

# Evidence Preservation and Storage

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# Evidence Preservation and Storage

## Scope

- DPS was tasked with creating uniform rules with regards to handling biological evidence
  - These rules went into effect October 30, 2012
- Defining/Categorizing evidence (ex. DNA, Trace, Toolmark)
  - Primary focus on biological evidence
- Considerations when handling evidence
- Proper storage
  - Facility – space, environmental controls, and security
  - Packaging
- Tracking
  - Chain-of-Custody
- Destruction of Evidence
- Best Practices



# Legislation

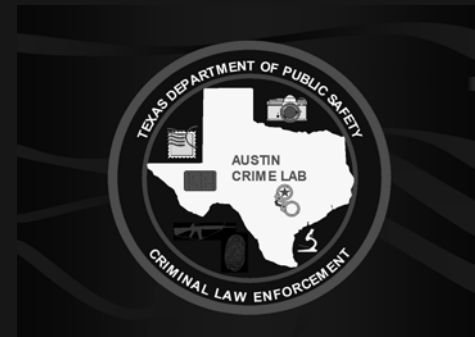
- Ensures preservation of evidence containing biological material
- Statute of limitations for sex crimes with biological evidence is indefinite
- Allows convicted offenders to submit a motion for DNA testing



# Code of Criminal Procedure

## Art. 38.43. PRESERVATION OF EVIDENCE CONTAINING BIOLOGICAL MATERIAL

- A governmental or public entity or an individual, including a law enforcement agency, prosecutor's office, court, public hospital, or crime laboratory, that is charged with the collection, storage, preservation, analysis, or retrieval of biological evidence
- shall ensure that biological evidence collected pursuant to an investigation or prosecution of a felony offense or conduct constituting a felony offense is retained and preserved.



# Code of Criminal Procedure

## Art. 38.43. PRESERVATION OF EVIDENCE CONTAINING BIOLOGICAL MATERIAL

- This article applies biological evidence
  - (1) collected pursuant to an investigation or prosecution of a felony offense or conduct constituting a felony offense that
  - (2) might reasonably be used to
    - establish the identity of the person committing the offense or engaging in the conduct constituting the offense; or
    - exclude a person from the group of persons who could have committed the offense or engaged in the conduct constituting the offense.



# Biological evidence.....

## What is it?

1. The contents of a sexual assault examination kit; or
2. Any item that contains blood, semen, hair, saliva, skin tissue, fingernail scrapings, bone, bodily fluids, or any other identifiable biological material that was collected as part of an investigation of an alleged felony offense or conduct constituting a felony offense



# Code of Criminal Procedure

## Art. 38.43. PRESERVATION OF EVIDENCE CONTAINING BIOLOGICAL MATERIAL.

(c) Except as provided by Subsection (d), material required to be preserved under this article must be preserved:

(1) until the inmate is executed, dies, or is released on parole, if the defendant was convicted of a capital felony; or

(2) until the defendant dies, completes the defendant's sentence, or is released on parole or mandatory supervision, if the defendant is sentenced to a term of confinement or imprisonment.



# Code of Criminal Procedure

## Art. 2.21. Duty of Clerks

### Art. 2.21. DUTY OF CLERKS.

(a) In a criminal proceeding, a clerk of the district or county court shall: (1) receive and file all papers; (2) receive all exhibits at the conclusion of the proceeding; (3) issue all process; (4) accept and file electronic documents received from the defendant, if the clerk accepts electronic documents from an attorney representing the state; (5) accept and file digital multimedia evidence received from the defendant, if the clerk accepts digital multimedia evidence from an attorney representing the state, and (6) perform all other duties imposed on the clerk by law.

(b) At any time during or after a criminal proceeding, the court reporter shall release for safekeeping any firearm or contraband received as an exhibit in that proceeding to: (1) the sheriff; or (2) in a county with a population of 500,000 or more, the law enforcement agency that collected, seized, or took possession of the firearm or contraband or produced the firearm or contraband at the proceeding.



# Code of Criminal Procedure

## Art. 2.21. Duty of Clerks

- (c) The sheriff or the law enforcement agency, as applicable, shall receive and hold the exhibits consisting of firearms or contraband and release them only to the person or persons authorized by the court in which such exhibits have been received or dispose of them as provided by Chapter 18.
- (d) In this article, "eligible exhibit" means an exhibit filed with the clerk that: (1) is not a firearm or contraband; (2) has not been ordered by the court to be returned to its owner; and (3) is not an exhibit in another pending criminal action.

# Code of Criminal Procedure

## Art. 2.21. Duty of Clerks

- e) An eligible exhibit may be disposed of as provided by this article:
1. on or after the 1st anniversary of the date on which a conviction becomes final in the case, if the case is a misdemeanor or a felony for which the sentence imposed by the court is 5 years or less;
  2. on or after the 2nd anniversary of the date on which a conviction becomes final in the case, if the case is a non-capital felony for which the sentence imposed by the court is greater than 5 years;
  3. on or after the 1st anniversary of the date of the acquittal of a defendant; or
  4. on or after the 1st anniversary of the date of the death of a defendant.

“So how do I know what to keep  
and how to store it?”



# Defining the Evidence

- What is Physical Evidence?
  - “...any and all objects that can establish that a crime has been committed or can provide a link between a crime and its victim or a crime and its perpetrator.”

- Richard Saferstein, *Criminalistics: An Introduction to Forensic Science*, 7<sup>th</sup> ed



# Defining the Evidence

- Examples of biological evidence
  - Blood, semen, saliva, other body fluids, skin cells...
  - Sexual assault kits from suspects and/or victims
  - Hair
  - Clothing, hats, masks, eyeglasses, jewelry, gloves from involved individuals
  - Ligatures such as ropes, belts, tape, and cords
  - Bedding such as sheets, blankets, comforters, pillow cases, etc
  - Towels, used tissues, toilet paper, and paper towels
  - Condoms
  - Cigarette butts, cups, cans, and bottles
  - Biological standards such as buccal swabs from individuals involved
  - Whole blood from DWI suspects are NOT considered biological evidence



# Other Evidence

## Trace Evidence

- May already be lost after initial examinations or has already been preserved by the laboratory
- For the purpose of preserving for future (post-conviction) testing this will most likely be hair or fingernail scrapings that can be used for DNA testing



# Evidence Handling

Governing principle in Forensic Science...

“Every contact leaves a trace”

Locard's Exchange Principle



# Evidence Handling

We want to ensure that evidence and materials are collected in a manner that prevents contamination and degradation and ensures integrity during all phases of the investigation and litigation.





# Evidence Handling

- That means that YOUR handling or any handling that takes place in the courtroom or after trial can alter or destroy the physical evidence
- The attorneys, clerks, or even jurors can through contact with exhibits deposit physical evidence



# Evidence Handling

- Post-conviction cases
  - The lab often re-examines evidence to rule out a convicted individual and/or to enter any DNA profile into the DNA database to generate an investigative lead
  - DNA has been recovered from items of evidence handled during trial that matched one of the attorneys



# Evidence Handling

- Protect the evidence
- Protect yourself
- Personal safety and the prevention of evidence contamination go hand-in-hand



# Universal Precautions Against Bloodborne Pathogens

- In 1991, the Occupational Safety and Health Administration (OSHA) issued Title 29, part 1910.1030 of the Code of Federal Regulations (CFR), Occupational Exposure to Bloodborne Pathogens (BBP).
- Bloodborne pathogens are defined as “pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV), hepatitis C virus (HCV), and human immunodeficiency virus (HIV)



# Universal Precautions Against Bloodborne Pathogens

- This standard forms the primary mechanism for infection control.
- All human blood, body fluids, or other potentially infectious material must be treated as if infected with hepatitis B virus (HBV), hepatitis C virus (HCV), and human immunodeficiency virus (HIV).
  - A vaccine exists that may provide some protective from HBV, but no such vaccine exists for either HCV or HIV. It is recommended that persons in professions with potential contact with BBP, receive HBV vaccinations. Measures must be taken to avoid direct or indirect contact with potentially infectious materials.

# Routes of Exposure

- Whether the hazard is biological or chemical in nature, the primary routes of exposure are the same.
- By being aware of how an exposure can occur, the correct decisions can be made with regards to the proper protective equipment that should be worn and how to properly clean and decontaminate after exposure.
- The most effective way to clean collection equipment and surfaces is with a 10% bleach solution (10 parts water to 10 parts bleach).



# Routes of Exposure

## Inhalation

Both pathogens and chemicals can enter the body via inhalation. Examples include pathogens like anthrax or the flu. Volatile chemicals or aerosolized chemicals like luminol can also be inhaled.

## Contact

with the skin or mucus membranes- Chemicals can cause local irritation, redness, swelling, burning or damage to the contact tissues. Severity of the reaction depends on the type and concentration of the chemical, and duration of exposure. Systemic effects can be as minor as dizziness and nausea, and as extreme as organ damage, shock and unconsciousness.

## Ingestion

Ingested corrosive materials can damage the mouth, throat, and digestive tract. Ingested toxic chemicals are usually absorbed by the body via the stomach and intestines. Regular hand washing and prohibiting the consumption or presence of food or drink in contamination prone areas, including the crime scene, will minimize exposure to chemicals or biological contaminants.

## Injection

Needle sticks and mechanical injuries from contaminated glass, metal, or other sharp objects can introduce biological contaminants directly into the bloodstream.

# Personal Protective Equipment (PPE)

- One of the primary means of defense against exposure is the use of **barrier protection** such as:
  - disposable Latex or Nitrile **gloves**
  - Coveralls
  - Labcoats
  - **Surgical masks**
  - shoe-covers





# Personal Protective Equipment

- Barrier protectants, like latex gloves, do not provide the same type of protection once they have been exposed.
- The use of hand lotions or even sweat can also break down the latex.
- Change gloves frequently even if they have not had direct contact with a biological or chemical contaminant.



# Personal Protective Equipment

- Change exposed gloves as soon as possible.
- Gloves should also be inspected before and during wear for tears or holes.
- Dried blood can also flake, so the same type of protective equipment should be used. Surgical masks or well-fitting respirators can be worn when there is potential for contamination or transfer from airborne biohazards or chemicals.



# Evidence Handling

- Protect the evidence
- Protect yourself
  - Wear Gloves at a minimum
  - Wear a surgical mask



# Separation, Packaging, Labeling, and Storage



# Separation

- Store “questioned evidence” in a separate container from reference samples.
  - Store “questioned evidence” from the victim and/or the crime scene in separate containers from evidence collected from the suspect.
- \***Change gloves** – DO NOT wear the same gloves when handling questioned evidence from different sources or reference samples



# Packaging and Labeling

- The following discussion applies to items of evidence that require repackaging
- If the original packaging is intact and sealed – leave it that way
  - Preserve the integrity of the original packaging
- Package items in paper, not plastic



# Packaging and Labeling

- SAFETY PRECAUTION

- Package sharp objects so they will not puncture the container

- Knives
- Broken Glass



# Packaging and Labeling

- Ensure all packaging (internal and external) is labeled with information to identify at minimum the case and contents.
- Suggest:
  - Cause #
  - Agency Case #
  - Laboratory Case #
  - Contents
  - Optimal to have labeling on all sides of the box
- Make sure all original packaging is retained as it will have the initials of all individuals that have handled that piece of evidence





# Packaging and Labeling

- Labeling is often used as a record of Chain-of-Custody
- So the ...
  - Agency Case #
  - Laboratory Case #
  - Contents

... may already be on the packaging – just add your record of possession



# Packaging and Labeling

- Sealed packages of separated evidence for one case can be stored in one large external container.
- Do not package items from multiple cases in the same container.
- All items must have a proper seal with non-cellophane tape and date/initials
- **NO STAPLES**



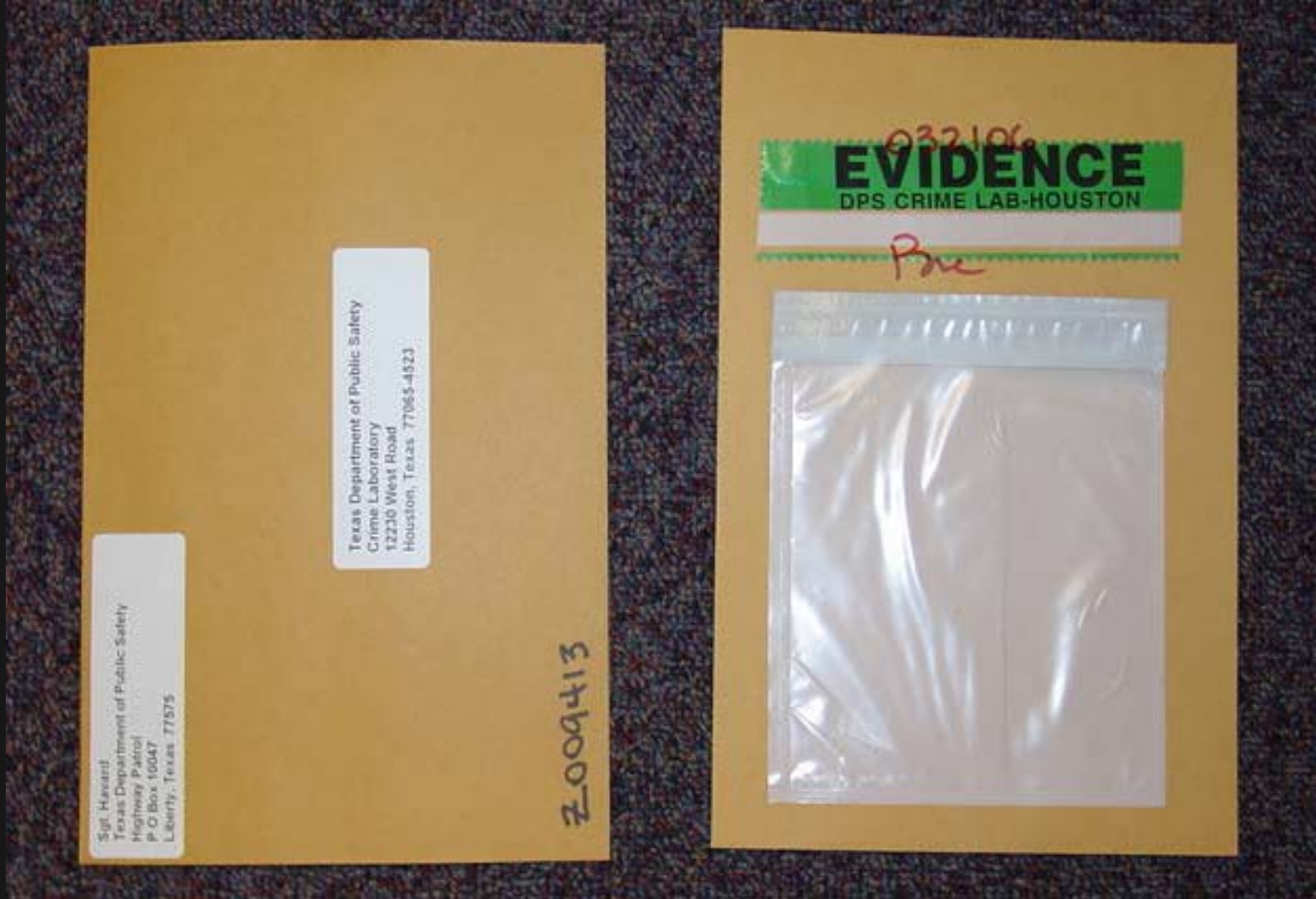
# Packaging and Labeling

## A PROPER SEAL

- Tamper-resistant tape
  - for security,
  - to prevent loss of evidence, and
  - to prevent contamination from external sources.
- What if you don't have tamper resistant tape???
  - Do the best you can
  - Keep in mind the purpose of the seal



# Proper Seal



# Proper Seal



# Proper Seal



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1325 N. Amburn Road  
Texas City, Texas 77591

Texas Department of Public Safety  
Crime Laboratory  
12230 West Road  
Houston, Texas 77065-4523



# Proper Seal



# Storage Facility

- Access
  - controlled
  - limited
  - A list of authorized personnel should be maintained.
  - Tracked
    - Electronic (ex. card-key access)
    - Written





# Storage Facility

- Environment

- Facility should be **climate controlled** to prevent deleterious change to the evidence.

- Maintain low humidity and room temperature (75°F) environment
    - Protect from water damage, direct sunlight, and excessive heat
    - Protect from rodent and insect activity



# Storage Facility

- “Why is the environment so important?”
  - Rodents and insects like to eat the evidence
  - DNA can be degraded by (among others):
    - UV light
    - Sunlight
    - Heat
    - Humidity
    - Bacteria, microorganisms



# Storage Facility

Climate controlled + pest free

=

**BEST environment**

For counties with less than  
100,000 individuals, DPS will  
store the evidence



# DPS Storage

- The following information must be included:
  - Full name of convicted person
  - Offense date
  - County of offense
  - Offense
  - Sentence received
  - Victim's name
  - Investigating agency and case number
  - Inventory list of biological evidence



# DPS Storage-Delivery

- Items must be packaged to avoid contamination
- Each item must be in a separate sealed paper package
- Each package must be labeled for identification
- Multiple packages related to a single offense may be placed into 1 outer container
- May be delivered by mail, in person, or private carrier
- The items must include a packing slip containing the cataloging information

# Storage Facility

## Bad ideas:

- » Basement level in a flood plane
- » Garages
- » Attics
- » Sheds



# Disposition of Evidence Retained by DPS

- DPS must be notified by the submitting agency, prosecutor's office or clerk's office within 30 days of the inmate either completing their sentence or is released on parole or mandatory supervision or dies.
- Upon receiving this notification, DPS shall return the evidence to the submitting agency, prosecutor's office, or clerk's office



# Chain-of-Custody and Inventory Management





# Chain-of-Custody

- Definition:
  - “the unbroken trail of **accountability** that ensures the physical security of samples, data, and records in a criminal investigation” - dictionary.com
  - “A list of all persons who came into possession of an item of evidence.” - Richard Saferstein, *Criminalistics: An Introduction to Forensic Science*, 7<sup>th</sup> ed



# Chain-of-Custody

- A log of evidence custody must be maintained in a written and/or electronic format.
- Each item of evidence should have a **unique identifier** that links it to a **unique case number**.
  - Should already exist



# Chain-of-Custody

- Documentation of the case information should be maintained including (but not limited to):
  - victim's and defendant's names
  - offense
  - date of offense
  - county of offense
  - agency case #
  - cause #
  - lab case #



# Chain-of-Custody

- Recommend the use of an electronic inventory management system that utilizes barcode tracking of individual items associated with a particular case



# Chain-of-Custody

- Chain-of-Custody existed before computers
  - Written documentation is perfectly acceptable

For Instance...

Evidence labels

Date/Initials on the packaging

Forms



# Chain-of-Custody

## EVIDENCE

Agency \_\_\_\_\_

Collected By \_\_\_\_\_

Item # \_\_\_\_\_ Case # \_\_\_\_\_

Date \_\_\_\_\_ Time \_\_\_\_\_

Description \_\_\_\_\_

Location \_\_\_\_\_

Remarks \_\_\_\_\_

## CHAIN OF CUSTODY

Received from \_\_\_\_\_

By \_\_\_\_\_

Date \_\_\_\_\_ Time \_\_\_\_\_

Received from \_\_\_\_\_

By \_\_\_\_\_

Date \_\_\_\_\_ Time \_\_\_\_\_

Received from \_\_\_\_\_

By \_\_\_\_\_

Date \_\_\_\_\_ Time \_\_\_\_\_

## CHAIN OF POSSESSION

Received from: \_\_\_\_\_

By: \_\_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_ AM/PM

Received from: \_\_\_\_\_

By: \_\_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received from: \_\_\_\_\_

By: \_\_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received from: \_\_\_\_\_

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Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received from: \_\_\_\_\_

By: \_\_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_ AM/PM

Received from: \_\_\_\_\_

By: \_\_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_ AM/PM

## EVIDENCE

CASE # \_\_\_\_\_ ITEM \_\_\_\_\_

DATE \_\_\_\_\_ TIME \_\_\_\_\_

DESCRIPTION \_\_\_\_\_

LOCATION \_\_\_\_\_

AGENT \_\_\_\_\_

100 pack = \$10, 10¢ ea.

100 pack = \$10, 10¢ ea.

1000 pack = \$80,  
8¢ ea.

# Inventory Management

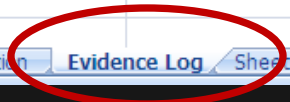
- Microsoft Excel is a database program
- Part of Microsoft Office
- If you upgrade to a commercial system data in a spreadsheet program can be imported into the new system



	A	B	C	D	E	F	G	H	I	J
1	Cause #	Agency Case #	Agency	Laboratory Case#	Laboratory	Offense	Offense Date	County	Victim	Defendant
2	5478	99-0654-02	Texas Police Dept	L-123456	TxDPS-Austin	SA	1/1/1999	Texas	Jane Doe	John Doe
3										
4										
5										
6										
7										
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37										
38										



	A	B	C	D	E	F	G	H	I
1	Item #	Item Description	Date received	Received From	Received By	Storage Location	Returned Date	Returned to	Returned By
2	1	Sexual Assault kit	6/7/2003	Det Smith	E. Jenks	Vault shelf A	11/24/2008	Det Johnson	M. Williams
3									
4									
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37									
38									



# Biological Evidence Retention and Preservation Timeline

- Applies to both adult offenders of felony offenses and to juvenile offenders of conduct constituting a felony.
- Unsolved: not less than 40 years or until the applicable statute of limitations has expired OR if there is an un-apprehended actor associated with the offense



# Biological Evidence Retention and Preservation Timeline

- Convictions: If the defendant has been convicted, placed on deferred adjudication community supervision, or adjudicated as having engaged in delinquent conduct AND there are no un-apprehended actors associated with the offense:
  - Until inmate is executed, dies, or is released on parole, if the defendant is convicted of a capital felony
  - Until the defendant dies, completes their sentence, or is released on parole or mandated supervision, if the defendant is sentenced to a term of confinement or imprisonment in the TDCJ system



# Destruction of Biological Evidence

- The attorney representing the state, clerk, or other officer in possession of biological evidence may destroy the evidence but only IF the defendant, the last attorney of record for the defendant, and the convicting court are notified by mail AND a written objection is not received by the attorney, clerk, or officer from the defendant, attorney of record, or court before the 91<sup>st</sup> day after the later of the following dates
  - The date on which the state’s attorney, clerk or other officer receives proof that the defendant received notice of the planned destruction OR
  - The date on which notice of planned destruction of evidence is mailed to the last attorney of record for the defendant.



# Summary

- Biological Evidence Retention
- Protect the Evidence = Protect Yourself
- Separation of Evidence
- Labeling and Packaging
- Proper Storage
- Chain-of-Custody and Inventory Management



# A few other points...

- If the items have already been examined by the crime laboratory
  - Biological evidence has been as been retained by the lab, but future testing may need to re-examine the original item
    - i.e. the defense wants their expert to choose different bloodstains



# A few other points...

- If you are unsure about
  - How to package
  - Whether or not you have to retain
  - Or aren't sure about an item...

...Call the laboratory.



# A few other points...

- Mystery items you may have on your shelves...  
...unknown bottle of something???

...call the lab. We will try to help.





# QUESTIONS?

My Contact Information:  
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Austin Laboratory Contact:  
512-424-2105

