

**FORENSIC TOXICOLOGY LABORATORY
OFFICE OF CHIEF MEDICAL EXAMINER
CITY OF NEW YORK**

**ANALYTICAL TESTING GUIDELINES
(HUMAN PERFORMANCE FORENSIC TOXICOLOGY)**

The Forensic Toxicology Laboratory (FTL) will perform, in addition to post mortem analysis, human performance forensic toxicology testing (HPFT) on specimens submitted by the New York City Police Department, District Attorney's Office or other legitimate law enforcement agencies. All HPFT specimens are submitted to FTL through the OCME Evidence Department.

The same analytical methodologies applied to post mortem testing are applied to HPFT testing.

INITIAL TESTING (SCREENING)

The general approach to initial testing depends on the type and amount of submitted specimens.

1. If blood and urine are available:

Blood is tested for the presence of:

- a. Volatiles (ethanol, methanol, isopropanol, acetone) by head-space gas chromatography (HS/GC)

Urine is tested for the presence of:

- a. Amphetamines, cannabinoids, barbiturates, opiates, benzoylecgonine and benzodiazepines by enzyme immunoassay (EI)
- b. Salicylates and acetaminophen, by color test (CT)
- c. Basic drugs by gas chromatography using a nitrogen-phosphorus detector (GC) and mass spectrometry (GC/MS).
- d. Drugs included in this screening procedure are listed under "Agents included in routine screening."

2. If blood is available, but urine is not submitted, blood is tested for the presence of:

- a. Volatiles (ethanol, methanol, isopropanol, acetone) by head- space gas chromatography (HS/GC)
- b. Amphetamines, benzoylecgonine, opiates, barbiturates, benzodiazepines and cannabinoids by enzyme immunoassay (ELISA).

- c. Basic drugs by gas chromatography using a nitrogen-phosphorus detector (GC) and mass spectrometry (GC/MS).

Drugs included in this screening procedure are listed under “Agents included in routine screening.”

CONFIRMATORY AND QUANTITATIVE TESTING

Results from the initial testing will determine the course and scope of confirmatory and quantitative testing. The final toxicology report is issued upon completion of the initial testing and data review for cases where no drugs are detected by the above initial testing.

All cases with positive findings are further tested to either confirm the initial findings or to perform quantitative analyses. Whenever possible, two test (based on different chemical or physical principles) are performed for each analyte. Whenever possible and practical, at least two different specimens from the same case are analyzed to substantiate the toxicologic findings.

ADDITIONAL TESTING

Additional testing, if requested, will be performed if analytical methodologies are available in the FTL. District Attorney’s Offices from all five boroughs will assume financial responsibility for tests submitted, at their request, to a reference laboratory.

HPFT REPORTS

The final toxicology report is issued upon completion of all necessary testing and multilevel data review. A copy of the report is submitted to the Assistant District Attorney upon receipt of a written request.