

A Guide for Submitting Temperature-Sensitive Samples to the Center for Human Identification (CHI)

Ensuring Sample Integrity

This guide details proper procedures for submitting samples requiring **refrigeration or freezer** storage to CHI. Following these steps ensures sample integrity and minimizes the risk of damage or loss.

Contact Information

- Questions? Call the Evidence Unit at 1-800-736-3147.
- Forensic Anthropological Analysis with Wet/Decomposition Odor Cases: Contact the Forensic Anthropology Unit at 817-735-2190 or Anthropology@unthsc.edu. For these cases, decomposing tissue removal and dis-articulation for a suitable container are required.

Samples Requiring Refrigeration or Freezer Storage

Refrigerated Samples (Examples):

- Liquid blood in glass vials
- Condoms containing potential semen
- Sexual assault kits with liquids (urine, blood, oral washes)

Frozen Samples (Examples):

- Fetal material
- DNA extracts
 - Unless informed otherwise, DNA extracts for forensic genetic genealogy testing are considered liquid and require storage at or below -10°C.
- Non-dried tissue
- Resected bone samples

Submission Requirements

- Utilize ice packs or dry ice (no wet ice).
- **Packing Materials:**

- Coolant (ice packs/dry ice)
- Absorbent materials
- Packing materials
- Insulated container
- Outer corrugated box
- Plastic liners/bags (optional - for multiple samples/cases to prevent leakage/thawing)

Packing Instructions

1. **Freeze Coolants:** Follow manufacturer's instructions. Pre-cool the insulated container (if possible).
2. **Line the Container:** Use enough absorbent materials to capture any liquid or condensation.
3. **Secure Liquid Samples:** Use leak-proof containers with secure closures (screw-on, snap-on, push-on lids). Seal with tamper-proof tape.
 - Alternatively, double-bag non-dried samples using leak-proof plastic bags and seal them before placing them in the insulated container.
4. **Coolant Placement:** Avoid direct contact between coolants and samples/cardboard packaging. Place coolants on the side or bottom of the container and create a barrier to prevent condensation/melting water transfer.
5. **Fill Empty Space:** Use packing materials to prevent items from shifting and ensure protection.
6. **Seal the Package:** Place the insulated container with its lid inside the corrugated box and seal the edges with tape.

Submitting Evidence

Agencies can drop off evidence on site by pre-scheduled appointment only with the Evidence Unit. Alternatively, samples can be shipped overnight to our laboratory using the requirements listed below. All samples must be submitted with appropriate CHI submission paperwork, available on our [website](#).

Shipping Requirements

- FedEx Priority Overnight or UPS Next Day Air services.
- Avoid weekend delivery and First Overnight/Next Day Air Early due to limited business hours. Mail is only accepted during regular business hours of 8:00AM CST- 5:00PM CST Monday through Friday.
- The package must be strong enough to withstand shipment without content loss due to vibration, temperature changes, humidity, or pressure.

Additional Considerations

- Consult the shipping company for specific packing, marking and labeling requirements for different sample types.

Suggested Shipping Material Resources

Uline heavy-duty boxes

https://www.uline.com/BL_417/275-Lb-Test-Single-Wall-Boxes

Example size

<https://www.uline.com/Product/Detail/S-4772/Heavy-Duty-Boxes/24-x-12-x-12-275-lb-Heavy-Duty-Corrugated-Boxes>

Insulated shipper kits

https://www.uline.com/BL_2157/Insulated-Shipping-Kits

Example size

<https://www.uline.com/Product/Detail/S-20422/Insulated-Shippers-and-Supplies/Insulated-Foam-Shipping-Kit-25-x-16-1-2-x-12>