

Physical Evidence Bulletin Toxicology (Blood or Urine)

Introduction

The Physical Evidence Bulletin (PEB) is a guideline intended for law enforcement agencies to follow in order to properly collect evidence for submission to BFS Laboratories. PEBs are not intended to be used in lieu of training in the collection of evidence.

If alcohol is suspected, please refer to the Blood and/or Urine Alcohol Physical Evidence Bulletin (PEB 01 and PEB 02) for guidelines pertaining to the collection, handling, and preservation of blood and urine as required by Section 1219 and 1219.1 of Title 17 of the California Code of Regulations.

Scope of Testing

Refer to the current Certificate of Accreditation issued to BFS by the ANSI National Accreditation Board (ANAB), to obtain a list of BFS laboratories that are accredited to conduct various testing types (Certificate # FT-0334).

Types of Examinations Performed:

The Bureau of Forensic Services (BFS) Toxicology Laboratory provides analytical services to law enforcement agencies throughout the State of California in regions where local forensic laboratory services are not available. Assistance is also provided to other county and agency laboratories in situations that are beyond their capabilities. Toxicology services will be performed on all felony cases, cases charged with Vehicle Code 23152 (f) or (g) violations, misdemeanor cases where measured blood alcohol concentration is at or below 0.09%, and misdemeanor cases where law enforcement specifically observed and notated drugs that cause impairment in their evidence submission.

Types of Examinations NOT Performed:

BFS does not analyze post-mortem samples. Consult with the medical examiner if interested in the collection and analysis of these types of samples. The Toxicology Laboratory does not perform services on Health and Safety Code 11550 violations.

Testing Limitations

- All toxicology casework will undergo targeted screen and confirm analysis. Please contact the Toxicology Laboratory if a specific drug is suspected and requires testing.
- Analysis is limited to drugs of abuse and many pharmaceutical drugs that affect the central nervous system. Samples will not be analyzed for poisons (i.e., arsenic, lead, cyanide, etc.) due to the lack of specialized equipment necessary for these analyses. Please contact the Toxicology Laboratory for a copy of the approved drug list.
- The Toxicology Laboratory does not currently analyze for gamma-hydroxybutyrate (GHB), inhalants, or mushrooms.

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Sample Collection and Packaging

Safety

- Wear disposable (*e.g.*, latex, nitrile) gloves when handling biological fluids.
- Follow your agency's universal precaution policies when handling evidence with potentially infectious materials.

Preliminary Considerations

The minimum quantity of sample recommended to perform drug screening and confirmation analyses and still provide sufficient quantity for reference analysis at the defendant's discretion is 5 milliliters for both blood and urine. If an alcohol analysis is requested, an additional 3 milliliters should be collected for a total of 8 milliliters.

Blood and urine samples should only be submitted in the sample containers approved by BFS. In most cases, blood is the preferred sample. The present pharmacological state of an individual cannot be assessed solely by the finding of a drug in a urine sample. If there is a significant time period (greater than 12 hours) between the incident and collection of a sample, a urine sample may be a better sample. Urine is the preferred sample in sexual assault cases. Urine samples up to 5 days (120 hours) may provide critical information in sexual assault cases.

Sample Collection

The guidelines for the collection of blood samples for toxicological analysis are summarized below:

- The requesting officer should witness the withdrawal of the sample. When the officer witnesses the actual withdrawal of the blood, it may eliminate the need for the phlebotomist to appear as a witness at trial.
- The collection tube should be inverted after collection at least eight times to ensure mixing of the preservative, anticoagulant, and blood.
- The person drawing the blood (*i.e.*, phlebotomist) should fill out and initial the label and affix it firmly to the blood collection tube.
- The officer should initial the label and place the sample in the evidence envelope.
- The officer should immediately complete the information on the evidence envelope and seal securely.
- The officer should check the box for drug testing if they observed and suspect drug related impairment, and note the specific drug suspected on the envelope.
- Appropriate steps to ensure integrity of the sample should be taken:
 - Once the packaging (*i.e.*, evidence envelope) is sealed, it must not be opened except for analysis by the laboratory.
- Each person having possession of the sealed envelope shall sign their name in the space provided for recording the "chain of possession".

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The guidelines for the collection of urine samples for toxicological analysis are summarized below:

- An authorized member of the law enforcement agency, preferably the arresting officer, should supervise the collection of the samples.
- Clean containers with tight fitting screw caps and a dry preservative are recommended for collecting urine samples. BFS laboratories can provide sample containers with 750 milligrams of dry preservative (sodium fluoride) added, evidence envelopes, and mailing containers.
- Invert urine container several times to mix urine with preservative. **Caution:** Be sure to secure the urine container caps tightly.

Sample Labeling

The **label** for the blood/urine collection container should contain at least the following information:

- Full name of subject.
- Date and time blood/urine was collected.
- Initials of person collecting blood/urine.
- Initials of witnessing officer.

Sample Packaging

The blood/urine collection container should be sealed in an evidence envelope marked as follows:

- Full name of subject.
- Subject driver's license number.
- Subject's date of birth.
- Submitting agency.
- Submitting agency case number.
- Offense charge.
- Geographical location where blood/urine sample was collected, i.e., name and /or address of hospital, jail, or other facility.
- Name of person collecting blood/urine sample.
- Date and time the blood/urine sample was collected.
- Signature of witnessing officer.
- A form for establishing the chain of possession for all persons handling the evidence.
- Other information such as anatomical location from which blood was drawn, or any special instructions, such as requested or suspected drugs may be added.

Evidence Submission Kits

Blood mailing kits (including blood collection tubes, envelopes, and labels) and urine mailing kits (including urine sample vials, envelopes and labels) are available upon request. Please contact your local BFS Regional laboratory.



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Contact Information

Please contact your regional BFS laboratory with any further questions that you may have.

For a list of regional laboratories please go to:

<https://oag.ca.gov/bfs/services>

To locate the most current Physical Evidence Bulletins please go to:

<https://oag.ca.gov/bfs/peb>