

BIOLOGICAL EVIDENCE



Case Acceptance Policy

- Please see our case acceptance policy for the most up-to-date information:
- <https://isp.idaho.gov/wp-content/uploads/Forensics/Evidence//Biology-Case-Acceptance-Policy-2026.pdf>



Services Provided

- Analysis of sexual assault kits
- Serological testing
 - Presumptive blood, semen, and saliva.
- Touch DNA – case by case basis
- Human Remains Identification – requires a secondary reference.
 - A secondary reference is best for comparison; if one does not exist, we need references from family members.
 - Parent or child is preferred, sibling accepted if necessary.
 - Please see: <https://isp.idaho.gov/wp-content/uploads/Forensics/Evidence//Biology-Case-Acceptance-Policy-2026.pdf>



Safety First

- Protect yourself and the evidence.
- Health hazards of biological evidence:
 - HIV – virus most contagious in wet stains.
 - Hepatitis – contagious for weeks in dried stains.
 - Vaccine available for hepatitis.
- Do not eat, drink, or smoke at crime scenes.



Acceptable Packaging

- Sexual Assault Kits
- Gun box
- Knife box for sharps
- Other items package individually in paper:
 - Bindles (don't tape bindles)
 - Envelopes
 - Paper bags
 - Boxes



Non-acceptable Packaging

- Do NOT use:
 - Plastic bags
 - Plastic containers
 - Glass vials
 - Nonporous materials.



Proper Seal

- All items should have a proper seal.
 - Use tamper-evident tape on any non-manufactured seal.
 - Write your initials and date on the tape.
 - For paper bags, fold down the top of the bag once and secure with evidence tape and initial.
 - If the evidence tape is too weak to hold down the fold of the bag, secure with packing tape first, and then cover with evidence tape and initial. This will help prevent seal breakage.



COLLECTION

- Always wear gloves and change frequently.
- Do not cough, sneeze, or talk over evidence items.
- Don't touch any non-evidence item with your gloves on.
 - Don't touch your hair, face, cell phone, et cetera.
- Use single-use tools or clean a reusable tool with bleach solution and alcohol after each sample.



COLLECTION

- Enemies of biological evidence:
 - Moisture
 - Bacteria
 - Heat
 - Sunlight
 - HEMASTIX® Presumptive Blood Test
 - This process will ruin the sample, and you will not get DNA results.
- Air dry wet stains and swabs – do not use ovens, dryers, fans, or blow on the evidence.



Sexual Assault Kits

- All sexual assault kits collected in Idaho will be processed by the state lab **except where:**
 - Evidence exists that proves no crime has occurred, as determined by law enforcement and prosecutor.
 - Jane/John Doe kits
- If you have unsubmitted sexual kits that need to be submitted for processing, please contact the Meridian laboratory prior to submission.
 - 208-884-7170
- Kits are available to medical facilities free of charge from ISP Forensic Services.
 - To request kits, email D3lab@isp.idaho.gov



Sexual Assault Cases

- Only submit the sexual assault kit and relevant reference.
 - If kit is negative, clothing or bedding can be accepted.
 - Must have prior approval from the lab before submission.
 - Penile swabs are only accepted if known reference has been provided.
- There is an instruction sheet in the kit. All appropriate samples should be collected based on case circumstances.
- Package clothing SEPARATELY in *paper* bags.
- Collect known reference samples from all involved individuals.



Known Reference Samples

- **Known Reference Samples:**
 - **Buccal swab (saliva)** – collect using 2 dry swabs simultaneously. Swab along the inside of both cheeks and gum line.
 - Do not separate left and right side of mouth swabs into different items.
 - **Liquid blood** – collect in purple top tube containing EDTA.
 - **Bloodstain card** – collect via finger prick. Finger should be cleaned first.



Known Reference Samples

- Package separately from the evidentiary material.
- Label with the full name of the individual
- If a CODIS hit is obtained, a known reference sample is required to confirm
- We do not accept casework reference samples collected using the DNA Database sample collection kits designed for convicted offenders.



COLLECTION & PACKAGING: BIOLOGICAL EVIDENCE

- Penile swabs from male suspects and/or victims:
 - Use 2 moist swabs simultaneously to collect a single sample that includes the penile shaft, scrotum, and pubic area.
 - Let swabs air-dry and package them together in paper.
 - Suspect penile swabs also require a suspect reference submitted
 - Do not use sexual assault kits for collection of suspect samples.
- Recently used condoms that contain fluid should be dried and packaged in paper or placed into a specimen cup and stored frozen.



Homicides

- Case involves one suspect and one victim
 - First submission limited to 5 items.
- More than one suspect or victim, or more than one crime scene
 - First submission limited to 8 items.
- If no probative information is obtained in first submission – contact the lab regarding additional items.
- Touch DNA is permitted on weapons in murder and attempted murder cases.
- Known reference samples from involved individuals are not included in the number of evidence items accepted.



COLLECTION & PACKAGING: BIOLOGICAL EVIDENCE

- Collection of fetal tissue:
 - The medical personnel **MUST** separate fetal tissue from all other tissue.
 - Fetal tissue should be placed in an airtight plastic container.
 - Do **NOT** use any preservatives.
 - Store frozen.
 - Contact the Meridian laboratory prior to submission.
 - 208-884-7170



Blood or Semen Stains

- **Option 1:** Collect entire item if possible (preferred method)
 - If item is large and porous (carpet, mattress, furniture, etc.) the stained area can be cut out.
 - Circle semen-stained areas if exact location known.
 - If wet - allow to air dry prior to packaging.
 - Air dry wet stains and swabs – do not use ovens, dryers, fans, or blow on the evidence.



Blood or Semen Stains

- **Option 2:** Collect stain off surface of large non-porous item (wall, countertop, etc.).
 - Document possible stain patterns prior to swabbing or cutting an item.
 - Collect with 1-2 swabs.
 - You do not need to moisten the swabs when the sample is wet.
 - If wet – allow swabs to air dry prior to packaging.
 - Air dry wet stains and swabs – do not use ovens, dryers, fans, or blow on the evidence.



COLLECTION & PACKAGING: BIOLOGICAL EVIDENCE

- **DNA Database Samples:**

- A video on how to collect can be found here (scroll to bottom of page):
<https://isp.idaho.gov/forensics/dna-database/>
- Collection instructions are on our ISP Forensic Services website:
<https://isp.idaho.gov/wp-content/uploads/Forensics/Evidence//DNA-Database-Sample-Collection-Instructions.pdf>
- Submit to the Meridian laboratory.
- Not considered evidentiary due to not having documented chain of custody.
- Collected per Idaho DNA Database Act of 1996 (Idaho code 19-5506).
- Do not use the DNA Database sample collection kits to collect casework reference samples.



Storage

- Sexual Assault kits –
 - Newer kits – freeze. If you can't freeze, then refrigerate it
 - Older kits (has blood tube) – refrigerate it. The lab will mark with a sticker that says "do not freeze."
- Freezer:
 - Packages containing dried stains
 - Swabs
 - Human remains (bones, fetal tissue, teeth, other tissue samples)
 - DNA extracts and packets containing DNA extracts.

More storage options continued on next slide



Storage

- Refrigerator:
 - Packages containing liquid blood samples.
- Room Temperature:
 - Packages containing smooth nonporous items (weapons, shoes, plastic bags, belts, etc.).
 - Packages containing evidence for both latent fingerprints & biological testing.



Submission

<https://isp.idaho.gov/wp-content/uploads/Forensics/Evidence/Where-to-submit-evidence.pdf>

- An agency case report is required.
- Submit to MER lab
- All biology cases must be triaged before acceptance.
 - Please call the lab to discuss the submission (208-884-7170).
- The SAK must be logged on the tracking website.
- Criminal possession cases of firearms or drugs are not accepted for DNA analysis.



Questions?

- Still have questions? Didn't see the type of evidence you have?
- Call us! We're happy to help!
 - MER lab – 208-884-7170
 - CDA lab - 208-209-8700
 - POC lab – 208-239-9900
- Our analytical methods are also posted on our webpage for each discipline.

