

**Mission:**

To protect, promote & improve the health of all people in Florida through integrated state, county & community efforts.



**Vision:** To be the Healthiest State in the Nation

**Rick Scott**  
Governor

**John H. Armstrong, MD, FACS**  
State Surgeon General & Secretary

February 3, 2015

Dear Colleague:

With the ongoing multistate measles outbreak, it is imperative to review what we know about this highly infectious but vaccine-preventable disease since most clinicians have never seen a case. While there have been no confirmed measles cases in Florida residents, we have seen confirmed cases in visitors, some of whom were evaluated by Florida healthcare providers but not tested or diagnosed.

Measles is a highly contagious disease, transmitted by respiratory aerosols when an infected person coughs or sneezes. The virus can live for up to two hours on surfaces or in an airspace where the infected person coughed or sneezed. The incubation period ranges from 7-21 (average 10-12) days and an individual can pass the virus to others before feeling ill. The prodromal signs and symptoms of measles include: fever, malaise, coryza, cough, conjunctivitis, and the pathognomonic enanthema—Koplik spots—on the oral mucosa. Please note: the presence of Koplik spots confirms measles, but the absence of Koplik spots does not rule it out, as it is present in only a small percentage of cases.

**An erythematous maculopapular rash typically appears ~3 days after onset of illness and the ill person continues to be infectious for about 4 days after rash appears.** The rash initially appears behind the ears and on the forehead, spreading down the neck, upper extremities, trunks, and lower extremities (including palms and soles). Rash may last for 5-7 days before fading. Complications from measles may include: otitis media, bronchopneumonia, laryngotracheobronchitis, diarrhea, acute encephalitis, and death. The attached document and following link provide an overview of what a patient infected with measles looks like, [www.cdc.gov/measles/about/photos.html](http://www.cdc.gov/measles/about/photos.html).

**Please isolate and report suspect measles cases to the county health department immediately** ([www.floridahealth.gov/CHDEpiContact](http://www.floridahealth.gov/CHDEpiContact) and [www.floridahealth.gov/DiseaseReporting](http://www.floridahealth.gov/DiseaseReporting)). For patients presenting with fever, rash and other symptoms, consider measles in your differential and inquire about MMR vaccine status, recent international travel, and exposure to a person with febrile rash illness. Collect serum, nasopharyngeal swab, and clean catch urine sample for IgM or RNA from suspect patients and isolate them until four days after the onset of rash while awaiting laboratory results. Local health department staff will conduct a contact investigation and provide guidance as needed.

**Remember, the best way to prevent the spread of measles is to ensure full MMR vaccine coverage in our community.** Identify and offer vaccine to patients that have not received the full series ([www.cdc.gov/measles](http://www.cdc.gov/measles)). Thank you for your help in keeping our community safe and healthy.

Sincerely,

Anna Marie Likos, MD, MPH  
State Epidemiologist and Director,  
Division of Disease Control & Health Protection



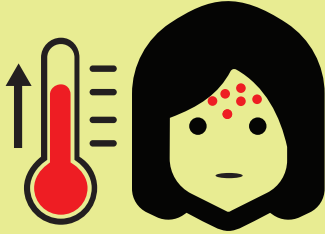
# Think Measles

Florida Department of Health • Find county contact information at: [FloridaHealth.gov](http://FloridaHealth.gov)

## 1. IDENTIFY

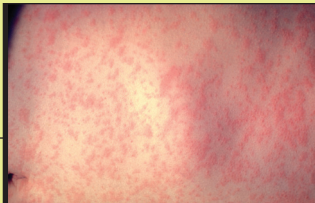
### Suspect measles in patients with:

- Fever and rash.
- History of international travel or contact with visitors from locations with known measles outbreaks in the past 3 weeks.
- No or unknown MMR vaccine status. History of MMR vaccine **does not** exclude a measles diagnosis.



This is the skin of a patient after 3 days of measles infection.

Photo courtesy of the CDC.



Head and shoulders of boy with measles; third day of rash.

Photo courtesy of the CDC.



## 2. ISOLATE

- Implement airborne infection control precautions, mask and isolate patient in a negative pressure room, if available.
- Permit only staff immune to measles to be near the patient.
- Collect nasopharyngeal swab, urine, and serum for measles IgG, IgM and PCR.



## 3. INFORM

**Immediately report ALL suspected measles infections to your county health department. Notify other facilities of suspected measles before transport.**



< FIND YOUR COUNTY

## Vaccination Protects Against Measles

**A single dose is 93% effective and two doses are 97% effective.**

### Risk Factors

- History of international travel, contact with international travelers, or domestic travel to locations with known measles outbreaks.
- No or unknown MMR vaccine status. History of MMR vaccine does not exclude a measles diagnosis.
- Contact with a person that had a febrile rash illness.

### Prodrome

- Fever, cough, coryza, conjunctivitis

### Rash Onset

- Fever spikes, often up to 104°F.
- Red, maculopapular rash that may become confluent—typically starts at hairline, then face and spreads down body.
- The rash may be difficult to see on darker skin.
- Koplik's spots (small, red, irregularly-shaped spots with blue-white centers found on the oral mucosa) may be present in a small number of cases.

