



St. Mary's Church

Stewardship of the Body

“I give you thanks that I am fearfully, wonderfully made” (Ps. 139)

## West Nile Virus (WNV)

‘Tis the Season: for West Nile Virus. Following is a quick review.

**What is West Nile Virus (WNV)?** WNV is a virus that is picked up by mosquitoes that feed on infected birds and then is transmitted to humans through the bite of the mosquito. The illness that is caused by the virus can vary from mild to very serious.

### What are the symptoms in West Nile Virus Illness?

- No symptoms: About 80% of people who are infected will not show any symptoms at all.
- Milder symptoms: Up to 20% of infected people have symptoms including fever, headache, body aches, nausea, vomiting, and sometimes swollen lymph glands or a skin rash on the chest, stomach and back. Symptoms can last from a few days to several weeks.
- Serious symptoms: About 1 in 150 people (less than 1%) infected with WNV will develop serious symptoms including high fever, headache, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness, vision loss, numbness and paralysis. The symptoms may last several weeks, and neurological effects may be permanent.

**How soon do symptoms develop?** People typically develop symptoms between 3 and 14 days after being bitten by an infected mosquito.

**How is WNV treated?** Milder WNV illness improves on its own, and people may not even need medical attention. If you experience signs and symptoms that might suggest WNV, especially if you are pregnant, breast feeding, or have other medical problems, seek medical help as soon as possible. Although most people infected with WNV recover fully, the virus can result in serious, life-threatening illness or permanent muscle problems. Severe WNV illness usually requires hospitalization. Treatment generally involves supportive care with IV fluids and pain relievers. Some scientists are studying the use of interferon, a type of immune cell therapy, in treating the encephalitis (brain infection) caused by the WNV in some people. It is thought that interferon may help people recover better, but more study is needed.

### What is the risk of getting sick from WNV?

- People over 50 are at higher risk to get severe illness, so should take special care to avoid mosquito bites.
- Being outdoors increases your risk as the more time you spend outdoors the more possibility of being bitten by an infected mosquito.
- The risk of getting WNV through medical procedures is low. All donated blood is checked for WNV before being used.

**How can infection with West Nile Virus be prevented?** To prevent getting WNV illness, you must protect yourself from being bitten by mosquitoes. Preventive measures include:

- Avoid unnecessary outdoor activity when mosquitoes are most prevalent, such as at dawn, dusk and early evening.
- Wear long-sleeved shirts and long pants when in mosquito-infested areas.
- Make sure you have good screens on windows and doors to prevent mosquitoes from getting in.
- Check pets for mosquitoes before letting them back into the house.
- Eliminate any sources of standing water in and around your house/yard.
- Use insect repellent. The CDC recommends the use of products containing active ingredients which have been registered by the U.S. Environmental Protection Agency (EPA) for use as repellents applied to skin and clothing. These products have been reviewed and approved for efficacy and safety when used according to instructions on the label. Products containing the following active ingredients typically provide reasonably long-lasting protection:
  - **DEET** (N,N-diethyl-m-toluamide or N,N-diethyl-3-methyl-benzamide)
  - **Picaridin** (KBR 3023, or 2-(2-hydroxyethyl)-1-piperidinecarboxylic acid 1 methylpropyl ester)
  - **Oil of Lemon Eucalyptus** (not for children under 3) or **PMD** (para-Menthane-3,8-diol)
  - **IR3535** (3-[N-Butyl-N-acetyl]-aminopropionic acid, ethyl ester)
    - Generally the higher the concentration of active ingredient in the product the longer the duration of protection. However, regardless of the active ingredient, concentration above 50% does not offer a marked increase in protection time.
    - The duration of protection can be affected by temperature, perspiration, exposure to water, abrasive removal and other factors.
    - Regardless of the product being used, if you start to get mosquito bites, reapply the repellent according to label instructions.
- Precautions with repellents:
  - Apply only to exposed skin and /or clothing, not under clothing
  - Do not apply over cuts, wounds or irritated skin
  - Do not apply to eyes or mouth and apply sparingly around ears. Spray on hands first, then apply to face
  - Do not apply to children's hands
  - Use just enough to cover exposed skin and/or clothing. Heavy application is not necessary
  - After returning indoors, wash treated skin with soap and water or bathe.
  - If a rash or other reaction develops after applying repellent, wash it off with mild soap and water & call local poison control center for further advice

A vaccine is available to protect horses from West Nile virus. No vaccine is available for humans, but work to develop a human vaccine is under way.

Sources: [www.cdc.gov/ncidod/dvbud/westnile](http://www.cdc.gov/ncidod/dvbud/westnile), [www.mayoclinic.com/health/west-nile-virus](http://www.mayoclinic.com/health/west-nile-virus)