



DNA Evidence Collection Checklist

Rely on Puritan for your evidence collection and DNA-sampling needs.

How to use this checklist.

This checklist is intended to be used as a general guide for documenting, collecting, packaging and transporting DNA evidence. Every department may have different policies and standards, and those should be observed. Officers should contact laboratory personnel or evidence collection technicians to answer any related questions that may come up.



Sources of DNA Evidence

DNA evidence can be found anywhere humans make contact. Anything that could have been touched or worn by criminal suspects should be investigated. The following items may contain biological material.

EVIDENCE	POSSIBLE LOCATION OF DNA ON THE EVIDENCE	SOURCE OF DNA
Baseball bat or similar weapon	handle, end	sweat, skin, blood, tissue
Hat, bandana, or mask	inside	sweat, hair, dandruff
Eyeglasses	nose or ear pieces, lens	sweat, skin
Facial tissue, cotton swab	surface area	mucus, blood, sweat, semen, ear wax
Dirty laundry	surface area	blood, sweat, semen
Toothpick	tips	saliva
Used cigarette	cigarette butt	saliva
Stamp or envelope	licked area	saliva
Tape or ligature	inside/outside surface	skin, sweat
Bottle, can, or glass	sides, mouthpiece	saliva, sweat
Used condom	inside/outside surface	semen, vaginal or rectal cells
Blanket, pillow, sheet	surface area	sweat, hair, semen, urine, saliva
Through-and-through bullet	outside surface	blood, tissue
Bite mark	person's skin or clothing	saliva
Fingernail, partial fingernail	scrapings	blood, sweat, tissue



Preparation

Have your CSI kit stocked and ready, including necessary PPE (booties, gloves, etc.).

WHEN ARRIVING AT THE SCENE, OFFICERS SHOULD BE SURE TO:

- Determine the most probative pieces of evidence and establish priorities
- Wear a mask and other personal protective equipment (PPE)
- Wear gloves and change them often
- Use disposable instruments or clean them thoroughly before and after handling each sample

SUPPLIES NORMALLY USED IN PROCESSING AND RECOVERING DNA SAMPLES INCLUDE:

- Bindle paper
- Envelopes
- Disposable scalpels
- DNA-free swabs
- Sterile water or a phosphate saline solution to moisten the swab prior to collection

TO AVOID CONTAMINATION DURING COLLECTION:

- Avoid touching the area where you believe DNA may exist
- Avoid talking, sneezing, and coughing over evidence
- Avoid touching your face, nose, and mouth



Documentation

Every step of DNA evidence collection must be documented to maintain the chain of custody.

ALL SAMPLES SHOULD INCLUDE:

- Collector's name
- Date and time of collection
- Agency case number
- Agency item identifier
- General description of item
- Description of where the item was collected from/to whom it belongs



DNA Evidence Collection

To compare the victim's or suspect's DNA profile to the recovered crime-scene DNA, the laboratory will need to have a control, or reference, sample for side-by-side comparison. A buccal swab is the easiest type of DNA control sample to obtain.

TO COLLECT A BUCCAL SWAB:

- Verify that the subject's mouth is empty
- Wash or sanitize hands then put on gloves and mask
- Choose a sterile cotton, foam, or flocked swab
- Carefully remove swab from package
- Avoid touching swab tip with gloves or against any surface
- Have the subject open his or her mouth and immediately bring swab tip to inside of cheek
- Gently rub and rotate swab along the inside of the cheek for 5-10 seconds, ensuring that the entire swab-tip has made contact with the cheek
- Immediately remove swab, being careful not to touch swab tip against teeth, lips, or other surface

WHEN COLLECTING CRIME SCENE DNA SAMPLES:

- Photograph the item or stain with and without scale
- Remove the swab from its wrapper, taking precautions to touch only the handle
- If the sample is dry, pre-moisten the swab tip with sterile distilled water. Place the tip of the swab on the surface, rotating slightly to allow any DNA to absorb into the fibers
- Allow the sample to air dry by placing the swab tip-first into the proper packaging



DNA Evidence Storage + Transport

Dried body fluids may be stored at room temperature or cooler. Solid human tissue samples do need to be refrigerated.

ALL SAMPLES SHOULD BE SUBMITTED TO THE LAB AS SOON AS POSSIBLE:

- Air-dry evidence thoroughly before packaging
- Put evidence in paper bags or envelopes, not plastic bags (paper keeps the sample dry), and do not use staples
- Avoid heat and direct sunlight
- Package items with sharp edges in boxes and note that a sharp object is enclosed
- Package items in such a way that minimal movement will occur within the package during transport

USING THE DOCUMENTATION STEPS OUTLINED ABOVE, BE SURE TO MAINTAIN THE CHAIN OF CUSTODY:

- From the scene
- To and from storage
- To and from the laboratory
- To and from court
- Back to storage or laboratory
- Anywhere else