

# Oregon State Public Health Laboratory (OSPHL) – Get to Know Your Lab!



Oregon  
Health  
Authority

503-693-4100

[www.healthoregon.org/phl](http://www.healthoregon.org/phl)

# Get to Know Your Lab...

- Review OSPHL scope & lab services
- How to find what you need
  - Available tests
  - Ordering test kits
  - Specimen collection and storage
- An intro to packing and shipping specimens

# Question

Have you worked with OSPHL  
in the past? How often?

# OSPHL Scope & Services

- Laboratory Compliance (CLIA, ORELAP)
- Laboratory Operations (e.g., receiving, data entry, test kits)
- Administration, Policy, and Informatics
- General Microbiology
- Virology and Immunology
- Newborn Screening



# General Microbiology

- Bacteriology
  - Culture (isolation and reference testing)
  - Biothreat agents
- Foodborne outbreak support (bacterial subtyping)
- Tuberculosis testing
  - QuantiFERON®
  - TB susceptibility testing
- Water microbiology
- Special projects



# Virology and Immunology

- Sexually transmitted infections (STIs)
  - Chlamydia, gonorrhea, HIV, hepatitis
- Norovirus and other gastrointestinal viruses
- Influenza, SARS-CoV-2, and other respiratory viruses
- Viral biothreat agents
- Special projects



# Newborn Screening

- Screening for heritable disorders
  - Hemoglobinopathy Screening (e.g. Sickle Cell Disease)
  - Endocrine Screening (e.g. Hypothyroidism)
  - Metabolic Screening (e.g. PKU)
  - Severe Combined Immunodeficiency (SCID) Screening
  - Cystic Fibrosis Screening
  - Lysosomal Storage Disorders
  - Spinal Muscular Atrophy (SMA)
- Regional testing program
  - Oregon, New Mexico, Navajo Nation, some military bases
- Screen for over 40 disorders per specimen



# How to Find The Answers

## The State Lab Test Menu

[www.healthoregon.org/phl](http://www.healthoregon.org/phl)





# Answers from the Test Menu

Who can be tested?

When should I collect the sample?

What do I need for testing?

How should I store the sample?

How long is it good for?

How do I ship it?

How is it tested?

When do I get results?

## Oregon State Public Health Laboratory

The Oregon State Public Health Laboratory (OSPHL) has been actively protecting the public's health since 1903 by supporting state and local infectious disease control efforts, preventing metabolic disorders detectable at birth, and assuring the quality of testing in clinical and environmental laboratories.

### Communicable Disease Testing

The Communicable Disease Testing section provides screening, diagnostic and reference testing (virology, immunology and microbiology) for communicable diseases.



- [Submitting Samples](#)
- [Search our Lab Test Menu](#)
- [Test Request Forms and Collection Kits](#)

### Newborn Screening

The Northwest Regional Newborn Screening Program screens newborns for rare but serious health problems like Cystic Fibrosis and other metabolic conditions.



- [Provider and Parent Resources](#)
- [Collection Kits](#)
- [Disorder Fact Sheets](#)

### Clinical Laboratory Regulation

The Oregon Laboratory Compliance Section contracts with the Centers for Medicare and Medicaid Services to carry out the Clinical Laboratory Improvement Amendments (CLIA). This section also oversees Health Screen Testing permits (HST), and Substance of Abuse (SOA) registrations in Oregon.



### Environmental Laboratory Accreditation (ORELAP)

The Oregon Environmental Laboratory Accreditation Program (ORELAP) accredits qualified environmental testing laboratories in Oregon and throughout the country to national standards.



- [ORELAP and Cannabis Testing](#)
- [Find Labs, Methods and Analytes](#)
- [Drinking Water Testing](#)



- [Search our Lab Test Menu](#)
- [Submitting Specimens for Zika Virus Testing](#)
- [Communicable Disease Services Billing Information](#)
- [Accessing OSPHL Test Results](#)
- [View our CLIA and CAP Certificates](#)



[Contact Us](#)


# Test Menu Search

## A to Z Listing of Lab Tests

**Tip:** Use the search box to locate your test. For example, search for "Newborn" to see a list of all newborn screening tests.

**Please note:** If the Test Details page you have selected does not print correctly, try using another browser such as Chrome or Internet Explorer.

<input type="text" value="noro"/>		 Sort ▾
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Test Name 	Search Terms
<a href="#">BioFire FilmArray Multiplex Gastrointestinal PCR Panel</a>	Adenovirus F40/41; Astrovirus; Campylobacter (jejuni, coli, and upsaliensis); Clostridium difficile (toxin A/B); Cryptosporidium; Cyclospora cayetanensis; E. coli O157; Entamoeba histolytica; Enteroaggregative E. coli (EAEC); Enteropathogenic E. coli (EPEC); Enterotoxigenic E. coli (ETEC) lt/st; Giardia lamblia; Norovirus GI/GII; Plesiomonas shigelloides; Rotavirus A; Salmonella; Sapovirus (I, II, IV, and V); Shiga-like toxin-producing E. coli (STEC) stx1/stx2; Shigella/Enteroinvasive E. coli (EIEC); Vibrio (parahaemolyticus, vulnificus, and cholerae); Yersinia enterocolitica
<a href="#">Norovirus, RT-PCR</a>	
<a href="#">Viral Gastroenteritis Panel, RT-PCR</a>	Astrovirus; Calicivirus; Norovirus; Sapovirus; Rotavirus; Gastrointestinal Viruses



# Lab Test Menu Example

## Viral Gastroenteritis Panel, Real-Time RT-PCR

Updated	3/15/2021
Search Terms	Astrovirus; Calicivirus; Norovirus; Sapovirus; Rotavirus; Gastrointestinal Viruses; Norwalk
How to Order	On the <a href="#">Virology/Immunology Test Request Form (OHA0042)</a> , in the “Other” section, check the “Norovirus RT-PCR” box.
Availability	With approval from the Acute and Communicable Disease Program or Local Public Health Authorities
Performed	As needed
Time to Reporting	Within 7 working days after receipt of specimen
CPT Code	87798 x 2 if Norovirus positive, 87798 x 5 if Norovirus negative



## Specimen Collection Details

### Collection

Human stool in a clean, screw-top plastic container or stool in Cary Blair enteric pathogen transport media.

Vomit in a screw top plastic container is acceptable, but not preferred.

### Optimal Volume

Raw Stool - 2 mL or a "walnut-sized" amount

Solid or Liquid Stool; Vomit - 5 gm or 5 mL

### Minimum Volume

Raw Stool - 1 mL or a "pea-sized" amount

Solid Stool - 2 gm

Liquid Stool; Vomit - 5 mL

### Handling

Store specimens at refrigerated temperatures (2-8°C) pending transport. Transport as soon as possible after specimen collection.

### Transport

Package specimens with fully frozen ice packs to maintain refrigerated temperatures during transport. Specimens should be transported to be received at the OSPHL within 5 days of specimen collection.

### Rejection Criteria

Specimens received more than 10 calendar days after specimen collection.

Specimens are subject to the requirements of the OSPHL Specimen Submission Policy and Criteria, available at: <http://bit.ly/SpecimenCriteria>.

### Comments

Original material submitted for testing is retained for 7 calendar days after receipt at the laboratory.

Norovirus is the major cause of viral gastroenteritis. Other viruses listed above will only be tested if the results are negative for Norovirus.

If bacterial pathogens are suspected, follow the instructions for [Enteric Pathogen Culture](#).

## Method Details

**Methodology**

Real-Time Reverse-Transcription Polymerase Chain Reaction

**Performance  
Specifications**

Method Performance Specifications determined by the Centers for Disease Control and Prevention (CDC). Please contact the CDC for specifications if needed.

## Change Log

3/15/2021

Edit Test Name and Performance Specifications

# Test Menu Summary

Section	What it tells you	Section	What it tells you
Updated	Last changed date	Minimum Volume	Minimum sample size
Search Terms	Other names for the test	Handling	Storage conditions
How to Order	Forms to fill out	Transport	Shipping conditions and maximum time frame
Availability	Who can order/approval steps	Rejection Criteria	Invalidating factors
Performed	When this test is performed at the lab	Comments	Other notes
Time to Reporting	How long results will take	Methodology	Specific type of testing
CPT Code	Service code	Performance Specifications	Details about the testing
Collection	What sample type, what type of container to use, etc.	Change Log	List of past updates
Optimal Volume	Ideal sample size		

# Exercise

[www.bitly.com/measles2](http://www.bitly.com/measles2)



# Example – Measles Investigation

- It is Friday at 2:00pm. You've just been notified of need to collect a specimen from a patient with symptoms consistent with measles. Rash onset was Wednesday.

Questions	Answers
Who can be tested?	
When should I collect the sample?	
What do I need for testing?	
How should I store the sample?	
How long is the sample viable?	
How should I ship the sample?	

# Measles (Rubeola), Real-Time RT-PCR Lab Test Menu



# Measles Investigation – Questions

Questions	Answers
Who can be tested?	
When should I collect the sample?	
What do I need for testing?	
How should I store the sample?	
How long is the sample viable?	
How should I ship the sample?	

What else do we need to know?

- What day to collect sample
- How to transport sample – shipping options

- It is Friday at 2:00pm. You've just been notified of need to collect a specimen from a patient with symptoms consistent with measles. Rash onset was Wednesday.
- You contact the Oregon ACDP epidemiologist for approval. Testing is approved, but Saturday specimen transport and testing is not approved.
- The specimen cannot be collected until after your Friday courier pick-up.
- The next available pick-up would be on Monday and the specimen wouldn't be delivered until Tuesday morning.
- When do you decide to collect the sample?
- Are there any special considerations?
- Are there any other options?
- Any other steps you should take before leaving for the weekend?
  - See if you have collection kits
  - Order a courier pickup

# How to Get the Tools

## Ordering Collection Kits

<http://bitly.com/PHLStockOrder>

# Ordering Supplies and Test Kits



## Oregon State Public Health Laboratory Stockroom Order – Form 71-54

<http://bitly.com/PHLStockOrder>

**Instructions:** Please fill out completely. Write legibly and use numerals (e.g., 1, 2) for quantities.  
**Consider supply expiration dates when choosing quantities. Fax completed form to 503-693-5600.**  
 Call 503-693-4100 with questions.

Facility Name: \_\_\_\_\_ Telephone: \_\_\_\_\_  
 Street Address: \_\_\_\_\_ City, State, Zip: \_\_\_\_\_  
 (no PO boxes)  
 Contact Name: \_\_\_\_\_ Contact Phone: \_\_\_\_\_

**\* Collection Kits:**

- Contain biohazard specimen bag, absorbent square, and media or specimen collection device.
- Do not automatically include Test Request Forms.
- ☐ Please include Test Request Forms with my order.
- ☐ Don't include forms. Our facility orders testing electronically, or I will use the fillable PDF or print my own forms from the OSPHL website: [www.bitly.com/phl-forms](http://www.bitly.com/phl-forms).

Collection Kits*	Form #	# of Kits
<b>For All Clients:</b>		
<b>Chlamydia/gonorrhea (CT/GC)</b>		
Multitest Swab (vaginal)	42	
Unisex Swab (cervical, urethral, rectal, pharyngeal)	42	
Urine	42	
<b>Virology / Immunology Blood</b>	42	

Media Only	Quantity
Cary Blair – Bacterial Enteric Stool	
Regan Lowe – Pertussis	
Universal Transport Media (UTM) – Respiratory Viruses	
Saline transport media – COVID-19	
Courier Supplies	Quantity
Gel/Ice Packs	
Transport Manifest (1 page to be copied)	

# Test Request Forms

[www.bitly.com/phl-forms](http://www.bitly.com/phl-forms)



## GENERAL MICROBIOLOGY REQUEST

Oregon State Public Health Laboratory (OSPHL)  
7202 NE Evergreen Pkwy. Suite 100; Hillsboro, OR 97124  
Information: 503-693-4100

Oregon  
Health

### PATIENT INFORMATION

\*Patient last name, first, middle initial:

\*Date of birth (mm/dd/yyyy):

\*Sex/gender:

☐ Female ☐ F to M  
☐ Male ☐ M to F

Race:

☐ American Indian or Alaska Native ☐ Asian  
☐ Black or African American ☐ White  
☐ Native Hawaiian or Other Pacific Islander  
☐ Multi-race ☐ Other ☐ Unknown ☐ Declined

Patient street address:

City:

State:

\*County of Residence:

Outbreak number:

### PATIENT INSURANCE INFORMATION

\*Insurance/Health plan name: ☐ No

### SPECIMEN / ISOLATE INFORMATION

\*Date of collection: Time of collection (##:##):

\*Original specimen source:

☐ Blood ☐ Nasopharyngeal swab ☐ Sputum ☐ S  
☐ CDT (Culture-Independent Diagnostic Test) — Was



## VIROLOGY/IMMUNOLOGY REQUEST

Oregon State Public Health Laboratory (OSPHL)  
7202 NE Evergreen Pkwy. Suite 100; Hillsboro, OR 97124  
Information: 503-693-4100

Oregon  
Health  
Authority

### PATIENT INFORMATION

\*Patient last name, first, middle initial:

\*Date of birth (mm/dd/yyyy):

\*Sex/gender:

☐ Female ☐ F to M  
☐ Male ☐ M to F

Patient ID/Chart number:

Race:

☐ American Indian or Alaska Native ☐ Asian  
☐ Black or African American ☐ White  
☐ Native Hawaiian or Other Pacific Islander  
☐ Multi-race ☐ Other ☐ Unknown ☐ Declined

Ethnicity:

☐ Hispanic or Latino  
☐ Not Hispanic or Latino  
☐ Unknown  
☐ Declined

Patient street address:

City:

State:

ZIP:

\*County of Residence:

Outbreak number:

Study:

\*Submitting facility:

\*Ordering clinician:

Contact number:

Copy results to: ☐ County of Residence ☐ State Public Health  
☐ Other Public Health: \_\_\_\_\_

### PATIENT INSURANCE INFORMATION

\*Insurance/Health plan name:

☐ None ☐ Confidential

Policy no.:

Group ID:

Diagnosis/ICD-10 code for test:

Public Health Program eligible patient (for participating locations only):

☐ STD Program ☐ RH Program ☐ Other: \_\_\_\_\_

### SPECIMEN INFORMATION

\*Date of collection:

Time of collection (##:##):

☐ AM ☐ PM

Hospitalized?

☐ Yes ☐ No

Pregnant?

☐ Yes ☐ No ☐ Unknown

Illness onset date:

☐ Acute

☐ Convalescent

\*Specimen source: ☐ Blood ☐ Vomit ☐ Urine ☐ Swab ☐ Stool ☐ Serum ☐ Other: \_\_\_\_\_

If the source is a swab, please specify type: \_\_\_\_\_

# Example – GI Outbreak

- You have a report of a gastroenteritis outbreak and you need to collect specimens for lab testing. You realize you don't have any collection kits!
- Steps:
  - 1. Check the test menu for what you need to know
  - 2. Order collection kits based on testing required
  - 3. Arrange specimen transport to lab (we'll get to this soon!)



# GI Outbreak Specimens

Organism(s) Suspected	Type	Test to Order	Specimen *
Astrovirus; Calicivirus; Norovirus; Sapovirus; Rotavirus	Viral	Viral Gastroenteritis Panel, RT-PCR	Raw stool in collection cup
Salmonella; Shigella; E. coli O157; STEC; Campylobacter	Bacterial	Enteric Pathogen Culture	Stool in Cary Blair
Bacillus cereus; Staphylococcus aureus; Clostridium perfringens; Listeria monocytogenes	Bacterial	Referral Testing to CDC	Depends on organism suspected

\*Find complete instructions on our Lab Test Menu at  
[www.healthoregon.org/labtests](http://www.healthoregon.org/labtests)

## Oregon State Public Health Laboratory

### Stockroom Order – Form 71-54

**Instructions:** Please fill out completely. Write legibly and use numerals (e.g., 1, 2) for quantities.  
**Consider supply expiration dates when choosing quantities. Fax completed form to 503-693-5600.**  
 Call 503-693-4100 with questions.

Facility Name: _____	Telephone: _____
Street Address: _____ (no PO boxes)	City, State, Zip: _____
Contact Name: _____	Contact Phone: _____

**\* Collection Kits:**

- Contain biohazard specimen bag, absorbent square, and media or specimen collection device.
- Do not automatically include Test Request Forms.

☐ Please include Test Request Forms with my order.

☐ Don't include forms. Our facility orders testing electronically, or I will use the fillable PDF or print my own forms from the OSPHL website: [www.bitly.com/phl-forms](http://www.bitly.com/phl-forms).

Collection Kits*	Form #	# of Kits
<b>For All Clients:</b>		
<b>Chlamydia/gonorrhea (CT/GC)</b>		
Multitest Swab (vaginal)	42	
Unisex Swab (cervical, urethral, rectal, pharyngeal)	42	
Urine	42	
<b>Virology / Immunology Blood</b> (Hepatitis, HIV, syphilis, serology)	42	
<b>Tuberculosis</b>		
Sputum, NAAT (respiratory specimens)	60	
QuantIFERON	60	
<b>For LPHAs, Outbreaks, Public Health Partners:</b>		
<b>Pertussis</b>	60	
<b>Enteric Outbreak Stool Collection</b>		
Viral – Raw Stool Collection Kit	42	
Bacterial – Cary Blair Collection Kit	60	
<b>Respiratory Illness</b>		
Regular Swab with UTM <sup>1</sup> (Flu/COVID)		
Nasopharyngeal swab with UTM <sup>2</sup> (Flu/COVID)		
<b>Water Microbiology</b>		

Media Only	Quantity
Cary Blair – Bacterial Enteric Stool	
Regan Lowe – Pertussis	
Universal Transport Media (UTM) – Respiratory Viruses	
Saline transport media – COVID-19	
<b>Courier Supplies</b>	
Gel/Ice Packs	
Transport Manifest (1 page to be copied)	
<b>Forms Only</b>	
Virology/Immunology (Green) #42	
General Microbiology (Red) #60	
Stockroom Request #71-54	
Environmental Water #01	
Public Drinking Water #50	
<b>Miscellaneous</b>	
6 mL Vacutainer Tubes (Red top / 100/box)	<input type="checkbox"/> Tubes <input type="checkbox"/> Boxes
Blue (water only) Mailing Containers	
<b>OSPHL Use Only</b>	
Filled by: _____	Date: _____

# Common GI Outbreak Kits

- Test Kit Contents:
  - Citizen Instructions
  - Specimen Container
  - Toilet Liner
  - Paper Bowl
  - Spoon
  - Gloves
  - Gauze Pad
  - Lab Slip
  - Alcohol Pad
  - Specimen Transport Bag
  - Absorbent Material
  - Paper Sack



# GI Outbreak Kits

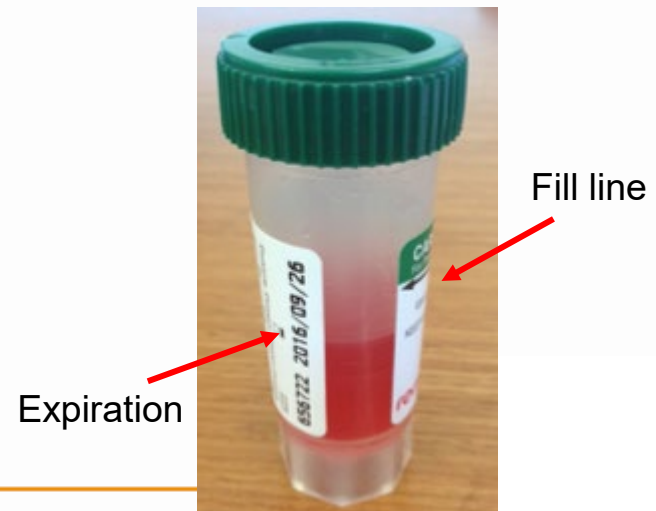
## Viral

- Raw stool in specimen collection container
  - Refrigerate after collection
  - Ship with ice packs



## Bacterial or unknown

- Cary Blair transport media
  - Check expiration date and color
  - Transfer some specimen into this media container to the fill line.
  - Refrigerate after inoculation
  - Does not need to be shipped on ice, unless it will take several days to be delivered and the season is hot.



# Get It To The Lab!

## Packing and Shipping Specimens

<http://bitly.com/phl-courier>



# Labeling Specimens

- Labeling the specimens
  - Two unique patient identifiers matching the test request form.
  - Do not cover patient information.
  - Leave the expiration date uncovered.
  - Leave viewing space to allow contents to be seen.



[www.bitly.com/SpecimenCriteria](http://www.bitly.com/SpecimenCriteria)



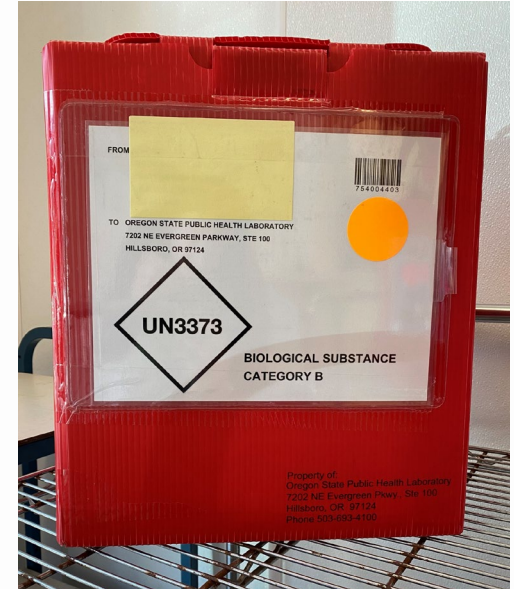
# Packaging Basics: Triple Packaging



Primary



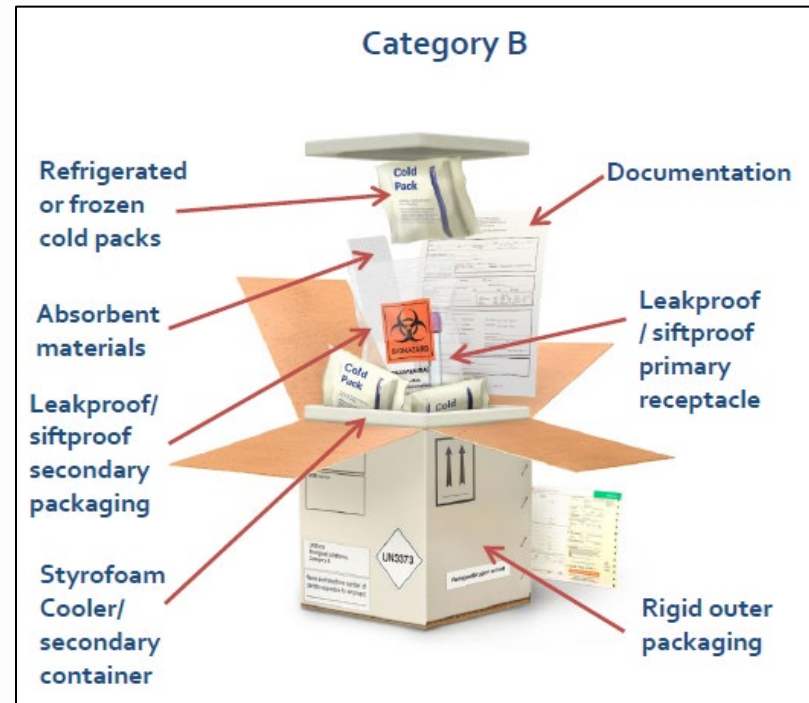
Secondary



Tertiary

# Transporting Specimens

- Shippers of infectious substances are subject to regulations from:
  - U.S. Department of Transportation (DOT)
  - U.S. Postal Service (USPS)
  - International Air Transport Association (IATA)
- Shipping training is required if you classify, package, label, or transport infectious material



## Some training resources:

- Free, online training from CDC ([www.cdc.gov/labtraining](http://www.cdc.gov/labtraining))
  - Instructor-led, virtual shipping training courses from Saf-T-Pak and APHL
  - Free, regional, in-person or virtual shipping training courses available
- Contact OSPHL LRN Coordinator for inquiries



# Ordering a Courier

- Visit [bitly.com/phl-courier](https://bitly.com/phl-courier)

## Courier Service

- Communicable Disease Testing
- Test Menu Search
- Test Request Forms and Collection Kits
- Billing Information
- MU: Electronic Orders and Results
- Submitting Samples
- Courier Service**
- Specimen Shipping and Transport (non-courier)

## Oregon State Public Health Laboratory Contracted Courier Service

### Courier Changes Beginning June 1, 2023

The OSPHL provides courier service for many locations that submit specimens to our laboratory. Beginning with specimens picked up June 1, 2023, OSPHL will transition courier services to DASH Delivery and STAT Courier using a new, regional courier services model. Senvoy, LLC will no longer be OSPHL's contracted courier service. Information about the change for communicable disease testing submissions can be found in our [April 25, 2023](#) and [May 30, 2023](#) client letters.

[Request As Needed/On-Call Pick Up](#)  
[OSPHL Courier Order Request Form](#)

[Training on June 1st Courier Changes](#)

# Ordering a Courier



## OSPHL Courier Order Request Form

Please use this form to request a courier pick up specimens at your facility. Most requested services will be scheduled for pick up the business day following the request.

**OSPHL will respond to your request within 1 working day by emailing order information to the requestor and/or point of contact.**

You can find answers to questions about specimen collection, handling, storage, and transport conditions on our [Lab Test Menu](#). You can reach OSPHL with routine requests at [osphi.courier@odhsoha.oregon.gov](mailto:osphi.courier@odhsoha.oregon.gov) or 503-693-4100 for urgent needs.

**All specimens must be accompanied by an OSPHL Test Request Form, available at [www.bitly.com/phl-forms](http://www.bitly.com/phl-forms).**

Enter your email address \*

What is your facility name? \*

What is your facility's address? \*

Include suite number, if applicable.

Facility City \*

Place orders at least 1 business day in advance, if possible.

Courier is OSHA-BBP trained.

Courier is a HIPAA Business Associate with OSPHL.

# Have questions?

Give us a call! 503-693-4100

- Main webpage – [www.healthoregon.org/phl](http://www.healthoregon.org/phl)
- Test menu – [www.healthoregon.org/testmenu](http://www.healthoregon.org/testmenu)
- Stockroom orders – [bitly.com/PHLStockOrder](http://bitly.com/PHLStockOrder)
- Test requests forms – [bitly.com/phl-forms](http://bitly.com/phl-forms)
- Courier requests – [bitly.com/phl-courier](http://bitly.com/phl-courier)