

**What is measles?**

Measles is a highly contagious viral disease with an abrupt onset. Measles causes fever, rash and flu like symptoms which may cause serious complications and result in pneumonia, swelling of the brain, convulsions, deafness or mental retardation. Measles is also known as rubeola, which should not be confused with rubella, another vaccine-preventable viral rash illness.

**Who is at risk for measles?**

Anyone who has not been vaccinated or has not previously had measles is at risk for developing the disease. Cases of measles occur infrequently in the United States due to high vaccination rates, but outbreaks can occur among people who have not been immunized.

**What are the symptoms of measles?**

- Fever, cough, runny nose, and red, watery eyes
- Small, blue-red spots in mouth (called Koplik spots)
- Rash that starts at the head or neck and then spreads to the trunk, back, and finally the arms and legs
- Possible diarrhea or ear infection

**How soon do symptoms appear?**

Symptoms usually appear eight to 12 days after exposure but can occur as early as seven days and as late as 21 days after exposure.

**How is measles spread?**

Measles is spread through the air when someone who is infected sneezes or coughs.

**When and for how long is a person able to spread the disease?**

A person is able to spread measles from four days before the first signs or symptoms appear to four days after the appearance of the rash.

**How is a person diagnosed?**

A health professional will confirm a positive diagnosis by laboratory testing.

**What is the treatment?**

No medical treatment is available. Bed rest and care at home are the recommended treatments. Also, non-prescription medication such as ibuprofen may help relieve discomfort, and all patients are given vitamin A.

## Does past infection make a person immune?

Yes, once someone has been infected with the measles virus, he or she is immune.

## Should children or others be excluded from child care, school, work or other activities if they have measles?

Yes. Children or staff who are infected with the measles virus should be excluded until four days after the rash appears. Unvaccinated people who have been exempted from measles immunization for medical, religious, moral or philosophical reasons must be immunized within 72 hours of exposure. Vaccination within 72 hours of exposure may provide some protection. If unvaccinated people are not vaccinated within 72 hours, they should be excluded from all activities until the North Dakota Department of Health determines it is safe for them to return.

## What can be done to prevent the spread of measles?

1. All children between 12 and 15 months of age should be vaccinated with the first dose of MMR (measles, mumps and rubella vaccine). A booster dose of MMR is recommended at 4 to 6 years. A combination vaccine is also available (MMRV), which protects against measles, mumps, rubella and chickenpox. Children are required to be age-appropriately immunized against measles in order to attend early childhood facilities, schools and colleges in North Dakota.
2. The immunization status of all children and staff at the school or early childhood facility should be reviewed.
3. During measles outbreaks, exposed children and staff who have not been immunized should be excluded until they are vaccinated, or, if they refuse, they should continue to be excluded until the North Dakota Department of Health determines it is safe for them to return. The vaccine may provide some protection if given within 72 hours of exposure.
4. Routine handwashing also helps prevent the spread of measles.

### Additional Information:

Additional information is available at [www.ndhealth.gov/disease](http://www.ndhealth.gov/disease) or by calling the North Dakota Department of Health at 800.472.2180.

**This disease is a reportable condition. As mandated by North Dakota law, any incidence of this disease shall be reported immediately to the North Dakota Department of Health.**

Resource:

American Academy of Pediatrics. [Measles]. In: Kimberlin DW, Brady MT, Jackson MA, Long SS, eds. *Red Book: 2015 Report of the Committee on Infectious Diseases*. 30<sup>th</sup> ed. Elk Grove Village, IL: American Academy of Pediatrics; 2015: 535-547