

Communicable Disease Newsletter

In this edition:



Spring 2009

Volume 9
Issue 1



WHAT IS MENINGITIS?

Meningitis is an infection and inflammation of the brain lining (the meninges) and the fluid that circulates around the brain and spinal cord (cerebrospinal fluid). Meningitis is usually caused by viral or bacterial infection. The severity of the infection and type of treatment varies depending upon which type of meningitis a person has. **Bacterial meningitis** may result in death or residual brain damage, blindness, or hearing loss.

It may be treated with intravenous antibiotics. **Viral meningitis** is generally less severe and resolves without specific treatment in 1-2 weeks.



How is meningitis spread?

Most cases of Meningitis occur when viruses or bacteria from an infection in another part of your body travel through the bloodstream to your brain and spinal cord. Bacteria can also spread directly to the brain or spine from a severe head injury. Viral meningitis is often caused by common intestinal viruses. The period of time between exposure to the virus and when symptoms appear varies. The typical incubation period for bacterial meningitis is 2-10 days. Although the viruses and bacteria that cause meningitis are contagious, not everyone who comes in contact with meningitis will develop the disease. In fact, meningitis typically occurs in isolated cases. You may be exposed when someone with meningitis coughs or sneezes. The infection can spread through such activities as kissing, or sharing eating utensils or a toothbrush. You are also at increased risk if you live or work very closely with someone who is diagnosed with meningitis as opposed to casual or public contact e.g. becoming infected while shopping at a mall or grocery store.

Signs and Symptoms

Symptoms of **both** viral and bacterial meningitis may include:

- sudden onset of fever
- stiff neck
- severe headache
- nausea and often vomiting
- seizure
- sensitivity to light
- confusion/ drowsiness
- rapid progression of small pinpoint dot hemorrhages called petechiae under the skin, mainly on the arms and legs

These symptoms may develop rapidly (over several hours). It is easy to mistake the early symptoms of bacterial or viral meningitis for the flu.

In newborns and small infants, the classic symptoms of fever, headache, and stiff neck may be absent or difficult to detect. Instead, the infant may be unusually sleepy, increasingly irritable (constant crying), or eating poorly. It is important to seek medical advice if any of these symptoms are noted.

Meningitis is a medical emergency. How well you recover often depends on how quickly you receive treatment. If you or anyone in your family has symptoms of meningitis, seek medical care right away!

Diagnosis & Treatment

To accurately diagnose the illness, your doctor may need to perform a lumbar puncture. In this procedure, a sample of cerebrospinal fluid is obtained by inserting a needle into an area of the lower back. The fluid is tested in a lab to determine the type of meningitis. The results will determine the appropriate treatment for the infected person and close contacts. As mentioned previously, bacterial meningitis is treated aggressively with intravenous antibiotics in the hospital, and it is considered contagious until 24 hours after such treatment is started. Viral meningitis usually resolves on its own with proper rest and fluids.

WHAT IS MENINGITIS? Cont'd

Prevention

If you have been in close contact with someone who is diagnosed with bacterial meningitis, your doctor may prescribe antibiotics to help prevent you from obtaining or spreading the infection.

Many children now receive protection against some of the bacteria that cause bacterial meningitis as part of their routine childhood immunizations. The Hib vaccine protects against the bacteria *Haemophilus influenzae*. The Pneumococcal conjugate vaccine (PCV-7) protects against *Streptococcus pneumoniae* (pneumococcus). Another vaccine, the pneumococcal polysaccharide vaccine (PPV), protects against a strain of the *S. pneumoniae* bacteria that often causes pneumococcal pneumonia and meningitis in the elderly and is recommended for all adults over the age of 65.

A vaccine is also available that offers protection to some of the strains of *Neisseria meningitidis* which causes bacterial meningococcal meningitis. The meningococcal vaccine has been recommended for anyone between 11-18 years old and college students especially those living in dormitories.

Please contact your health care provider or the Saginaw County Department of Public Health if you have questions about any of these vaccines at (989) 758-3840.

Washing your hands thoroughly and frequently is your best defense against meningitis and other infectious diseases.

References: 1. Chin, James M.D, MPH Editor. *Control of Communicable Diseases Manual*. 18th Edition. Washington D.C. American Public Health Assoc. 2004. Pp. 357-370.

2. Eppes, Stephen MD. *Meningitis*. October 25, 2002. <http://www.kidshealth.org>

3. "Meningitis" Microsoft Encarta Online Encyclopedia 2002. <http://encarta.msn.com>

4. United States Center for Disease Control. Division of Bacterial and Mycotic Diseases. *Meningitis*. October 25, 2002.

5. RedBook 2003 26th Edition Report of the Committee on Infectious Diseases American Academy of Pediatrics pg: 430-435.

Communicable Disease Reporting 101

Physicians, clinical laboratories, primary and secondary schools, childcare centers, and camps are required to report the occurrence or suspected occurrence of any disease, condition or infection as identified in the Michigan Communicable Disease Rules. In addition, all other health care providers are authorized to report to local health authorities. Together, they play a key role in state and local efforts to control communicable diseases. The public health system depends upon these reports of diseases to monitor the health of the community and to provide the basis for preventive action.

Why Report?

Health care providers are required to report communicable disease for several reasons. The most common reasons are listed as follows:

1. To identify outbreaks and epidemics. If an unusual number of cases occur, local health authorities must investigate to control the spread of the disease.
2. To enable preventive treatment and/or education to be provided.
3. To help target prevention programs, identify care needs, and use scarce prevention resources efficiently.
4. To evaluate the success of long term control efforts.
5. To facilitate epidemiologic research to uncover a preventable cause.
6. To assist with national and international disease surveillance efforts. For some diseases that are unusual in Michigan, we are part of a national network that the federal government depends on to determine whether national or international investigations are needed.

Accurate and complete disease reporting is essential to the community health. Reports for Saginaw County may be reported to the Saginaw County Department of Public Health, Communicable Disease Division. Reports may be received by phone, fax, or electronically. For more information on reporting please call the Communicable Disease office at 989-758-3885.

**COMMUNICABLE DISEASE
REPORTED FOR SAGINAW COUNTY
1/1/2008 – 12/31/2008**

Disease	No. Reported
AMEBIASIS	1
ANIMAL BITE	8
CAMPYLOBACTER	13
CHICKENPOX (Varicella)	1
CHLAMYDIA (Genital)	996
COCCIDIOIDOMYCOSIS	1
CRYPTOCOCCOSIS	1
CRYPTOSPORIDIOSIS	1
E-COLI	3
FLU-LIKE DISEASE	193
GIARDIASIS	8
GONORRHEA	289
HEPATITIS B ACUTE	1
HEPATITIS B CHRONIC	23
HEPATITIS C ACUTE	4
HEPATITIS C CHRONIC	191
HISTOPLASMOSIS	1
HIV	26
LEGIONELLOSIS	4
MENINGITIS ASEPTIC	11
SALMONELLOSIS	22
SHIGELLOSIS	7
TOXIC SHOCK	1

**COMMUNICABLE DISEASE YTD
REPORTED FOR SAGINAW COUNTY
1/1/2009 – 3/31/2009**

Disease	No. Reported
ANIMAL BITE	3
CAMPYLOBACTER	4
CHLAMYDIA (Genital)	243
COCCIDIOIDOMYCOSIS	1
CRYPTOCOCCOSIS	1
FLU-LIKE DISEASE	185
GIARDIASIS	1
GONORRHEA	48
HIV	5
HEPATITIS B CHRONIC	10
HEPATITIS C CHRONIC	27
INFLUENZA	4

**COMMUNICABLE DISEASE YTD cont.
REPORTED FOR SAGINAW COUNTY
1/1/2009 – 3/31/2009**

Disease	No. Reported
MENINGITIS ASEPTIC	4
SHIGELLOSIS	1
STAPHYLOCOCCUS	1
STREPTOCOCCAL DISEASE	1
SYPHILIS (Latent)	1
YERSINIA ENTERITIS	1

This newsletter is provided to all Saginaw county healthcare providers, hospitals, schools, local colleges, universities, urgent care facilities and local media centers.

If you would like to get this newsletter by e-mail please submit your e-mail address to:

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Please visit our website at www.saginawpublichealth.org where our communicable disease pamphlets are available.



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