

Update: Public health response to Bourbon virus

JEFFERSON CITY, MO – The Missouri Department of Health and Senior Services (DHSS), Centers for Disease Control and Prevention (CDC), and local public health agencies recently completed a follow-up investigation of the Bourbon virus case identified during the summer of 2017.

Results of blood testing among participants are protected health information and will not be released. It is important to note, because Bourbon virus is believed to be spread by ticks, Missourians likely have one more reason to practice tick avoidance while outdoors.

Testing for Bourbon virus and Heartland virus (another cause of tick-borne illness in Missouri) was conducted on more than 7,000 ticks collected in the state park. Bourbon virus was not detected in any of the ticks collected. This does not mean the virus is not present in some ticks in the park. Instead, it means none of the ticks that might have been infected at the time of this investigation were trapped and tested. Heartland virus was detected in one group of ticks.

Patients diagnosed with Bourbon virus have shown signs similar to infection with Heartland virus and ehrlichiosis (the latter is a type of bacteria transmitted by ticks), including fever, muscle aches, fatigue, headache, anorexia, diarrhea, and rash. Like Heartland virus and ehrlichiosis, Bourbon virus can affect blood cells that help the body fight infection and prevent bleeding. There is no vaccine or specific treatment for Bourbon virus.

For members of the public worried about the possibility of tick-borne diseases, the best way to prevent infection is to avoid being bitten by a tick. Instructions on how to prevent exposure while outdoors are as follows:

- Apply insect repellents containing at least 20% DEET, picaridin, or IR3535 (no more than 30% DEET in children) to exposed skin according to label instructions.
- Apply a permethrin solution to clothing according to label instructions. This will last through several washings. Do not allow people or pets to have contact with treated surfaces until spray has dried.
- Stay on marked and paved trails.
- Wear light-colored long sleeve shirts and pants.
- Immediately perform a thorough tick inspection after being outdoors.
- If a tick is found, remove as soon as possible. Grasp the base of the head of the tick with a pair of tweezers and pull off with a straight motion, making sure to avoid twisting and jerking motions.

If a person begins developing a fever, muscle aches, fatigue, headaches, anorexia, diarrhea, or a rash after exposure to a tick bite or tick habitat, they should seek treatment from a medical professional and inform them of recent tick exposure.

For more information on ticks and the Bourbon virus investigation, please contact the Department of Health and Senior Services, Office of Veterinary Public Health at 573-526-4780 between the hours of 8 a.m. and 5 p.m. Monday through Friday.

About the Missouri Department of Health and Senior Services: The department seeks to be the leader in promoting, protecting and partnering for health. More information about DHSS can be found at health.mo.gov