

## Measles Outbreak in South Dakota

The South Dakota Department of Health (DOH) is investigating an outbreak of measles that occurred in Mitchell. In addition, a case of measles has been reported in Sioux Falls bringing the total number of cases reported to 14. As measles has rarely been seen in South Dakota the following information is being provided to educate parents about measles and what parents can do to protect their children. Information in this guidance was adapted from material developed by the Centers for Disease Control and Prevention (CDC), the Immunization Action Coalition, and the Washington and Ohio States Department of Health.

### **KEY ACTION POINT: *What parents should do now***

Parents should review the immunization records of their children and identify those who are not up-to-date with their measles-mumps-rubella (MMR) vaccine. Two doses of MMR are required for school entrance. It is advised to vaccinate your children if there is not a medical contraindication. If your child is not vaccinated and a case of measles occurs in the school, your child will be excluded until 21 days after rash onset in the last case of measles.

### **What causes measles?**

Measles is caused by a virus.

### **How does measles spread?**

Measles is spread from person to person through the air by infectious droplets; it is highly contagious.

### **How long does it take to show signs of measles after being exposed?**

It takes an average of 10-12 days (range 7-21 days) from exposure to the first symptom, which is usually fever. The measles rash doesn't usually appear until approximately 14 days after exposure, 2-3 days after the fever begins.

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

Symptoms include fever, runny nose, cough, loss of appetite, conjunctivitis, and a rash. The rash usually lasts 5-6 days and begins at the hairline, moves to the face and upper neck, and proceeds down the body.

### **How serious is measles?**

Measles can be a serious disease, with 30% of reported cases experiencing one or more complications. Death from measles occurs in 2 to 3 per 1,000 cases in the United States. Complications from measles are more common among very young children (younger than 5 years) and adults (older than 20 years).

**What are potential complications of measles?**

Diarrhea is the most common complication of measles (occurring in 8% of case-patients), especially in young children. Ear infections occur in 7% of reported case-patients. Pneumonia, occurring in 6% of reported case-patients, accounts for 60% of measles-related deaths. Approximately one out of one thousand infected persons will develop acute encephalitis, an inflammation of the brain. This serious complication can lead to permanent brain damage. Measles during pregnancy increases the risk of premature labor, miscarriage, and low-birth-weight infants, although birth defects have not been linked to measles exposure. Measles can be especially severe in patients with compromised immune systems. Measles is more severe in malnourished children, particularly those with vitamin A deficiency. In developing countries, the fatality rate may be as high as 25%.

**How long is a person with measles contagious?**

Measles is highly contagious and can be transmitted from four days before the rash becomes visible to four days after the rash appears.

**What should be done if someone is exposed to measles?**

Notification of the exposure should be communicated to a healthcare provider and the DOH (800-592-1861). If the person has not been vaccinated, measles vaccine may prevent disease if given within 72 hours of exposure. Immune globulin (a blood product containing antibodies to the measles virus) may prevent or lessen the severity of measles if given within six days of exposure. See your healthcare provider immediately if your child develops any signs or symptoms of measles. Call the clinic ahead of time to let them know your child has been exposed to measles; they may not want you to enter through the main waiting area to prevent exposure to other patients and clinic staff.

For additional information about measles, visit the South Dakota Department of Health website at <http://doh.sd.gov/diseases/> or the CDC website at [www.cdc.gov](http://www.cdc.gov). For information about immunization schedules visit <http://www.cdc.gov/vaccines/schedules/index.html>

If you have any questions please do not hesitate to contact the DOH at 800-592-1861.