Measles is one of the most contagious viruses of all contagious diseases. Approximately 9 out of 10 people with close contact to a measles patient develop measles. It is spread from person to person through direct contact with infectious droplets or airborne spread when an infected person breathes, coughs, or sneezes. Measles virus can remain contagious on surfaces and in the air for up to two hours after an infected person leaves an area. Since the development of the MMR (measles, mumps, rubella) vaccine, measles cases have generally been rare in the U.S. However, it still affects approximately 20 million people around the world each year with 8 in every 1000 persons affected dying.

**Signs & Symptoms**
Measles begins with a high fever (can be as high as 105°F) lasting a few days, followed by a cough, runny nose, conjunctivitis (pink eye), and a rash. The rash typically appears about 14 days after a person is exposed starting on the face, along the hairline, and behind the ears and then moving down to the rest of the body. Infected people are usually contagious from about 4 days before their rash starts to 4 days afterwards.

If you suspect that you or your child has measles, it is important to call the place where you will receive care (ER, Doctor’s office, etc.) before you go. Because measles is a highly contagious respiratory virus, you or your child will be asked to wear a facemask before entering the clinic and you and/or child will be asked to enter at a different entrance to the building to minimize contact with other people.

**Complications**
- Diarrhea
- Ear infections
- Pneumonia
- Acute encephalitis (possible brain damage)

Measles can be especially severe in persons 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%.
Exposure and Vaccination

- One dose of the MMR vaccine is recommended for infants ages 6-11 months who will be traveling internationally to countries with endemic measles.
- Everyone else should receive the MMR vaccine at 12 months or older, with a booster between ages 4-6. After two doses, you will have a lifetime immunity against measles.
- Vaccine has found to be extremely high effectiveness (CDC estimates are around 95%)
- Measles vaccine can be given to those exposed. It is most effective if given within 72 hours

Evidence of Immunity

Healthcare providers cannot accept verbal reports of vaccination without one of the below acceptable forms of proof:

- Written documentation of adequate vaccination:
  - 1 or more doses of a measles-containing vaccine administered on or after the first birthday for preschool-age children and adults not at high risk
  - 2 doses of measles-containing vaccine for school-age children and adults at high risk, including college students, healthcare personnel, and international travelers
- Laboratory evidence of immunity (titer)
- Laboratory confirmation of measles
- Birth in the United States before 1957

Adults at High Risk

Certain adults are at higher risk of exposure to measles, mumps, and/or rubella and may need a second dose of MMR unless they have other evidence of immunity; this includes adults who are:

- Pregnant women because 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
- Students in postsecondary educational institutions (for measles and mumps)
- Healthcare personnel (for measles and mumps)
- Living in a community experiencing an outbreak or recently exposed to the disease (for measles and mumps)
- Planning to travel internationally (for measles and mumps)
- People who received inactivated (killed) measles vaccine or measles vaccine of unknown type during 1963 – 1967 should be revaccinated with 2 doses of MMR vaccine
- People vaccinated before 1979 with either killed mumps vaccine or mumps vaccine of unknown type who are at high risk for mumps infection (e.g., persons who are working in a healthcare facility) should be considered for revaccination with 2 doses

Sources

www.cdc.gov/measles

www.vaccineinformation.org

www.immunize.org/vaccine-summaries