



INDIANA STATE POLICE FORENSIC SERVICES DIVISION

PHYSICAL EVIDENCE BULLETIN

MISSING PERSONS/UNIDENTIFIED REMAINS

INTRODUCTION: The National Missing Persons DNA database is part of the Combined DNA Index System (CODIS). The purpose of the database is to provide identifications using DNA by matching profiles from unidentified humans to profiles of missing individuals or closely related family members.

In order to best meet National DNA Index System (NDIS) eligibility requirements and individual case particulars, missing persons cases may be either worked at the Indiana State Police (ISP) Forensic Services Division (FSD) or outsourced to a laboratory equipped to perform mitochondrial DNA analysis or advanced kinship/pedigree testing. In order to perform some types of testing, it will be required that all appropriate and available case information be entered into the U.S. Department of Justice, Office of Justice Programs' National Missing and Unidentified Persons System (NamUs) by the appropriate medical examiner, coroner, or law enforcement agency. This information includes whether DNA samples have been collected and profiled; dental records and radiographs; fingerprint cards; photographs; and any other relevant information. If assistance is needed to enter the case into NamUs, please contact the ISP Biology Section.

Missing Persons cases, including unidentified human remains, may be submitted to the ISP FSD. The type of case and samples should be clearly marked on the Request for Laboratory Examination Form. When applicable, the appropriate Missing Person, Family Reference/Donor Consent, and/or Unidentified Person (aka human remains) form(s) shall also be completed.

The following sample types are eligible for entry into CODIS:

I. UNIDENTIFIED HUMANS (REMAINS)

- A. Includes skeletal or decomposed remains that are not identified by traditional means, as well as individuals who are unable or unwilling to identify themselves. Permission should be obtained from the coroner before samples from remains are submitted for analysis. After analysis is complete, remains not retained by the ISP FSD shall be picked up by the submitting agency as soon as reasonably possible.

1. Submit an oral/buccal swab standard or a blood standard in a purple-top vacutainer (containing EDTA) from living individuals or deceased individuals with limited decomposition.
 - a. Buccal swabs or blood stain cards are the fastest type of samples for the laboratory to process. For deceased individuals, a second sample as described below is also recommended in the event this first sample is too degraded.
2. Submit a bone, tooth, blood, or tissue sample as a DNA standard from deceased individuals, in addition to the samples described above. Use sterile tools to avoid contamination of the sample from other examined remains. The chance of obtaining a DNA profile from human remains is heavily dependent on the quality of the sample. Please contact the Biology Section for assistance, if needed.
 - a. *Tissue*-submit approximately 1 square inch as a standard only if little or no decomposition has occurred. Sample should be obtained by a medical professional and submitted in a plastic specimen jar with no preservatives. Store in an evidence freezer until time of submission.
 - b. *Bone/teeth* - if possible, submit at a minimum one bone sample of at least three inches in length, or one whole tooth with no fillings (molars are preferred). Preferred bone selection includes sections of a femur, a metatarsal or patella. Submission of multiple bone/tooth standards is strongly recommended, especially for potentially poor-quality samples (dry, damaged, sun-bleached, etc.). For assistance with sample selection, please contact the Biology Section.
 - c. If the sample is “wet” (has adherent soft tissues or fats)- package in a plastic container with no preservatives and store in an evidence freezer until time of submission.
 - d. If the sample is “dry”- package in paper and store at room temperature until time of submission.

II. DEDUCED VICTIM STANDARDS

- A. Includes items that can logically be assumed to contain DNA from the missing person. Care should be taken to select items that should contain DNA only from the missing individual. Examples may include, but not be limited to:
 1. Medical samples obtained prior to the individual going missing, such as slides, tissue specimens or heel stick cards.
 2. Personal care items (for example: razor, toothbrush, or hairbrush).
 3. Baby teeth known to come from the missing individual.
 4. Clothing worn by the missing individual, particularly unlaundered undergarments known to have been worn only by the missing individual.

- B. DNA standards from closely related family members should also be submitted, if possible, to support the validity of the obtained profile.

III. FAMILY REFERENCE STANDARDS

- A. Submit an oral swab standard or a blood standard in a purple top tube from parents, children, and/or full siblings of the missing individual.
- B. Consent forms signed by the donor and witnessed by collecting law enforcement officer are required for all family reference samples.

IV. CONTACT INFORMATION

For more information or to obtain submission and consent forms, please contact the Biology Section at the Indianapolis Regional Laboratory (IRL).

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IRL hours: 8:00 a.m. to 4:30 p.m.; Monday through Friday