# WEST NILE VIRUS LABORATORY RESEARCH SAFETY



The following is general information for those involved in the laboratory-based research of West Nile virus. Contact occupational.health@cuanschutz.edu if you have any questions.

## **ABOUT WEST NILE VIRUS**

West Nile virus (WNV) is a mosquito-borne zoonotic disease. While mosquitoes are the primary vector for WNV, birds are the primary reservoir. Humans, horses, and other mammals may be infected as the result of a bite from an infected mosquito. WNV infection may also occur through laboratory contact with infected blood and tissue.

### **EXPOSURE TO WEST NILE VIRUS**

- Accidental exposure to WNV may occur through
  - Needle stick
  - Contact with broken skin (direct or indirect)

### WEST NILE VIRUS INFECTION

- 80% of people infected with WNV are asymptomatic
- 20% of people infected with WNV experience West Nile fever or severe West Nile disease
- Symptoms of West Nile fever or severe West Nile disease
  - Headache
  - High fever
  - Neck stiffness
  - Disorientation
  - Muscle weakness
  - Paralysis
- Symptoms typically appear 3 to 14 days after exposure
- Risk factors include weakened immune system and being over the age of 50

# WEST NILE VIRUS INFECTION PREVENTION



- Personal protective equipment for work with WNV
  - Laboratory coat, gloves; safety goggles;
    N95 respirator (requires fit test) or PAPR (requires training)
  - Do not reuse PPE used for work with biohazards
  - Dispose of all PPE as biohazardous waste
  - Always wash your hands after removing gloves and after handling biohazards
- Prevention and Treatment
  - There is no vaccine or medicine available for the prevention or treatment of West Nile virus

### WEST NILE VIRUS EXPOSURE SAFETY

### Follow proper exposure reporting protocols

- If you are injured on the job, promptly report the incident to your supervisor
  - Immediately call or email Occupational Health (303) 724-9145 during business hours
    - Outside of normal hours seek medical attention at emergency department or other healthcare provider
  - Fill out incident report for exposure to biological hazards
  - File a claim with University Risk Management
    - https://www.cu.edu/risk/file-claim
- Minor cuts and abrasions should be immediately cleansed with antibacterial soap
  - Protect injuries from exposure

### Tell your physician you work with West Nile virus

 Whenever you are ill, mention to your physician that you work with West Nile virus

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#### Sources

- 1. Centers for Disease Control and Prevention. About West Nile virus. May 15, 2024. Accessed December 17, 2024. www.cdc.gov/west-nile-virus/about/index.html.
- 2. World Health Organization. West Nile virus. October 3, 2017. Accessed December 17, 2024. www.who.int/news-room/fact-sheets/detail/west-nile-virus.
- 3. Centers for Disease Control and Prevention. Recommendations for protecting laboratory, field, and clinical workers from the West Nile virus exposure. December 2005. Accessed December 17, 2024. https://www.cdc.gov/niosh/docs/2006-115/pdfs/2006-115.pdf.

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For more information, refer to the Occupational Health website: <a href="https://research.cuanschutz.edu/ehs/home/divisions/occupational-health">https://research.cuanschutz.edu/ehs/home/divisions/occupational-health</a> or contact Occupational Health at <a href="mailto:occupational.health@cuanschutz.edu">occupational.health@cuanschutz.edu</a>

