

# Varicella Laboratory Testing Guidelines

Polymerase chain reaction (PCR) is the preferred diagnostic test for confirmation of varicella infection. Direct fluorescent antibody (DFA) and culture are also appropriate tests for diagnosing varicella infection but are less sensitive than PCR. Commercial serological tests for varicella IgM or IgG are not standardized and lack appropriate sensitivity and specificity to identify acute disease. Laboratory confirmation of varicella is important to confirm disease, identify breakthrough infection or atypical disease, confirm outbreaks, and establish a cause of death.

For a best practices guide on diagnostic tests for varicella, visit [www.cdc.gov/chickenpox/hcp/lab-tests.html](http://www.cdc.gov/chickenpox/hcp/lab-tests.html).

## Specimen Collection and Handling

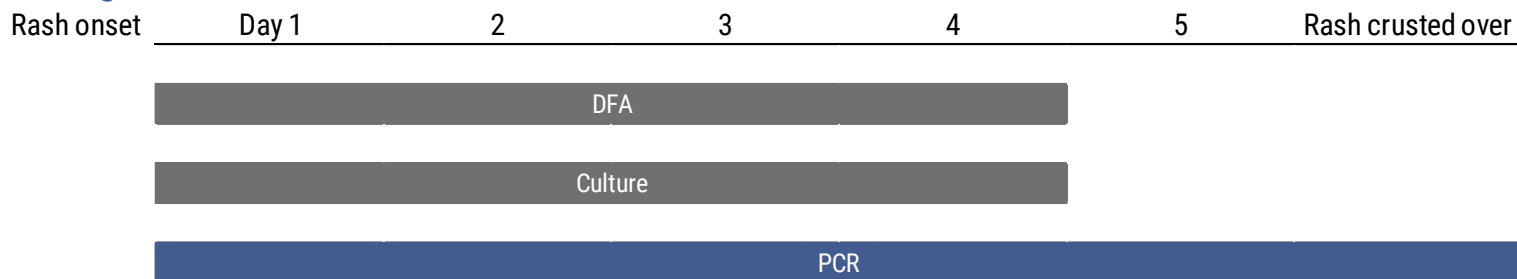
Vesicular swabs, scrapings, or fluid obtained using a synthetic swab (such as polyester) is the preferred specimen for varicella PCR testing. Specimens should be shipped dry; **do not** suspend specimens in transport medium for PCR testing. Specimens should be stored and shipped at room temperature.

For more information on collecting specimens for PCR testing and where to obtain materials for testing, visit [www.cdc.gov/chickenpox/lab-testing/collecting-specimens.html](http://www.cdc.gov/chickenpox/lab-testing/collecting-specimens.html).

## Ordering Testing

Test Type	Materials	Outbreak or Atypical Testing	Routine Testing
PCR	Sterile needle, sterile synthetic swab, tube for transport	Florida Bureau of Public Health Laboratories (BPHL) - Jacksonville and Tampa	Commercial or hospital laboratories
DFA	Glass slide, sterile synthetic swab, tube for transport or slide holders	Not available	Commercial or hospital laboratories
Culture	Sterile synthetic swab, transport medium, tube for transport	BPHL-Tampa	Commercial or hospital laboratories

## Testing Timeline



## Summary of Varicella Diagnostic Tests

Test Type	Specimen	Strengths	Weaknesses
PCR	Vesicular swabs or scrapings, scabs from crusted lesions	Gold standard; sensitive; specific for varicella; rapid	None noted
DFA	Vesicle scraping, swab of lesion base (must include cells)	Specific for varicella; rapid	Less sensitive than PCR tests
Culture	Vesicular fluid	Specific for varicella	Costly; not timely; not as sensitive
Serology	Serum	Specific for varicella; indicates past varicella infection or vaccination	Low sensitivity; inconsistent; most reliable if person has no history of varicella vaccination or disease

For more information about varicella surveillance, visit [FloridaHealth.gov/varicella](http://FloridaHealth.gov/varicella). For additional questions, please contact your local county health department.

