



http://www.cdhd.wa.gov

December 2013

CHELAN-DOUGLAS PUBLIC HEALTH

Current Conditions of Interest

TO REPORT A NOTIFIABLE CONDITION:

Phone (509) 886-6400

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After hours call:

(509) 886-6499

"Always Working for a Safer and Healthier Community"

Measles

Link: [Washington State department of Health Measles Surveillance and Guidelines, January 2011](#)

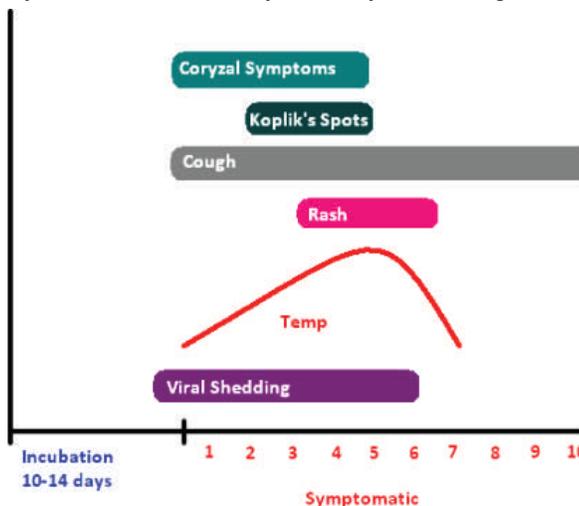
Measles is characterized by a generalized maculopapular rash, fever, and one or more of the following: cough, coryza, or conjunctivitis.

Measles has a distinct prodrome that begins with fever and malaise. Additional **symptoms can be conjunctivitis, coryza (sneezing, nasal congestion, and nasal discharge), cough**, photophobia, and Koplik's spots (which are pathognomonic but uncommonly observed). These spots are seen as bluish-white specks on a rose-red background appearing on the buccal and labial (lip) mucosa usually opposite the molars.



Quick Reference:

- Incubation period is typically 10-14 days, followed by the symptomatic phase, of typically 7-10 days.
- Patient is infective for the last 2 days of incubation (i.e. **before symptoms are apparent!**), and for the first 6 days of the symptomatic phase.
- **Fever** – of at least 101 and temperature increases from day 1-5, peaks at day 5, before falling.
- **Koplik's spots** –these are small white spots on the buccal mucosa. Visible usually from days 2-5. These are **diagnostic for measles, but often not seen, and when present are transient.**
- **Cough** – usually apparent through the whole symptomatic phase
- **Conjunctivitis and Coryzal Symptoms** – days 1-5.
- **Rash!** – this usually starts off behind the ears, and spreads down the body. Initially a maculopapular rash, it typically expands and becomes indistinct. Usually lasts from about days 3-7, but there is a possibility of desquamation towards the end.
- **When to exclude?** Until at least 4 days after the onset of the rash. Typically, viral shedding stops around day 6, and the rash starts at day 3. This allows 2 days leeway, excluding the child from school until at least day 8.





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Measles cont.

The time from **exposure to onset of fever ranges from 7–18 days** (average 10 days), with the **rash onset usually occurring within 2–4 days** after the first symptoms appear and up to 21 days after the exposure. For investigation purposes, the “exposure period” is defined as 7–21 days prior to rash onset.

The prodrome generally lasts 2–4 days before the rash occurs. The rash is maculopapular and **begins on the head** often along the hairline and spreads downward reaching the hands and feet. In severe cases, the lesions usually become confluent, especially on the face and upper body. Diarrhea occurs in 8% of cases.

Temperatures may exceed 40°C (104°F), and usually fall 2–3 days after rash onset. High fever persisting beyond the third day of the rash suggests that a complication may have occurred.

Complications of measles include otitis media (7%), pneumonia (6%), and encephalitis (0.1%). Death occurs in 1–3 per 1,000 cases in the United States.

Measles is most communicable from the onset of prodrome through the first 3–4 days of rash. For investigation purposes, the “**contagious period**” is defined as the time from the 4th or 5th day prior to the date of rash onset until 4 days after the date of rash onset. Immunocompromised persons should be considered contagious for the duration of the illness.

Because two doses of measles-mumps-rubella (MMR) vaccine are part of the routine childhood immunization schedule, measles is rarely reported in Washington. **Most measles in the United States results from or can be linked to importation** from areas where measles is still endemic. In most years, fewer than 5 cases are reported in Washington.

Persons suspected to have measles should be advised to do the following during the contagious period (until 4 days have passed since the onset of the rash or for the duration of illness if the patient is immunocompromised):

- stay home and not go to child care, school, work, public places or social activities;
- prohibit contact with susceptible children (particularly infants), susceptible pregnant women, and immunosuppressed individuals;
- avoid contact with susceptible family members and visitors; and
- avoid exposing other people at health care facilities by calling ahead and making special arrangements to prevent contact with others.

Link: [Washington State department of Health Measles Surveillance and Guidelines, January 2011](#)



Meningococcal Disease

Link: [Washington State department of Health Measles Surveillance and Guidelines, February 2011](#)

Invasive meningococcal disease most commonly presents as meningitis, meningococemia, or both. Symptoms of meningococcal meningitis include **acute onset of fever, headache, and stiff neck, often accompanied by nausea, vomiting, photophobia, and altered mental status**. Symptoms of meningococemia (i.e., blood infection) include acute onset of fever often accompanied by hypotension and shock, and may include a petechial or purpuric rash, purpura fulminans, and multiorgan failure.

1 confirmed case of meningococcal disease was diagnosed in the Chelan-Douglas Health District jurisdiction in December 2013.

Asymptomatic colonization of the upper respiratory tract provides the source from which the organism is spread. *N. meningitidis* organisms are carried in the nasopharynx of about 5–10% of the healthy population. Carrier rates of up to 25% have been documented in some groups in the absence of any cases of meningococcal disease. However, less than 1% of those colonized develop invasive disease. Therefore, colonization is common, but invasive disease is very rare.

Transmission occurs through **respiratory droplets or by direct contact with nasopharyngeal secretions** from a colonized person – symptomatic or otherwise. Risk of disease in close contacts is highest during the 10-day period following exposure.

Persons can transmit the organism to others as long as meningococci are present in nasal or pharyngeal secretions. Cases should be considered infectious from the time they are exposed until 24 hours after initiation of treatment or chemoprophylaxis with appropriate antibiotics. Contacts exposed to the patient 7-10 days or more before his/her onset of illness are not at significantly increased risk.

Persons who had close contact with the case **during the 7 days prior to onset** until 24 hours after initiation of appropriate antibiotics should be offered prophylaxis. Additionally, persons with obvious exposures (such as kissing) up to 10 days prior to case onset may also be considered for prophylaxis.

Since contacts are at highest risk of becoming ill immediately after the onset of the case, prophylaxis should be initiated as soon as possible, ideally less than 24 hours after identification of the index patient.

Table 3: Schedule for administering chemoprophylaxis against meningococcal disease

| Drug | Age group | Dosage | Duration and route of administration* |
|----------------------------|-----------------------|---|---------------------------------------|
| Rifampin [†] | Children aged <1 mo | 5 mg/kg body weight every 12 hrs | 2 days |
| | Children aged ≥1 mo | 10 mg/kg body weight every 12 hrs (max 600 mg/dose) | 2 days |
| | Adults | 600 mg every 12 hrs | 2 days |
| Ciprofloxacin [®] | Adults (≥18 yrs old) | 500 mg | Single dose |
| Ceftriaxone | Children aged <15 yrs | 125 mg | Single IM dose |
| | Adults | 250 mg | Single IM dose |