

## **Frequently Asked Questions about MEASLES**

Modified from the Centers For disease Control & Prevention National Immunization Program website:

<http://www.cdc.gov/vaccines/vpd-vac/measles/default.htm#disease>

### **Q1. What is measles?**

**A1.** Measles is an infectious viral disease that occurs most often in the late winter and spring. It begins with a fever that lasts for a couple of days, followed by a cough, runny nose, and conjunctivitis (pink eye). A rash starts on the face and upper neck, spreads down the back and trunk, then extends to the arms and hands, as well as the legs and feet. After about 5 days, the rash fades the same order in which it appeared.

### **Q2. Are there complications of measles?**

**A2.** Approximately 20% of reported measles cases experience one or more complications. These complications are more common among children less than 5 years of age and adults 20 years of age and older. Ear infections (otitis media) occur in nearly one out of 10 children with measles and can result in permanent hearing loss. Diarrhea can also occur. Measles can also cause pneumonia and less commonly encephalitis (inflammation of the brain), hearing loss, seizures, and death. Measles can also make a pregnant woman have a miscarriage, give birth prematurely, or have a low-birth-weight baby.

### **Q3. How soon do symptoms appear?**

**A3.** Initial symptoms most commonly appear 8-12 days after exposure to an infected persons, with rash appearing a few days later. **If you have been exposed to measles and develop fever, runny nose, cough, red eyes, or rash, stay home and call your healthcare provider immediately.**

### **Q4. How long is an infected person able to spread the disease?**

**A4.** Infected people are most contagious from about 4 days before their rash starts until 4 days afterwards. People who are diagnosed with measles should stay home until 4 days after the start of the rash.

### **Q5. What is the treatment for measles?**

**A5.** There is no specific treatment for measles.

### **Q6. How is measles diagnosed?**

**A6.** Measles is diagnosed clinically and by laboratory testing of blood. Urine, throat, or respiratory specimens may also be requested. Orange County Public Health can assist with the testing at your healthcare provider's request. **Before seeing your healthcare provider, call ahead and let them know you may have measles so appropriate measures are taken in the office to prevent infection of others.**

### **Q7. How can I catch measles?**

**A7.** Measles is highly contagious. Infected people are usually contagious from about 4 days before their rash starts to 4 days afterwards. The measles virus can be spread through the air by droplets (sneeze or cough) and the droplets remain active and contagious on infected surfaces for up to 2 hours.

**Q8. Why is vaccination necessary?**

**A8.** Before measles vaccination became routine in the United States, more than 3 million persons were infected each year, 400–500 died, 48,000 were hospitalized, and another 1,000 developed chronic disability from measles encephalitis. Widespread use of measles vaccine has led to a greater than 99% reduction in measles cases in the United States compared with the pre-vaccine era.

Measles is still common in other countries. The virus is highly contagious and can spread rapidly in areas where vaccination is not widespread. In 2006 there were 242,000 measles deaths worldwide, equaling 663 deaths every day or 27 deaths every hour. If vaccinations were stopped, measles cases would return to pre-vaccine levels and hundreds of people would die from measles-related illnesses.

**Q9. Could I still get measles if I am fully vaccinated?**

**A9.** Very few people, about three out of 100, who get two doses of measles vaccine will still get measles if exposed to the virus. Experts aren't sure why; it could be that their immune systems didn't respond as well as they should have to the vaccine. But the good news is, fully vaccinated people who get measles are much more likely to have a milder illness, and they are also less likely to spread the disease to other people, including people who can't get vaccinated because they are too young or have weakened immune systems.

**Q10. Do I ever need a booster vaccine?**

**A10.** No. People who received two doses of measles vaccine as children according to the United States vaccination schedule are considered protected for life and do not ever need a booster dose.

Adults need at least one dose of measles vaccine, unless they have evidence of immunity. Adults who are going to be in a setting that poses a high risk for measles transmission, including students at post-high school education institutions, healthcare personnel, and international travelers, should make sure they have had two doses separated by at least 28 days.

If you're not sure whether you were vaccinated, talk with your doctor.

**Q11. Am I protected against measles?**

**A11.** You are considered protected from measles if you have written documentation (records) showing at least **one** of the following:

- You received **two** doses of measles-containing vaccine, and you are a(n)
  - school-aged child (grades K-12)
  - adult who was not vaccinated as a child and will be in a setting that poses a high risk for measles transmission, including students at post-high school education institutions, healthcare personnel, and international travelers.
- You received **one** dose of measles-containing vaccine, and you are a(n)
  - preschool-aged child
  - adult who was not vaccinated as a child and will not be in a high-risk setting for measles transmission
- A laboratory confirmed that you had measles at some point in your life
- A laboratory confirmed that you are immune to measles
- You were born before 1957

**Q12. What should I do if I'm unsure whether I'm immune to measles?**

**A12.** If you're unsure whether you're immune to measles, you should first try to find [your vaccination records](#) or documentation of measles immunity. If you do not have written documentation of measles immunity, you should get vaccinated with measles-mumps-rubella (MMR) vaccine. Another option is to have a doctor test your blood to determine whether you're immune, but this option is likely to cost more and will take two doctor's visits. There is no harm in getting another dose of MMR vaccine if you may already be immune to measles (or mumps or rubella).

**Q13. If the chance of the diseases is so low, why do I need the vaccine?**

**A13.** It is true that vaccination has enabled us to reduce measles and most other vaccine-preventable diseases to very low levels in the United States. However, measles is still very common, even epidemic, in other parts of the world. Visitors to our country and unvaccinated United States travelers returning from other countries can unknowingly bring (import) measles into the United States. Since the virus is highly contagious, such imported cases can quickly spread, causing outbreaks or epidemics among unvaccinated people and under-vaccinated communities.

To protect your children, yourself, and others in the community, it is important to be vaccinated against measles. You may think your chance of getting measles is small, but the disease still exists and can still infect anyone who is not protected.

**Q14. What kind of vaccine is given to prevent measles?**

**A14.** The MMR vaccine prevents measles and 2 other viral diseases, mumps and rubella. These 3 vaccines are safe given together. MMR is an attenuated (weakened) live virus vaccine. This means that after injection, the viruses grow and cause a harmless infection in the vaccinated person with very few, if any, symptoms. The person's immune system fights the infection caused by these weakened viruses and immunity develops which lasts throughout that person's life.

**Q15. How effective is MMR vaccine?**

**A15.** More than 95% of the people who receive a single dose of MMR will develop immunity to all 3 viruses. A second vaccine dose gives immunity to almost all of those who did not respond to the first dose.

**Q16. What is the most common reaction following MMR vaccine?**

**A16.** Most people have no reaction. However, 5-10 percent of the people receiving the MMR vaccine experience a low-grade fever and a mild rash.

**Q17. How common was measles in the United States before the vaccine?**

**A17.** Before the measles vaccination program started in 1963, more than 3 million people got measles each year in the United States. Of those people, 400 to 500 died, 48,000 were hospitalized, and 4,000 developed encephalitis (brain swelling) from measles.

**Q18. Is measles a concern for the United States?**

**A18.** Yes. Since measles is still common in many countries, this disease will continue to be brought into the United States. Measles is highly contagious, so anyone who is not protected against measles is at risk of getting the disease. People who are unvaccinated for any reason, including those who refuse vaccination, risk getting infected with measles and spreading it to others, including those who cannot get vaccinated because they are too young or have specific health conditions.

**Q19. Could measles ever re-establish itself in the United States?**

**A19.** Yes, it is possible that measles could become endemic (constant presence of a disease in an area) in the United States again, especially if vaccine coverage levels drop. This can happen when people:

- Forget to get vaccinated on time
- Don't know that they need a vaccine dose (this is most common among adults)
- Refuse vaccines for religious, philosophical or personal reasons

Research shows that people who refuse vaccines tend to group together in communities. When measles gets into communities with pockets of unvaccinated people, outbreaks are more likely to occur. These communities make it difficult to control the spread of the disease and make us vulnerable to having the virus re-establish itself in our country. High sustained measles vaccine coverage and rapid public health response are critical for preventing and controlling measles cases and outbreaks.

**Q20. What are the vaccine coverage levels like in the United States?**

**A20.** Overall, nationally, the rates of people vaccinated against measles have been very stable since the [Vaccines for Children \(VFC\)](#) program was introduced in 1994. In 2013, the overall national coverage for MMR vaccine among children aged 19-35 months was 91.9%. However, MMR vaccine coverage levels continue to vary by state. For example, in 10 states, 95% of the children aged 19-35 months in 2013 had received at least one dose of MMR vaccine, while in 17 other states, less than 90% of these children were vaccinated against measles. At the county or lower levels, vaccine coverage rates may vary considerably. Pockets of unvaccinated people can exist in states with high vaccination coverage, underscoring considerable measles susceptibility at some local levels. For more information about 2013 childhood vaccination coverage, see a [CDC MMWR](#).

**Q21. Will the United States ever get rid of measles completely?**

**A21.** Yes, it's possible. The first step is to eliminate measles from each country and region of the world. Once this happens, there will be no place from which measles can spread.

All member states in the six [World Health Organization regions](#) have committed to eliminating measles by the year 2020. Once a disease has been eliminated from every country, it is considered "eradicated" from the world. See the [Measles and Rubella Initiative](#) for more information.