



Physical Evidence Bulletin Blood Forensic Alcohol

Purpose	<p>The Physical Evidence Bulletin (PEB) is a guideline intended for law enforcement agencies to follow 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.</p>
Analysis	<p>The Bureau of Forensic Services (BFS) provides analytical support to law enforcement agencies through the identification and quantitation of ethanol in biological samples. 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 below 0.09%, and misdemeanor cases where law enforcement specifically observed and notated drugs that cause impairment in their evidence submission.</p> <p>BFS does not analyze post-mortem blood samples. You may wish to consult with the medical examiner for the collection and analysis of these types of samples.</p>
Overview	<p>In accordance with Vehicle Code Section 23158, the California Department of Highway Patrol, in cooperation with the Department of Public Health and the Department of Justice, has adopted uniform standards for withdrawal, handling and preservation of blood samples for forensic alcohol analysis. The standards are outlined in this document.</p>
Preliminary Considerations	<p>Blood samples obtained from persons involved in traffic accidents or traffic violations shall be collected, handled and preserved as required by Sections 1219 and 1219.1 of Title 17 of the California Code of Regulations:</p> <ul style="list-style-type: none">• Blood samples are collected by venipuncture from living individuals as soon as feasible after the alleged offense and only by persons authorized by Section 23158 of the California Vehicle Code (licensed physician and surgeon, registered nurse, licensed vocational nurse, duly licensed clinical laboratory scientist or clinical laboratory bioanalyst, a person who has been issued a "certified phlebotomy technician" certificate pursuant to Section 1246 of the Business and Professions Code, unlicensed laboratory personnel regulated pursuant to Sections 1242, 1242.5, and 1246 of the Business and Professions Code, or certified paramedic acting at the request of a peace officer). A certified paramedic shall not withdraw blood for this purpose unless authorized by his or her employer to do so.• Alcohol or other volatile organic disinfectant shall not be used to clean the skin where a specimen is to be collected.• Sterile dry hypodermic needles and syringes or clean dry vacuum-type containers with sterile needles are to be used. Reusable equipment and containers are prohibited. The blood sample drawn is deposited into a clean, dry container (commercially prepared blood collection tube) which is closed with an inert stopper.• Tubes for collecting blood should contain an anticoagulant (such as potassium oxalate) and a preservative (such as sodium fluoride).



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- The DOJ supplied blood collection kits contain two blood tubes. To ensure an adequate amount of blood sample for alcohol and toxicology (drugs) analyses, please assure that both blood tubes are filled completely. The collection tube should be well mixed after collection to ensure mixing of the blood with the anticoagulant and preservative.
- The MINIMUM quantity of blood required to perform duplicate determinations by the laboratory and still provide sufficient quantity for referee analysis is 3 mL (approximately one teaspoon).
- DOJ laboratories performed non-interference testing on the following tube type:
 - VACUTAINER® Grey Stopper 10 mL, containing potassium oxalate, 20 mg and sodium fluoride, 100 mg.

Note: DOJ personnel provide corroborative testimony as to the contents and non-interference of the listed container. Samples received in other containers may be analyzed but may be subject to a legal challenge.

Labeling and packaging of blood tubes

The sample should include the following information to best maintain the identity of the sample (if a DOJ label is not available, the information should be written on the blood tube):

- Full name of subject.
- Initials of person drawing blood.
- Date blood drawn
- Initials of witnessing officer.

Lynn Petty Co. 1-800-255-6499	CALIFORNIA DEPT. OF JUSTICE
SUBJECT'S NAME _____	
INITIALS OF PERSON _____	
DRAWING OF BLOOD/OR WITNESS TO URINE	
DATE _____ TIME _____	
WITNESSING OFFICER _____	
BFS-40	

Packaging blood collection tubes

- The envelope should be filled out as completely as possible and should include:
 - Full name of subject.
 - Subject driver's license number.
 - Submitting agency and agency case number.
 - Geographical location where blood sample was drawn; i.e., name and/or address of hospital, jail or other facility.
 - Name of person drawing blood sample.
 - Date and time blood sample drawn.
 - Signature of witnessing officer.
 - Felony or misdemeanor designation
 - A form for establishing the chain of possession for all persons handling the evidence.
 - Offense



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- Other information such as agency or laboratory number, anatomical location from which blood sample was drawn, or any special instructions may be added.
- 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.

Note: Blood alcohol kits including blood collection tubes, envelopes and labels are available on request.

**Sample
Collection
Procedure**

The following guidelines for obtaining blood samples for forensic alcohol analysis should be followed:

1. The requesting officer should witness the withdrawal of the samples. When the officer witnesses the actual withdrawal of the blood, it may preclude the person drawing the blood from appearing as a witness at the time of the trial.
2. The collection tube should be well mixed after collection to ensure mixing of the blood with the anticoagulant and preservative.
3. The person drawing the blood (e.g., nurse, doctor, or paramedic) should fill out and initial the label and affix it firmly to the blood collection tube. The officer shall initial the label and place the sample in the prescribed evidence envelope. The officer shall immediately complete the required information on the envelope, and seal it securely.
4. Once the envelope is sealed, it must not be opened except for analysis in the laboratory.
5. Each person having possession of the sealed envelope shall sign their name in the space provided for recording the "chain of custody".

**For further
information
and additional
resources**

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/peb>

If drugs are suspected please refer to Physical Evidence Bulletin #8 (Toxicology) for specific requirements of submission of samples to the Toxicology laboratory.