

## **Middle East Respiratory Syndrome (MERS)**

### **What is MERS?**

Middle East Respiratory Syndrome (MERS) is a respiratory disease caused by a coronavirus called Middle East Respiratory Syndrome Coronavirus (MERS-CoV).

### **What are coronaviruses?**

Coronaviruses are a large family of viruses that cause illness in humans ranging from the common cold to severe respiratory illness. Coronaviruses can also infect animals.

### **What is MERS-CoV?**

Middle East Respiratory Syndrome Coronavirus (MERS-CoV) is a type of coronavirus. MERS-CoV was first detected in April 2012 and this particular virus had not been seen in humans before then. MERS-CoV used to be called novel coronavirus.

### **Is MERS-CoV the same as the SARS (Severe Acute Respiratory Syndrome) virus?**

MERS-CoV is not the same as the SARS-associated coronavirus (SARS-CoV) that caused severe acute respiratory syndrome (SARS) in 2003. Both viruses are coronaviruses and both can cause severe respiratory disease. However, unlike SARS-CoV, MERS-CoV does not appear to spread easily from person to person.

### **Who gets MERS?**

As of May 12, 2014, human infections have been identified in persons from France, Italy, Jordan, Kuwait, Lebanon, Malaysia, Oman, Qatar, Saudi Arabia, Tunisia, Turkey, the United Arab Emirates, the United Kingdom, Yemen and the United States. All infected persons had a direct or indirect connection with the Middle East. To date no cases of MERS-CoV have been identified in Virginia. In France, Italy, Tunisia and the United Kingdom, the spread of the virus was limited and occurred in people who had close contact with a person who was confirmed or suspected to have MERS-CoV and who had traveled to the Middle East. The most up-to-date details about the number of MERS-CoV cases by country of residence are on CDC's MERS website (<http://www.cdc.gov/coronavirus/mers/>).

### **How are US public health officials responding to cases in the U.S.?**

As of May 12, 2014, two MERS-CoV cases have been confirmed in the U.S. Local, state and federal health officials are investigating these cases. Both case-patients had a history of recent travel to Middle Eastern countries. Close contacts of case-patients during travel and after arrival are being notified and provided with information and instructions for contacting their healthcare providers and public health officials if they develop symptoms within the two weeks after their possible exposure.

### **How is MERS-CoV spread?**

MERS-CoV has been shown to spread between people who are in close contact, such as family members or healthcare workers providing care. It is still unknown exactly how the virus spreads (e.g.,

coughing/sneezing, direct patient contact or contact with the environment). Thus far, the virus has not been shown to spread easily in communities.

### **What are the symptoms of MERS?**

So far, most people who have been infected with MERS-CoV developed severe respiratory illness with fever, cough and shortness of breath. Many have had gastrointestinal symptoms, including diarrhea. About half of those who have been confirmed as having MERS-CoV infection have died. Some people were reported as having mild respiratory illness.

### **How soon after exposure do symptoms occur?**

Symptoms may appear up to 14 days after exposure. There is no evidence to suggest that persons with MERS-CoV are contagious during this incubation period.

### **How is MERS diagnosed?**

Laboratory tests (polymerase chain reaction or PCR) are available at state public health laboratories, CDC and some international laboratories.

### **What is the treatment for MERS?**

There is no specific treatment for MERS. As with other coronaviruses like the common cold, medical care focuses on providing relief from symptoms and attempts to limit the severity of the illness. Treatment is provided based on the patient's clinical condition.

### **How can MERS be prevented?**

A vaccine is not currently available. People should follow these tips to help prevent respiratory illnesses of any kind:

- Wash your hands often with soap and water for 20 seconds, and help young children do the same. If soap and water are not available, use an alcohol-based hand sanitizer.
- Cover your nose and mouth with a tissue when you cough or sneeze then throw the tissue in the trash.
- Avoid touching your eyes, nose, or mouth with unwashed hands.
- Avoid close contact (such as kissing, sharing cups, or sharing eating utensils) with sick people.
- Clean and disinfect frequently touched surfaces and objects, such as toys and doorknobs.

### **Can I travel to countries in the Arabian Peninsula or neighboring countries where MERS cases have occurred?**

Yes. Currently, CDC does not recommend that anyone change their travel plans because of MERS. The current CDC travel notice is an Alert (Level 2) that advises travelers to countries in or near the Arabian Peninsula to practice enhanced precautions. Travelers should pay attention to their health during and after their trip and see a doctor right away if they develop fever and signs of lower respiratory illness such as cough or shortness of breath, within 14 days after traveling from countries in or near the Arabian Peninsula. Special advice is given for people traveling to the Arabian Peninsula to work in health care settings. For more information, see CDC's travel notice at:

<http://wwwnc.cdc.gov/travel/notices/watch/coronavirus-saudi-arabia-qatar>.

### **What should I do if I become ill while travelling abroad?**

CDC has provided guidance for travelers requiring healthcare while outside of the US. See

<http://wwwnc.cdc.gov/travel/page/getting-health-care-abroad>.

**What if I recently traveled to countries in the Arabian Peninsula or neighboring countries and got sick?**

If you develop a fever and symptoms of lower respiratory illness, such as cough or shortness of breath, within 14 days after traveling from countries in the Arabian Peninsula or neighboring countries, you should see your healthcare provider and mention your recent travel.

**How can I learn more about MERS and MERS-CoV?**

For additional information, please visit the Centers for Disease Control and Prevention website (<http://www.cdc.gov/coronavirus/mers/>) or the World Health Organization website ([http://www.who.int/csr/disease/coronavirus\\_infections/en/](http://www.who.int/csr/disease/coronavirus_infections/en/)).

You may also call your local health department. A directory of local health departments is located at <http://www.vdh.virginia.gov/LHD/index.htm>.