

# **New Jersey Dept. of Health and Senior Services Vaccine Preventable Disease Program Measles Public FAQs**

**Date: June 8, 2011**

## **DESCRIPTION OF MEASLES**

**Q: What is measles?**

**A:** Measles is a very contagious respiratory disease caused by a virus. Before vaccine was available, it was a common childhood disease in the United States and is considered the most deadly of all childhood rash/fever illnesses. It is still common in areas of the world where there are unvaccinated populations.

**Q: What are the symptoms of measles?**

**A:** Symptoms can include fever, rash, runny nose, cough, loss of appetite, and "pink eye." The rash usually begins at the hairline, moves to the face and upper neck, and proceeds down the body as the disease progresses. However, people may be infectious before they begin to show symptoms.

**Q: What is the incubation period?**

**A:** The incubation period is the time between being exposed to the measles virus and the appearance of the first symptoms. The incubation period for measles ranges from 7 to 18 days. However, people who are exposed to measles are capable of spreading the disease to others from day 5 through day 21 following exposure.

**Q: How serious is the disease?**

**A:** Measles itself is unpleasant, but the complications are dangerous. Six to 20 percent of the people who get the disease will get an ear infection, diarrhea, or even pneumonia. One out of 1000 people with measles will develop inflammation of the brain, and about one out of 1000 will die.

**Q: How can I catch measles?**

**A:** Measles is highly contagious. Infected people are usually contagious from about 4 days before their rash starts to 4 days afterwards. When an infected person talks, coughs, or sneezes, the virus is released into the air and enters another person's body through the nose, mouth or throat. People can also become sick if they come in contact with the mucus or saliva (spit) from an infected person. The measles virus can live on infected surfaces or hang in the air for up to two hours.

**Q: How contagious is measles?**

**A:** Measles is one of the most contagious diseases. 90% of susceptible people will be infected after coming in contact with someone with measles.

**Q: How is measles diagnosed?**

**A:** A health care provider will observe symptoms and take a blood sample to find out if a person is infected with measles. Healthcare providers may also send urine or throat swabs to try to isolate the virus.

**Q: What should I do if I think I was exposed?**

**A:** Call your health care provider first to discuss your exposure so special arrangements can be made for you to be evaluated without putting others patients and medical office staff at risk. A person infected with measles can be infectious before they have any symptoms of the disease.

**Q: What should I do if I get sick?**

**A:** If you become ill with measles-like symptoms, including fever, rash, runny nose, cough, loss of appetite, and "pink eye" seek medical attention but remember to call your health care provider before going to the medical office and inform them that you were exposed to someone with measles or that you have symptoms of measles so that special arrangements can be made to prevent exposure to other patients and medical office staff.

**Q: What is the treatment for measles?**

**A:** There is no medicine for measles, only supportive treatment (bed rest, fluids and fever reduction). Most patients will recover on their own. Patients who develop complications from measles may need treatment specific to these complications.

## **MEASLES VACCINATION**

**Q: How can measles be prevented?**

**A:** Measles is a vaccine-preventable disease. Getting vaccinated against measles will protect people from getting the disease. The measles vaccine is given in combination with the vaccines for mumps and rubella. This vaccine (MMR) follows a two-dose schedule (one shot at 12 months and a second shot at four to six years of age). However, the second dose of MMR can be given anytime as long as it is at least four weeks after the first dose.

Another option is the MMRV vaccine (MMR plus varicella [chickenpox] vaccine). MMRV is only licensed for use in children between the ages of 12 months through 12 years. MMRV can only be given through age 12 years and should be separated from a previous dose of varicella-containing vaccine by 12 weeks.

If you are traveling outside the US, ask your healthcare provider if you or your child should receive an MMR vaccine. Because there is ongoing measles transmission in other countries, the Centers for Disease Control and Prevention is recommending that children age 6 – 12 months of age receive the MMR before traveling.

**Q: How is this vaccine given?**

**A:** This vaccine is given by subcutaneous injection, meaning that the vaccine is deposited just under the skin and not deep into the muscle.

**Q: If I had measles vaccines as a child, am I still protected?**

**A:** Yes. The measles vaccine usually provides life-long immunity. However, a small number of people do not develop immunity after receiving the vaccine.

**Q: If I have been sick with measles in the past, am I immune?**

**A:** Yes, if you had measles in the past, you would be protected. People do not get measles more than once. However, you should still receive the MMR or MMRV vaccine to be protected against mumps, rubella, and varicella (chickenpox). Also, some people may think they had the measles but actually had another illness with a rash. If you are unsure, you should get vaccinated or have a blood test to make sure you are immune especially if you are traveling outside the United States. If you are exposed to someone with measles, public health authorities will not accept physician or family diagnosed measles as proof of immunity.

**Q: How can I locate my immunization records?**

**A:** Contact your health care provider regarding your past immunization history. Schools and colleges may also have records of your immunization history.

**Q: What if I cannot locate my immunization records?**

**A:** If you cannot locate your immunization records, you can ask your doctor for a measles titer (blood test) which will let you know if you have immunity to measles.

**Q: What if I can not obtain proof of immunity?**

**A:** People without proof of immunity who have been exposed to measles will need to stay at home from day 5 through day 21 following exposure to prevent spread to other people. Exact dates depend on your date(s) of exposure. For example, if you were exposed on 4/21/11, you will need to stay at home from 4/26 through 5/12/11. You can check with your local health department or health care provider to assist you with determining correct dates to remain at home.

**Q: Will getting an extra dose of measles vaccine be harmful?**

**A:** No. Although, CDC does not routinely recommend more than 2 doses of MMR vaccine, there is no harm in receiving an additional dose of vaccine if you are not sure of your vaccine history.

**Q: What are the side effects from the MMR and MMRV vaccines?**

**A:** Mild side effects are soreness at the site of the injection, fever, mild rash, and, rarely, swelling of the glands. Moderate and severe side effects are rare.

The first dose of MMRV vaccine has been associated with rash and higher rates of fever than MMR and varicella vaccines given separately. Rash has been reported in about 1 person in 20 and fever in about 1 person in 5. Seizures caused by a fever are also reported more often after MMRV. These usually occur 5-12 days after the first dose.

Getting vaccinated is much safer than getting measles.

**Q: Who should NOT receive measles vaccine?**

**A:** Anyone who experiences a severe allergic reaction (e.g., hives, swelling of the mouth or throat, difficulty breathing) following the first dose of MMR should not receive a second dose.

Pregnant women should not receive the MMR vaccine, and pregnancy should be avoided for four weeks following vaccination with MMR. While there is no evidence that the measles vaccine causes fetal damage, women are advised not to receive the MMR vaccine during pregnancy as a safety precaution based on the theoretical possibility of a live vaccine causing disease.

Severely immunocompromised persons should not be given MMR vaccine. This includes persons with a variety of conditions, including congenital immuno-deficiency, AIDS, leukemia, lymphoma, generalized malignancy, or those undergoing immunosuppressive therapy.

**Q: Can I get the MMR or MMRV if I have a family member who is immunocompromised or is pregnant?**

**A:** Yes. It is safe to receive the vaccine if you live with someone who is pregnant or immunocompromised.

**Q: Can individuals with an egg allergy receive MMR vaccine?**

**A:** Yes. In the past it was believed that persons who were allergic to eggs would be at risk of an allergic reaction from the vaccine because the vaccine is grown in tissue from chick embryos. However, recent studies have shown that this is not the case. Therefore, MMR may be given to egg-allergic individuals without prior testing or use of special precautions.

**Q: How effective is the measles vaccine?**

**A:** Measles vaccine (MMR vaccine or MMRV vaccine) is very effective and is the best way to prevent measles. Measles vaccine effectiveness has been estimated at ~95% for one dose and ~99% for two doses.

**Q: Why do I need two doses of measles vaccine?**

**A:** About 5 percent of people do not develop immunity after getting the first shot. Therefore, it is recommended that everyone get a second shot. After two doses, more than 99% of people will be protected.

**Q: Does the MMR vaccine cause autism?**

**A:** No. Studies have shown that MMR vaccine does **not** cause autism. The question about a possible link between MMR vaccine and autism has been extensively reviewed by independent groups of experts in the U.S. including the National Academy of Sciences' Institute of Medicine. These reviews have concluded that the available epidemiologic evidence does not support a causal link between MMR vaccine and autism.

The MMR-autism theory had its origins in research by Andrew Wakefield and colleagues in England. They suggested that inflammatory bowel disease (IBD) is linked to persistent viral infection. In 1993, Wakefield and colleagues reported isolating measles virus in the intestinal tissue of persons with IBD. The validity of this finding was later called into question when it could not be reproduced by other researchers. In addition, the findings were further discredited when an investigation found that Wakefield did not disclose he was being funded for his research by lawyers seeking evidence to use against vaccine manufacturers. In February 2010, the British medical journal,

The Lancet, retracted Dr. Wakefield's 1998 research paper and his work is considered fraudulent. Dr. Wakefield has lost his license to practice medicine.

The retracted article by Wakefield and interviews with celebrities citing anecdotal reports of autism following vaccination have received a lot of attention by the media. However, many well-designed scientific studies appearing in peer-reviewed journals have consistently failed to show a causal relationship between MMR vaccine, or any vaccine, and autism.

### **RECENT MEASLES CASES IN NJ**

**Q: Are there reports of measles infection in NJ?**

**A:** Since April 13, NJDHSS has received notifications from other health authorities of numerous unique cases of laboratory-confirmed measles with multiple NJ contacts. New Jersey residents have been exposed to laboratory-confirmed cases while in other states, while traveling internationally and while interacting with travelers. NJDHSS has worked with local health authorities to notify these contacts, assess immunization status and quarantine susceptible individuals as appropriate.

Since 2005, NJDHSS reported a range of 1 to 3 confirmed and probable cases per year. So far for 2011, NJDHSS is currently aware of 3 New Jersey residents with confirmed measles and one with probable measles infection. One of the confirmed cases was exposed to measles while visiting Pakistan the other two confirmed cases were known contacts of an international traveler (France, Italy). No source was identified for the probable case.

**Q: Is there currently a measles outbreak in US or in other countries?**

**A:** Normally, the U.S. sees about 50 cases of measles per year. During January 1- May 20, 2011, a total of 118 cases were reported from 23 states and New York City, the highest reported number for the same period since 1996.

This year, 33 countries in the WHO European Region have reported an increase in measles. France, the source of most of the importations from the European Region, is experiencing a large outbreak, with

approximately 10,000 cases reported during the first 4 months of 2011.

The increased number of measles importations into the United States this year underscores the importance of vaccination to prevent measles and its complications.

**Q: Where can I get more information on measles?**

**A:** For more information, contact:

- Your health care provider
- Your local health department
- NJ Department of Health and Senior Services  
Vaccine Preventable Disease Program 609-826-4860
- Centers for Disease Control & Prevention [www.cdc.gov/vaccines](http://www.cdc.gov/vaccines)

**This information is intended for educational purposes only and is not intended to replace consultation with a health care professional.**