | If lesions are not covered, transmission of varicella disease may occur from 10-21 days following contact | Index Case: Exclude only if the site of infection cannot be covered Susceptible Contacts: Do not Exclude | 2 doses of age appropriate varicella vaccine One dose of the Zostavax vaccine for adults 60 and over |

Communicable Disease Summary Chart

| Disease/ Condition | Signs/ Symptoms | Incubation Period | Mode of Transmission | Period of Communicability | Exclusion/ Attendance | Prevention |
|---|--|--|--|---|--|--|
| Streptococcal Sore Throat and Scarlet Fever Refer to page 29 | Fever, exudative tonsillitis or pharyngitis and tender cervical nodes; in addition, a fine-red rash occurs with scarlet fever | Usually 1-3 days, rarely longer | Large respiratory droplets or direct contact with patient or carrier | Appropriate antibiotic treatment eliminates organism within 24 hours; untreated cases- as long as they are ill usually 10-21 days | Exclude until 24 hours after initiation of antibiotic therapy. | Encourage good personal hygiene. |
| Tick Borne Infections  Refer to page 30 | Varies by specific disease, but generally includes fever, rash, muscle aches, fatigue, headache | Lyme – 2-31 days, usually 7-10 days Rocky Mtn. Spotted Fever – 3-14 days Ehrlichiosis – varies but generally 7-14 days | Transmitted from ticks to humans | Not applicable | None | Appropriate removal of tick. |
| Tuberculosis  Refer to page 48 | Cough that lasts longer than 3 weeks, hemoptysis, night sweats, fever, pain in chest, weight loss or failure to gain weight, fatigue, chills, etc. | 2 – 10 weeks for positive TST or IGRA. It can take decades for active disease to develop | Airborne | 3 months prior to onset of symptoms until no longer infectious | Yes until no longer infectious (usually at least 2 weeks after the initiation of antibiotic therapy that produces a significant reduction in symptoms) | Avoid close contact with an infectious person. Treatment for LTBI. |

Communicable Disease Summary Chart

| Disease/ Condition | Signs/ Symptoms | Incubation Period | Mode of Transmission | Period of Communicability | Exclusion/ Attendance | Prevention |
|--|---|---------------------------|--|--|---|--|
| <p>Varicella</p>  <p>Refer to page 64</p> | <p>Fever, fatigue, followed by rash illness that progresses into itchy, fluid-filled blisters. "Break-through" cases appear as macular and papular lesions (small flat or raised red bumps)</p> | <p>10-21 days</p> | <p>Contact with infectious respiratory secretions, airborne droplets or fluid from vesicles</p> | <p>1-2 days prior to the onset of the rash through the stage when the lesions have crusted over or have faded in mild, "break-through" disease, usually 7 days</p> | <p>Index Case: Exclude until the vesicles become dry or lesions have faded. Susceptible Contacts: May consider exclusion during outbreak situations</p> | <p>Vaccine Available 2 doses of age appropriate varicella vaccine The vaccine is effective in preventing disease within 5 days of exposure; a varicella-zoster immunoglobulin may be given within 3 days of exposure to lessen the severity of disease in those who cannot safely receive the vaccine</p> |
| <p>West Nile virus</p>  <p>Refer to page 50</p> | <p>Abrupt onset of fever, headache, myalgia, weakness, and often abdominal pain, nausea or vomiting. Most cases are asymptomatic.</p> | <p>Usually 3-15 days.</p> | <p>Primarily through the bite of infected mosquitoes. West Nile virus may be transmitted person to person through blood transfusion or organ transplant.</p> | <p>Humans are not infectious to other humans except through blood/organ donation.</p> | <p>None applicable.</p> | <p>Avoid exposure to mosquitoes during hours of biting (from dusk to dawn), or use repellants.</p> <p>Destroy larvae, kill mosquitoes, and eliminate areas of standing water available for mosquito breeding.</p> |

Rash Illness Information

| Illness | Rash Description | Other Symptoms | Agent | Period of Communicability | Exclusion/Attendance |
|--|--|--|--------------------------------|---|--|
| Chickenpox | <ul style="list-style-type: none"> • Rash begins on face and trunk and progresses to extremities where it is most concentrated • Lesions progress from flat to raised and become a vesicle before crusting; several stages are present at the same time • Vesicles are very itchy • "Break-through" cases may have a mild flat and raised rash that may be itchy | <p>Low-grade fever and malaise</p> | <p>Herpes Zoster virus</p> | <p>Up to 5 days prior to onset of rash until lesions have crusted over (usually 7 days) or in cases of "break-through" disease until the lesions have faded</p> | <p>Exclude from school and public gatherings until vesicles become dry or lesions have faded</p> |
| Fifth Disease (erythema infectiosum) | <ul style="list-style-type: none"> • Rash begins as a slapped-cheek appearance with warmth to the cheeks that may disappear before progresses to the trunk, extremities and feet • Flat and raised red rash that appears "lace-like" • Rash may be itchy | <p>Low-grade fever, malaise and mild cold symptoms</p> | <p>Human parvovirus (B-19)</p> | <p>7 days prior to onset of rash</p> | <p>Recommend exclusion if fever is present, individual is no longer contagious after appearance of rash</p> <p>Pregnant women with illness or exposure need to seek medical advice</p> |

Rash Illness Information

| Illness | Rash Description | Other Symptoms | Agent | Period of Communicability | Exclusion/Attendance |
|---|--|--|---------------|---|---|
| Hand/Foot and Mouth Disease (vesicular stomatitis with exanthema) | <ul style="list-style-type: none"> • Rash begins as small red spots that blister and become ulcers on the tongue, gums and inside of cheeks and progresses to a rash that is located on the palms of hands, soles of feet and appear on the buttocks and genitalia. • Flat and raised red spots that may form blisters • No itch – oral lesions can be very painful | Low-grade fever, sore throat and malaise prior to onset of rash | Enteroviruses | Acute stage of illness and possibly longer – virus is shed in the stool | Recommend exclusion during first 2-3 days of acute illness. May consider exclusion for those with oral blisters who drool or have lesions on hands that are weeping. |
| Measles | <ul style="list-style-type: none"> • Rash begins at hairline and ears progressing to trunk, arms and legs • Flat and raised, pinkish-red color changes to reddish-brown and becomes confluent on trunk • Slight itch (if any) | High fever, malaise, cough, coryza, conjunctivitis, runny nose, Koplik spots | Measles virus | 4 days before onset of rash through 4 days after the rash appears | <p>Index Case: Exclude from school and contact with individuals outside home for 4 days after appearance of rash</p> <p>Contacts: Contacts with no history of immunization excluded until 14 days after onset of last measles case.</p> |

Rash Illness Information

| Illness | Rash Description | Other Symptoms | Agent | Period of Communicability | Exclusion/Attendance |
|----------------------------------|--|---|---------------------------|---|--|
| Pityriasis rosea | <ul style="list-style-type: none"> • Rash begins as an initial (herald) patch in ½ of cases that is salmon-pink, scaly and enlarges in size to about 0.5" that is on the trunk or upper extremities. Within 21 days secondary lesions spread over the trunk and extremities • Secondary lesions are red and scaly • Rash is usually itchy | None | Inflammatory skin disease | Not a communicable condition – treated with anti-pruritic therapy | Do not exclude |
| Rubella | <ul style="list-style-type: none"> • Rash begins on face and progresses to trunk within 24 hours • Flat and raised pink, discrete, rash that may be absent and often fades or turns red without desquamation. Most evident after hot shower • Slight to no itch | Low-grade fever, joint pain (adolescents and adults), enlarged and tender lymph nodes at the back of the neck | Rubella virus | 7 days prior to the onset of rash through 4 days after the rash appears | <p>Index Case: Exclude from school and contact with individuals outside the home for 7 days after the onset of rash</p> <p>Contacts: Students without proof of immunity are excluded until 23 days after the onset of last rubella case</p> <p>Pregnant women with illness or exposure need to seek medical advice</p> |

Rash Illness Information

| Illness | Rash Description | Other Symptoms | Agent | Period of Communicability | Exclusion/Attendance |
|-------------------------------|--|--|--------------------------|--|---|
| Scabies | <ul style="list-style-type: none"> Rash is manifested as crusts, vesicles, pustules, blisters or tiny papules that are usually very itchy <p>Most common in webs of fingers, hands, wrists, armpits, groin and elbows</p> | Scratching of rash can become infected with <i>Streptococcal</i> or <i>Staphylococcal</i> bacteria | <i>Sarcoptes scabiei</i> | From time of infection until 1 day after treatment | Exclude from school until 1 day after treatment. |
| Scarlet Fever | <ul style="list-style-type: none"> Rash begins upper chest and progresses to trunk, neck and extremities within 24 hours Pinkish-red pinhead spots that blanch under pressure and feel similar to sandpaper (can often be felt easier than seen) | <p>High fever, sore throat and nausea. The tongue is covered with white "fur" before peeling and developing into strawberry tongue.</p> <p>Diagnosis is made with positive throat cultures for strep</p> | Group A Strep | Onset of symptoms until 24-48 hours after treated with antibiotics | Exclude until at least 24 hours after beginning antibiotic therapy |
| Shingles | <ul style="list-style-type: none"> Unilateral rash in a line distribution of a sensory nerve Clusters of blisters on a red base that scab in 3-5 days No itch – can be painful | Pain, itching or tingling in the area where the rash develops (prior to the appearance of rash), fever, headache, chills and nausea | Herpes Zoster virus | <p>From the time blisters appear until lesions have crusted over</p> <p>Susceptible persons who come in direct contact with lesions would acquire chickenpox, not shingles</p> | <p>Do not exclude if site of infection can be covered as the individuals are not considered to be highly contagious</p> <p>Individuals who are immunosuppressed are at the greatest risk for getting shingles</p> |

Web sites

Legal Requirements

In addition to the Communicable Disease Reporting Rule for Physicians, Hospitals and Laboratories (410 IAC 1-2.3) described in the manual, there are other legal resources schools should consult when appropriate. They include:

- Indiana code (IC 20-34-3-9) describes the process for sending ill children home and for readmission of child to school. It also provides a mechanism for reimbursement of medical care if the parents are financially unable to pay. You can access this section of Indiana code at:

<http://www.in.gov/legislative/ic/code/title20/ar34/ch3.html>

- Immunization Requirements:

<http://www.in.gov/legislative/ic/code/title20/ar34/ch4.html>

http://www.in.gov/legislative/iac/iac_title?iact=410&iaca=1&submit=+Go

<http://www.in.gov/isdh/17094.htm>

- Meningitis Education Requirements (section 18):

<http://www.in.gov/legislative/ic/code/title20/ar30/ch5.html>

It is suggested that school nurses and administrators download and print out these laws and rules and file for quick reference when needed.

Hand washing

Hand washing is the single most effective way to prevent a wide variety of diseases. There are many resources available for schools and parents to access.

- ISDH hand washing Quick Fact Sheet and Campaign:

<http://www.in.gov/isdh/21926.htm>

<http://www.in.gov/isdh/24036.htm>

- CDC Web Link to hand washing info:

http://www.bam.gov/sub_yourbody/yourbody_buzzonscuzz.html

- Other hand washing websites

http://www.kidshealth.org/parent/general/sick/hand_washing.html

<http://www.mayoclinic.com/health/hand-washing/HQ00407>

Immunization

- Advisory Committee on Immunization Practices (ACIP) Recommendations which can be found at:

<http://www.cdc.gov/vaccines/pubs/ACIP-list.htm>

- The Epidemiology and Prevention of Vaccine-Preventable Diseases, 12th Edition, (updated April 2011). This book is available on line at:

<http://www.cdc.gov/vaccines/pubs/pinkbook/default.htm>

- Immunization Action Coalition. This website provides publications and print materials available for distribution to parents/guardians and teachers.

<http://www.immunize.org/>

Blood-borne Pathogens

- Occupational Health and Safety Administration (OSHA) Blood-borne Pathogens Standards:

http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10051

<http://www.osha.gov/SLTC/bloodbornepathogens/index.html>

- CDC websites:

<http://www.cdc.gov/niosh/topics/bbp/universal.html>

<http://www.cdc.gov/niosh/topics/bbp/genres.html>

Appendix A

2012-2013 School Nurse Immunization Resource Packet



Mitchell E. Daniels, Jr.
Governor

Gregory N. Larkin, M.D., F.A.A.F.P.
State Health Commissioner

Dear School Nurse or School Health Official:

Contained in this document is a collection of materials that may be useful to school nurses and school health administrators regarding school requirements and recommendations for immunizations. Please find the following documents attached for the 2012-2013 school year:

- Letter to Superintendents
- School Requirements and Recommended Immunization Schedule
- School Requirements Reference Chart and FAQs
- Meningitis Educational Letter to Parents (Template) (in English and Spanish)
- Meningitis Quick Facts Reference Sheet for Parents (in English and Spanish)
- Pertussis Educational Letter to Parents (Template) (in English and Spanish)
- Pertussis Quick Facts Reference Sheet for Parents (in English and Spanish)
- HPV Parent Letter and Fact Sheet (For 6th Grade Female Students), with parent response form (in English and Spanish)
- HPV Parent Letter and Fact Sheet (For 6th Grade Male Students) (in English and Spanish)
- HPV Reporting Summary Form (to report parent responses to ISDH)
- Instructions for Electronic Submission of the HPV Report for 6th Grade Females
 - Link to SurveyMonkey Electronic Reporting Option: <https://www.surveymonkey.com/s/H67KY2S>

Please refer to the content of these documents for details regarding required and recommended information to provide to parents and/or reporting requirements by the school to the Indiana State Department of Health.

Indiana State Department of Health Contact Information:

| | | | |
|---|--|---|--|
| Immunization Division, Director David McCormick 317-233-7010 dmccormick@isdh.in.gov | Immunization Division, Deputy Director Brittney Carelock 317-233-7603 bcarelock@isdh.in.gov | Immunization Division, Epidemiologist Ryan Ly 317-234-3378 rly@isdh.in.gov | CHIRP Helpdesk 888-227-4439 317-233-8827 Chirp@isdh.in.gov |
|---|--|---|--|

Please feel free to contact the Immunization Division with any questions or concerns. Thank you and have a wonderful and safe school year!

Sincerely,

David McCormick
Director, Immunization Division
Indiana State Department of Health



Mitchell E. Daniels, Jr.
Governor

Gregory N. Larkin, M.D., F.A.A.F.P.
State Health Commissioner

March 12, 2012

Dear School Superintendents, Principals, and Nurses:

Re: 2012-2013 School Immunization Requirements

The Indiana State Department of Health Immunization Division annually reviews and updates the immunizations required for school entry. Changes to the 2012-2013 School Immunization Requirements are as follows:

- Two (2) doses of varicella vaccine, or evidence of immunity, will be required for Kindergarten, 1st, and 2nd grade students. This is a 'roll-up' requirement from last year's two dose varicella requirement for all Kindergarten and 1st grade students.
- The roll-up of the two dose varicella requirement will continue every year on the following schedule:

2010-11 School Year: K

2011-12 School Year: K & 1st

2012-13 School Year: K, 1st & 2nd

2013-14 School Year: K, 1st, 2nd & 3rd

2014-15 School Year: K, 1st, 2nd, 3rd & 4th

2015-16 School Year: K, 1st, 2nd, 3rd, 4th & 5th

- All requirements implemented in the 2011-2012 School Year are still in force.

The full list of all school immunization requirements can be found online at <https://chirp.in.gov/>.

Thank you for your work and dedication to protect the health of children in Indiana!

Sincerely,

David McCormick
Director, Immunization Division
Indiana State Department of Health



Quick Facts

About...Pertussis (Whooping Cough)

What is pertussis?

Pertussis, also called whooping cough, is a contagious disease caused by *Bordetella pertussis* bacteria. It may cause severe coughing fits that can interfere with breathing. Although pertussis is often milder in older children and adults, undiagnosed persons can transmit the disease to infants and young children. Pertussis can lead to pneumonia, seizures, and sometimes death. Most of these serious problems occur in infants who are younger than a year old. Indiana had 271 reported cases in 2008 and 392 in 2009.

What are the symptoms of pertussis?

The symptoms of pertussis occur in three stages:

1. During the first stage, symptoms are similar to a cold: slight fever, sneezing, runny nose, dry cough, loss of appetite, and irritability.
2. During the second stage (about 1 to 2 weeks later), the cough becomes more intense. There may be short, intense coughing spells followed by a long gasp for air (this is when the “whoop” is heard). The coughing fits may be followed by vomiting, nose bleeds, or bluish color to the lips or face.
3. During the third stage, the cough is less intense and less frequent, and appetite begins to increase. Eventually the cough stops, although this may take several months.

How is pertussis spread?

Pertussis is spread by contact with nose or throat secretions from an infected person. This can happen when an infected person coughs or sneezes. Without treatment, an infected person can spread the disease for up to three weeks from the time the cough begins. However, after five days of treatment with the appropriate antibiotic, an infected person cannot spread pertussis.

Who is at risk for pertussis?

People who are unvaccinated, have not completed a full series of pertussis vaccine, or who have not received pertussis vaccine for several years are at increased risk for pertussis. Infants who are too young to be fully vaccinated are at greatest risk for severe illness and death from pertussis-related complications. Adolescents and adults may also experience complications from pertussis.

How do I know if I have pertussis?

If you have had close contact with someone who has been diagnosed with pertussis or if you have symptoms that match those described above, you should consult your health care provider. Your health care provider may test you for pertussis and prescribe antibiotics for treatment.

How is pertussis treated?

While antibiotics make pertussis less contagious, they do not get rid of the cough unless taken very early in the illness. All household members and other close contacts of persons with pertussis should receive antibiotic treatment to prevent spreading pertussis to others.

How can pertussis be prevented?

Keep yourself and your children up to date with vaccines. The diphtheria, tetanus, pertussis (DTaP) vaccine is a five dose series for children under 7 years of age. It is given at the 2 month, 4 month, 6 month, and 12-15 month well baby visits and again before kindergarten at 4-6 years of age. Adolescents and adults (ages 10 years and older) should also receive one dose of Tdap (tetanus, diphtheria, pertussis) vaccine to provide further protection against pertussis. It is particularly important that medical providers and anyone having contact with an infant be fully vaccinated with the appropriate pertussis vaccine for their age. Tdap can be administered regardless of interval since the last tetanus or diphtheria vaccine. Indiana requires that students in grades 6-12 receive a single dose of Tdap.

See your health care provider to determine if you need immunization against pertussis.

All information presented is intended for public use. For more information, please refer to: <http://www.cdc.gov/Features/Pertussis/>

This page was last reviewed May 2012.



Información general

Acerca de la tos ferina (tos convulsa)

¿Qué es la tos ferina?

La tos ferina, también llamada tos convulsa, es una enfermedad contagiosa causada por la bacteria *Bordetella pertussis*. Puede provocar fuertes accesos de tos que pueden afectar la respiración. Aunque la tos ferina muchas veces es más leve en niños más grandes y adultos, las personas no diagnosticadas pueden contagiar la enfermedad a bebés y niños pequeños. La tos ferina puede provocar neumonía, convulsiones y, a veces, la muerte. La mayoría de estos problemas graves ocurren en bebés de menos de un año. En Indiana, se informaron 271 casos en 2008 y 392 en 2009.

¿Cuáles son los síntomas de la tos ferina?

Los síntomas de la tos ferina ocurren en tres etapas:

1. Durante la primera etapa, los síntomas son similares a los de un resfrío: fiebre leve, estornudos, goteo nasal, tos seca, pérdida del apetito e irritabilidad.
2. En la segunda etapa (entre 1 y 2 semanas más tarde), la tos se vuelve más intensa. Pueden producirse ataques de tos cortos e intensos seguidos por una respiración dificultosa (esto es cuando se oye como un chillido). Los accesos de tos pueden estar seguidos por vómitos, sangrado nasal, o un color azulado en los labios o la cara.
3. Durante la tercera etapa, la tos es menos intensa y menos frecuente, y el apetito comienza a aumentar. Con el tiempo, la tos cesa, aunque esto puede llevar varios meses.

¿Cómo se propaga la tos ferina?

La tos ferina se propaga por contacto con secreciones de la nariz o la garganta de una persona infectada. Esto puede suceder cuando una persona infectada estornuda o tose. Sin tratamiento, la persona infectada puede contagiar la enfermedad por hasta tres semanas a partir del momento en que comienza la tos. No obstante, después de cinco días de tratamiento con el antibiótico adecuado, la persona infectada no contagia.

¿Quién está en riesgo de contraer tos ferina?

Las personas que no están vacunadas, que no han completado una serie completa de vacunas contra la tos ferina o que no se han colocado la vacuna por varios años tienen mayor riesgo de contraer esta enfermedad. Los bebés que son demasiado pequeños para recibir todas las vacunas pertinentes son los de mayor riesgo de enfermedad grave y muerte a causa de complicaciones relacionadas con la tos ferina. Los adolescentes y adultos también pueden experimentar complicaciones a causa de esta enfermedad.

¿Cómo sé si tengo tos ferina?

Si ha estado en contacto directo con alguien a quien se le ha diagnosticado tos ferina o si tiene síntomas que coinciden con los descritos antes, debe consultar con su proveedor de atención médica. El proveedor de atención médica puede examinarlo para determinar si tiene tos ferina y recetarle antibióticos para el tratamiento.

¿Cómo se trata la tos ferina?

Si bien los antibióticos hacen que esta enfermedad sea menos contagiosa, no hace desaparecer la tos a menos que se administren en la fase inicial. Todos los miembros del hogar y otros en contacto directo con personas con tos ferina deben recibir el tratamiento con antibióticos para prevenir su propagación.

¿Cómo se puede prevenir la tos ferina?

Tenga sus vacunas y las de sus hijos al día. La vacuna contra la difteria, el tétanos y la tos ferina (DTaP) es una serie de cinco dosis para niños menores de 7 años. Se coloca en las visitas pediátricas de los 2, 4, 6 y 12-15 meses, y otra vez antes del jardín de infantes, entre los 4 y los 6 años. Los adolescentes y adultos (a partir de los 10 años) también deben recibir una dosis de la vacuna Tdap (tétanos, difteria y tos ferina) para tener mayor protección contra esta enfermedad. Es particularmente importante que los proveedores médicos y cualquiera que esté en contacto con un bebé tengan colocada la vacuna contra la tos ferina adecuada para su edad. La Tdap se puede colocar sin importar el intervalo desde la última vacuna contra el tétanos o la difteria. En Indiana, se exige que los estudiantes entre 6.º y 12.º grado reciban una dosis simple de Tdap.

Consulte con su proveedor para determinar si debe vacunarse contra la tos ferina.

Toda la información presentada es de uso público. Para obtener más información, visite <http://www.cdc.gov/spanish/especialesCDC/tosferina/>

Esta página se revisó por última vez en mayo de 2012.



Mitchell E. Daniels, Jr.
Governor
Gregory N. Larkin, M.D., F.A.A.F.P.
State Health Commissioner

Date _____

To Parents/Guardians of Sixth Grade Female Students:

Important Information about Human Papillomavirus (HPV) Infection and Vaccine

State law (IC 20-34-4-3) requires that schools provide information to the parents or guardians of all sixth grade female students on this important topic. Please read the Fact Sheet provided by the Indiana State Department of Health and return the response form below to the school.

Information about Human Papillomavirus (HPV) infection and vaccine can also be obtained from a family doctor or health care provider, the local health department, or the Centers for Disease Control and Prevention (CDC) website: <http://www.cdc.gov/std/hpv/>

State law (IC 20-34-4-5.5) requires that the school collect information from parents/guardians about the HPV vaccine in relation to their daughters. Please check one of the responses listed below and return this form to the school. Please do not put your name on this form.

Please complete this form by _____ and return it to _____ at the school.

I have read the information provided by the Indiana State Department of Health about HPV infection and the HPV vaccine. I understand that this vaccine is available from my health care provider or through the local health department.

_____ *My daughter has already received 1 2 3 doses of the HPV vaccine.* (Please circle the correct number)

_____ *My daughter will receive the HPV vaccine series in the future.*

_____ *I do not want my daughter to receive the HPV vaccine.*

_____ *I do not want to provide this information to the school.**

Date

*A student may not be prevented from enrolling in, attending, or graduating from school for not providing this information to the school.



Mitchell E. Daniels, Jr.
Governor

Gregory N. Larkin, M.D., F.A.A.F.P.
State Health Commissioner

Dear Parents/Guardians of Sixth Grade Students:

The American Cancer Society estimates there are about 11,000 new cases of invasive cervical cancer in the United States each year, and about 4,000 deaths annually from this disease. Physicians have long suspected a relationship between sexual activity and cervical cancer, but it wasn't until the 1980's that scientists were able to prove this link by isolating the genetic material from human wart, or papilloma, virus in cervical cancer cells. To date, more than 100 types of human papillomavirus (HPV) have been identified, and about 40 of these are capable of infecting the human genital tract. Low-risk HPV types, such as 6 and 11, are responsible for causing genital warts or benign cervical cell abnormalities. It is the high-risk virus types, including 16 and 18, which have the potential to cause changes in the cervix, vagina, and anus leading to cancer, if not treated. High-risk HPV types are detected in 99% of cervical cancers. Types 16 and 18 alone are responsible for about 70% of cervical and anogenital cancers worldwide.

The Centers for Disease Control and Prevention (CDC) estimate that about 20 million Americans are currently infected with at least one type of HPV. A study done by the CDC found that more than 1 out of every 4 women between the ages of 14 and 59 are infected with HPV. That number increases to 1 out of every 3 young women aged 15-19 and almost 1 out of every 2 women 20-24 years of age.¹ Many of these infections are asymptomatic and 90% will resolve spontaneously over time. Those infections that persist may cause genital warts, abnormal pap smears, or cervical cancer. The risk of becoming infected with HPV increases with the number of sexual partners; however a recent study found that 49% of women with only one sexual partner were infected with HPV. The only factor associated with the risk of HPV infection in these women was the number of previous partners of their male partner.²

Fortunately, safe and effective vaccines are now available for females and males between the ages of 9 and 26 against the most common types of HPV. These vaccines are a series of 3 shots, given over a 6 month period of time. Because the vaccines prevent most HPV infections but do not treat existing infections, they work better when given prior to initiation of sexual activity. In 2009, a survey of high school students across Indiana found that half of 9th-12th graders had already had sex.³ The CDC recommends routine vaccination of girls at the age of 11 or 12, and vaccination of all females aged 13-26 not previously vaccinated. The CDC has also recognized the use of one HPV vaccine (Gardasil®) in males ages 9-26 to prevent genital warts and anal cancer. For more information about HPV infection or vaccine, talk to your doctor or visit www.cdc.gov/vaccines/.

This information is provided by the Indiana State Department of Health as required by Public Law 80 (Senate Enrolled Act 327) of 2007. Questions may be directed to the Indiana State Department of Health Immunization Program at 1-800-701-0704.

Sincerely,

Joan Duwve, MD, MPH
Chief Medical Officer
Indiana State Department of Health

¹ Dunne, E. et.al., "Prevalence of HPV Infection Among Females in the United States", JAMA. 2007;297(8):813-819.

² Winer, R, et.al., "Risk of Female Human Papillomavirus Acquisition Associated with First Male Sex Partner", J Infect Dis, 2008;197(2):279-282.

³ <http://www.in.gov/isdh/20627.htm>



Indiana State Department of Health

Human Papillomavirus (HPV) Fact Sheet

What is genital HPV infection?

Genital human papillomavirus (also called HPV) is the most common sexually transmitted infection (STI). There are more than 40 HPV types that can infect the genital areas of males and females. These HPV types can also infect the mouth and throat. Most people who become infected with HPV do not even know they have it.

What are the signs, symptoms and potential health problems of HPV?

Most people with HPV do not develop symptoms or health problems from it. In 90% of cases, the body's immune system clears HPV naturally within two years.

- But sometimes, certain types of HPV can cause genital warts in males and females.
- Other HPV types can cause cervical cancer. These types can also cause other, less common but serious cancers, including cancers of the vulva, vagina, penis, anus, and head and neck (tongue, tonsils and throat).

How do people get HPV?

HPV can be spread through genital contact, oral sex, vaginal sex or anal sex, even when the infected partner has no signs or symptoms.

A person can have HPV even if years have passed since he or she had sexual contact with an infected person. Most infected persons do not realize they are infected or that they are passing the virus on to a sex partner.

Very rarely, a pregnant woman with genital HPV can pass HPV to her baby during delivery.

How does HPV cause genital warts and cancer?

HPV can cause normal cells on infected skin to turn abnormal. Most of the time, you cannot see or feel these cell changes. In most cases, the body fights off HPV naturally, but in cases when the body does not fight off HPV, HPV can cause visible changes in the form of genital warts or cancer. Warts can appear within weeks or months after getting HPV. Cancer often takes years to develop after getting HPV.

How common are HPV and related diseases?

HPV (the virus). Approximately 20 million Americans are currently infected with HPV. Another 6 million people become infected each year. HPV is so common that at least 50% of sexually active men and women get it at some point in their lives.

Genital warts. About 1% of sexually active adults in the U.S. have genital warts at any one time.

Cervical cancer. Each year, about 12,000 women get cervical cancer in the U.S.

Other cancers that can be caused by HPV. Each year in the U.S., there are about:

- 4,700 women who get vulvar or vaginal cancer
- 1,000 men who get penile cancer
- 2,700 women and 1,700 men who get anal cancer
- 2,300 women and 9,000 men who get head and neck cancers. [Note: although HPV is associated with some of head and neck cancers, most of these cancers are related to smoking and heavy drinking.]

How can people prevent HPV?

There are several ways that people can lower their chances of getting HPV:

- Vaccines can protect males and females against some of the most common types of HPV. These vaccines are given in three shots. It is important to get all three doses to get the best protection. The vaccines are most effective when given before a person's first sexual contact, when he or she could be exposed to HPV.
 - **Girls and women:** Two vaccines (Cervarix and Gardasil) are available to protect females against the types of HPV that cause most cervical cancers. One of these vaccines (Gardasil) also protects against most genital warts. Both vaccines are recommended for 11 and 12 year-old girls, and for females 13 through 26 years of age, who did not get any or all of the shots when they were younger. These vaccines can also be given to girls as young as 9 years of age.
 - **Boys and men:** One available vaccine (Gardasil) protects males against most genital warts. This vaccine is available for boys and men, 9 through 26 years
- People can also lower their chances of getting HPV by being in a faithful relationship with one partner; limiting their number of sex partners; and choosing a partner who has had no or few prior sex partners. But even people with only one lifetime sex partner can get HPV. And it may not be possible to determine if a partner who has been sexually active in the past is currently infected.
- For those who choose to be sexually active, condoms may lower the risk of HPV. Condoms may also lower the risk of developing HPV-related diseases, such as genital warts and cervical cancer. But HPV can infect areas that are not covered by a condom - so condoms may not *fully* protect against HPV.

Where can I get more information?

Your child's doctor is a good source of information about HPV disease and prevention. Or, visit the CDC website at:

<http://www.cdc.gov/std/HPV/STDFact-HPV.htm>

Information courtesy of the Centers for Disease Control and Prevention (CDC) from

<http://www.cdc.gov/std/HPV/STDFact-HPV.htm>



Mitchell E. Daniels, Jr.
Governor

Gregory N. Larkin, M.D., F.A.A.F.P.
State Health Commissioner

Fecha _____

Para padres/tutores de las estudiantes de sexto grado:

Información importante sobre la infección y vacuna del virus del papiloma humano (VPH)

La ley del Estado (20-34-4-3, del Código de Indiana) exige que las escuelas brinden información a los padres o tutores de todas las estudiantes de sexto grado sobre este importante tema. Le rogamos que lea la Hoja de Datos que envía el Departamento de Salud del Estado de Indiana y devuelva a la escuela el siguiente formulario con las respuestas.

La información acerca de la infección y vacuna del virus del papiloma humano (VPH) también puede obtenerse de parte de un médico de familia o un proveedor de atención médica, del departamento de salud de su localidad, o de los Centros de Control y Prevención de Enfermedades (CDC, por sus siglas en inglés).

<http://www.cdc.gov/std/Spanish/STDFact-HPV-s.htm>

La ley del Estado (20-34-4-5.5, del Código de Indiana) exige que las escuelas recopilen información de parte de los padres o tutores acerca de la vacuna del VPH con respecto a sus hijas. Le pedimos que marque una de las respuestas que se detallan a continuación y devuelva este formulario a la escuela. No coloque su nombre en este formulario.

Complete este formulario antes de _____ y entréguelo a _____ en la escuela.

He leído la información enviada por el Departamento de Salud del Estado de Indiana acerca de la infección y la vacuna del VPH. Entiendo que esta vacuna se encuentra disponible de parte de mi proveedor de atención médica o mediante el departamento de salud de mi localidad.

_____ *Mi hija ya recibió 1 2 3 dosis de la vacuna contra el VPH.* (Marque el número que corresponda con un círculo)

_____ *Mi hija recibirá la serie de vacunas contra el VPH en el futuro.*

_____ *No deseo que mi hija reciba la vacuna contra el VPH.*

_____ *No deseo brindar información a la escuela.**

Fecha _____

* No se podrá negar a una estudiante la inscripción, asistencia o graduación de la escuela por no facilitar esta información al establecimiento escolar.



Mitchell E. Daniels, Jr.
Governor

Gregory N. Larkin, M.D., F.A.A.F.P.
State Health Commissioner

Para padres/tutores de las estudiantes de sexto grado:

La Sociedad Americana del Cáncer (American Cancer Society) estima que existen alrededor de 11.000 nuevos casos de cáncer de cuello de útero de tipo invasivo en Estados Unidos cada año y que se producen aproximadamente 4.000 muertes por año a causa de esta enfermedad. Los médicos sospechaban desde hace tiempo de una relación existente entre la actividad sexual y el cáncer de cuello de útero, pero no fue sino hasta la década de 1980 que los científicos pudieron comprobar este vínculo por medio del aislamiento del material genético del virus de una verruga humana, o papiloma, en las células del cáncer de cuello de útero. Hasta la fecha, se han identificado más de 100 tipos de virus de papiloma humano (VPH) y alrededor de cuarenta tienen la capacidad de infectar el tracto genital humano. Los tipos de VPH de bajo riesgo, como 6 y 11, son responsables de causar verrugas genitales o anomalías celulares benignas a nivel del cuello del útero. Son los tipos de virus de alto riesgo, incluyendo los 16 y 18, los que tienen el potencial de causar cambios en el cuello, la vagina y el ano que pueden resultar en cáncer, si no se los trata. Los tipos de VPH de alto riesgo se detectan en el 99% de los casos de cáncer de cuello de útero. Los tipos 16 y 18 por sí solos son responsables de casi el 70% de los casos de cáncer de cuello de útero, de ano y de genitales a nivel mundial.

Los Centros de Control y Prevención de Enfermedades (CDC, por sus siglas en inglés) estiman que aproximadamente 20 millones de estadounidenses se encuentran actualmente infectados con al menos un tipo de VPH. Un estudio realizado por los CDC demostró que más de 1 de cada 4 mujeres entre 14 y 59 años están infectadas con VPH. Esa cantidad aumenta a 1 de cada 3 mujeres jóvenes entre 15 y 19 años y a casi 1 de cada 2 mujeres entre 20 y 24 años.¹ Muchas de estas infecciones son asintomáticas y el 90% se resuelve de forma espontánea con el paso del tiempo. Las infecciones que persisten podrán producir verrugas a nivel genital, pruebas de Papanicolaou con resultados anormales o cáncer de cuello de útero. El riesgo de contraer una infección por VPH aumenta con la cantidad de compañeros sexuales; no obstante, un estudio reciente demostró que el 49% de las mujeres que tiene un solo compañero sexual se infectó con VPH. El único factor asociado con el riesgo de infección por VPH en estas mujeres fue la cantidad de compañeros previos a su pareja varón.²

Afortunadamente, se encuentran disponibles en la actualidad vacunas seguras y eficaces contra los tipos más comunes de VPH para mujeres y hombres de entre 9 y 26 años. Estas vacunas consisten en una serie de tres aplicaciones que se dan durante un periodo de 6 meses. Dado que las vacunas previenen la mayoría de las infecciones por VPH pero no tratan infecciones existentes, funcionan mejor cuando se administran antes del inicio de la actividad sexual. En 2009, una encuesta entre alumnos de secundaria en todo Indiana demostró que el cincuenta por ciento de los alumnos de 9° a 12° grado ya había tenido relaciones sexuales.³ Los CDC recomiendan la vacunación de rutina en - niñas de 11 ó 12 años y que se vacunen todas las mujeres de 13 a 26 años que no se hayan vacunado anteriormente. Asimismo, los CDC reconocieron que el uso de una vacuna contra el VPH (Gardasil®) en hombres que tengan de 9 a 26 años previenen la formación de verrugas genitales y cáncer de ano. Si desea más información sobre la infección o vacuna del VPH, hable con su médico o visite www.cdc.gov/vaccines/.

Esta información la brinda el Departamento de Salud del Estado de Indiana según lo exige la Ley Pública 80 (Ley inscrita del Senado 327) de 2007. Pueden dirigirse consultas al Programa de vacunación del Departamento de Salud del Estado de Indiana al 1-800-701-0704.

Cariñosos saludos,

Joan Duwve, MD, MPH
Chief Medical Officer
Indiana State Department of Health

¹ Dunne, E. et al., "Prevalence of HPV Infection Among Females in the United States", JAMA. 2007;297(8):813-819.

² Winer, R. et al., "Risk of Female Human Papillomavirus Acquisition Associated with First Male Sex Partner", J Infect Dis, 2008;197(2):279-282.

³ <http://www.in.gov/isdh/20627.htm>



Indiana State Department of Health

Hoja de Datos del virus del papiloma humano (VPH)

¿En qué consiste la infección genital de VPH?

El virus del papiloma humano genital (también llamado VPH) es la enfermedad de transmisión sexual (ETS) más común. Existen más de 40 tipos de VPH que pueden afectar las zonas genitales de hombres y mujeres. Estos tipos de VPH también pueden infectar la boca y la garganta. La mayoría de las personas que se infecta con VPH ni siquiera sabe que lo tiene.

¿Cuáles son los signos, síntomas y los posibles problemas de salud del VPH?

La mayoría de las personas con VPH no desarrollan síntomas o problemas de salud a partir de esta infección. En el 90% de los casos, el sistema inmunitario del organismo elimina el VPH en forma natural en un periodo de dos años.

- No obstante, en ocasiones, ciertos tipos de VPH pueden causar verrugas genitales en hombres y mujeres.
- Otros tipos de VPH pueden provocar cáncer de cuello de útero. Estos tipos pueden causar también otros tipos de cáncer que son menos comunes pero que revisten gravedad, lo que incluye cáncer de vulva, vagina, pene, ano y cabeza y cuello (lengua, amígdalas y garganta).

¿De qué forma contraen las personas VPH?

El VPH puede contagiarse mediante el contacto a nivel genital, el sexo oral, vaginal o anal, incluso cuando el/la compañero/a infectado/a no presente signos ni síntomas.

Una persona puede tener VPH incluso si han pasado años desde que tuvo contacto sexual con la persona infectada. La mayoría de las personas infectadas no se dan cuenta de ello o de que le pasan el virus a su compañero/a sexual.

En casos muy poco frecuentes, una mujer embarazada que tenga VPH puede pasarle el virus a su bebé durante el parto.

¿De qué forma causa el VPH verrugas genitales y cáncer?

El VPH puede provocar que las células normales que se encuentran en la piel infectada se conviertan en anormales. La mayoría de las veces, no se puede ver ni sentir estos cambios celulares. En la mayor parte de los casos, el organismo combate el VPH de forma natural, pero en los casos en que el organismo no lo hace, el VPH puede producir cambios visibles en forma de verrugas genitales o cáncer. Las verrugas pueden aparecer en unas semanas o meses después de contraer el VPH. Con frecuencia, el cáncer lleva años de desarrollo con posterioridad a contraer VPH.

¿Qué tan comunes son el VPH y las enfermedades relacionadas con el mismo?

VPH (el virus). Aproximadamente, 20 millones de estadounidenses se encuentran en la actualidad afectados con VPH. Otras 6 millones de personas se infectan cada año. El VPH es tan común que al menos el 50% de los hombres y mujeres sexualmente activos lo contraen en algún momento de sus vidas.

Verrugas genitales. En Estados Unidos, alrededor del 1% de los adultos sexualmente activos tiene verrugas genitales en algún momento dado

Cáncer de cuello de útero. Alrededor de 12.000 mujeres contraen cáncer de cuello de útero cada año en Estados Unidos.

Otros tipos de cáncer que puede causar el VPH. En Estados Unidos, existen cada año aproximadamente:

- 4.700 mujeres que presentan cáncer de vulva o de vagina,
- 1.000 hombres que contraen cáncer de pene,
- 2.700 mujeres y 1.700 hombres que contraen cáncer de ano,
- 2.300 mujeres y 9.000 hombres que presentan tipos de cáncer de cabeza y cuello. [Nota: aunque el VPH esté asociado con ciertos tipos de cáncer de cabeza y cuello, la mayoría de éstos se encuentra relacionada con el tabaquismo y el consumo excesivo de alcohol].

¿De qué forma pueden prevenir las personas el VPH?

Existen varias maneras para que las personas puedan disminuir las posibilidades de contraer VPH:

- Las vacunas pueden proteger a los hombres y mujeres contra algunos de los tipos más comunes de VPH. Las mismas se dan en tres aplicaciones. Es importante aplicarse las tres dosis para lograr la mayor protección. Las vacunas son más eficaces cuando se administran a la persona antes de que tenga su primer contacto sexual, que es cuando podría quedar expuesta a contraer VPH.
 - **Niñas y mujeres:** Se encuentran disponibles dos vacunas (Cervarix y Gardasil) para proteger a las mujeres contra los tipos de VPH que causan la mayoría de los casos de cáncer de cuello de útero. Una de estas vacunas (Gardasil) también brinda protección contra la mayoría de las verrugas genitales. Se recomiendan ambas vacunas para niñas de 11 y 12 años y para mujeres de 13 a 26 años, que no recibieron ninguna o alguna de las dosis cuando eran más jóvenes. Estas vacunas también se pueden administrar a niñas de 9 años.
 - **Niños y hombres:** Una de las vacunas disponibles (Gardasil) brinda protección a los varones contra la mayoría de las verrugas genitales. Esta vacuna está disponible para su administración a niños y hombres de 9 a 26 años.
- Asimismo, las personas pueden tener menos posibilidades de contraer VPH manteniendo la fidelidad en una relación con un/a solo/a compañero/a, limitando la cantidad de compañeros/as sexuales y eligiendo a un/a compañero/a que no haya tenido compañeros/as sexuales anteriormente o haya tenido muy pocos/as. Sin embargo, las personas que solamente han tenido un/a solo/a compañero/a sexual en su vida también pueden contraer VPH. Posiblemente no se pueda determinar si un/a compañero/a que ha sido sexualmente activo/a en el pasado se encuentra actualmente infectado/a.
- Para quienes optan ser sexualmente activos/as, los condones pueden disminuir el riesgo de contraer VPH. Asimismo, los condones pueden reducir el riesgo de desarrollar enfermedades relacionadas con el VPH, como las verrugas genitales o el cáncer de cuello de útero. Sin embargo, el VPH puede infectar áreas que el condón no cubra; en consecuencia, los condones posiblemente no brinden protección *total* contra el VPH.

¿En dónde puede obtener más información?

El médico de su hijo/a es una buena fuente de información respecto de la enfermedad y la prevención del VPH. Otra opción es visitar el sitio web de los CDC en:

<http://www.cdc.gov/std/Spanish/STDFact-HPV-s.htm>

Esta información es cortesía de los Centros de Control y Prevención de Enfermedades (CDC, por sus siglas en inglés) proveniente de <http://www.cdc.gov/std/Spanish/STDFact-HPV-s.htm>



Mitchell E. Daniels, Jr.
Governor

Gregory N. Larkin, M.D., F.A.A.F.P.
State Health Commissioner

Dear Parents/Guardians of Sixth Grade Students:

The American Cancer Society estimates there are about 11,000 new cases of invasive cervical cancer in the United States each year, and about 4,000 deaths annually from this disease. Physicians have long suspected a relationship between sexual activity and cervical cancer, but it wasn't until the 1980's that scientists were able to prove this link by isolating the genetic material from human wart, or papilloma, virus in cervical cancer cells. To date, more than 100 types of human papillomavirus (HPV) have been identified, and about 40 of these are capable of infecting the human genital tract. Low-risk HPV types, such as 6 and 11, are responsible for causing genital warts or benign cervical cell abnormalities. It is the high-risk virus types, including 16 and 18, which have the potential to cause changes in the cervix, vagina, and anus leading to cancer, if not treated. High-risk HPV types are detected in 99% of cervical cancers. Types 16 and 18 alone are responsible for about 70% of cervical and anogenital cancers worldwide.

The Centers for Disease Control and Prevention (CDC) estimate that about 20 million Americans are currently infected with at least one type of HPV. A study done by the CDC found that more than 1 out of every 4 women between the ages of 14 and 59 are infected with HPV. That number increases to 1 out of every 3 young women aged 15-19 and almost 1 out of every 2 women 20-24 years of age.¹ Many of these infections are asymptomatic and 90% will resolve spontaneously over time. Those infections that persist may cause genital warts, abnormal pap smears, or cervical cancer. The risk of becoming infected with HPV increases with the number of sexual partners; however a recent study found that 49% of women with only one sexual partner were infected with HPV. The only factor associated with the risk of HPV infection in these women was the number of previous partners of their male partner.²

Fortunately, safe and effective vaccines are now available for females and males between the ages of 9 and 26 against the most common types of HPV. These vaccines are a series of 3 shots, given over a 6 month period of time. Because the vaccines prevent most HPV infections but do not treat existing infections, they work better when given prior to initiation of sexual activity. In 2009, a survey of high school students across Indiana found that half of 9th-12th graders had already had sex.³ The CDC recommends routine vaccination of girls at the age of 11 or 12, and vaccination of all females aged 13-26 not previously vaccinated. The CDC has also recognized the use of one HPV vaccine (Gardasil®) in males ages 9-26 to prevent genital warts and anal cancer. For more information about HPV infection or vaccine, talk to your doctor or visit www.cdc.gov/vaccines/.

This information is provided by the Indiana State Department of Health as required by Public Law 80 (Senate Enrolled Act 327) of 2007. Questions may be directed to the Indiana State Department of Health Immunization Program at 1-800-701-0704.

Sincerely,

Joan Duwve, MD, MPH
Chief Medical Officer
Indiana State Department of Health

¹ Dunne, E. et.al., "Prevalence of HPV Infection Among Females in the United States", JAMA. 2007;297(8):813-819.

² Winer, R, et.al., "Risk of Female Human Papillomavirus Acquisition Associated with First Male Sex Partner", J Infect Dis, 2008;197(2):279-282.

³ <http://www.in.gov/isdh/20627.htm>



Indiana State Department of Health

Human Papillomavirus (HPV) Fact Sheet

What is genital HPV infection?

Genital human papillomavirus (also called HPV) is the most common sexually transmitted infection (STI). There are more than 40 HPV types that can infect the genital areas of males and females. These HPV types can also infect the mouth and throat. Most people who become infected with HPV do not even know they have it.

What are the signs, symptoms and potential health problems of HPV?

Most people with HPV do not develop symptoms or health problems from it. In 90% of cases, the body's immune system clears HPV naturally within two years.

- But sometimes, certain types of HPV can cause genital warts in males and females.
- Other HPV types can cause cervical cancer. These types can also cause other, less common but serious cancers, including cancers of the vulva, vagina, penis, anus, and head and neck (tongue, tonsils and throat).

How do people get HPV?

HPV can be spread through genital contact, oral sex, vaginal sex or anal sex, even when the infected partner has no signs or symptoms.

A person can have HPV even if years have passed since he or she had sexual contact with an infected person. Most infected persons do not realize they are infected or that they are passing the virus on to a sex partner.

Very rarely, a pregnant woman with genital HPV can pass HPV to her baby during delivery.

How does HPV cause genital warts and cancer?

HPV can cause normal cells on infected skin to turn abnormal. Most of the time, you cannot see or feel these cell changes. In most cases, the body fights off HPV naturally, but in cases when the body does not fight off HPV, HPV can cause visible changes in the form of genital warts or cancer. Warts can appear within weeks or months after getting HPV. Cancer often takes years to develop after getting HPV.

How common are HPV and related diseases?

HPV (the virus). Approximately 20 million Americans are currently infected with HPV. Another 6 million people become infected each year. HPV is so common that at least 50% of sexually active men and women get it at some point in their lives.

Genital warts. About 1% of sexually active adults in the U.S. have genital warts at any one time.

Cervical cancer. Each year, about 12,000 women get cervical cancer in the U.S.

Other cancers that can be caused by HPV. Each year in the U.S., there are about:

- 4,700 women who get vulvar or vaginal cancer
- 1,000 men who get penile cancer
- 2,700 women and 1,700 men who get anal cancer
- 2,300 women and 9,000 men who get head and neck cancers. [Note: although HPV is associated with some of head and neck cancers, most of these cancers are related to smoking and heavy drinking.]

How can people prevent HPV?

There are several ways that people can lower their chances of getting HPV:

- Vaccines can protect males and females against some of the most common types of HPV. These vaccines are given in three shots. It is important to get all three doses to get the best protection. The vaccines are most effective when given before a person's first sexual contact, when he or she could be exposed to HPV.
 - **Girls and women:** Two vaccines (Cervarix and Gardasil) are available to protect females against the types of HPV that cause most cervical cancers. One of these vaccines (Gardasil) also protects against most genital warts. Both vaccines are recommended for 11 and 12 year-old girls, and for females 13 through 26 years of age, who did not get any or all of the shots when they were younger. These vaccines can also be given to girls as young as 9 years of age.
 - **Boys and men:** One available vaccine (Gardasil) protects males against most genital warts. This vaccine is available for boys and men, 9 through 26 years
- People can also lower their chances of getting HPV by being in a faithful relationship with one partner; limiting their number of sex partners; and choosing a partner who has had no or few prior sex partners. But even people with only one lifetime sex partner can get HPV. And it may not be possible to determine if a partner who has been sexually active in the past is currently infected.
- For those who choose to be sexually active, condoms may lower the risk of HPV. Condoms may also lower the risk of developing HPV-related diseases, such as genital warts and cervical cancer. But HPV can infect areas that are not covered by a condom - so condoms may not *fully* protect against HPV.

Where can I get more information?

Your child's doctor is a good source of information about HPV disease and prevention. Or, visit the CDC website at:

<http://www.cdc.gov/std/HPV/STDFact-HPV.htm>

Information courtesy of the Centers for Disease Control and Prevention (CDC) from

<http://www.cdc.gov/std/HPV/STDFact-HPV.htm>



Mitchell E. Daniels, Jr.
Governor

Gregory N. Larkin, M.D., F.A.A.F.P.
State Health Commissioner

Para padres/tutores de las estudiantes de sexto grado:

La Sociedad Americana del Cáncer (American Cancer Society) estima que existen alrededor de 11.000 nuevos casos de cáncer de cuello de útero de tipo invasivo en Estados Unidos cada año y que se producen aproximadamente 4.000 muertes por año a causa de esta enfermedad. Los médicos sospechaban desde hace tiempo de una relación existente entre la actividad sexual y el cáncer de cuello de útero, pero no fue sino hasta la década de 1980 que los científicos pudieron comprobar este vínculo por medio del aislamiento del material genético del virus de una verruga humana, o papiloma, en las células del cáncer de cuello de útero. Hasta la fecha, se han identificado más de 100 tipos de virus de papiloma humano (VPH) y alrededor de cuarenta tienen la capacidad de infectar el tracto genital humano. Los tipos de VPH de bajo riesgo, como 6 y 11, son responsables de causar verrugas genitales o anomalías celulares benignas a nivel del cuello del útero. Son los tipos de virus de alto riesgo, incluyendo los 16 y 18, los que tienen el potencial de causar cambios en el cuello, la vagina y el ano que pueden resultar en cáncer, si no se los trata. Los tipos de VPH de alto riesgo se detectan en el 99% de los casos de cáncer de cuello de útero. Los tipos 16 y 18 por sí solos son responsables de casi el 70% de los casos de cáncer de cuello de útero, de ano y de genitales a nivel mundial.

Los Centros de Control y Prevención de Enfermedades (CDC, por sus siglas en inglés) estiman que aproximadamente 20 millones de estadounidenses se encuentran actualmente infectados con al menos un tipo de VPH. Un estudio realizado por los CDC demostró que más de 1 de cada 4 mujeres entre 14 y 59 años están infectadas con VPH. Esa cantidad aumenta a 1 de cada 3 mujeres jóvenes entre 15 y 19 años y a casi 1 de cada 2 mujeres entre 20 y 24 años.¹ Muchas de estas infecciones son asintomáticas y el 90% se resuelve de forma espontánea con el paso del tiempo. Las infecciones que persisten podrán producir verrugas a nivel genital, pruebas de Papanicolaou con resultados anormales o cáncer de cuello de útero. El riesgo de contraer una infección por VPH aumenta con la cantidad de compañeros sexuales; no obstante, un estudio reciente demostró que el 49% de las mujeres que tiene un solo compañero sexual se infectó con VPH. El único factor asociado con el riesgo de infección por VPH en estas mujeres fue la cantidad de compañeros previos a su pareja varón.²

Afortunadamente, se encuentran disponibles en la actualidad vacunas seguras y eficaces contra los tipos más comunes de VPH para mujeres y hombres de entre 9 y 26 años. Estas vacunas consisten en una serie de tres aplicaciones que se dan durante un periodo de 6 meses. Dado que las vacunas previenen la mayoría de las infecciones por VPH pero no tratan infecciones existentes, funcionan mejor cuando se administran antes del inicio de la actividad sexual. En 2009, una encuesta entre alumnos de secundaria en todo Indiana demostró que el cincuenta por ciento de los alumnos de 9° a 12° grado ya había tenido relaciones sexuales.³ Los CDC recomiendan la vacunación de rutina en - niñas de 11 ó 12 años y que se vacunen todas las mujeres de 13 a 26 años que no se hayan vacunado anteriormente. Asimismo, los CDC reconocieron que el uso de una vacuna contra el VPH (Gardasil®) en hombres que tengan de 9 a 26 años previenen la formación de verrugas genitales y cáncer de ano. Si desea más información sobre la infección o vacuna del VPH, hable con su médico o visite www.cdc.gov/vaccines/.

Esta información la brinda el Departamento de Salud del Estado de Indiana según lo exige la Ley Pública 80 (Ley inscrita del Senado 327) de 2007. Pueden dirigirse consultas al Programa de vacunación del Departamento de Salud del Estado de Indiana al 1-800-701-0704.

Cariñosos saludos,

Joan Duwve, MD, MPH
Chief Medical Officer
Indiana State Department of Health

¹ Dunne, E. et al., "Prevalence of HPV Infection Among Females in the United States", JAMA. 2007;297(8):813-819.

² Winer, R. et al., "Risk of Female Human Papillomavirus Acquisition Associated with First Male Sex Partner", J Infect Dis, 2008;197(2):279-282.

³ <http://www.in.gov/isdh/20627.htm>



Indiana State Department of Health

Hoja de Datos del virus del papiloma humano (VPH)

¿En qué consiste la infección genital de VPH?

El virus del papiloma humano genital (también llamado VPH) es la enfermedad de transmisión sexual (ETS) más común. Existen más de 40 tipos de VPH que pueden afectar las zonas genitales de hombres y mujeres. Estos tipos de VPH también pueden infectar la boca y la garganta. La mayoría de las personas que se infecta con VPH ni siquiera sabe que lo tiene.

¿Cuáles son los signos, síntomas y los posibles problemas de salud del VPH?

La mayoría de las personas con VPH no desarrollan síntomas o problemas de salud a partir de esta infección. En el 90% de los casos, el sistema inmunitario del organismo elimina el VPH en forma natural en un periodo de dos años.

- No obstante, en ocasiones, ciertos tipos de VPH pueden causar verrugas genitales en hombres y mujeres.
- Otros tipos de VPH pueden provocar cáncer de cuello de útero. Estos tipos pueden causar también otros tipos de cáncer que son menos comunes pero que revisten gravedad, lo que incluye cáncer de vulva, vagina, pene, ano y cabeza y cuello (lengua, amígdalas y garganta).

¿De qué forma contraen las personas VPH?

El VPH puede contagiarse mediante el contacto a nivel genital, el sexo oral, vaginal o anal, incluso cuando el/la compañero/a infectado/a no presente signos ni síntomas.

Una persona puede tener VPH incluso si han pasado años desde que tuvo contacto sexual con la persona infectada. La mayoría de las personas infectadas no se dan cuenta de ello o de que le pasan el virus a su compañero/a sexual.

En casos muy poco frecuentes, una mujer embarazada que tenga VPH puede pasarle el virus a su bebé durante el parto.

¿De qué forma causa el VPH verrugas genitales y cáncer?

El VPH puede provocar que las células normales que se encuentran en la piel infectada se conviertan en anormales. La mayoría de las veces, no se puede ver ni sentir estos cambios celulares. En la mayor parte de los casos, el organismo combate el VPH de forma natural, pero en los casos en que el organismo no lo hace, el VPH puede producir cambios visibles en forma de verrugas genitales o cáncer. Las verrugas pueden aparecer en unas semanas o meses después de contraer el VPH. Con frecuencia, el cáncer lleva años de desarrollo con posterioridad a contraer VPH.

¿Qué tan comunes son el VPH y las enfermedades relacionadas con el mismo?

VPH (el virus). Aproximadamente, 20 millones de estadounidenses se encuentran en la actualidad afectados con VPH. Otras 6 millones de personas se infectan cada año. El VPH es tan común que al menos el 50% de los hombres y mujeres sexualmente activos lo contraen en algún momento de sus vidas.

Verrugas genitales. En Estados Unidos, alrededor del 1% de los adultos sexualmente activos tiene verrugas genitales en algún momento dado

Cáncer de cuello de útero. Alrededor de 12.000 mujeres contraen cáncer de cuello de útero cada año en Estados Unidos.

Otros tipos de cáncer que puede causar el VPH. En Estados Unidos, existen cada año aproximadamente:

- 4.700 mujeres que presentan cáncer de vulva o de vagina,
- 1.000 hombres que contraen cáncer de pene,
- 2.700 mujeres y 1.700 hombres que contraen cáncer de ano,
- 2.300 mujeres y 9.000 hombres que presentan tipos de cáncer de cabeza y cuello. [Nota: aunque el VPH esté asociado con ciertos tipos de cáncer de cabeza y cuello, la mayoría de éstos se encuentra relacionada con el tabaquismo y el consumo excesivo de alcohol].

¿De qué forma pueden prevenir las personas el VPH?

Existen varias maneras para que las personas puedan disminuir las posibilidades de contraer VPH:

- Las vacunas pueden proteger a los hombres y mujeres contra algunos de los tipos más comunes de VPH. Las mismas se dan en tres aplicaciones. Es importante aplicarse las tres dosis para lograr la mayor protección. Las vacunas son más eficaces cuando se administran a la persona antes de que tenga su primer contacto sexual, que es cuando podría quedar expuesta a contraer VPH.
 - **Niñas y mujeres:** Se encuentran disponibles dos vacunas (Cervarix y Gardasil) para proteger a las mujeres contra los tipos de VPH que causan la mayoría de los casos de cáncer de cuello de útero. Una de estas vacunas (Gardasil) también brinda protección contra la mayoría de las verrugas genitales. Se recomiendan ambas vacunas para niñas de 11 y 12 años y para mujeres de 13 a 26 años, que no recibieron ninguna o alguna de las dosis cuando eran más jóvenes. Estas vacunas también se pueden administrar a niñas de 9 años.
 - **Niños y hombres:** Una de las vacunas disponibles (Gardasil) brinda protección a los varones contra la mayoría de las verrugas genitales. Esta vacuna está disponible para su administración a niños y hombres de 9 a 26 años.
- Asimismo, las personas pueden tener menos posibilidades de contraer VPH manteniendo la fidelidad en una relación con un/a solo/a compañero/a, limitando la cantidad de compañeros/as sexuales y eligiendo a un/a compañero/a que no haya tenido compañeros/as sexuales anteriormente o haya tenido muy pocos/as. Sin embargo, las personas que solamente han tenido un/a solo/a compañero/a sexual en su vida también pueden contraer VPH. Posiblemente no se pueda determinar si un/a compañero/a que ha sido sexualmente activo/a en el pasado se encuentra actualmente infectado/a.
- Para quienes optan ser sexualmente activos/as, los condones pueden disminuir el riesgo de contraer VPH. Asimismo, los condones pueden reducir el riesgo de desarrollar enfermedades relacionadas con el VPH, como las verrugas genitales o el cáncer de cuello de útero. Sin embargo, el VPH puede infectar áreas que el condón no cubra; en consecuencia, los condones posiblemente no brinden protección *total* contra el VPH.

¿En dónde puede obtener más información?

El médico de su hijo/a es una buena fuente de información respecto de la enfermedad y la prevención del VPH. Otra opción es visitar el sitio web de los CDC en:

<http://www.cdc.gov/std/Spanish/STDFact-HPV-s.htm>

Esta información es cortesía de los Centros de Control y Prevención de Enfermedades (CDC, por sus siglas en inglés) proveniente de <http://www.cdc.gov/std/Spanish/STDFact-HPV-s.htm>

SUMMARY REPORT ON THE HPV INFORMATION/IMMUNIZATION STATUS OF SIXTH GRADE FEMALES STUDENTS ENROLLED IN SCHOOL

SCHOOL YEAR _____

6

| | | | |
|-----------------------------------|--------------------------------|---------------------------|--|
| Name of School Corporation | | CODES | |
| Name of School | | County Number | |
| Address of School | | Corporation Number | |
| City | County | School Number | |
| Zip Code | School Telephone Number | | |

The number of 6th grade female students who:

- A. Are enrolled
- B. Have received ONE dose of HPV vaccine
- C. Have received TWO doses of HPV vaccine
- D. Have received THREE doses of HPV vaccine
- E. Will receive the HPV vaccine
- F. The number of parents who don't want their daughters to receive HPV vaccine
- G. The number of parents who choose not to provide this information
- H. The number of parents who did not respond or returned an invalid response

Per IC 20-34-4-Sec. 5.5(a) Each school that enrolls grade 6 female students shall require the parent of a female student entering grade 6 to furnish not later than the twenty (20) school days after the first day of school a written statement prescribed by the state department of health under subsection (b) stating that the parent has received the information required under section 3(b) of this chapter and that:

- (1) the student has received or is receiving the immunization;
- (2) the parent has decided not to have the student immunized; or
- (3) the parent chooses not to provide the information to the school concerning whether the student was immunized; against the human papillomavirus (HPV) infection.

(b) The state department of health shall prescribe the format for the written statement required under subsection (a).

(c) A student may not be prevented from enrolling in, attending, or graduating from school for the sole reason that the student has not provided the school with the written statement required under this section. As added by P.L.80-2007, SEC.2.

Signatures: _____
Superintendent or Principal

Prepared By: _____

Return this completed form to:

Indiana State Department of Health.
Immunization Division, 6A
Attn: Assessment Epidemiologist
2 North Meridian Street
Indianapolis, IN 46204-3003



Indiana State
Department of Health

2012-2013 Instructions for Electronic Submission of the HPV Summary Report for 6th Grade Females

1. The summary report is now available to be submitted electronically as well as on paper. Click on the following link to complete the report:

<https://www.surveymonkey.com/s/H67KY2S>

Or, you may access the link through “Resources—Links” on the left side of the sharepoint page. This will lead you to a survey where the pieces of information needed can be populated. Please be sure to click “Done” to send your responses. If you would like to submit the report on paper, please print a copy from the “School Nurse Documents” folder. It has been modified from previous school years, so please download the current version.

2. If you have any questions, please contact the Assessment Epidemiologist for the Immunization Division.

Ryan Ly
(317) 234-3378
rly@isdh.in.gov

2012 Recommended Childhood Immunization Schedule

Below is a guide to the CDC recommended ages for all childhood immunizations. For more information regarding immunizations, combination vaccines and the minimum time between immunizations, please talk to your health care provider.

| | |
|------------------------|---|
| Birth | Hep B (Hepatitis B) |
| 2 months | Hep B RV (Rotavirus) DTaP (Diphtheria, Tetanus & Pertussis) Hib (Haemophilus influenza B) PCV (Pneumococcal) Polio (Inactivated Polio) |
| 4 months | RV DTaP Hib PCV Polio |
| 6 months | Hep B RV (If Indicated) DTaP Hib PCV Polio |
| 12 months | PCV MMR (Measles, Mumps & Rubella) Varicella Hep A (Hepatitis A) |
| 15 to 18 months | DTaP Hib Hep A (at 18 months) |
| 4 to 6 years | DTaP Polio (4th dose no earlier than age 4) MMR Varicella |
| 7 to 10 years | <i>Catch Up Immunizations</i> |
| 11 to 18 years | Tdap (Tetanus, Diphtheria & Pertussis) HPV (Human Papillomavirus, 3 doses) MCV4 (Meningococcal) |

Annual Flu
Recommended every Fall for children 6 months to 18 years (Children 6 months to 8 years of age need 2 doses the first time receiving the flu vaccine.)

2012-2013 School Year School Entry Immunization Requirements

Below are the number of doses and each vaccine required for school entry. Changes from the 2011-2012 requirements are indicated in **blue**.

Additional immunizations are recommended by the CDC for your child's safety, but are currently not required for school entry.

| | | |
|----------------------------|---|---|
| 3 to 5 years old | 3 Hep B (Hepatitis B) 4 DTaP (Diphtheria, Tetanus & Pertussis) 3 Polio (Inactivated Polio) 1 MMR (Measles, Mumps & Rubella) 1 Varicella | |
| Kindergarten to 2nd | 3 Hep B 5 DTaP 4 Polio* | 2 MMR 2 Varicella |
| Grades 3 to 5 | 3 Hep B 5 DTaP 4 Polio | 2 MMR 1 Varicella |
| Grades 6 to 12 | 3 Hep B 5 DTaP 4 Polio | 2 MMR 2 Varicella 1 Tdap (Tetanus & Pertussis) 1 MCV (Meningococcal) |

Hep B Two dose alternative adolescent schedule (Recombivax HB® given at age 11-15 years x 2 doses) is acceptable if properly documented.

DTaP Four doses of DTaP/DTP/DT are acceptable if 4th dose was administered on or after child's fourth birthday.

Polio Three doses of polio vaccine are acceptable if 3rd dose was administered on or after child's fourth birthday and the doses are all IPV or all OPV.

*The 4th dose of polio vaccine **must** be administered on or after child's fourth birthday. This applies only to kindergarten, 1st and 2nd grades for 2012-2013.

MMR If given as single antigen, 2 Measles, 2 Mumps and 1 Rubella required.

Varicella Physician documentation of disease history, including month and year, is proof of immunity for children entering preschool through 2nd grade. A signed statement from the parent/guardian indicating history of disease, including month and year is required for children in grades 3-12.

Tdap A Tdap booster can be given as early as 1 year after a Td vaccination.

For children who have delayed immunizations, please refer to the 2012 CDC "Catch-up Immunization Schedule" to determine adequately immunizing doses. All minimum intervals and ages for each vaccination as specified per 2012 CDC guidelines must be met for a dose to be valid. A copy of these guidelines can be found at www.cdc.gov/vaccines/recs/schedules/default.htm.

2012-2013 School Year
Indiana State Department of Health (ISDH)
School Immunization Requirements
Updated: May 2012

| | |
|-------------------------|---|
| 3 to 5 years old | 3 Hep B (Hepatitis B) 4 DTaP (Diphtheria, Tetanus & Pertussis) 3 Polio (Inactivated Polio) 1 MMR (Measles, Mumps & Rubella) 1 Varicella |
|-------------------------|---|

| | | |
|--------------------------|------------------------------|----------------------|
| Kindergarten to 2 | 3 Hep B 5 DTaP 4 Polio | 2 MMR 2 Varicella |
|--------------------------|------------------------------|----------------------|

| | | |
|----------------------|------------------------------|----------------------|
| Grades 3 to 5 | 3 Hep B 5 DTaP 4 Polio | 2 MMR 1 Varicella |
|----------------------|------------------------------|----------------------|

| | | |
|-----------------------|------------------------------|---|
| Grades 6 to 12 | 3 Hep B 5 DTaP 4 Polio | 2 MMR 2 Varicella 1 Tdap (Tetanus & Pertussis) 1 MCV (Meningococcal) |
|-----------------------|------------------------------|---|

Hep B Two dose alternative adolescent schedule (Recombivax HB® given at age 11-15 years x 2 doses) is acceptable if properly documented.

DTaP Four doses of DTaP/DTP/DT are acceptable if 4th dose was administered on or after child's fourth birthday.

Polio The 4th dose of polio vaccine must be administered on or after child's fourth birthday. This applies only to kindergarten, 1st and 2nd grades for 2012-2013. Three doses of polio vaccine are acceptable if 3rd dose was administered on or after child's fourth birthday and the doses are all IPV or all OPV.

MMR If given as single antigen, 2 Measles, 2 Mumps and 1 Rubella required.

Varicella Physician documentation of disease history, including month and year, is proof of immunity for children entering preschool through 2nd grade. A signed statement from the parent/guardian indicating history of disease, including month and year is required for children in grades 3-12. Two doses of varicella vaccine separated by at least 3 months are **recommended** for all elementary-aged students.

Tdap A Tdap booster can be given as early as 1 year after a Td vaccination.

For children who have delayed immunizations, please refer to the 2012 CDC "Catch-up Immunization Schedule" to determine adequately immunizing doses. All minimum intervals and ages for each vaccination as specified per 2012 CDC guidelines must be met for a dose to be valid. A copy of these guidelines can be found at www.cdc.gov/vaccines/recs/schedules/default.htm.

Additional Information

- Immunization reports are required to be submitted to the Indiana State Department of Health via CHIRP, the Indiana immunization registry, for K, 1st & 6th grades.
- Required educational materials to be distributed:
 - Grades 1-12: Meningococcal Parent Letter with Meningococcal Fact Sheet
 - 6th Grade (Parents of 6th grade girls): HPV letter/response form and FAQ sheet. Completed response forms should be returned to the school. The school will supply a summary of responses to ISDH.
- Recommended educational materials to be distributed:
 - Grades 6-12: Pertussis Parent Letter with Pertussis Fact Sheet
 - 6th Grade (Parents of 6th grade boys): HPV letter and FAQ sheet.

**School Immunization Requirement FAQs
Indiana State Department of Health (ISDH)
2012-2013 School Year**

Requirements & Compliance

1. Are there any additions to required immunizations for the 2012-2013 school year?

No. Although, students in Kindergarten, 1st and 2nd grade are required to have two (2) doses of varicella vaccine, or evidence of immunity. This is a “roll-up” requirement from last year’s two dose varicella requirement.

2. Are immunizations required for all children enrolled in school?

Yes. Students in all grades are required to meet the minimum immunization requirements. Immunization requirements extend to children ages 3 through 5 attending special education programs, child care, or preschool within the school building.

3. What information must be included on the physician’s statement to document immunization?

The statement must include the student’s name and date of birth, the vaccine given and date (month/day/year) of each immunization, and the signature of a medical provider.

4. What is considered adequate documentation of an immunization history?

Adequate documentation is as follows: a physician’s written documentation, an immunization record from another school corporation, or an immunization record in the Indiana Immunization Registry (CHIRP) or printed record from another state registry. This documentation must include the month, day, and year **each dose** of vaccine was administered.

5. What is “laboratory evidence of immunity”?

Laboratory evidence of immunity is a blood test for disease-specific immune globulin that measures immunity to disease. This is often used to confirm immunity when immunization records are not available, or a parent reports a history of disease.

6. Who should interpret lab results for evidence of immunity?

Laboratory results for evidence of disease immunity must be ordered by a physician. The ordering physician is responsible for interpreting the results and determining adequate evidence of immunity based on current medical guidelines.

7. Is lab evidence of immunity acceptable for ALL school required immunizations?

No. Lab evidence is NOT acceptable for Diphtheria, Pertussis, or Tetanus.

Laboratory evidence of immunity may be used in place of immunization requirements for the following school required immunizations:

**Measles
Chickenpox**

**Mumps
Hepatitis B**

**Rubella
Polio**

8. What is the four-day grace period and when can it be used?

CDC and ACIP allow a 4-day grace period. If a vaccine is given up to 4 days **before** the minimum recommended age for administration of the vaccine, it can be counted as valid. However, this does not apply to every vaccine and does not change the recommended schedule for routine vaccine administration.

9. What is the minimum age for MMR vaccine to be counted as a valid dose?

For the MMR to be counted as a valid dose, it must have been given on or after the first birthday. The four day grace period is applicable to MMR vaccine.

10. When are 4 doses of Polio vaccine required?

Four doses of polio are considered a complete series, with the fourth dose administered on or after the 4th birthday for those students entering Kindergarten, 1st or 2nd grades for the 2012-2013 school year. Three doses are acceptable if the third dose was given on or after the 4th birthday and only one type of vaccine was used (all OPV or all IPV). The minimum interval between the two final doses in the series **must** be at least 6 months.

11. What are the minimum intervals for Hepatitis B vaccine?

The minimum intervals between vaccine doses are:

Dose 1 and 2 is 4 weeks (28 days)

Dose 2 and 3 is 8 weeks (56 days)

Dose 1 and 3 is 16 weeks (112 days)

Note: The minimum age for the 3rd dose of Hepatitis B vaccine is 24 weeks (164 days).

12. If there is an extended interval between doses of Hepatitis B, does the student need to start the series over?

No. The hepatitis B series should never be restarted or additional doses given due to an extended interval between doses. The student should just complete the series with the remaining dose(s) due.

13. May a chiropractor give a medical exemption for vaccination?

No. Only a licensed physician (M.D. or D.O.) can provide a medical exemption. A nurse practitioner or a physician assistant under a physician's supervision can also give a medical exemption.

14. What must a medical exemption contain?

A medical exemption is a physician's certification that a particular immunization is **detrimental** to the child's health. It must state in writing that the child has a medical contraindication to receiving a vaccine and must be resubmitted to the school each year. As true medical contraindications to immunization are vaccine-specific, medical exemptions must be written for each vaccine that is contraindicated.

15. What must a religious objection contain?

A religious objection must state that the objection to immunization is based on religious grounds. Each objected immunization must be specified. The objection must be in writing, signed by the child's parent, and delivered to the school. There is no requirement of proof. The written religious objection must be resubmitted to the school each year.

16. Is there a philosophical objection allowed in Indiana?

No. Indiana law only allows religious and medical exemptions.

17. If a child does not present an immunization record or is not up to date with his/her immunizations, may he/she enroll in school?

Yes. Indiana Code (IC 20-34-4-5) states that a child is **not permitted to attend** school beyond the first day without furnishing a written record, unless:

- The school gives a waiver (for a period not to exceed 20 days); or
- The local health department or a physician determines that the child's immunizations have been delayed due to extreme circumstances and that the required immunizations will not be completed by the first day of school. The parent must furnish a written statement and a time schedule approved by a physician or health department; or
- A medical or religious exemption is on file.

18. If a patient has recently had a meningococcal polysaccharide vaccine (MPSV: Menomune), do they still need to get the meningococcal conjugate vaccine (MCV4: Menactra) to meet the school requirements? Is there a minimum interval that should be observed for the patient's safety between the two vaccines?

The 2012 Immunization Schedule for MCV4 states: "Administer to children previously vaccinated with MCV4 or MPSV4 who remain at increased risk after 3 years (if first dose administered at age 2 through 6 years) or after 5 years (if first dose administered at age 7 years or older)."

19. If a child receives one dose of Varicella vaccine and then subsequently has chickenpox, is a second dose of Varicella vaccine needed?

No, the parent would need to document the history of the disease.

20. Is a doctor's statement required as proof of chickenpox disease?

- a. For children entering preschool through 2nd grades, a signed statement by a health care provider, including date of disease, is required to document history of chickenpox disease.
- b. For children entering grades 3-12, documentation from a parent is sufficient. A written statement should include date of disease, a parent's signature, and date of signature. (Example: If a parent cannot recall exact dates, something as simple as stating that disease occurred in the spring of 2000 is acceptable.)

Reporting

- 21. Do schools provide summary reports to ISDH on the immunization status of students in all grades?**
While all students enrolled in school are required to be up-to-date on all required immunizations, schools only provide summary data to ISDH on students enrolled in kindergarten, first, and sixth grades at this time.
- 22. If a child has an exemption on file, may he/she be counted as complete?**
No. If a child has an exemption on file for any immunization, he/she must be reported under "Exemptions".
- 23. Do schools need to report immunization data for all 6th grade immunizations?**
Yes, including varicella and Hepatitis B, MCV4, and Tdap.
- 24. What is the deadline for reporting school immunization data?**
The deadline for reporting school immunization data is November 1st.
- 25. Does the Indiana State Department of Health determine if a child is excluded from school for incomplete immunizations?**
No. School exclusion is determined by the school according to IC 20-34-4-5.
- 26. What immunization education materials must be provided to the parents of enrolled students?**
Meningococcal disease—all grades;
Human Papillomavirus (HPV) Infection—6th grade female students. It is strongly recommended that this same information be provided to parents of enrolled 6th grade males in addition, however, that is not a requirement at this time.
- 27. Are schools required to collect the response form included with the Human Papillomavirus (HPV) Infection educational materials?**
Yes. Schools are required to collect HPV response forms from parents of sixth grade female students. However, forms should not include the students' name and should not be returned to ISDH. Schools will complete a summary report of responses received from HPV forms and submit the report to ISDH.
- 28. Are schools required to send parents information about Pertussis and the Tdap vaccine?**
No. Indiana State Department of Health recommends that schools send this information home to parents, however it is not required.

**For additional questions, please call the
Indiana State Department of Health Immunization Division at (800) 701-0704.**

Insert Date Here

Dear Parents, Guardians and Students,

Indiana State Law IC 20-30-5-18 requires that school systems provide important information to parents and guardians of all students about meningitis and the vaccines available to prevent one type of this serious illness at the beginning of each school year.

One type of meningitis is caused by a bacteria called *Neisseria meningitidis*. Infections caused by this bacteria are serious, and may lead to death. Symptoms of an infection with *Neisseria meningitidis* may include a high fever, headache, stiff neck, nausea, confusion and a rash. This disease can become severe very quickly and often leads to deafness, mental retardation, loss of arms or legs, and even death.

The bacteria can mainly be spread from person to person through the exchange of nose and throat secretions. This can occur through coughing, kissing, and sneezing. The bacteria are not spread by casual contact or by simply breathing the air where a person with meningitis has been. However, sometimes the bacteria that cause meningitis have spread to other people who have had close or prolonged contact with a patient with *Neisseria meningitidis*. People in the same household or anyone with direct contact with a patient's oral secretions (such as a boyfriend or girlfriend) would be considered at increased risk of getting the infection.

There are two vaccines (Menactra and Menveo) that can prevent most cases of meningitis caused by this bacteria in people over the age of 9 months. The United States Centers for Disease Control and Prevention (CDC) recommends vaccination against this disease for all children 11-18 years of age. CDC recommends vaccination of children with the meningococcal vaccine at 11 or 12 years old, with a booster dose at 16 years old. Children ages 9 months-10 years old who have sickle cell anemia or problems with their immune systems should also receive the vaccine.

One dose of meningococcal vaccine is required for students in grades 6 – 12. This is a legal requirement (Indiana Administrative Code 410 IAC 1-1-1). All students entering grades 6-12 need to have a record from the child's doctor indicating the vaccine was given or a record of this immunization in the state immunization registry (CHIRP) prior to the start of the school year.

Many local health departments and private healthcare providers offer this vaccine. Please contact your health care provider for specific instructions regarding your child.

Additional information about meningococcal disease can be found at:

The Indiana State Department of Health

http://www.in.gov/isdh/files/Meningococcal_QFV2_2010.pdf

The Centers for Disease Control and Prevention

<http://www.cdc.gov/vaccines/vpd-vac/mening/default.htm>

The Indiana Department of Education School Health Student Services

<http://www.doe.in.gov/sservices/healthservices/>

Sincerely,

[Insert Date Here]

Estimados padres, tutores y estudiantes:

La Ley IC 20-30-5-18 del Estado de Indiana exige que, al comenzar cada año lectivo, los sistemas escolares brinden a los padres y tutores de todos los estudiantes información importante sobre la meningitis y las vacunas disponibles para prevenir uno de los tipos de esta enfermedad grave.

Uno de los tipos de meningitis es causado por una bacteria llamada *Neisseria meningitidis*. Las infecciones originadas por esta bacteria son graves y pueden provocar la muerte. Los síntomas de una infección con *Neisseria meningitidis* pueden incluir fiebre alta, dolor de cabeza, tortícolis, náuseas, confusión y erupción cutánea. Esta enfermedad se puede volver grave muy rápido y, con frecuencia, provoca sordera, retraso mental, pérdida de brazos o piernas, e incluso la muerte.

La bacteria puede propagarse, sobre todo, de persona a persona a través del intercambio de secreciones de la nariz y la garganta. Esto puede ocurrir al toser, al besarse y al estornudar. La bacteria no se propaga por contacto casual o simplemente por respirar el aire en el que ha estado una persona con meningitis. No obstante, a veces la bacteria que causa la meningitis se propaga a otras personas que han tenido contacto directo o prolongado con un paciente con *Neisseria meningitidis*. Las personas que habitan en el mismo hogar o cualquiera en contacto directo con las secreciones orales de un paciente (como un novio o novia) se considerarían en mayor riesgo de contraer la infección.

Existen dos vacunas (Menactra y Menveo) que pueden prevenir la mayoría de los casos de meningitis causados por esta bacteria en personas de más de 9 meses. Los Centros para el Control y la Prevención de Enfermedades (CDC) de los Estados Unidos recomiendan la vacunación contra esta enfermedad para todos los niños entre 11 y 18 años. Los CDC recomiendan la vacunación de niños con la vacuna meningocócica a los 11 o 12 años, con una dosis de refuerzo a los 16. Los niños entre 9 meses y 10 años que tienen anemia falciforme o problemas con sus sistemas inmunitarios también deben recibir la vacuna.

Se exige que los estudiantes entre 6.º y 12.º grado tengan colocada una dosis de la vacuna meningocócica. Este es un requisito legal (Código Administrativo de Indiana 410 IAC 1-1-1). Todos los estudiantes que ingresan a los grados 6.º a 12.º deben tener una constancia de su médico que indique que se les colocó la vacuna o una constancia de esta vacunación en el registro estatal de vacunación (CHIRP) antes de comenzar el año lectivo.

Muchos departamentos de salud locales y proveedores de atención médica privada ofrecen esta vacuna. Comuníquese con su proveedor de atención médica para conocer las instrucciones específicas respecto a su hijo.

Puede obtener información adicional sobre la enfermedad meningocócica en los siguientes sitios web (están disponibles en idioma inglés):

Departamento de Salud del Estado de Indiana

http://www.in.gov/isdh/files/MeningQF_May2011Spanish.pdf

Centros para el Control y la Prevención de Enfermedades

<http://www.cdc.gov/meningitis/about/faq-sp.html>

Atentamente,



Quick Facts

About... Meningococcal Disease

What is meningococcal disease?

Neisseria meningitidis bacteria are normally found in the nose and throat of 10 – 15% of healthy adults. There are 5 strains of *Neisseria meningitidis* responsible for most disease. Rarely, the bacteria can enter areas of the body where bacteria are normally not found and cause a severe, life-threatening infection (“invasive disease”) known as meningococcal disease. Examples of meningococcal disease include meningitis (infection of the lining of the brain and spinal cord) and septicemia (bloodstream infection). This is a very rare disease; around 30 cases are reported each year in the state of Indiana

How is meningococcal disease spread?

The disease is not spread by casual contact or by attending the same work or school setting. *Neisseria meningitidis* bacteria are spread from person to person *only through* contact with droplets from an infected person’s nose or throat, including saliva. Some common ways the bacteria can be spread from an infected person are:

- Living in the same household or dormitory room
- Kissing on the lips
- Sharing drinks from the same container (glasses, cups, water bottles)
- Sharing eating with utensils (forks and spoons)
- Sharing a toothbrush, cigarettes, or lipstick

Preventive antibiotic therapy is recommended for individuals who are close contacts of or provide medical care to someone who has meningococcal disease.

Who is at risk for meningococcal disease?

Young infants, students attending high school or college, and military recruits are more likely to get the disease. Individuals with a weakened immune system are also at higher risk for the disease, as well as those who live in crowded dwellings or have household exposure to cigarette smoke.

What are the symptoms of meningococcal disease?

Symptoms of meningococcal disease include:

- Fever (sudden onset)
- Severe headache
- Stiff neck
- Drowsiness or confusion
- Skin rash that appears as bruising or bleeding under the skin
- Nausea and vomiting
- Eyes that are sensitive to light

In babies, the symptoms are more difficult to identify but may include:

- Fever
- Fretfulness or irritability
- Poor appetite
- Difficulty in waking the baby

How is meningococcal disease diagnosed?

If you have any of the above symptoms, it is important to seek medical attention immediately. An infected person may become sick within a few hours of developing symptoms, and early diagnosis is important. Your health care provider may collect blood or spinal fluid to see if meningococcal bacteria are present.

How can meningococcal disease be treated?

Meningococcal disease is treated with several different types of antibiotics, and early treatment may reduce the risk of complications or death from the disease. A 24-hour course of antibiotic therapy reduces a person's likelihood of spreading the bacteria. Supportive care in an intensive care unit may be necessary for those with severe infection, and surgery may be needed to remove damaged tissue and stop the spread of infection.

How is meningococcal disease prevented?

Meningococcal disease can be prevented by good hygiene. Cover the nose and mouth when sneezing or coughing, throw away used tissues, and wash hands often. Do not share eating or drinking utensils with anyone.

Is there a vaccine that can prevent this disease?

There are two types of vaccine that protect against 4 of the 5 common strains of this disease. One type, MCV4, is available for use in people ages 9 months to 55 years old. The second type, MPSV4, is recommended for adults 56 years and older who are at elevated risk. Ask your healthcare provider which one is right for you. A dose of MCV4 vaccine is recommended for adolescents at age 11 or 12 years old, with a booster dose at age 16. Indiana requires that all 6th-12th grade students receive 1 dose of MC4 meningococcal vaccine. Meningococcal vaccine is also recommended for other people at increased risk for meningococcal disease, such as:

- College freshmen living in dormitories
- U. S. military recruits
- Travelers to countries where meningococcal disease is common, such as parts of Africa or the Hajj in Saudi Arabia
- Anyone with a damaged spleen, or whose spleen has been removed
- Persons with certain medical conditions that affect their immune system (check with your health care provider)
- Microbiologists who are routinely exposed to meningococcal bacteria

Revaccination is recommended for children and adults with ongoing risk factors for meningococcal disease. For information on the availability of meningococcal vaccine, contact your health care provider or local health department.

There is no vaccine available for infants under 9 months of age, or for 1 of the common strains, meningococcal B disease.

All information presented is intended for public use. For more information, please refer to the Centers for Diseases and Control and Prevention (CDC) meningitis website at:
<http://www.cdc.gov/meningitis/about/index.html>

This page was last reviewed May 2012.



Información general

Acerca de la enfermedad meningocócica

¿Qué es la enfermedad meningocócica?

La bacteria *Neisseria meningitidis* normalmente se encuentra en la nariz y en la garganta de entre el 10 y el 15% de los adultos. Existen 5 cepas de *Neisseria meningitidis* responsables de la mayoría de los casos de esta enfermedad. En raras ocasiones, la bacteria puede entrar en áreas del cuerpo en las que normalmente no se encuentra y causar una infección grave que puede ser mortal ("enfermedad invasiva") conocida como enfermedad meningocócica. Ejemplos de la enfermedad meningocócica incluyen meningitis (infección de las membranas que recubren el cerebro y la médula espinal) y septicemia (infección en el torrente sanguíneo). Se trata de una enfermedad muy poco común; se informan alrededor de 30 casos por año en el estado de Indiana.

¿Cómo se propaga la enfermedad meningocócica?

La enfermedad no se propaga por contacto casual ni por asistir al mismo entorno laboral o escolar. La bacteria *Neisseria meningitidis* se propaga de persona a persona *solo a través del* contacto con gotitas de la nariz o de la garganta, incluida la saliva, de una persona infectada. Las siguientes son algunas maneras comunes de contagiarse la bacteria de una persona infectada:

- Vivir en el mismo hogar o habitación de residencia estudiantil.
- Besar en los labios.
- Compartir bebidas del mismo recipiente (vasos, tasas, botellas de agua).
- Compartir cubiertos (tenedores y cucharas).
- Compartir el cepillo de dientes, cigarrillos o lápiz de labios.

Se recomienda la terapia preventiva con antibióticos para las personas que están en contacto directo con alguien que tiene enfermedad meningocócica o que le brinda atención médica a alguien con esta enfermedad.

¿Quién está en riesgo de contraer enfermedad meningocócica?

Los bebés pequeños, los estudiantes que asisten a la secundaria o a la universidad, y los reclutas son más propensos a contraer la enfermedad. Las personas con un sistema inmunitario debilitado también tienen mayor riesgo de contraer la enfermedad, al igual que las que viven con muchas personas o están expuestas en el hogar al humo de cigarrillos.

¿Cuáles son los síntomas de la enfermedad meningocócica?

Los síntomas de la enfermedad meningocócica incluyen los siguientes:

- Fiebre (comienzo repentino).
- Dolor de cabeza fuerte.
- Tortícolis.
- Somnolencia o confusión.
- Erupción cutánea que aparece como moretones o sangrado debajo de la piel.
- Náuseas y vómitos.
- Sensibilidad a la luz.

En bebés, los síntomas son más difíciles de identificar, pero pueden incluir los siguientes:

- Fiebre.
- Inquietud o irritabilidad.
- Falta de apetito.
- Dificultad para despertar al bebé.

¿Cómo se diagnostica la enfermedad meningocócica?

Si tiene algunos de los síntomas que se mencionan antes, es importante buscar atención médica de inmediato. Una persona infectada puede enfermarse pocas horas después de desarrollar síntomas y es importante el diagnóstico precoz. Su proveedor de atención médica le puede extraer sangre o líquido cefalorraquídeo para detectar la presencia de bacterias meningocócicas.

¿Cómo se puede tratar la enfermedad meningocócica?

La enfermedad meningocócica se trata con varios tipos distintos de antibióticos y el tratamiento precoz puede reducir el riesgo de complicaciones o muerte a causa de la enfermedad. Un tratamiento con antibióticos durante 24 horas reduce la probabilidad de que una persona contagie la bacteria. Es posible que las personas con infección severa necesiten cuidados de apoyo en una unidad de cuidados intensivos, y quizás se necesite una cirugía para extirpar el tejido dañado y detener la propagación de la enfermedad.

¿Cómo se previene la enfermedad meningocócica?

La enfermedad meningocócica se puede prevenir con una buena higiene. Cúbrase la nariz y la boca al estornudar o toser, deseche los pañuelos de papel usados y lávese las manos con frecuencia. No comparta cubiertos ni recipientes para beber con nadie.

¿Existe una vacuna que pueda prevenir esta enfermedad?

Existen dos tipos de vacuna que protegen contra 4 de las 5 cepas más comunes de esta enfermedad. Un tipo, la MCV4, está disponible para su uso en personas de 9 meses a 55 años. El segundo tipo, la MPSV4, se recomienda para adultos de más de 56 años que estén en alto riesgo. Pregunte a su proveedor de atención médica cuál es la adecuada para usted. Se recomienda una dosis de la vacuna MCV4 para los adolescentes a los 11 o 12 años, con una dosis de refuerzo a los 16. En Indiana, se exige que todos los estudiantes entre 6.º y 12.º grado reciban una dosis de la vacuna meningocócica MC4. La vacuna meningocócica también se recomienda para personas que tienen mayor riesgo de contraer la enfermedad meningocócica:

- Estudiantes universitarios de primer año que viven en residencias estudiantiles.
- Reclutas de los Estados Unidos.
- Personas que viajan a países donde es común la enfermedad meningocócica, como partes de África o el Hajj en Arabia Saudita.
- Personas con el bazo dañado o a las que se les haya extirpado el bazo.
- Personas con ciertas enfermedades que afectan el sistema inmunitario (consulte con su proveedor de atención médica).
- Microbiólogos que están constantemente expuestos a bacterias meningocócicas.

Se recomienda la revacunación de niños y adultos con factores de riesgo continuos de enfermedad meningocócica. Para obtener más información sobre la disponibilidad de la vacuna meningocócica, comuníquese con su proveedor de atención médica o con el departamento local de salud.

No existe una vacuna disponible para bebés menores de 9 meses ni para 1 de las cepas comunes, la enfermedad meningocócica por serogrupo B.

Toda la información presentada es de uso público. Para obtener más información, consulte el sitio web sobre meningitis de los Centros para el Control y la Prevención de Enfermedades (CDC).

<http://www.cdc.gov/meningitis/about/faq-sp.html>

Esta página se revisó por última vez en mayo de 2012.

Insert Date Here

Dear Parents, Guardians and Students,

The Indiana State Department of Health and the Indiana Department of Education have asked that school systems provide important information to parents and guardians of students about pertussis (whooping cough) and the vaccines available to prevent this serious illness.

Pertussis is a highly contagious respiratory infection caused by the bacteria *Bordetella pertussis*. Pertussis is spread by droplets created when an infected person coughs or sneezes. Infants and young children are usually vaccinated against pertussis, but the vaccine becomes less effective as children get older, and vaccinated children can become infected.

Pertussis causes severe coughing fits that can persist for weeks or months. During a coughing fit, the infected person may be short of breath. The coughing fit may be followed by vomiting and exhaustion. Young infants are at highest risk for developing complications from the disease like pneumonia, seizures, and death.

Teens and adults who received the pertussis vaccine when they were younger might have milder disease if they get sick with pertussis, but they can still spread it to others. The United States Centers for Disease Control and Prevention (CDC) recommends a pertussis vaccine (Tdap) for all 11-18 year old children. The Tdap vaccine, which protects against tetanus and diphtheria, as well as pertussis, can be given regardless of the time since receiving a regular tetanus booster (Td). CDC also recommends a dose of Tdap vaccine for all adults up to 65 years of age, and for adults 65 and older who have close contact with infants. Adults should talk to their healthcare provider about receiving a Tdap booster.

The Tdap vaccine is required for all students in grades 6 -12. Please talk with your child's healthcare provider about the Tdap vaccine. Additional resources for families to obtain information about pertussis disease include the following websites:

The Indiana State Department of Health
<http://www.in.gov/isdh/files/PertussisQF2011.pdf>

The Centers for Disease Control and Prevention
<http://www.cdc.gov/vaccines/vpd-vac/pertussis/default.htm>

Sincerely,

Insertar datos aquí

Estimados padres, tutores y estudiantes:

El Departamento de Salud del Estado de Indiana y el Departamento de Educación de Indiana han solicitado que los sistemas escolares brinden a los padres y tutores de los estudiantes información importante sobre la tos ferina (tos convulsa) y las vacunas disponibles para prevenir esta enfermedad grave.

La tos ferina es una infección respiratoria muy contagiosa causada por la bacteria *Bordetella pertussis*. Se propaga por las gotitas producidas cuando una persona infectada tose o estornuda. Generalmente, se vacuna a bebés y niños pequeños contra la tos ferina, pero la vacuna se vuelve menos eficaz a medida que los niños crecen, y los niños vacunados pueden contraer la infección.

La tos ferina causa accesos fuertes de tos que pueden persistir por semanas o meses. Durante un acceso de tos, a la persona infectada le puede faltar el aire. El acceso de tos puede estar seguido de vómitos y agotamiento. Los bebés pequeños están en mayor riesgo de desarrollar complicaciones a causa de la enfermedad, como neumonía, convulsiones y muerte.

Los adolescentes y adultos que recibieron la vacuna contra la tos ferina cuando eran más pequeños podrían tener una enfermedad más leve si se enferman de tos ferina, pero igual la pueden contagiar a otros. Los Centros para el Control y la Prevención de Enfermedades (CDC) de los Estados Unidos recomiendan la vacunación contra la tos ferina (Tdap) para todos los niños entre 11 y 18 años. La vacuna Tdap, que protege contra el tétanos, la difteria y la tos ferina, se puede colocar sin importar el tiempo desde el último refuerzo contra el tétanos (DT). Los CDC también recomiendan una dosis de la vacuna Tdap para todos los adultos de hasta 65 años, y para los adultos de más de 65 años que están en contacto directo con bebés. Los adultos deben consultar con su proveedor de atención médica sobre un refuerzo de la Tdap.

Se exige que todos los estudiantes entre 6.º y 12.º grado tengan colocada la vacuna Tdap. Hable con el proveedor de atención médica de su hijo sobre la vacuna Tdap. Los siguientes sitios web son recursos adicionales para que las familias obtengan información sobre la tos ferina (están disponibles en idioma inglés):

Departamento de Salud del Estado de Indiana

http://www.in.gov/isdh/files/PertussisQF_may2011Spanish.pdf

Centros para el Control y la Prevención de Enfermedades

<http://www.cdc.gov/spanish/especialesCDC/tosferina/>

Atentamente,