

# Shingles (Herpes Zoster)

**NON-REPORTABLE DISEASE**

Directory of Local Health Departments in New Jersey, available at:  
<http://www.state.nj.us/health/lh/directory/lhdselectcounty.shtml>



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# 1 THE DISEASE AND ITS EPIDEMIOLOGY

## I. Etiologic Agent

**Herpes zoster (shingles)** is caused by the same virus as chickenpox, the varicella-zoster virus (VZV). The virus has the capacity to persist in the body as a latent infection after the primary infection (chickenpox). **Shingles** results from reactivation of the latent infection. Vaccines to prevent primary varicella and shingles are available and routinely recommended.

## II. Clinical Description

VZV remains in a latent state in human nerve tissue and reactivates in approximately 30% of infected persons during their lifetime, resulting in shingles. Shingles is a painful rash that develops on one side of the face or body. The rash usually presents as blisters that typically scab over in 7 to 10 days and resolve within 2 to 4 weeks. Other symptoms of shingles can include fever, headache, chills, and upset stomach. Post-herpetic neuralgia, which may last for weeks to months, is defined as pain that persists after resolution of the shingles rash. Ocular nerve and other organ involvement with shingles can occur, often with severe sequelae. Shingles incidence increases with age, especially after age 60. It is more common among immunocompromised persons and among children with a history of intrauterine varicella or varicella occurring within the first year of life; the latter have increased risk of developing shingles at an earlier age.

**Shingles is currently a non-reportable disease/condition in New Jersey.**

## III. Modes of Transmission

Exposure to chickenpox does NOT cause shingles. Exposure to shingles can result in chickenpox in a susceptible person, but CANNOT cause shingles. Transmission of chickenpox from someone infected with shingles occurs from having direct contact with the lesions of the person infected with shingles, or inhalation of aerosols from vesicular fluid.

## IV. Incubation Period

Shingles has no incubation period; it is caused by reactivation of latent infection from primary chickenpox disease.

## V. Period of Communicability or Infectious Period

The infectious period for shingles is until all lesions have crusted over.

## VI. Background

Shingles occurs worldwide and has no seasonal variation. The most striking feature in the epidemiology of shingles is the increase in incidence found with increasing age. Approximately 30% of the general population will experience shingles during their lifetime.

## 2 LABORATORY TESTING

Laboratory confirmation is not usually indicated, as the signs and symptoms of shingles are usually distinctive enough to make a clinical diagnosis. However, laboratory testing may be useful in individuals with less typical clinical presentations. For additional information on shingles testing, please visit: <http://www.cdc.gov/shingles/hcp/diagnosis-testing.html>

Immunity testing of exposed contacts is not routinely recommended, although it may be recommended in certain circumstances (e.g., for pregnant women and other high-risk contacts, and in healthcare settings).

**Note: laboratory confirmation does not distinguish between chickenpox and shingles. Information from the provider is necessary to make this distinction when positive labs are entered into CDRSS.**

## 3 PURPOSE OF SURVEILLANCE AND REPORTING REQUIREMENTS

Currently, NJDOH does not require reporting of shingles cases.

## 4 CASE INVESTIGATION

When a positive VZV laboratory result is received, it is the health officer’s responsibility to investigate in order to determine whether the result indicates chickenpox (reportable) or shingles (non-reportable). The pertinent information in order to make this determination can usually be obtained by interviewing the patient and provider.

If the patient or provider indicate that the final diagnosis was shingles (**not chickenpox**), the information needed in CDRSS for case close out is as follows:

### I. Entry into CDRSS

The mandatory fields in CDRSS include disease, last name, county, municipality, gender, race, ethnicity, case status, and report status.

The following table can be used as a quick reference guide to determine which CDRSS fields need to be completed for accurate and complete reporting of varicella cases. The “Tab” column includes the tabs that appear along the top of the CDRSS screen. The “Required Information” column provides detailed explanations of what data should be entered.

Tab	Required Information
<b>Patient Info</b>	Enter the disease name (“VARICELLA”), patient demographic information, illness onset date, and the date the case was reported to the LHD. There are no subgroups for varicella.
<b>Clinical Status</b>	Under <u>Initial Diagnosis</u> , type “Shingles”. Enter appropriate <u>Patient Classification</u> and <u>Mortality</u> status.
<b>Case Comments</b>	Write a comment with information regarding who stated case was diagnosed with shingles. Enter any other general comments (i.e., information that is not discretely captured by a specific topic screen or drop-down menu) in the <u>Comments</u> section. NOTE: Select pieces of information entered in the <u>Comments</u> section CANNOT be automatically exported when generating reports. Therefore, whenever possible, record information about the case in the fields that have been designated to capture this information; information included in these fields CAN be automatically exported when generating reports.
<b>Case Classification Report Status</b>	Close case out with a Case Status of “Not a Case”, and report status of “LHD Closed”.  “LHD CLOSED” cases will be reviewed by NJDOH and be assigned one of the DHSS-specific report status categories. If additional information is needed on a particular case, the report status will be changed to “REOPENED” and the LHD will be notified by e-mail. Cases that are “DHSS APPROVED” cannot be edited by LHD staff.

# 5 CONTROLLING CHICKENPOX SPREAD FROM SHINGLES

## I. Isolation and Quarantine Requirements

There are no isolation or quarantine requirements for shingles. However, recommendations are as follows:

The virus that causes chickenpox is present in the shingles lesions. Therefore, persons with shingles must be very careful about personal hygiene and wash their hands if they touch their lesions. The lesions should be completely covered until the rash is crusted over and dry. However, if the shingles rash cannot be completely covered, it is advisable that adults and children with shingles stay home.

Those with disseminated shingles and immunocompromised people with either localized or disseminated shingles can transmit chickenpox virus via the airborne route and should stay home. If hospitalized, patients should remain on standard, airborne, and contact precautions until lesions are dry and crusted.

## II. Protection of Contacts of a Case of Shingles

Control measures are the same as for chickenpox, and include identifying all those exposed, and vaccination of eligible, susceptible contacts. For more information on control measures, please see section 6.II. in the chickenpox chapter found here:

<http://nj.gov/health/cd/varicella/techinfo.shtml>

Please note:

- “Exposure” to uncomplicated shingles is defined as contact with lesions, such as through close patient care, touching, or hugging.
- “Exposure” to disseminated shingles and localized or disseminated shingles in an immunocompromised person is defined as (a) contact with lesions, such as through close patient care, touching, or hugging, or (b) sharing indoor airspace with the infectious person (e.g., occupying the same 2- to 4-bed ward or adjacent beds in a large ward).

## III. Managing Shingles in Healthcare Settings (including acute and long-term care facilities)

As stated in the chickenpox chapter, all health care institutions should ensure that healthcare personnel have evidence of immunity, and that the evidence of immunity is documented and available if needed. If immune status is unknown, testing for serologic immunity is recommended following an exposure.

For shingles cases in healthcare settings, the following measures should be considered:

**A. Prevent exposure to the case, as follows:**

Staff:

- **Staff with localized shingles** should cover lesions and should not care for high-risk patients (for example, patients who are immunocompromised or pregnant) until their skin lesions have become dry and crusted.
- **Staff with disseminated shingles and immunocompromised staff with shingles** should be excluded for the duration of their illness.
- **Conduct surveillance for chickenpox for 21 days (1 incubation period) after the last exposure to shingles.** For those who received VariZIG and where immunocompromised individuals are involved, surveillance should continue for **28 days.**

Patients:

- **Patients with localized shingles** should be cared for using standard precautions until all lesions are crusted. Current or prospective roommates should be immune or get vaccinated.
- **Patients with disseminated shingles and immunocompromised patients with shingles** (either localized or disseminated) require standard, airborne, and contact precautions until all lesions are dry and crusted.
- **Conduct surveillance for chickenpox for 21 days (1 incubation period) after the last exposure to shingles.** For those who received VariZIG and where immunocompromised individuals are involved, surveillance should continue for **28 days.**

**B. Identify all those exposed.** See definitions of exposure in section 5.II. above.

**C. Identify high risk susceptible patients/staff among the exposed.** See section 6.II.B. in chickenpox chapter (found at: <http://nj.gov/health/cd/varicella/techinfo.shtml>) for examples of high risk susceptibles. VariZIG should be considered for these populations as soon as possible following an exposure, and within 10 days.

**D. Identify (and consider recommending vaccination for) eligible susceptibles among the exposed.** Susceptibles are those without history of chickenpox or shingles, documentation of prior vaccination against chickenpox, or serologic proof of immunity. Vaccinating someone who is incubating chickenpox or is immune is not harmful. If vaccine is given following exposure, recipients should be informed that chickenpox could occur in spite of vaccination.

**E. Discharge or isolate exposed susceptible patients.** Discharge all exposed, susceptible patients as soon as possible. Isolate on airborne precautions all such patients who cannot be discharged from day 8 to day 21 after exposure. Those who have received VariZIG must remain in isolation until day 28.

- a. Note: In the event that there is a neonate exposed to a mother or other person with active shingles, please contact NJDOH for further guidance on isolation recommendations.

- F. Exclude exposed susceptible healthcare personnel.** Decisions about excluding exposed susceptible staff will depend on such factors as the setting (e.g., neonatal unit versus long-term care facility for elderly), degree of direct patient contact, and whether or not the staff person received vaccine within three days of exposure. The NJDOH recommendation is to exclude all exposed susceptible staff from direct patient contact and possibly from the entire workplace from day 8 to day 21 after exposure. However, before instituting any exclusions, please consult with the NJDOH.
- G. Conduct surveillance for chickenpox for 21 days** (1 incubation period) after the last exposure to shingles. For those who received VariZIG and where immunocompromised individuals are involved, surveillance should continue for 28 days.

**REFERENCES**

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