



Arizona Department of Public Safety Crime Laboratory Information Bulletin

Date Issued: June 18, 2004

UPDATE:

PRESERVATION AND STORAGE OF DNA EVIDENCE

In the 1970's and 1980's, as the result of case law in Arizona (Escalante and Youngblood), Arizona law enforcement agencies began thoroughly drying and then freezing all evidence for blood stain and other body fluid analysis except for liquid blood, which was refrigerated. This case law was based on the scientific capabilities available at that time, which was enzyme typing. Since many of these enzymes degraded quickly if not frozen (in some cases, one to two weeks), it was necessary to freeze evidence as soon as it was dry and this was reflected in the case law.

With the advent of DNA capabilities, crime laboratories are now dealing with a molecule (DNA), which is extremely stable once a stain is dried. DNA has been recovered and profiled by the Arizona DPS Crime Laboratory from evidence stored at room temperature for 30 plus years.

The DPS Crime Laboratory has had numerous requests regarding current guidelines for the preservation and storage of DNA evidence. Because this has become both a scientific and legal issue (case law), every agency is advised to contact their own Legal Advisor before adopting a policy for their agency. Based on the current status of DNA technology, the DPS Scientific Analysis Bureau provides the following recommendations:

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**ARIZONA DEPARTMENT OF PUBLIC SAFETY
CRIME LABORATORY SYSTEM**

***RECOMMENDATIONS
FOR
THE PRESERVATION AND STORAGE OF DNA EVIDENCE***

- ***Liquid blood from a person:***
Store refrigerated, not frozen
- ***Tissue or organs:***
Store frozen
- ***Specimens from crime scenes that could not be air dried (these are items that, due to the nature of the item or the case, remain wet):***
Store frozen
- ***Dried blood, semen, saliva, or other body fluid stains:***
Store frozen or in a dry, cool (air-conditioned) environment *
- ***Dried blood or body fluid stains on non-porous surfaces, e.g., metal (knives, guns, etc.), plastic (athletic shoes, etc.), wood veneer, glass, etc.:***
Store in a dry, cool (air-conditioned) environment; **do not freeze.** (Frozen stains on these items become liquid upon thawing and run off of the item, which may be deleterious to subsequent DNA analysis.)
- ***Sex Crime Evidence Kits:***
 - Newly collected kits should be frozen prior to submission to the Crime Laboratory; and
 - Previously analyzed kits can be stored frozen or in a dry, cool (air-conditioned) environment *
- ***Teeth, bone, hair, and fingernail clippings/scrapings:***
Store frozen or in a dry, cool (air-conditioned) environment *
- * ***Check with your agency's Legal Advisor to determine which method you will use to store the items. If you are unsure what storage method to use, freeze the evidence (except for liquid blood from a person and stains on non-porous surfaces).***

If you have any questions concerning the preservation and storage of DNA evidence, please contact the DNA staff at the Regional Laboratory currently servicing your agency:

The DPS Central Regional Crime Laboratory, Phoenix, at (602) 223-2394
The DPS Northern Regional Crime Laboratory, Flagstaff, at (928) 773-3687
The DPS Southern Regional Crime Laboratory, Tucson, at (520) 746-4575

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