

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



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503-693-4100

www.healthoregon.org/phl

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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

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Question

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

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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



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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



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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



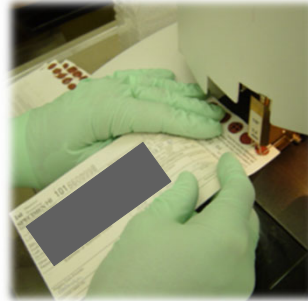
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Newborn Screening

- 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



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How to Find The Answers

The State Lab Test Menu

www.healthoregon.org/phl

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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?

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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

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

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

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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.

Test Name	Search Terms
BioFire FilmArray Multiplex Gastrointestinal PCR Panel	Adenovirus F40/41; Astrovirus; Campylobacter (jejuni, coli, and upsaliensis); Clostridium difficile (toxin A/B); Cryptosporidium; Cyclospora cayatanensis; E. coli O157; Entamoeba histolytica; Enteroaggregative E. coli (EAEC); Enteropathogenic E. coli (EPEC); Enterotoxigenic E. coli (ETEC) It/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
Norovirus, RT-PCR	
Viral Gastroenteritis Panel, RT-PCR	Astrovirus; Calicivirus; Norovirus; Sapovirus; Rotavirus; Gastrointestinal Viruses



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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 Virology/Immunology Test Request Form (OHA0042) , 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

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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 .

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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

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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		

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Exercise

www.bitly.com/measles2

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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?	

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



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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



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- 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

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How to Get the Tools

Ordering Collection Kits

<http://bitly.com/PHLStockOrder>


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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.

Collection Kits*	Form #	# of Kits	Media Only	Quantity
For All Clients:			Cary Blair – Bacterial Enteric Stool	
Chlamydia/gonorrhea (CT/GC)			Regan Lowe – Pertussis	
Multitest Swab (vaginal)	42		Universal Transport Media (UTM) – Respiratory Viruses	
Unisex Swab (cervical, urethral, rectal, pharyngeal)	42		Saline transport media – COVID-19	
Urine	42		Courier Supplies	Quantity
Virology / Immunology Blood	42		Gel/Ice Packs	
			Transport Manifest (1 page to be copied)	

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Test Request Forms

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

PATIENT INFORMATION
*Patient last name, first, middle initial:
*Date of birth (mm/dd/yyyy): 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: None

SPECIMEN / ISOLATE INFORMATION
*Date of collection: Time of collection (##:##):
*Original specimen source:
 Blood Nasopharyngeal swab Sputum Stool
 CIDT (Culture-Independent Diagnostic Test) — Waived

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

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: Ethnicity:
 American Indian or Alaska Native Asian Hispanic or Latino
 Black or African American White Not Hispanic or Latino
 Native Hawaiian or Other Pacific Islander Unknown
 Multi-race Other Unknown Declined 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/CD-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 (##:##): Hospitalized? AM PM 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:

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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!)

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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



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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: _____ <small>(no PO boxes)</small>	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 OPHL website: www.bitly.com/phil-forms.

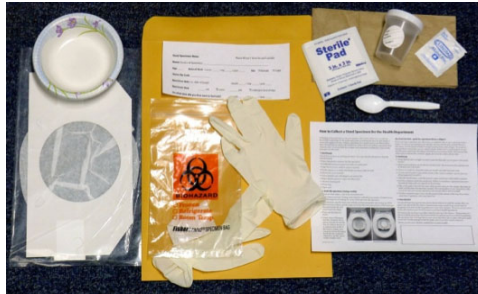
Collection Kits*	Form #	# of Kits	Media Only	Quantity
For All Clients:			Cary Blair – Bacterial Enteric Stool	
Chlamydia/gonorrhea (CT/GC)			Regan Lowe – Pertussis	
Multitest Swab (vaginal)	42		Universal Transport Media (UTM) – Respiratory Viruses	
Unisex Swab (cervical, urethral, rectal, pharyngeal)	42		Saline transport media – COVID-19	
Urine	42		Courier Supplies	Quantity
Virology / Immunology Blood (Hepatitis, HIV, syphilis, serology)	42		Gel/Ice Packs	
Tuberculosis			Transport Manifest (1 page to be copied)	
Sputum, NAAT (respiratory specimens)	60		Forms Only	Quantity
QuantIFERON	60		Virology/Immunology (Green) #42	
For LPHAs, Outbreaks, Public Health Partners:			General Microbiology (Red) #60	
Pertussis	60		Stockroom Request #71-54	
Enteric Outbreak Stool Collection			Environmental Water #01	
Viral – Raw Stool Collection Kit	42		Public Drinking Water #50	
Bacterial – Cary Blair Collection Kit	60		Miscellaneous	Quantity
Respiratory Illness			6 mL Vacutainer Tubes (Red top / 100/box)	<input type="checkbox"/> Tubes <input type="checkbox"/> Boxes
Regular Swab with UTM ¹ (Flu/COVID)			Blue (water only) Mailing Containers	
Nasopharyngeal swab with UTM ² (Flu/COVID)			OSPH Use Only	
Water Microbiology			Filled by: _____	Date: _____

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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



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GI Outbreak Kits

Viral

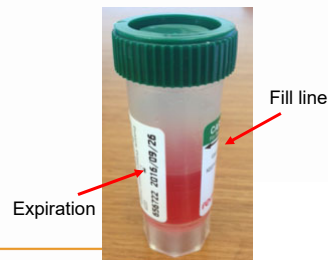
- Raw stool in specimen collection container
 - Refrigerate after collection
 - Ship with ice packs



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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.



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Get It To The Lab!

Packing and Shipping Specimens

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

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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

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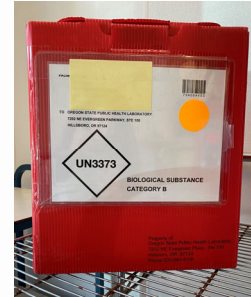
Packaging Basics: Triple Packaging



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Primary

Secondary

Tertiary

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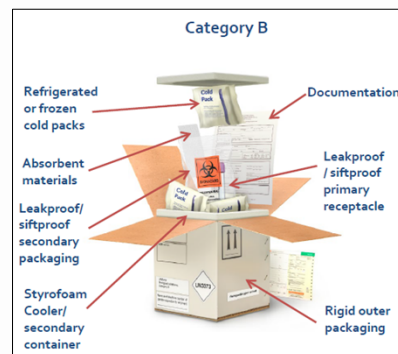
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Transporting Specimens

- 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)
- 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

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Let's Pack a Cooler!

Things to keep in mind:

- Always abide by transportation regulations
- These steps are for ground transport, Category B shipments (ex. with the OSPHL contracted couriers)
 - Air transport? Different rules
 - Category A? Different rules
 - Shipping with FedEx or UPS? Different rules
- Cooler is the term we use at OSPHL. Room temperature samples can also go in them – just don't add ice!

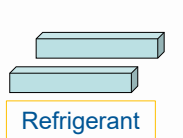
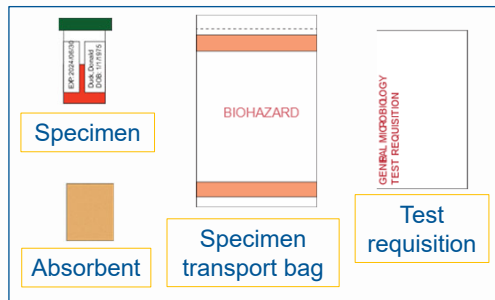
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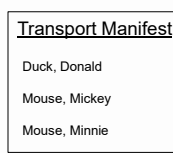
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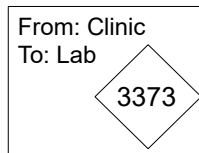
What You'll Need



Refrigerant



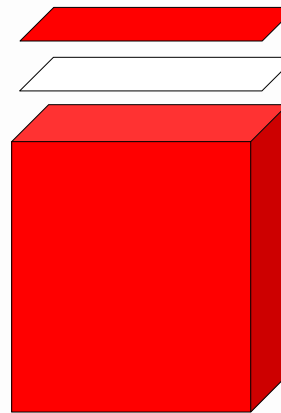
Transport manifest



Cooler markings and address



Barrier



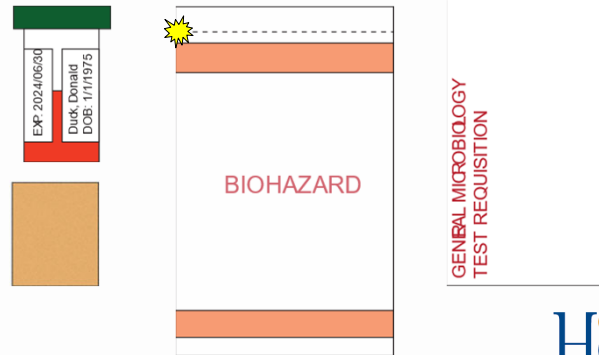
Cooler (red shell and insulated liner)



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1. Labeled specimen container into specimen transport bag
2. Absorbent material into specimen transport bag
3. Close specimen transport bag
4. Test requisition in outer pouch of specimen transport bag



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5. Gather all specimens with same temperature requirements
6. Create Transport Manifest for shipment



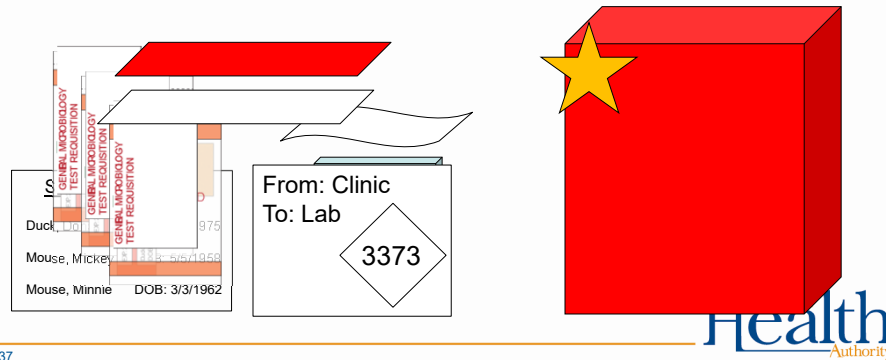
A Transport Manifest tells the recipient what is included in the shipment. It should include:

- Shipping facility
- Shipping date
- List of specimens in shipment

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7. Gather transport cooler
8. Add refrigerant and barrier to cooler if needed
9. Add samples to cooler
10. Cover with cooler lid
11. Place manifest on lid
12. Close red lid
13. Flip address label to outbound side facing



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Packing a Cooler Summary (Ground transport - Category B)

1. Labeled specimen container into specimen transport bag
2. Absorbent material into specimen transport bag
3. Close specimen transport bag
4. Test requisition in outer pouch of specimen transport bag
5. Gather all specimens with same temperature requirements
6. Create Sample Manifest for shipment
7. Gather transport cooler
8. Add refrigerant and barrier to cooler if needed
9. Add samples to cooler
10. Cover with cooler lid
11. Place manifest on lid
12. Close red lid
13. Flip address label to outbound facing side

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Ordering a Courier

- Visit bitly.com/phl-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

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Ordering a Courier

smartsheet

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 osphl.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.

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.



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Have questions?

Give us a call! 503-693-4100

- Main webpage – www.healthoregon.org/phl
- Test menu – www.healthoregon.org/testmenu
- Stockroom orders – bitly.com/PHLStockOrder
- Test requests forms – bitly.com/phl-forms
- Courier requests – bitly.com/phl-courier

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