

Forensic Evidence in Paternity Testing

With conventional paternity testing it is customary to collect a voluntary or court ordered buccal sample from an alleged father or individual for DNA analysis. In certain circumstances it may be either difficult to confront an individual or they might be deceased or otherwise not available to give a DNA sample. In these circumstances, abandoned evidence can often be useful in answering relationship questions. While the results will likely not be court admissible, unless collected by a third party investigator, they can provide valuable information on family relationships.

Sources of DNA Evidence

DNA is a component of virtually every cell in the human body and is constantly shed from a variety of sources, including skin cells, saliva and hair. Forensically valuable DNA can be found on evidence that is decades old. Several factors can affect DNA stability, such as sunlight, moisture, bacteria, and mold. Consequently, not all DNA evidence will result in a usable DNA profile. Common sources of forensic DNA evidence include:

- Band Aids, feminine products, diabetic glucose sticks
- Blanket, pillow, bed sheet
- Bone
- Bottle, can, or glass
- Dental floss
- Dentures
- Dirty laundry
- Electric razor clippings
- Eyeglasses
- Facial tissue, cotton swab
- Fingernail clipping
- Gum
- Hair w/ roots or follicles
- Hat

- Post mortem tissue
- Stamp or envelope (lickable)
- Teeth
- Toothbrush
- Toothpick
- Used cigarette

Evidence Collection and Contamination Prevention

Because extremely small samples of DNA can be used as evidence, greater attention to contamination issues is necessary when identifying, collecting, and preserving DNA evidence.

To avoid contamination of evidence that may contain DNA, always take the following precautions:

- Wear gloves
- Avoid touching the area where you believe DNA may exist
- Avoid talking, sneezing, and coughing over evidence
- Avoid touching your face, nose, and mouth when collecting and packaging evidence
- Air-dry evidence thoroughly before packaging
- Put evidence into new paper bags or envelopes, not into plastic bags

Transportation and Storage

When storing and transporting evidence that may contain DNA, it is important to keep the evidence dry and at room temperature. Once the evidence has been secured in paper bags or envelopes, it should be sealed, labeled, and transported in a way that ensures proper identification of where it was found and proper chain of custody. Never place evidence that may contain DNA in plastic bags because plastic bags will retain damaging moisture.

Setting the Standard for Quality DNA Identification



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