A vaccine is also available that offers protection to some of the strains of Neisseria meningitides which causes bacterial meningococcal meningitis. The meningococcal vaccine has been recommended for pre-adolescents (11-12 years old), teenagers, and college bound students. The vaccine is also recommended for people traveling to countries where outbreaks of meningitis are common.

Please contact your physician or the Saginaw County Department of Public Health if you have questions about any of these vaccines.

**Wash your hands!**

Viral meningitis is prevented only through good hygiene practices.

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

What are the signs and symptoms of meningitis?
Symptoms of both viral and bacterial meningitis may include:

- fever
- stiff neck
- severe headache
- nausea
- vomiting
- seizure
- sensitivity to light
- confusion/drowsiness
- skin rash near the armpit area or on hands and feet
- 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!

How is meningitis diagnosed and treated?
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.

How can I prevent meningitis?
**Contacts: Prophylactic antibiotics**
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.

**Vaccinations**
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.