



MISSISSIPPI STATE DEPARTMENT OF HEALTH

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**Communicable Diseases and Conditions**

# RETURN TO SCHOOL

Guidelines

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## I. Introduction

School administrators and teachers must frequently make decisions regarding when children with communicable diseases/conditions should be allowed to attend or return to school. This booklet is intended to help with these decisions. It contains information about the most common or important communicable diseases/conditions and how they are spread. Information is listed about the different times during which infectious agents may be transmitted from one person to another, and when it is usually safe for someone who has one of these conditions to return to school. The “return-to-school-times” are based on the usual period of time that a person is considered to be contagious, *not* on the period of time that may be necessary for full clinical recovery from the signs or symptoms of an illness, which may vary from person to person. The goal is to protect children from contagious illness, not to exclude children from school longer than is necessary.

*With the exception of tuberculosis (TB), the communicable diseases/conditions listed in this booklet do not require a note or release from the Mississippi State Department of Health (MSDH) for a child to return to school.*

This booklet serves only as a guide. MSDH welcomes the opportunity to help with your decisions. You may contact your local district health department office (District contact information available at: [http://msdh.ms.gov/msdhsite/\\_static/resources/3468.pdf](http://msdh.ms.gov/msdhsite/_static/resources/3468.pdf) or in [Appendix B](#)) or the MSDH Office of Epidemiology at 601-576-7725 for questions.

### DISCLAIMER

**\*\*\* THIS booklet is NOT intended to be used to DIAGNOSE an illness or infection. It SHOULD NOT REPLACE a diagnosis by trained MEDICAL personnel. \***

## REPORTABLE DISEASES

MSDH publishes a list of diseases in which cases or suspect cases must be reported by law. A current list of reportable diseases may be accessed on the MSDH website at [http://msdh.ms.gov/msdhsite/\\_static/14,0,194.html](http://msdh.ms.gov/msdhsite/_static/14,0,194.html)

Class 1 reportable diseases are those of major **public health importance**, and are separated in to Class 1A and Class 1B to align with the urgency of a required public health response. Class 1A diseases are to be reported directly to the MSDH by telephone within 24 hours of knowledge or suspicion. Class 1B conditions are to be reported by telephone within one business day after first knowledge or suspicion. Suspected or confirmed outbreaks, regardless of the etiology, are Class 1A reportable conditions. These are typically reported by a physician, hospital or laboratory personnel. However, MSDH encourages school staff who know of a child in their facility who has been diagnosed with a disease such as meningitis or measles to report it to the Health Department. This can sometimes help to expedite the investigation.

Class 2 and 3 diseases may require public health intervention also, especially if there are **several cases** in one room (e.g., diarrheal diseases such as *Shigella* or *Salmonella*).

### II. Disease Prevention

The exclusion of children with communicable diseases helps prevent the spread of disease, but there are other measures that MSDH recommends for disease prevention.

### **HANDWASHING**

Schools play a key role in supporting hand hygiene. This involves teaching good hand-hygiene practices, providing hand-hygiene information to students and families, and providing the hand soap and paper towels necessary to reduce the spread of infectious diseases in the school environment. Handwashing is one of the **most effective hygienic practices to prevent the spread of infection in school settings**. Children and staff should be encouraged to wash their hands frequently, especially before eating, after using the bathroom, and after blowing their nose, coughing or sneezing. MSDH encourages schools to provide easy access to handwashing supplies for the children and staff. Alcohol based hand sanitizers can be used when soap and water are not available, but are not as effective when hands are visibly dirty.

### IMMUNIZATIONS

Immunizations against vaccine preventable diseases are the single best protection against many childhood infectious diseases. In order to enroll in any public or private kindergarten, elementary or secondary school in Mississippi, children must either be up to date for all school entry requirements and have a Certificate of Immunization Compliance Form or must have a valid Certificate of Medical Exemption Form. Information about the required immunizations and exemptions is available on the MSDH website at [http://msdh.ms.gov/msdhsite/\\_static/14,0,71.html](http://msdh.ms.gov/msdhsite/_static/14,0,71.html).

## **RESPIRATORY ETIQUETTE**

Respiratory infections such as influenza can easily spread from person to person through droplets created with coughs or sneezes. These droplets can land on surfaces, can infect nearby individuals through the air, or contaminate a person's hands.

To prevent the spread of respiratory illnesses, the nose and mouth should be covered with a tissue when coughing or sneezing and the tissue should be thrown in the trash immediately after use. Students should be encouraged to cough or sneeze into the arm if no tissue is available. Students and staff should wash hands after coughing or sneezing.

Schools should teach respiratory etiquette to students and ensure that tissues and handwashing supplies are available.

## **SAFE DRINKING WATER**

MSDH recommends that each school obtain water from a water system that meets the Mississippi Safe Drinking Water Act standards. It is also recommended that schools have a means for providing safe drinking water in the event of a break-down in the water system (e.g., providing bottled water during this time).

## **SCHOOL ATTENDANCE WHEN ILL**

MSDH recommends that schools adopt policies that encourage students and staff to stay home when they are ill.

### III. Chickenpox (Varicella)

Chickenpox is a highly infectious viral disease that begins with small red bumps that turn into blisters after several hours. The blisters generally last for 3-4 days and then begin to dry up and form scabs. These lesions (bumps/blisters) almost always appear first on the trunk rather than the extremities.

**Mode of transmission:** Airborne droplets from nose and throat secretions coughed into the air by someone who has chickenpox. Also, indirectly through articles (such as clothing) freshly soiled with discharge from the lesions (blisters) and/or discharge from the nose and mouth (e.g., tissues, handkerchiefs, etc.). **Thorough handwashing** is warranted whenever there is contact with the lesions.

**Vaccine:** Two doses of Varicella vaccine are required for school entry.

***NOTE:** Staff members who are pregnant and have never had chickenpox disease or varicella vaccine should consult their physician immediately if they are exposed to chickenpox.*

**Return to school:** The child may return to school after the lesions are **crusted and dry and no new ones are forming**. Keeping the child home until all the lesions are completely healed is unnecessary.

### SHINGLES (VARICELLA ZOSTER)

Shingles (varicella zoster) is a reactivation of the chickenpox virus (varicella). After the initial infection with chickenpox, the virus continues to lie dormant (inactive) in a nerve root. We tend to think of the elderly and immunosuppressed individuals as the ones who have shingles; however, it can and does occur sometimes in children. The lesions or blisters of shingles resemble those of chickenpox and usually appear in just one area or on one side (unilateral) of the body and run along a nerve pathway. A mild shingles-like illness has been reported in healthy children who have had the chickenpox vaccine. This is a rare occurrence.

**Mode of transmission:** It is possible for someone who has never had chickenpox disease or the vaccine to get **chickenpox** by coming in contact with the fluid from the lesions of someone who has shingles. A person who has shingles does not transmit chickenpox through the air as does someone who has chickenpox disease.

**Return to school:** The child who has shingles may attend school if the lesions can be covered by clothing or a dressing. If the lesions cannot be covered, the child should be excluded until the lesions are crusted and dry. Staff members who have shingles pose little risk to others since the lesions would be covered by clothing or a dressing on exposed areas. **Thorough hand washing** is warranted whenever there is contact with the lesions.

**IV. Diarrheal Diseases: (examples include campylobacteriosis, cryptosporidiosis, giardiasis, rotovirus, salmonellosis, and shigellosis among others)**

**See *E. coli* O157:H7 and Hepatitis A sections for specific return to school recommendations regarding these two diseases.**

Diarrhea is defined as frequent (3 or more episodes within a 24 hour period), runny, watery stools and can be caused by different types of organisms such as viruses, bacteria and parasites.

**Mode of transmission:** Diarrheal diseases are generally transmitted person to person through fecal-oral spread or by ingesting contaminated food or water. In some cases such as with *Salmonella* and *E. coli* O157:H7, the disease is transmitted by eating raw or undercooked meats (especially ground beef and poultry) and unpasteurized milk and fruit juices.

**Outbreak situation:** When there are 2 or more cases of a diarrheal disease in one room, more extensive notification may need to be done and stool specimens may need to be collected. In this case, the school should consult with the Public Health District Epidemiology Nurse (contact information: <http://msdh.ms.gov/msdhsite/static/resources/3468.pdf>) or contact the MSDH Office of Epidemiology at 601-576-7725.

**Return to school:** In most cases, a child may return to school after **free of fever and diarrhea for 24 hours**.

***E. COLI* O157:H7**

*Escherichia (E.) coli* bacteria are found in the intestines of most humans and many animals. These infections are usually harmless. However, certain strains of the bacteria such as the O157:H7 can cause severe illness. Some persons who are infected with *E. coli* O157:H7 may have a mild disease while others develop a severe, bloody diarrhea. In some cases, the infection may cause a breakdown of the red blood cells which can lead to HUS or hemolytic uremic syndrome.

**Mode of transmission:** *E. coli* O157:H7 is usually the result of eating undercooked meat, especially hamburger. There have also been cases reported from drinking **unpasteurized** apple juice. Person-to-person transmission may occur by contact with the feces or stool of an infected person.

**Notification:** Notify the staff and parents/guardians that a case of *E. coli* O157:H7 has occurred and ask that they have their child evaluated by a physician if they have diarrhea, especially bloody diarrhea. *E. coli* O157:H7 is a Class 1a reportable disease and a follow-up investigation will be done by the Health Department.

**Return to child care:** The **infected child should not be in or allowed to return to a child care center until his/her diarrhea has ceased and 2 consecutive negative stool**

**samples are obtained** (collected not less than 24 hours apart and not sooner than 48 hours after the last dose of antibiotics).

## V. **Fifth Disease (Erythema Infectiosum)**

This is a viral infectious disease characterized by a "slapped-face" (redness) appearance of the cheeks followed by a rash on the trunk and extremities.

**Mode of transmission:** Person-to-person spread by direct contact with nose and throat secretions of an infected person. Transmission of infection can be lessened by routine hygienic practices which include handwashing and the proper disposal of facial tissues containing respiratory secretions.

**Return to school:** Children with fifth disease may attend school if they are **free of fever**, since by the time the rash begins they are no longer contagious. The rash may come and go for several weeks. **Pregnant women** should consult their obstetrician if children in their class have fifth disease.

## VI. **“Flu” (Influenza)**

Influenza is an acute (sudden onset) viral disease of the respiratory tract characterized by fever, headache, muscle aches, joint pain, malaise, nasal congestion, sore throat and cough. Influenza in children may be indistinguishable from diseases caused by other respiratory viruses.

**Mode of transmission:** Direct contact with nose and throat secretions of someone who has influenza - airborne spread by these secretions being coughed into the air.

**Return to school:** The student may return to school when free of fever and feeling well. The closing of individual schools has not proven to be an effective control measure. By the time absenteeism is high enough to warrant closing, it is too late to prevent spread.

### **Key Points to Prevent the Spread of Flu in Schools**

- Basic infection control in school settings should always be promoted and maintained, not only during flu season. See the **CDC Guidance for School Administrators to Help Reduce the Spread of Seasonal Influenza in K-12 Schools** at <http://www.cdc.gov/flu/school/guidance.htm>
- **Encourage students, parents, and staff to get a yearly flu vaccine**—Teach students, parents, and staff that the single best way to protect against the flu is to get vaccinated each flu season..
- **Stay home when sick**—Those with flu-like illness should stay home until fever free for 24 hours without the use of fever-reducing medicines. They should stay home even if they are using antiviral drugs.
- **Separate ill students and staff**—Students and staff who appear to have flu-like illness should be sent to a room separate from others until they can be sent home.

CDC recommends that they wear a surgical mask, if possible, and that those who care for ill students and staff wear protective gear such as a mask.

- **Hand hygiene**--CDC recommends that students and staff be encouraged to wash their hands often with soap and water, especially after coughing or sneezing.
- **Respiratory etiquette**— CDC recommends covering the nose and mouth with a tissue when coughing or sneezing (or a shirt sleeve or elbow if no tissue is available) and throwing the tissue in the trash after use.
- **Routine cleaning**—School staff should routinely clean areas that students and staff touch often with the cleaners they typically use. Special cleaning and disinfecting processes, including wiping down walls and ceilings, are not necessary or recommended. For guidance to slow the spread of flu in schools with cleaning and disinfecting, see [http://www.cdc.gov/flu/pdf/freeresources/updated/cleaning\\_disinfecting\\_schools.pdf](http://www.cdc.gov/flu/pdf/freeresources/updated/cleaning_disinfecting_schools.pdf)

## VII. Head Lice

This is an infestation of the scalp by small "bugs" called lice. They firmly attach egg sacs called "nits" to the hairs, and these nits are difficult to remove. Treatment may be accomplished with prescription or over-the-counter medicines applied to the scalp. Some products require a repeat treatment one week after the first one to kill lice that hatch from nits not killed by the first treatment. Other products require only a single treatment.

**Mode of transmission:** Direct contact with an infested person's hair (head-to-head) and, to a lesser extent, direct contact with their personal belongings, especially shared clothing and headgear. Head lice do not jump or fly from one person to another, but they can crawl very quickly when heads are touching.

**Return to school:** The child may return to class without a physician's release after the first treatment has been given. **(See Appendix A – Recommendations For The Control of Head Lice In Schools)**

## VIII. Hepatitis A

Hepatitis A is an infectious viral disease characterized by jaundice (yellowing of eyes and skin), loss of appetite, nausea, and general weakness.

**Mode of transmission:** Hepatitis A virus is found in the stool of persons with hepatitis A. The virus is usually spread from person to person by fecal-oral contact with the stool of an infected person; for this reason, the virus is more easily spread under poor sanitary conditions, and when good personal hygiene, especially good handwashing, is not observed. Rarely, the virus is contracted by drinking contaminated water or by eating raw seafood (e.g., raw oysters) that has been collected from contaminated waters. School room exposure generally does not pose a significant risk of infection, and treatment of school contacts is not usually indicated.

**Return to school:** Children may return to school one week after the onset of jaundice or one week after the onset of other signs and symptoms if no jaundice is present.

## **IX. Hepatitis B**

Hepatitis B is an infectious viral disease characterized by loss of appetite, abdominal discomfort, jaundice (yellowing of eyes and skin), joint aches, and fever in some cases. There is no risk of transmission of hepatitis B in a normal classroom setting unless a person who is infected with hepatitis B is bleeding. Since hepatitis B and HIV/AIDS are both transmitted through blood exposure, the precautionary measures for HIV/AIDS would also apply to hepatitis B. (See HIV/AIDS on page 6)

**Mode of transmission:** The most common mode of transmission is through having sex with someone who has the virus; however, it can be transmitted when infected blood enters the body through cuts, scrapes or other breaks in the skin. Injecting drug users are at risk when they share needles with an infected person. It is also possible for infected pregnant women to transmit the virus to their babies during pregnancy or at delivery.

If an exposure to a person who is infected with hepatitis B has occurred, the person exposed should be referred to his/her physician since hepatitis B vaccine and hepatitis B immune globulin may be indicated.

## **X. Hepatitis C**

Hepatitis C is also a viral disease that affects the liver. Again, hepatitis C should pose no risk of exposure in the normal classroom setting unless the infected person is bleeding. There is no vaccine available for hepatitis C at this time. Since it is also transmitted through blood exposure, the same precautionary measures for hepatitis B and HIV/AIDS would apply to hepatitis C. (See HIV/AIDS on page 6)

## **XI. Human Immunodeficiency Virus (HIV) Infection/Acquired Immunodeficiency Syndrome (AIDS)**

**Mode of transmission:** The most common mode of transmission is through having sex with someone who has the virus; however, it can be transmitted when infected blood enters the body through cuts, scrapes or other breaks in the skin. Injecting drug users are at risk when they share needles with an infected person. It is also possible for infected pregnant women to transmit the virus to their babies during pregnancy or at delivery. Although HIV and hepatitis B are transmitted in the same way, HIV is much more difficult to transmit from one person to another than hepatitis B.

HIV infection in children causes a broad spectrum of disease manifestations and a varied clinical course. No cases of HIV transmission in school have been reported, and current epidemiologic data do not justify excluding children with HIV infection from school or isolating them in school to protect others. Because blood exposures from fights, unintentional injuries, nosebleeds, shed teeth, menstruation and other causes may occur at school, all schools should be prepared to handle blood and blood-containing body fluids using the principles of universal precautions (treating blood and body fluids of all persons as infectious). Supplies of gloves, disposable towels and disinfectants should be readily available. There is no evidence that HIV, hepatitis B or hepatitis C are transmitted through tears, perspiration, urine or saliva unless these body fluids contain visible blood.

Participation in some contact sports may increase a child's risk of exposure to blood: forceful contact with hard surfaces, equipment, or other players may result in laceration or abrasion; and close player-to-player contact may lead to direct exposure to another person's blood. Nonetheless, the risk of HIV transmission during sports is probably low. However, because of the potential risk to the athlete's own health and the theoretical risk of HIV transmission to others during contact sports, athletes with HIV infection interested in participating in contact sports such as wrestling, boxing or football should be evaluated on a case-by-case basis. The MDH is available for consultation in these situations.

## **XII. Impetigo**

This is a contagious skin disease characterized by spreading pustular lesions (sores with pus) and should receive medical treatment. This is quite important to avoid the risk of complications involving the heart and kidneys.

**Mode of transmission:** Skin-to-skin contact with the sores.

**Return to school:** The child may return to class 24 hours after treatment has been started. Lesions that are still oozing and are on exposed skin surfaces should be covered.

## **XIII. Measles**

This is a serious viral infection characterized by a rash (red, flat lesions) starting on the head and neck, which enlarge and coalesce (run together), and spread to the trunk, then to the extremities. Other symptoms include a high fever, conjunctivitis (red, inflamed eyes), cough and nasal congestion. The Department of Health must be notified on first suspicion.

**Mode of transmission:** Direct contact with nose and throat secretions of an infected person. May be airborne by droplets of these secretions coughed into the air. Tiny droplets can be suspended in the air for two hours or more. Measles is very easily spread.

**Return to school:** The child may return to school when free of fever and the rash is fading (this usually takes 5 to 7 days).

## **XIV. Meningitis**

Meningitis is an inflammation or infection of the meninges (the membranes that cover the brain and spinal cord). Meningitis can be caused by a variety of organisms or germs. These germs are most commonly spread by direct contact with nose and throat secretions from an infected person. Most people exposed to these germs do not develop meningitis or serious illness. Some people may carry a particular germ and have no symptoms at all. Anyone exhibiting signs and symptoms of meningitis (e.g., severe headache, fever, vomiting, stiffness and pain in the neck, shoulders and back, drowsiness) should seek medical attention promptly.

Meningitis is a reportable disease. The MSDH evaluates each case individually to determine what public health intervention, if any, might be required. The two types of

meningitis that require public health intervention most often are caused by the organisms *Haemophilus influenzae* type b (Hib) and *Neisseria meningitidis* (meningococcal).

**Return to school:** The individual may return to school whenever he or she has been released by their personal physician.

#### XV. Molluscum Contagiosum

This is a common skin infection that is caused by a virus. Most commonly, it affects children one to 10 years and young adults. Symptoms include small, pale, shiny, domed-shaped bumps on the skin, often with a characteristic dimple on the top. The bumps may be fleshed-colored, white, translucent, or pink. The bumps are usually painless, but, on rare occasions, can be itchy, red, swollen, and/or sore. In children, the bumps occur on the face, body, arms, or legs.

**Mode of transmission:** From direct skin-to-skin contact with an infected person. It can also be spread by contact with contaminated objects such as shared clothes, towels, wash cloths, gym or pool equipment, and wrestling mats.

**Return to school:** Molluscum contagiosum is not harmful and should not prevent the child from attending school. Bumps should be covered with clothing where possible. Bumps not covered by clothing should be covered with a watertight bandage. Exclude any child with bumps that cannot be covered with a watertight bandage from participating in swimming or other contact sports.

#### XVI. Mononucleosis (Infectious)

This is an infectious disease characterized by fever, sore throat, swollen glands in the neck area, and generalized weakness. Intimate contact, such as kissing or sharing drinking glasses or straws, is usually required for transmission.

**Mode of transmission:** Person-to-person spread by direct contact with the saliva of an infected person.

**Return to school:** The child need not be excluded from class, unless requested for medical reasons, but may return when free of fever and feeling well enough. Children should not share food or utensils.

#### XVII. Mumps

This is an infectious viral disease that is characterized by swelling and pain of the salivary glands.

**Mode of transmission:** Person-to-person spread by direct contact with the saliva of an infected person.

**Return to school:** Children may return to school 9 days after the beginning of the salivary gland swelling.

#### XVIII. “Pink Eye” (Conjunctivitis)

This is an infectious disease characterized by redness of the eye(s), excessive tearing, itching, and discharge. Some cases may require antibiotics; therefore, a physician should be seen.

**Mode of transmission:** Contact with discharges from the eye, nose or throat of an infected person. Also, from contact with fingers, clothing and other articles such as shared eye make-up applicators that have been contaminated with the discharge.

**Return to school:** Children may return to school after a physician has been seen, or when redness/discharge is improving.

## **XIX. Ringworm**

Ringworm is a fungal infection and may occur on any skin surface and can be successfully treated with several over-the-counter medicines. When the lesions (red, circular places) are found, it is reasonable to send a note home with the child indicating a need for treatment.

**Mode of transmission:** Direct skin-to-skin contact or indirect contact (e.g. toilet articles such as combs and hair brushes, used towels, clothing and hats contaminated with hair from infected persons or animals). Ringworm is a fungus, not a worm.

**Return to school:** The child may return to school after treatment has been started. There is no need for the parent to make a special trip to school to get the child and prolonged absence from class is unnecessary.

Ringworm of the **scalp** is characterized by inflammation, redness, and hair loss and does not respond to over-the-counter medicines; therefore, the student should see his/her physician. Students should be discouraged from sharing combs, brushes, and hats because these are possible sources for infection. Medical treatment is also indicated for ringworm of the **nails**.

**Return to school:** The child may return to school as soon as treatment, which usually lasts several weeks, has been started.

## **XX. Scabies**

Any child with evidence of severe itching especially around webs of fingers, wrists, elbows, under arms and belt line should be referred to his/her physician. Scabies requires treatment by prescription drugs.

**Mode of transmission:** Direct skin-to-skin contact with an infested person.

**Return to school:** The child may return to school as soon as treatment has been administered. It must be noted that itching may continue for several days, but this does not indicate treatment failure or that the child should be sent home.

## **XXI. “Staph” (Staphylococcal Infections)**

*Staphylococcus aureus*, usually referred to as “staph” is a type of bacteria that anyone can carry in the nose or on the skin. Staph commonly causes skin infections that look like

pimples; though all pimples and skin infections are not caused by staph. These infections are generally minor and resolve without prescription medication. Staph can cause more serious skin infections that are swollen, painful and have purulent (pus) drainage. In addition to skin infections, staph bacteria can cause infections in the blood, the lungs (pneumonia) or anywhere in the body. These more serious infections require medical evaluation and treatment.

According to the Centers for Disease Control (CDC), over the past 50 years, some staph bacteria have become resistant to antibiotics, including the commonly used penicillin-related antibiotics. These resistant bacteria are called methicillin-resistant *Staphylococcus aureus*, or MRSA. Due to the resistance, MRSA infections are more difficult to treat.

**Mode of transmission:** Direct skin-to-skin contact with a draining lesion/sore or purulent (pus) discharge. Staph may also be spread by contact with articles soiled with discharge or drainage (e.g., tissues, band-aids, etc.). Airborne spread is rare, but can occur with those who have a respiratory disease.

**Return to school:** Children who have a minor staph infection of the skin such as a pimple may attend school. Those who have a more serious staph infection that requires medical treatment should not return to school until 24 hours after treatment has been started and is free of fever. Any lesions that are oozing and are on exposed skin surfaces should be covered with a leak-proof bandage. The same exclusion criteria would apply to those who have been diagnosed with a MRSA infection.

## **XXII. "Strep Throat" (Streptococcal Pharyngitis) & Scarlet Fever**

**Strep throat** is a communicable disease characterized by sore throat, fever, and tender, swollen lymph glands in the neck. The child should see a physician to obtain prescription medication; this is quite important to avoid the risk of complications involving the heart and kidneys.

**Mode of transmission:** Direct or indirect contact (e.g., contaminated hands, drinking glasses, straws) with throat secretions of an infected person.

**Return to school:** The student may return to class 24 hours after treatment has been started if free of fever.

### **SCARLET FEVER**

Scarlet fever is a streptococcal infection with a rash (scarlatiniform rash). It is most commonly associated with strep throat. In addition to the signs and symptoms of strep throat, the person with scarlet fever has an inflamed, sandpaper-like rash and sometimes a very red or "strawberry" tongue. The rash is due to a toxin produced by the infecting strain of bacteria.

**Return to school:** The treatment and exclusion criteria for scarlet fever would be the same as for strep throat.

## **XXIII. Tuberculosis (TB)**

Persons diagnosed with TB infection are evaluated by the Mississippi Department of Health on an individual basis.

**Mode of transmission:** Airborne droplets of respiratory secretions coughed or sneezed into the air by a person with active TB disease.

**Return to school:** Those who have a positive TB skin test *only* may attend school since they have no disease process that is contagious. **Persons diagnosed with active TB disease will need written permission from the MDH to return to school.**

#### **XXIV. Whooping Cough (Pertussis)**

Pertussis is a contagious disease characterized by upper respiratory tract symptoms with a cough, often with a characteristic inspiratory (breathing in) whoop. The child will need to see a physician to be treated with antibiotics. Furthermore, the contacts of the child will also need to be treated with antibiotics.

**Mode of transmission:** Direct or indirect contact (contaminated articles) with nose and throat secretions of an infected person or by inhaling droplets of these secretions coughed into the air.

**Return to school:** The student may return to school 5 days after treatment has begun.

## Appendix A: Recommendations for the Control of Head Lice in the School

### I. Introduction

Head lice, *Pediculus humanus capitis*, can be common problem among school children, especially elementary age school children. Although they do not transmit any human disease, they may be a considerable nuisance, and require conscious effort on the part of school officials and parents to control.

The Mississippi State Department of Health (MSDH) has developed these recommendations to provide schools with a standardized approach for the detection and management of a student identified with head lice infestation and to outline the role of MSDH.

Resources:

- MSDH website: [http://msdh.ms.gov/msdhsite/\\_static/14,0,119,642.html](http://msdh.ms.gov/msdhsite/_static/14,0,119,642.html)
- The Centers for Disease Control and Prevention (CDC): <http://www.cdc.gov/parasites/lice/head/>.
- Specific CDC recommendations for schools: <http://www.cdc.gov/parasites/lice/head/schools.html>
- Specific CDC recommendations for parents: <http://www.cdc.gov/parasites/lice/head/parents.html>

### II. How Lice are Spread

Head lice are spread by direct contact to the hair of an infested person, mainly by head-to-head contact with a person who has head lice. Head lice do not fly or hop to another person, direct contact is required. Spread by contact with clothing (such as hats, scarves, coats) or other personal items (such as combs, brushes, or towels) used by an infested person occurs, but less frequently.

**Head lice are not a product of poor personal hygiene or lack of cleanliness, and their presence is not a reflection on the school or the family.** More harm is probably caused by misconceptions about head lice than by the lice themselves.

### III. Identifying Infested Children

The diagnosis of head lice infestation is best made by direct examination of the hair and scalp. Finding a live nymph or adult louse is an indication of head lice infestation. If crawling lice are not seen, finding nits (lice eggs) a within ¼ inch of the base of hair shafts suggests, but does not confirm, the person is infested. Lice infestation can be identified in school children by implementing a routine screening process at the school, or by individual examination of the scalp of a child suspected of lice infestation.

- a. **Routine Screening:** It is important to establish a regularly scheduled screening program for all students in grades K-6 and for older age groups if the problem arises. Screening should be done by the school nurse, teachers or other school staff after they have been instructed in the technique. The recommended times for screenings are:
  - i. Beginning of the school year, and
  - ii. After winter and spring breaks
- b. **Suspected Case:** Throughout the year, any student suspected of having head lice

should be examined by the teacher, and if evidence of infestation is seen, re-examined by the school nurse or other “confirming” examiner. Signs or symptoms in the child may include a sensation of movement in the hair, frequently scratching his/her head or increased irritability and sleeplessness in young children. If infested, the child should be handled as described in the section “**Handling of Infested Children**”.

- c. **Additional Screening:** should occur more often if infested children are found in the school. If one child in a classroom is found to be infested, it is recommended that the whole class should be screened as described above.

#### **IV. Handling of Identified Infested Children**

- a. **Initial Exclusion:** Once identified, an infested child’s parent/guardians should be notified that the child has been found to have head lice and must receive the proper treatment before returning to school. It is not necessary to remove the infested child from school before the end of the school day. **Care must be taken not to embarrass or stigmatize the child.**
- b. **Return to School:** The child should be allowed to return to school as soon as the parent/guardian provides evidence of treatment, such as a note describing the treatment or by presenting the empty bottle of the product used with the label intact. The treatment should be an approved **medical** treatment and **not** a home remedy (see <http://www.cdc.gov/parasites/lice/head/treatment.html> for CDC recommended treatments).

**Examination of a treated child by a physician or the Mississippi State Department of Health is usually not indicated and unnecessarily involves health care personnel.**

#### **V. “No-Nit Policy” Not Recommended for Return to School**

No-Nit policies are **not advocated** as a method of the prevention of spread of lice within the school. Nits (eggs) may still be seen even in an adequately treated child, and is not evidence of continuing infestation if the child has been properly treated and no adult lice are present (successful treatment should kill crawling lice).

The American Academy of Pediatrics (AAP) and the National Association of School Nurses (NASN) advocate that "no-nit" policies should be discontinued. See the Centers for Disease Control and Prevention (CDC) “Head Lice Information for Schools” available at <http://www.cdc.gov/parasites/lice/head/schools.html>.

*MSDH does not dictate school policy. Individual schools and school districts should set their own policies concerning the presence of nits and return to school after treatment. MSDH is available for consultation.*

#### **VI. Treatment Recommendations**

Treatment is recommended for all students diagnosed with an active infestation. See the Centers for Disease control and Prevention at

<http://www.cdc.gov/parasites/lice/head/treatment.html> for full treatment guidelines. MSDH website provides a link to the CDC website at [http://msdh.ms.gov/msdhsite/\\_static/14,0,119,642.html](http://msdh.ms.gov/msdhsite/_static/14,0,119,642.html).

General treatment recommendations from CDC include:

- Treatment requires using an Over-the-counter (OTC) or prescription medication;
- All recommendations pertaining to the selected treatment should be followed;
- A second treatment in 9-10 days is recommended when using OTC treatments;
- Nits (eggs) may persist after treatment. Successful treatment should kill crawling lice, but removal of all nits is not necessary;
- Treatment for all persons with active infestation is necessary;
- Treatment of household members with active infestation is necessary;
- Treatment for persons who share the same bed with actively infested persons is necessary;
- CDC also has an FAQ for Head Lice Treatment available at [http://www.cdc.gov/parasites/lice/head/gen\\_info/faqs\\_treat.html](http://www.cdc.gov/parasites/lice/head/gen_info/faqs_treat.html).

**Family:** Household members of a student with head lice should be examined for lice (by a family member who knows how or someone else knowledgeable about lice) and any infested persons treated.

## VII. Environmental Control

### Household:

- Clothing, cloth toys, and personal linens (such as towels and bedclothes used within the previous 48 hours by an infested person) can be disinfected by washing in hot water and drying in the dryer using hot cycles.
- Non-washables should be dry cleaned, or stored in air-tight plastic bags for 2 weeks.
- Spraying with insecticides is usually not necessary.
- If there are cloth surfaces, such as furniture or carpet, with which the infested person's hair has had extensive contact, they should be vacuumed thoroughly.

### School:

- Children should not be allowed to share hair ornaments, brushes or combs.
- Hats, coats, scarves and the like should be hung or placed individually for each child and not stacked or hung on top of those belonging to other children. Wall hooks, if used, should be far enough apart that garments hung on adjacent hooks do not touch.
- Gym lockers used by more than one child should be assigned to the same users at each gym period to minimize the number of children using a locker.
- Headgear, including headsets, should be removed from use if lice are present in the class. If lice are an ongoing problem, headgear and headsets should be stored in an air-tight plastic bag for 2 weeks and not reused until the problem is resolved.
- Carpeted areas in classrooms should be vacuumed frequently and thoroughly. Lice killing sprays are generally unnecessary.
- Fumigation of classrooms or buses is not indicated.

## VIII. Role of the Health Department

**Consultation:** The local health department can provide instruction for principals and other staff designated by the school in how to examine for and recognize head lice. These staff can in turn instruct others, including classroom teachers, in the technique. A nurse or doctor is not necessary to identify head louse infestation. Principals should contact their local health department or the district public health office to arrange for instruction and/or reinstruction as needed.

**Children should not be sent routinely to the health department to be "checked" or given a note before returning to school.** This only inconveniences the parents and does not contribute to controlling head lice.

**Students with Recurring Head Lice:** According to Section 41-79-21 of the Mississippi Code of 1972, as amended:

"If a student in any public elementary or secondary school has had head lice on three (3) occasions during one (1) school year while attending school, or if the parent of the student has been notified by school officials that the student has had head lice on three (3) occasions in one (1) school year, as determined by the school nurse, public health nurse or a physician, the principal or administrator shall notify the county health department of the recurring problem of head lice with that student. The county health department then shall instruct the child's parents or guardians on how to treat head lice, eliminate head lice from household items, and prevent the recurrence of head lice."

The school should designate the school nurse, teachers or other staff to be "confirming examiners" who will refer children to the health department.

MSDH will provide general education/counseling to the parent regarding treatment recommendations, supplemental measures in the home, and the prevention of re-infestation. **MSDH does not certify children are lice free and can return to school.** To refer a child to the health department for this purpose, the attached form should be completed and provided to the student's parent. The examiner should notify the public health nurse by telephone of the referral so that the nurse will be expecting the family.

Questions about control methods, specific treatments, or special problems can be addressed to the local health department, the district public health office, or to the Office of Epidemiology.

Appendix B: Mississippi State Department of Health

# Public Health Districts

Northwest Public Health  
District I  
662.563.5603

Northeast Public Health  
District II  
662.841.9015

Delta/Hills Public Health  
District III  
662.453.4563

Tombigbee Public Health  
District IV  
662.323.7313

West Central Public Health  
District V  
601.978.7864

East Central Public Health  
District VI  
601.482.3171

Southwest Public Health  
District VII  
601.684.9411

Southeast Public Health  
District VIII  
601.544.6766

Coastal Plains Public Health  
District IX  
228.436.6770

