



Measles Post-Exposure Prophylaxis (PEP) for Non-Symptomatic Susceptible Contacts

To determine appropriate post-exposure prophylaxis:

1. Determine patient's risk factor and identify time from first exposure to measles case. Refer to [Appendix E of the WA DOH Measles Guideline](#) for algorithm to assess for exposure.
2. PEP should only be given to a person without evidence of immunity as listed in [footnote #4](#).
3. Read the reminders and footnotes for definitions and special considerations.
4. Contact the [Local Health Jurisdiction \(LHJ\)](#) with questions or if further guidance is needed.

Post-Exposure Prophylaxis Recommendations

General

- Prioritize people at high risk for severe illness and complications from measles to receive immune globulin (IG). These include:
 - Infants <12 months,
 - Susceptible pregnant women, and
 - Severely immunocompromised individuals (regardless of previous measles vaccination status).
- IG is not indicated for persons who have received one or more doses of measles-containing vaccine at age 12 months or older, unless they are severely immunocompromised.
- Persons do not need IGIV if:
 - They have already received or are currently receiving IGIV therapy at a dose of 400 mg/kg within 3 weeks before measles exposure.
 - They received subcutaneous IG (IGSC) at a dose of ≥ 200 mg/kg for 2 consecutive weeks up to or through their measles exposure.

Contraindications

- IG should not be given to people with immunoglobulin A (IgA) deficiency. Persons with IgA deficiencies have the potential for developing antibodies to IgA and therefore could experience an anaphylactic reaction when IG is administered.
- IGIM should not be administered to persons with severe thrombocytopenia or any coagulating disorder that would contraindicate intramuscular injections.
- History of anaphylactic reaction to a previous dose of IG.

Precautions

- Pregnancy: It is unknown whether IG can cause fetal harm when administered to a pregnant woman or if it could affect reproduction.
- Careful administration in persons reporting a history of systemic allergic reaction following the administration of IG.

Recommended Dose and Timing of Measles PEP

Risk Factor	Time from First Exposure ¹	
	<72 hours	72 hours through day 6
Infant less than 6 months old	Give intramuscular IG ² (IGIM): 0.5 mL/kg ³	Give IGIM: 0.5 mL/kg ³
Infant age 6 through 11 months	Give IGIM ² : 0.5 mL/kg ³ or Give MMR ¹ vaccine	Give IGIM ² : 0.5 mL/kg ³
Susceptible⁴ pregnant woman	Give intravenous IG ² (IGIV): 400 mg/kg	Give IGIV ² : 400 mg/kg
Severely immunocompromised⁵	Give IGIV ² : 400 mg/kg	Give IGIV ² : 400 mg/kg
Susceptible close contact over 1 year old⁶	Give MMR ² vaccine if no contraindications	Can consider giving IGIM ² : 0.5 mL/kg ³ to those <66 pounds

Footnotes

1. Timing of PEP

There is evidence that the efficacy of either form of PEP for preventing measles disease is greatest when administered as soon as possible after exposure.

2. Receipt of MMR after IG or IG after MMR

MMR after IG: Any susceptible person exposed to measles who received IG should subsequently receive MMR vaccine provided the person is 12 months of age or older and the vaccine is not otherwise contraindicated. MMR vaccine should be administered:

- No earlier than 6 months after IGIM administration
- No earlier than 8 months after IGIV administration

IG after MMR: If IG is administered within 2 weeks following the administration of MMR or varicella vaccine, the individual should be revaccinated. MMR vaccine should be administered:

- No earlier than 6 months after IGIM administration
- No earlier than 8 months after IGIV administration

3. IGIM dosing: Intended for use in persons weighing less than 30 kg (66 lbs).

- Administer 0.5 mL/kg of intramuscular IG (IGIM) in the anterolateral aspect of the upper thigh(s). Do not follow package inserts that indicate a 0.25 mL/kg dose as this lower dose does not reflect current ACIP recommendations.
- Do not administer more than 3mL of IGIM per injection site; for infants and children weighing >6 kg, multiple injections are required.
- The maximum **total** dose per IGIM administration is 15 mL.
- **Note:** Persons weighing >30 kg (66 lbs) who receive IGIM are unlikely to receive an effective dose and will still be recommended exclusion and social distancing; IGIV can be used, but only in special situations, see footnote 6.

4. Susceptible: PEP should only be given to a person without any evidence of immunity. Acceptable evidence of immunity (for purposes of PEP decision making) includes at least one of the following
 - One or more documented doses of live measles virus-containing vaccine administered on or after the first birthday for children and adults who are not severely immunocompromised; **or**
 - Laboratory evidence of immunity; **or**
 - Birth before 1957 regardless of nationality; **or**
 - Documentation of laboratory confirmed disease
5. Severely immunocompromised, includes measles contacts with:
 - Severe primary immunodeficiency (regardless of age, vaccination status, or type of exposure);
 - Bone marrow or stem cell transplant recipients who are receiving immunosuppressive treatment, or completed treatment within past 12 months (or longer if developed graft-versus-host disease);
 - Persons currently receiving treatment for Acute Lymphocytic Leukemia (ALL) or who completed chemotherapy for ALL within previous 6 months;
 - Persons living with AIDS and HIV-infected persons with CD4 T-lymphocyte percent less than 15 percent (any age) or CD4 T-lymphocyte count less than 200 lymphocytes/mm³ (over age 5 years), and
 - Persons who have not received MMR since starting to take Anti-Retroviral Therapy,
 - Also consider HIV-infected persons without recent confirmation of immunologic status or measles immunity;
 - Persons receiving daily corticosteroid therapy with a dose ≥ 20 mg (or > 2 mg/kg/day for patients who weigh < 10 kg) of prednisone or equivalent for ≥ 14 days; and
 - Persons receiving certain immunomodulatory medications (e.g., tumor necrosis factor-alpha (TNF- α) blockers).
6. Susceptible close contact over 1 year old:
 A susceptible contact is a person over 1 year of age without documentation of at least 1 MMR or other evidence of immunity (as listed in #4) and has been exposed in settings with prolonged close contact (e.g., household, child care, classroom). The [LHU](#) will help determine who is a close contact.

References

[CDC. Prevention of Measles, Rubella, Congenital Rubella Syndrome, and Mumps 2013. MMWR 2013;62\(No. 4\):1-40.](#)

Additional Resources

Washington State Department of Health Resources

- [Washington State Measles Reporting and Surveillance Guideline, Appendix E: Algorithm for assessment and management of persons with definite exposure to measles and public callers with possible exposure to measles at a public site](#)

CDC Resources

- [Measles information for Healthcare Professionals](#)
- [Manual for the Surveillance of Vaccine Preventable Diseases; Chapter 7: Measles](#)

Questions?

Office of Communicable Disease Epidemiology
 206-418-5500 CommDisEpi@doh.wa.gov

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