

# **Appendix E: Collection and Submission of Food Samples**

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# Collection and Submission of Food Sample for Bacteriological Examination

## Collection and Submission of Food Sample for Bacteriological Examination



### Supplies Needed for Food Sample Collection

Food Collection Kit	State Seal DFS-224	Submission Form LAB504

### Collection

	<ol style="list-style-type: none"> <li>1. Collect a minimum of 100 grams (3.5oz) of food using aseptic techniques.</li> <li>2. When possible submit food in original and/or an unopened container.</li> <li>3. If the sample is not in the original container, transfer sample to appropriate sterile container using the sealed utensils provided in the food collection kit .</li> <li>4. Seal container with official seal.</li> </ol>
	<ol style="list-style-type: none"> <li>5. Samples should be shipped temperature controlled to prevent compromising the integrity of the sample. When in doubt refrigerate sample during transport. Use freezer packs. Frozen samples should be kept frozen.</li> <li>6. Place sample in cardboard box with styrofoam cooler or use other type of mailable package. Cushion sample to reduce movement during shipment.</li> </ol>
	<ol style="list-style-type: none"> <li>7. Completely fill out a submission form for each sample (Lab504). Lab504 can be printed from <a href="http://chfs.ky.gov/dph/info/lab/Forms.htm">http://chfs.ky.gov/dph/info/lab/Forms.htm</a></li> <li>8. Replace styrofoam lid and place Lab form 504 on top.</li> <li>9. Seal box with tape and place shipping label on the outside of the box.</li> </ol>
	<ol style="list-style-type: none"> <li>10. The laboratory will accept and test authorized food samples only. Contact the Food Safety Branch at (502)564-7181 and the Division of Epidemiology, Infectious Disease Branch, Reportable Disease section at (502)564-3261 for authorization of all food samples before shipping.</li> <li>11. Ship or transport food samples overnight/next day.</li> </ol>

If you have any questions about collection or submission of food samples, contact the Division of Laboratory Services at (502) 564-4446.

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**COLLECTION AND SUBMISSION OF FOOD SPECIMENS**

**Lab Form 504**

Lab form 504 (Rev. 11/2020)

Sample Collection Data and Analysis Report  
 Kentucky Cabinet for Health and Family Services, Department for Public Health  
 Division of Laboratory Services  
 100 Sower Blvd.  
 Frankfort, Kentucky 40601  
 Phone: 502/782-7713 Fax: 502/564-7019



*Please complete a separate form for each sample submitted.*

Sample No.: <input type="text"/>		Date Collected: <input type="text"/>	Time: <input type="text"/>	Cost of Sample: <input type="text"/>
Collector/ Health Dept.: <input type="text"/> <small>(Name and Title)</small>		Sample Procured From: <input type="text"/> <small>(Signature)</small>		
Reason for Collection: (Regulatory, Outbreak, Complaint)		Establishment Number: <input type="text"/>		
Amount in Lot before Sampling: <input type="text"/>				
Description of Sample (Code No. if any), & Method of Collection: <input type="text"/>				
Mail Report To: <input type="text"/>		Address: <input type="text"/>		Zip: <input type="text"/>
Collector Remarks: (Note if submitted by someone other than the collector)				
Collector Signature: _____		Submitter Signature (when applicable): _____		
Requested Laboratory Analysis: <input type="checkbox"/> Bacteriological <input type="checkbox"/> Chemical <input type="checkbox"/> Other				
<input type="checkbox"/> Aerobic Plate Count	<input type="checkbox"/> Staph aureus <input type="checkbox"/> Count	<input type="checkbox"/> Toxin	<input type="checkbox"/> Salmonella species	<input type="checkbox"/> Pesticide Residue
<input type="checkbox"/> Coliform Count	<input type="checkbox"/> Bacillus cereus <input type="checkbox"/> Count	<input type="checkbox"/> Toxin	<input type="checkbox"/> Shigella species	<input type="checkbox"/> Trace Metals (Water)
<input type="checkbox"/> Enterobacteriaceae Count	<input type="checkbox"/> Clostridium perfringens Count	<input type="checkbox"/> E. coli O157: H7	Specify Metal(s):	
<input type="checkbox"/> E. coli Count	<input type="checkbox"/> Campylobacter species	<input type="checkbox"/> Non- O157 STEC	<input type="checkbox"/> Other (Describe)	
<input type="checkbox"/> Mold & Yeast Count	<input type="checkbox"/> Listeria species	Specify: <input type="text"/>		
<b>Chain of Custody</b>				
DATE/ TIME	RELEASED BY (Collector/Submitter)	RECEIVED BY (Lab staff, unless otherwise indicated)	PURPOSE OF CHANGE (Lab use, unless otherwise indicated)	
	Signature	Signature	<input type="checkbox"/> Transport	
	Print Name	Print Name	<input type="checkbox"/> Storage (unit #) _____	
	Signature	Signature	<input type="checkbox"/> Testing	
	Print Name	Print Name		
Lab Accession # _____				
State Seal Attached? <input type="checkbox"/> Intact <input type="checkbox"/> Broken <input type="checkbox"/> None    Sample and Package Condition: <input type="checkbox"/> Good <input type="checkbox"/> Other _____				
Sample Received: <input type="checkbox"/> Refrigerated <input type="checkbox"/> Frozen <input type="checkbox"/> Other (Describe) _____    Received Temperature: _____				
Report of Laboratory Analysis: <input type="text"/> Comments: <input type="text"/>				
Date Started <input type="text"/>	Date Completed <input type="text"/>	Date Reported <input type="text"/>	Signature of Analyst: <input type="text"/> Laboratory Services	
<input type="checkbox"/> No Further Regulatory Action is indicated on this sample				
Analysis indicates sample is in violation of the following law and/or regulations based thereon. (Check appropriate one):				
<input type="checkbox"/> KRS 217.801 Lead Based Paint Law; <input type="checkbox"/> KRS 217.005 to 217.215 KY Food, Drug, & Cosmetic Act; <input type="checkbox"/> KRS 217.650 to 217.710 KY Hazardous Substances Labeling Act; <input type="checkbox"/> KRS 217C KY Milk and Milk Products Act; <input type="checkbox"/> KRS 152.105 to 152.190 Regulates Use and Control of Radiation.				
Sample Considered: <input type="checkbox"/> Adulterated <input type="checkbox"/> Misbranded <input type="checkbox"/> Other				
Further Regulatory Action: <input type="checkbox"/> Resample <input type="checkbox"/> Reinspect <input type="checkbox"/> Official Action <input type="checkbox"/> Other				

Signature \_\_\_\_\_ Title \_\_\_\_\_ Agency \_\_\_\_\_ Date \_\_\_\_\_

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## Reference List of Tests

BOTULISM	
<b>DLS Department:</b>	Preparedness
<b>OUTREACH Test Code:</b>	MEP
<b>Includes:</b>	Clostridium Botulinum Identification and Confirmation
<b>Methodology:</b>	ELISA, Mouse Bioassay, Culture
<b>Availability:</b>	
<b>Turn-around-Time:</b>	Food: 24-96 hours toxin test, 5-12 days culture Stool: 24-96 hours toxin test, 5-12 days culture Serum: 24-96 hours
<b>Specimen Requirements:</b>	Patient's physician must consult the Division of Epidemiology for approval and to verify the need to perform appropriate tests
<b>Collection Kit/Container:</b>	Consult with DLS for specific information of collecting and submitting specimens
<b>Collection and Packaging Instructions:</b>	Serum: 10ml Stool: 10-50g Enema Wash: 20ml  Infants- Stool or Enema Wash
<b>Specimen Handling and Transport:</b>	
<b>Reference Range:</b>	ELISA: "No botulinum toxin A, B, E or F detected. Assay does not detect botulinum toxins C, D and G". Mouse Bioassay: No C. botulinum toxin detected by mouse bioassay Culture: No C. botulinum isolated
<b>CPT Code:</b>	87003; 87158; 87076
<b>Additional Comments:</b>	Refer to the Sentinel Guidelines on <a href="http://asm.org">asm.org</a> for more information

**COLLECTION AND SUBMISSION OF FOOD SPECIMENS**

**Reference List of Tests**

<b>CAMPYLOBACTER</b>	
<b>DLS Department:</b>	Bacteriology (clinical) Environmental Microbiology (Food)
<b>OUTREACH Test Code:</b>	CAMP
<b>Methodology:</b>	Culture
<b>Availability:</b>	M-F
<b>Turn-around-Time:</b>	Clinical specimen- 4-7 days Pure culture isolate- 3-5 days Food- 5-15 days
<b>Specimen Requirements:</b>	Clinical- Feces Isolate- swab from culture in Cary Blair, Campy thio or Campy blood plate in bag with Campy gas or in semi-solid motility type media. Chocolate slant is also acceptable.
<b>Collection Kit/Container:</b>	Clinical: Cary Blair Transport Media Isolate: Submitter packaging
<b>Collection and Packaging Instructions:</b>	<a href="https://chfs.ky.gov/agencies/dph/dls/Pages/default.aspx">https://chfs.ky.gov/agencies/dph/dls/Pages/default.aspx</a> Food-Food Kit
<b>Specimen Handling and Transport:</b>	Feces- mail immediately after collection on cold pack. Isolate-Provide fresh growth slant; mail immediately; avoid extreme temperatures Food- Call laboratory; ship overnight in cooler with cold packs
<b>Unacceptable Conditions:</b>	Stool 7 days or older
<b>Reference Range:</b>	NA
<b>CPT Code:</b>	87040; stool 87046
<b>Additional Comments:</b>	Food- By request of Epidemiology or Food Safety Branch ONLY for investigation of foodborne disease outbreaks



Reference List of Tests

ESCHERICHIA COLI	
<b>DLS Department:</b>	Bacteriology Environmental Microbiology
<b>OUTREACH Test Code:</b>	ECO
<b>Methodology:</b>	Isolation/Identification and Antigenic typing/ Food Culture
<b>Availability:</b>	M-F
<b>Turn-around-Time:</b>	Clinical 4-5 days/ Food 48 hrs-15 days
<b>Specimen Requirements:</b>	Clinical- Feces Identification and Antigenic typing- Agar slant: Heart infusion, trypticase soy, blood or chocolate Food- By request of Epidemiology or Food Safety Branch ONLY for investigation of foodborne disease outbreaks
<b>Collection Kit/Container:</b>	Clinical- Enteric pathogens kit with Cary Blair or Amies transport media Isolate – Pure fresh growth on agar slant Food- Food Kit
<b>Collection and Packaging Instructions:</b>	<a href="https://chfs.ky.gov/agencies/dph/dls/Pages/default.aspx">https://chfs.ky.gov/agencies/dph/dls/Pages/default.aspx</a> Enterics Collection and Packaging
<b>Specimen Handling and Transport:</b>	Clinical- Mail immediately after collection to be rec'd in 24 hrs Isolation- Provide fresh growth slant; mail immediately Food - Food specimens - Ship overnight in cooler with cold packs. Call laboratory before sending specimens.
<b>Unacceptable Conditions:</b>	Stools 7 days or older
<b>Reference Range:</b>	NA
<b>CPT Code:</b>	Stool 87046, 87147 PCR 87150
<b>Additional Comments:</b>	Collect during acute stage (Days 1-3) of diarrheal disease and before initiation of anti-microbial or drug therapy.

**COLLECTION AND SUBMISSION OF FOOD SPECIMENS**

**Reference List of Tests**

<b>LISTERIA MONOCYTOGENES</b>	
<b>DLS Department:</b>	Bacteriology (clinical) Environmental Microbiology (Food)
<b>OUTREACH Test Code:</b>	MC (clinical)
<b>Methodology:</b>	Identification/Culture/Molecular
<b>Availability:</b>	M-F
<b>Turn-around-Time:</b>	4-6 days
<b>Specimen Requirements:</b>	Clinical- Pure culture TSA or blood agar slant Environmental- Food
<b>Collection Kit/Container:</b>	
<b>Collection and Packaging Instructions:</b>	Submitter packaging for clinical isolates Food: <a href="https://chfs.ky.gov/agencies/dph/dls/Pages/default.aspx">https://chfs.ky.gov/agencies/dph/dls/Pages/default.aspx</a> Food Kit
<b>Specimen Handling and Transport:</b>	Clinical- Provide fresh growth on slant. Mail immediately to be received within 24 hours. Avoid extreme temperatures Food specimens - Ship overnight in cooler with cold packs. <b>Call laboratory before sending specimens.</b>
<b>Reference Range:</b>	NA
<b>CPT Code:</b>	Clinical- 87077, 87153
<b>Additional Comments:</b>	Clinical – Call the laboratory if Listeria is suspected and when specimen is shipped. Food- By request of Epidemiology or Food Safety Branch ONLY for investigation of foodborne disease outbreaks.

Reference List of Tests

<b>SALMONELLA</b>	
<b>DLS Department:</b>	Bacteriology/ Environmental Microbiology
<b>OUTREACH Test Code:</b>	Stools- SGT Culture isolate- SGT
<b>Methodology:</b>	Isolation Identification Antigenic Testing
<b>Availability:</b>	M-F
<b>Turn-around-Time:</b>	Clinical-8-10 days Food- 5-15 days
<b>Specimen Requirements:</b>	Isolation- Stool Identification and Antigenic Typing- Pure culture isolate. Agar slant: Heart infusion, trypticase soy, blood or chocolate agar
<b>Collection Kit/Container:</b>	Stools - Cary Blair
<b>Collection and Packaging Instructions:</b>	<a href="https://chfs.ky.gov/agencies/dph/dls/Pages/default.aspx">https://chfs.ky.gov/agencies/dph/dls/Pages/default.aspx</a> Clinical – Enteric Food-Food Kit
<b>Specimen Handling and Transport:</b>	Food specimens - Ship overnight in cooler with cold packs. Call laboratory before sending specimens.
<b>Unacceptable Conditions:</b>	Stools 7 days or older
<b>Reference Range:</b>	
<b>CPT Code:</b>	Stool- 87045 Identification and Antigenic Typing- 87147
<b>Additional Comments:</b>	Stool-Mail immediately after collection; to be received within 24 hours. Provide fresh grown on slants and mail immediately at room temperature. Food- By request of Epidemiology or Food Safety Branch/ONLY for investigation of foodborne disease outbreaks

**COLLECTION AND SUBMISSION OF FOOD SPECIMENS**

**Reference List of Tests**

<b>SHIGELLA</b>	
<b>DLS Department:</b>	Bacteriology/ Environmental Microbiology
<b>OUTREACH Test Code:</b>	Stools- SHGR Culture isolate- SHGR
<b>Methodology:</b>	Isolation Identification and antigenic typing
<b>Availability:</b>	M-F
<b>Turn-around-Time:</b>	Clinical-8-10 days Food- 5-15 days
<b>Specimen Requirements:</b>	Isolation- Stool Identification and Antigenic Typing- Pure culture isolate. Agar slant: Heart infusion, trypticase soy, blood or chocolate agar
<b>Collection Kit/Container:</b>	Stools - Cary Blair
<b>Collection and Packaging Instructions:</b>	<a href="https://chfs.ky.gov/agencies/dph/dls/Pages/default.aspx">https://chfs.ky.gov/agencies/dph/dls/Pages/default.aspx</a> Clinical - Enteric Food-Food Kit
<b>Specimen Handling and Transport:</b>	Food specimens - Ship overnight in cooler with cold packs. Call laboratory before sending specimens.
<b>Unacceptable Conditions:</b>	Stools 7 days or older
<b>Reference Range:</b>	
<b>CPT Code:</b>	Stool- 87045 Identification and Antigenic Typing- 87147
<b>Additional Comments:</b>	Stool-Mail immediately after collection; to be received within 24 hours. Provide fresh grown on slants and mail immediately at room temperature. Food- By request of Epidemiology or Food Safety Branch/ONLY for investigation of foodborne disease outbreaks

## Reference List of Tests

STAPHYLOCCUS AUREUS	
<b>DLS Department:</b>	Bacteriology
<b>OUTREACH Test Code:</b>	Stool - MEP Pure culture isolate on agar slant- MC
<b>Methodology:</b>	Isolation and Identification
<b>Availability:</b>	M-F
<b>Turn-around-Time:</b>	Stool-3-7 days Pure culture isolate- 24hrs- 7days Food- 5-15 days
<b>Specimen Requirements:</b>	Clinical- Stool Isolation- Pure culture isolate on agar slant: Heart Infusion, trypticase soy, blood or chocolate agar slant Food- By request of Epidemiology or Food Safety Branch/ ONLY for investigation of foodborne disease outbreaks
<b>Collection Kit/Container:</b>	Clinical - Stool -Cary Blair Transport Media
<b>Collection and Packaging Instructions:</b>	<a href="https://chfs.ky.gov/agencies/dph/dls/Pages/default.aspx">https://chfs.ky.gov/agencies/dph/dls/Pages/default.aspx</a> Enteric Collection Food Kit
<b>Specimen Handling and Transport:</b>	Food specimens - Ship overnight in cooler with cold packs. Call laboratory before sending specimens.
<b>Unacceptable Conditions:</b>	Stools 7 days or older.
<b>Reference Range:</b>	NA
<b>CPT Code:</b>	87046, 87153
<b>Additional Comments:</b>	Clinical testing- Only by request of the Division of Epidemiology. Stool-Mail immediately after collection; to be received within 24 hours. Isolate - Provide fresh grown on slants and mail immediately at room temperature. Food- By request of Epidemiology or Food Safety Branch. ONLY for investigation of foodborne disease outbreaks.

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## Flow Charts for Food Sample Testing

Please note that the following flow charts do not reflect the entire work process for testing of laboratory specimens. Rather, they have been simplified to provide a basic description of specimen flow through the lab and the testing process. These flow charts are intended to provide a general idea of the steps and time required for testing.

