



Standard Practice for Preservation of Evidence in Sexual Violence Investigation¹

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1. Scope

1.1 This practice describes the basic considerations that will help preserve different items or types of sexual violence related evidence for subsequent analysis. This practice is designed to be used in conjunction with other specifications, guides, and practices associated with sexual violence examinations that are listed in Section 2.

1.2 This standard cannot replace knowledge, skills, or abilities acquired through education, training, and experience (see Practice E2917, Education and Training) and is to be used in conjunction with professional judgement by individuals with such discipline-specific knowledge, skills, and abilities.

1.3 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.4 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *ASTM Standards:*²

E1459 Guide for Physical Evidence Labeling and Related Documentation

E1492 Practice for Receiving, Documenting, Storing, and Retrieving Evidence in a Forensic Science Laboratory

E1732 Terminology Relating to Forensic Science

E1843 Guide for Sexual Violence Investigation, Examination, and Evidence Collection Protocol

E2057 Specifications for Preparation of Laboratory Analysis Requests in Sexual Assault Investigations

E2124 Specification for Equipment and Supplies in Sexual Violence Investigations

E2917 Practice for Forensic Science Practitioner Training, Continuing Education, and Professional Development Programs

3. Terminology

3.1 *Definitions*—For definitions of terms used in this practice, see Terminology E1732 and the Compilation of ASTM Standard Definitions.

4. Summary of Practice

4.1 Treat evidence collected from the victim or suspect, other physical evidence from the crime scene, and investigative facts and medical conclusions associated with a sexual violence examination in a manner that will ensure their suitable preservation for presentation in legal proceedings.

4.2 All individuals associated with the investigation shall be prepared to protect the evidence chain of custody and preserve what are often trace amounts of perishable biological materials, and other trace evidence such as hairs, fibers, lubricants, and particulate evidence that may not be visible to the unaided eye.

4.3 This practice is to be used in conjunction with Guide E1843 and Specifications E2057 and E2124.

4.3.1 Additional information can be found in Practice E1492.

5. Significance and Use

5.1 The procedures put forth in this standard are designed to preserve sexual violence evidence items during collection, storage, and transmittal for analysis at an appropriate laboratory.

6. Procedure

6.1 *Evidence Chain of Custody:*

6.1.1 The chain of custody in a sexual violence examination of a victim or suspect is unique due to the needs of an often mobile and traumatized individual.

6.1.2 An “examiner” or “investigator” in this usage can be, but is not limited to, an emergency medical practitioner, social worker, nurse, physician, or law enforcement officer.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard’s Document Summary page on the ASTM website.

6.1.2.1 Each “examiner” or “investigator” shall ensure that the chain of custody is continued for the transfer of the evidence to the next “investigator” in the process.

6.1.3 The basic requirements for the labeling and initiating a chain of custody of evidence items are described in Guide E1459.

6.2 *Preservation of Evidence:*

6.2.1 All items of physical evidence collected in the investigation shall be treated as though they are, or may contain, perishable biological materials until they can be examined by an appropriate forensic laboratory.

6.2.2 Collect and transport blood samples according to requirements set forth by the forensic laboratory. Dried stains can be transported at room temperature and preserved according to published standards or laboratory protocols.

6.2.2.1 In some cases, more than one blood sample can be required from an individual for a combination of serological (including DNA) and toxicological testing. The preservative or anticoagulant required in each sample can be different, and the analyzing laboratory’s requirements for each sample shall be followed.

6.2.3 Seal all blood and urine obtained for toxicological examination, and other items, which must remain in liquid form in appropriate containers and refrigerate according to published standards or laboratory protocols. Never freeze glass vials or jars containing liquid body fluids such as blood and urine as glass containers can break. Air dry any damp or wet items of evidence, especially biological evidence, at room temperature as soon as possible. Package and seal those items of evidence in paper envelopes, paper bags, or paper board containers, or containers that allow evaporation. An outer, sealed plastic bag can be used, if required, for air dried evidence and contained liquid specimens only. Avoid plastic bags for long-term storage of biological evidence.

6.2.4 Freezing can be necessary for some items such as liquid semen or an aborted fetus.

6.2.5 Label containers holding biological samples and stains with a biohazard label or notation.

6.3 *Packaging of Evidence:*

6.3.1 Unless trace evidence associated with the items could be lost in the process of separation, package each item of clothing, bedding, upholstery, weaponry, bindings, or other physical evidence separately, whenever practical and possible.

6.3.2 Photograph each item of evidence in its original (found) location and condition before collection. A package of the resulting photographs can accompany the evidence or be submitted as requested for evaluation of the evidence.

6.3.3 *Mark* bedding to indicate the upper surface. Cover the upper surface of bedding with paper, and then fold the bedding over on itself to prevent materials from being transferred to the opposite side from which they were originally deposited.

6.3.4 *Never package* items originating from two or more separate locations together. Separate beds in a single room, separate rooms in a single residence, or separate seats in a single automobile are examples of separate locations.

6.3.5 When possible, evidence sampling should be done in the appropriate forensic laboratory rather than in the field or at the scene of an assault. Items too unwieldy to be packaged and stored, or transitory evidence that could be lost in transport must be sampled in the field after scaled photography or diagramming, or both, of the items in their original locations.

6.3.6 Transport all items to be analyzed to the examining laboratory as soon as possible. These items shall be transmitted with the documentation specified in Specifications E2057. Jurisdictions should create minimum timeframes for collecting, transporting, and submitting evidence to a lab to ensure efficiency and integrity of evidence.

7. Keywords

7.1 chain of custody; evidence storage; evidence transmittal; preservation of evidence; sexual violence

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