



DUI Toxicology Submission Guidelines

General Submission Guidelines:

The Colorado Bureau of Investigation Forensic Services (CBIFS) recognizes that each case is distinctive. These submission guidelines will address typical situations encountered by your agency but cannot speak to all of the unique circumstances that are often exclusive to a particular case. With this understanding, the CBIFS provides the following information to assist you in the submission of your evidence.

Case Types:

Examiners in the Toxicology Section analyze body fluids and tissues for the presence and concentrations of alcohol and other drugs.

Driving Under the Influence (DUI/DUID)

The Toxicology Section receives blood samples taken by law enforcement agencies during DUI/DUID investigations to determine alcohol and drug content. Expert toxicology testimony regarding the effects of a drug or a combination of drugs on human performance and driving behavior is often necessary to establish impairment.

Drug Facilitated Crime (DFC) (formally known as Drug Facilitated Sexual Assault (DFSA))

Toxicology samples (Blood and Urine) should be collected *as soon as possible* after a suspected drug-facilitated case is identified and informed consent is obtained, even if patients are undecided about reporting to law enforcement.

- The length of time that drugs used for drug-facilitated assault remain in urine or blood depends on a number of variables (e.g., the type and amount of drug ingested, patients' body size and rate of metabolism, whether patients had a full stomach, and whether they previously urinated).
 - Urine allows for a longer window of detection of drugs commonly used in these cases than blood.
 - The sooner a urine specimen is obtained after the assault, the greater the chances of detecting substances that are quickly eliminated from the body.

Specimen(s) Collection Recommendations:

A sufficient volume of sample is necessary to complete toxicological testing. Too little sample may limit what tests the laboratory can perform, and it may be necessary to decide which tests are most important and which can be delayed until it is known whether or not there is enough sample

Blood Samples

Blood samples should be collected in gray top vials (or equivalent) containing potassium oxalate and sodium fluoride to prevent clotting and preserve the analytes in the samples through enzyme inhibition.

The CBI toxicology kit contains two 10mL gray top vial that contain sodium fluoride and potassium oxalate. One tube is tested by CBI on behalf of the prosecution and the other tube is meant for secondary testing. It is important to fill both tubes as full as possible so that all necessary toxicological testing can be performed. The blood sample also needs to be collected as quickly as possible to prevent loss of drug through metabolism.

DFC Cases: If the alleged incident occurred within 24 hours (1 day), a blood and urine specimen should be collected. *NOTE: Taking a blood sample does not preclude a urine sample from being collected-take BOTH.*

- A blood sample may indicate the time when drugs were ingested and what is possibly affecting the person at the time of the incident.

It is recognized that hospital or clinical specimens collected pursuant to medical treatment may be collected in blood vials with or without preservatives. Such exceptions shall be noted on the toxicology worksheet with an appropriate description of the evidence (e.g., purple top, red top, green top, yellow top SST, serum, plasma, etc).

Urine Samples

Urine samples should be placed in a watertight sealed container. Otherwise be sure the specimen container is closed tightly and placed in a sealed plastic bag to hold any urine that might leak out of the container.

DFC Cases: If the alleged incident occurred within 120 hours (5 days), a urine specimen should be collected.

- A urine sample allows for a longer window of detection of drugs commonly used in drug facilitated crimes.

Documentation:

- The Agency case number and/or subject's name should be recorded on any item submitted for toxicology testing, including but not limited to specimen container/vial(s) and the cardboard box provided with the blood vials.
- , The specimen collection time(s) should be recorded on the RFLE. In general, the specimens with the earliest collection times will be analyzed whenever possible.

Summary:

These Toxicology guidelines are recommendations of what should be included in the initial evidence submission to the CBIFS. In support of your agency and upon request, the CBIFS will provide training on the proper collection and submission of biological specimens. Please see our General Submission Guidelines for an overview of the submission process.

Please feel free to contact us at any time regarding your Toxicology submissions. It is our goal to ensure your understanding, educate you on situations that may be unfamiliar to your agency and to work collaboratively to ensure the citizens of Colorado are served at the highest possible level.