

Occupational Safety and Health Administration

Measles

Measles Menu

Workers' Rights

Control and Prevention

General Guidance for Workers and Employers

To prevent or reduce workers' measles infection risk, employers whose workers are at risk of exposure to the measles virus should develop an infection control plan that addresses sources of measles exposure and provides infection prevention measures to reduce their risk.

The best way to prevent workers from getting measles on the job is to encourage workers at risk of exposure to get the measles, mumps, and rubella (MMR) vaccine if they have not already received it or if they have never had measles. Vaccination is safe and effective for the vast majority of people. When an employer is not covered by an OSHA standard that requires an infection control plan, voluntarily developing a plan that includes offering the MMR vaccine to employees who are at risk of exposure and encouraging them to get it, can help keep workers healthy. Workers may be more likely to get the vaccine if it is available to them at no cost.

Workers who are concerned about whether or not they are susceptible to measles and possible exposures to the virus should discuss those issues with their healthcare provider. The Centers for Disease Control and Prevention (CDC) [Pinkbook](#) (Pinkbook: Epidemiology and Prevention of Vaccine-Preventable Diseases) [measles chapter](#) provides more information about who should be vaccinated or revaccinated and the appropriate schedule for doing so.¹

In addition to encouraging vaccination, employers who are likely to have measles-infected individuals in the workplace, such as in healthcare facilities, should ensure that their infection control plans include procedures for early identification and prompt isolation of suspected and confirmed cases. Isolating infectious individuals from workers, visitors, patients, students, and others can help prevent exposures and infections. Employers may also plan to

keep workers, visitors, and others out of areas where a person with known or suspected measles has been for several hours until the air and environmental surfaces no longer pose an exposure hazard. Exposure prevention measures are also critical in other types of workplaces located in communities experiencing measles outbreaks.

As described on the [Standards page](#), OSHA's Personal Protective Equipment (PPE) standards (in general industry, [29 CFR 1910 Subpart I](#) and, in construction, [29 CFR 1926 Subpart E](#)) require gloves, eye and face protection, and respiratory protection to help prevent worker exposure to measles virus. OSHA's Bloodborne Pathogens (BBP) standard ([29 CFR 1910.1030](#)) also applies to workers who have occupational exposure to human blood, saliva in dental procedures, and other potentially infectious materials (OPIM) as defined in the standard. However, aside from saliva in dental procedures, the most common body fluids through which measles spreads are not covered by the BBP standard ([29 CFR 1910.1030](#)). Healthcare workers, childcare and school workers, and others who may be routinely exposed to potentially infectious body fluids may have some exposures that fall under the scope of the BBP standard and other exposures (such as to sputum or nasal secretions) that do not.

When the BBP standard applies, employers must implement universal precautions and other infection prevention measures, such as a written exposure control plan, engineering and work practice controls, PPE, and worker training. These measures could also serve as a framework to control infectious diseases like measles that are contracted through non-bloodborne exposures. A comprehensive infection control plan should include training on measles risks. A recommended best practice is for employers to explain measles risks to employees prior to them becoming pregnant.

Employers must provide disposable gloves and encourage employees to use them for any activities that involve contact with body fluids. Latex-free gloves, such as nitrile and vinyl, are preferred to prevent allergic reactions. Require workers to discard gloves immediately after use and to wash their hands, preferably with soap and water, rather than use an alcohol-based hand sanitizer. OSHA's [Personal Protective Equipment \(PPE\) Safety and Health Topics page](#) provides information on PPE selection and use.

Workplace surfaces that may be contaminated with body fluids should be cleaned regularly with disinfectant. Generally, EPA-registered disinfectants suitable for Hepatitis B viruses and HIV (i.e., those on [List D](#)) will be effective against the measles virus. Commonly contaminated areas include countertops, tables, desks, cabinets, chairs, doorknobs, telephones, faucet handles, and equipment. In addition to the previous items, childcare workers should consider disinfecting any toys or small objects that may be contaminated with a child's saliva or other body fluids.

If you think you have been exposed...

Any worker who thinks he or she may have been exposed to measles should take the following precautions:

- Notify his/her employer immediately.
- Notify his/her healthcare provider immediately. Healthcare providers may be able to provide post-exposure care that protects against or lessens the effects of measles. For example, as the [Medical Information page](#) mentions, the MMR vaccine is effective at preventing measles when administered to a susceptible person within 72 hours following exposure.
- Monitor his/her health. Early signs and symptoms of measles typically develop within 10-12 days. It may take up to 21 days following exposure for a rash to develop.
- Seek medical attention if he/she develops symptoms of measles.
- Before visiting a healthcare provider, alert the clinic or emergency room in advance about his/her possible exposure to measles so that arrangements can be made to prevent spreading it to others.
- When traveling to a healthcare provider, limit contact with other people. Avoid all other travel.

If you are located abroad, contact your employer for help with locating a healthcare provider. The U.S. embassy or consulate in the country where you are located can also provide names and addresses of local physicians.

Visit the [Standards page](#) for information about OSHA recordkeeping and reporting requirements that may apply if a worker contracts measles on the job.

Guidance for Protecting Specific Worker Groups

The following sections provide additional guidance for healthcare, childcare and school, laboratory, and environmental services workers; international travelers; and workers with pregnancy concerns. In some instances, workers in construction and other sectors may work in these types of environments. Such workers and their employers should follow the guidance relevant to the specific work environment and job tasks, and implement control measures based on hazards in the work environment and workers' exposure risks.

Healthcare Workers

As noted in the General Guidance for Employers section, employers of HCWs should implement measures for early identification and isolation of measles patients and encourage workers to get the MMR vaccine if they are not immune to measles already (i.e., through previous vaccination or having had the virus). Although the CDC considers people born before 1957 to be immune, healthcare employers should consider providing unvaccinated personnel with two doses of MMR vaccine at the appropriate interval—especially if they lack laboratory evidence of measles (or rubella or mumps) immunity or laboratory confirmation of immunity. Workers may be more likely to get the vaccine if it is available to them at no cost.

Implement standard and airborne precautions whenever suspected or confirmed cases of measles are present in the healthcare workplace. All HCWs should routinely follow airborne and standard precautions when triaging and caring for patients with suspected or confirmed measles—even if they have had the MMR vaccine. These precautions are necessary since, in very rare instances, the MMR vaccine may not completely protect workers against infection.

Standard precautions

Healthcare workers routinely have exposure to potentially infectious body fluids. Following the provisions of OSHA's BBP standard 29 CFR 1910.1030) and routinely following standard precautions, which expand universal precautions that the BBP standard requires, can help protect healthcare workers from potential sources of contact transmission.

Healthcare workers should use PPE, such as gloves, gowns, facemasks, and eye protection, whenever there is a chance that they may encounter body fluids. They should also follow good hand hygiene practices, including washing hands for at least 15 seconds with soap and running water or using alcohol-based hand rubs (ABHRs) that contain at least 60% alcohol when soap and running water are not available. Always wash hands immediately after glove and other PPE removal and before touching the eyes, nose, or mouth, as gloves are **not** a replacement for hand washing. Always wash hands that are visibly soiled.

Frequently sanitizing surfaces can also help prevent exposure to measles when those surfaces are contaminated.

Airborne precautions

In addition to barrier precautions for contact transmission (i.e., as mentioned above and described in the BBP standard (29 CFR 1910.1030), healthcare workers may also need respiratory protection when working in environments with potentially infectious patients or where such individuals have been within the previous two hours. For most exposures,

N95 or better respirators can prevent airborne transmission of measles. However, employers should evaluate the need for more protective respirators, such as powered air-purifying respirators (PAPRs), when HCWs perform aerosol-generating procedures (AGPs). If workers need respirators, they must be used as part of a comprehensive respiratory protection program that includes medical exams and fit testing and that meets the requirements of OSHA's Respiratory Protection standard (29 CFR 1910.134).

Childcare and School Workers

As noted in the General Guidance for Employers section, employers of childcare and school workers should implement measures for early identification and isolation of individuals with measles. Although sick children should be kept home from childcare centers and schools, children who become sick at a childcare center or school should be isolated away from other children and workers until they are able to be relocated (e.g., to a healthcare facility or their home).

Encourage workers to get the MMR vaccine if they are not immune to measles already (i.e., through previous vaccination, having had the virus, or living in the U.S. prior to 1957) and offer the MMR vaccine to workers who are at risk of exposure. Workers may be more likely to get the vaccine if it is available to them at no cost.

To minimize infection risk, childcare workers should treat all body fluids as if they are infectious, and avoid contact with sick children as much as possible.

Childcare workers should also wear gloves for all contact with children's body fluids and wash their hands frequently and thoroughly. Washing hands for at least 15 seconds with soap and water is more effective at removing germs, including measles, than using ABHRs, especially when hands are visibly soiled. Always wash hands immediately after glove removal and before touching the eyes, nose, or mouth, as gloves are **not** a replacement for hand washing. Always wash hands that are visibly soiled.

Laboratory Workers

Employers of laboratory workers should implement measures for early identification and isolation of individuals with measles, as well as procedures for identifying potentially infectious samples/specimens/materials before workers handle them. As noted in the General Guidance for Employers section, employers should encourage workers to get the MMR vaccine if they are not immune to measles already (i.e., through previous vaccination or having had the virus) and offer the MMR vaccine to workers who are at risk

of exposure. Although the CDC considers people born before 1957 to be immune, laboratory employers should consider providing unvaccinated personnel with two doses of MMR vaccine at the appropriate interval—especially if they lack laboratory evidence of measles (or rubella or mumps) immunity or laboratory confirmation of immunity. Workers may be more likely to get the vaccine if it is available to them at no cost.

Workers handling samples containing Measles morbillivirus (the measles virus) should work at biosafety level (BSL)-2, as outlined in the U.S. Department of Health and Human Services (HHS) publication [Biosafety in Microbiological and Biomedical Laboratories \(BMBL\)](#).

Generally, this includes working in a properly maintained Class II biosafety cabinet (BSC) with HEPA-filtered exhaust air whenever aerosol-generating procedures (AGPs) are being performed or when high concentrations or large volumes of pathogens, including Measles morbillivirus, are handled. Working in a BSC, or using alternative containment devices, can also reduce exposure risk associated with unintended aerosolization or splashes of infectious material.

Tasks that present aerosol exposure hazards that are not completely controlled by working in a BSC may require employers to provide respirators for workers. If workers need respirators, use, at a minimum, a NIOSH-certified N95 filtering facepiece respirator as part of a comprehensive respiratory protection program that includes medical exams and fit testing, and that meets the requirements of OSHA's Respiratory Protection standard ([29 CFR 1910.134](#)).

Workers should wear laboratory coats, gowns, smocks, or uniforms designated for the laboratory while working with hazardous materials, as well as gloves and eye and face protection (e.g., goggles, mask, and/or face shield, as appropriate).

Laboratory workers should wash their hands frequently. Washing hands for at least 15 seconds with soap and water is more effective at removing germs, including measles, than using alcohol-based hand rubs (ABHRs), especially when hands are visibly soiled. Always wash hands immediately after glove and other PPE removal and before touching the eyes, nose, or mouth, as gloves and other PPE are not a replacement for hand washing. Always wash hands that are visibly soiled.

Consult Section IV of the [BMBL manual](#) for more details on appropriate biosafety practices.

Environmental Services Workers

Employers of environmental services workers should implement measures for early identification and isolation of individuals with measles, as well as procedures for identifying potentially contaminated environments and environmental services before

such workers clean them.

As noted in the General Guidance for Employers section, employers should encourage workers to get the MMR vaccine if they are not immune to measles already (i.e., through previous vaccination, having had the virus, or living in the U.S. prior to 1957) and offer the MMR vaccine to workers who are at risk of exposure. Workers may be more likely to get the vaccine if it is available to them at no cost.

The General Guidance for Employers section also describes other control measures, including providing worker training, ensuring workers follow universal precautions, and providing and ensuring workers use appropriate PPE. For many environmental services tasks, dedicated work clothing and gloves may be sufficient to protect workers from exposure to the measles virus. However, workers who enter contaminated environments or have contact with contaminated surfaces—including where the measles virus remains infectious for the first several hours after an infectious person was in the environment—may need additional PPE, such as face and eye protection or respiratory protection, as described in the "Standard precautions" and "Airborne precautions" sections within this specific guidance for environmental services workers.

Employers may also need to consider ways to protect workers from exposure to hazardous chemicals used for cleaning and disinfection.

Environmental services workers and their employers should also follow guidance for the settings in which they work. For example, hospital environmental services workers should be familiar with (i.e., be trained on) infection prevention measures in their facilities and follow those protocols.

Standard precautions

Environmental services workers routinely have exposure to potentially infectious body fluids. Following the provisions of OSHA's BBP standard (29 CFR 1910.1030) and routinely following standard precautions, which expand universal precautions that the BBP standard requires, can help protect healthcare workers from potential sources of contact transmission.

Environmental services workers should use PPE, such as gloves, whenever there is a chance that they may encounter body fluids. They should also follow good hand hygiene practices, including washing hands for at least 15 seconds with soap and running water or using ABHRs that contain at least 60% alcohol when soap and running water are not available. Always wash hands immediately after glove and other PPE removal and before touching the eyes, nose, or mouth, as gloves and other PPE are **not** a replacement for hand washing. Always wash hands that are visibly soiled.

Airborne precautions

In addition to barrier precautions for contact transmission (i.e., as mentioned above and described in the BBP standard ([29 CFR 1910.1030](#)), environmental services workers may also need respiratory protection when working in environments with potentially infectious patients or where such individuals have been within the previous two hours. For most exposures, N95 or better respirators can prevent airborne transmission of measles. However, employers should evaluate the need for more protective respirators, such as powered air-purifying respirators (PAPRs), when environmental services workers perform aerosol-generating tasks (e.g., cleaning tasks that involve using pressurized sprays of water or cleaning chemicals). If workers need respirators, they must be used as part of a comprehensive respiratory protection program that includes medical exams and fit testing and that meets the requirements of OSHA's Respiratory Protection standard ([29 CFR 1910.134](#)).

Workers Who Are Pregnant or May Become Pregnant

Workers who are pregnant or may become pregnant should avoid potential measles exposures. They should be especially cautious when visiting or working in childcare facilities, healthcare facilities, schools, and other places of social gathering in communities with ongoing measles outbreaks.

Workers who are pregnant or may become pregnant should talk to a healthcare provider about whether to request reassignment to work in an environment where they are less likely to be exposed to measles (i.e., away from non-immunized children, inbound international travelers, members of the general public in outbreak-affected areas).

The Pregnancy Discrimination Act protects women who are pregnant or are planning to become pregnant from adverse employer actions that may result from notifying their employer of pregnancy plans or requesting reassignment due to pregnancy concerns. Workers at risk of exposure can be tested before becoming pregnant, but, as discussed on the [Medical Information](#) page, there is no consensus on these tests' utility.

Workers Who Travel Abroad

Before any international travel, [CDC recommends](#) that adults who do not have evidence of immunity against measles receive two doses of MMR vaccine separated by at least 28 days. Presumptive evidence of immunity against measles includes at least one of the following: written documentation of adequate vaccination, laboratory evidence of immunity, laboratory confirmation of measles, or birth in the United States before 1957.² Employers should encourage workers to discuss their vaccination status with their healthcare provider well in advance of any work-related travel abroad.

Employers should consider allowing flexibility in required travel, including delaying travel to areas with ongoing measles outbreaks, especially for workers who are concerned about measles exposure. This includes workers who are not vaccinated (e.g., those with health conditions that preclude vaccination), who are or may become pregnant, or whose sexual partners or household contacts are or may become pregnant. CDC guidance for travel to measles-affected areas may also help employers and workers in travel-related operations, such as airline crewmembers and cruise line workers, take appropriate precautions.

When traveling to or through measles-affected areas, follow the precautions described on the Control and Prevention page for specific work activities.

¹ Hamborsky, J., Kroger, A., & Wolfe, C.S. (2015). Pinkbook: Epidemiology and Prevention of Vaccine-Preventable Diseases. Atlanta, GA: U.S. Department of Health and Human Services (HHS), Centers for Disease Control and Prevention (CDC).

² U.S. Department of Health and Human Services (HHS), Centers for Disease Control and Prevention (CDC). Measles (Rubeola) – For Travelers.

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