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## *Everything You Wanted to Know about Drug/Alcohol Screening in Five Minutes or Less*

*David H. Levy*

### **FIVE DIFFERENT WAYS TO DETECT DRUG/ALCOHOL**

1. **Breathalyzer**
  - Used only for alcohol detection.
  - Results are instantaneous.
  - A printed readout will give you the amount of blood alcohol in a person's body.
  - Inexpensive.
2. **Saliva Test**
  - Used only for alcohol detection.
  - A swab collects saliva on the inside cheek of the person.
  - This acts only as a screening test.
3. **Urine Analysis**
  - Used only for drug detection.
  - Measures the five most common types of drugs:
    - Marijuana
    - Cocaine
    - Amphetamines
    - PCP
    - Opiates (heroin, morphine, codeine).
  - Sample is first tested for presence of drugs.
  - If there is a finding of any drugs in the urine, a second-level test called a GCMS test (gas chromatography mass spectrometry) will be used to confirm the concentration of drugs in the urine.
  - The drugs that can be detected in the urine are as follows:
    - Marijuana—three weeks to three months.
    - Cocaine—three to four days.

- Amphetamines—fourteen days.
  - PCP—fourteen days.
  - Opiates—fourteen days.
4. Hair Follicle Test
- Used only for drug detection.
  - Test measures the last three inches of growth from the root.
  - Hair grows approximately one inch a month. Therefore, it will test for drugs taken in the last ninety days.
  - It tests for the same five drugs listed above.
  - It tests both for the drug itself and the metabolites of the drugs. A metabolite is the residue of the drug after it has been metabolized in the system, thereby confirming that the drug was ingested and not in the hair environmentally.
  - Cost-\$500-\$600.
5. Blood Test
- This test is basically out of favor with the testing labs and is not used any longer. It is occasionally used to detect alcohol in DUI-type cases.

#### **HELPFUL HINTS**

1. When you are testing for the presence of drugs, make sure you ask for a hair follicle test. It will show the presence of drugs in the system or body longer and more accurately than any of the other tests.
2. Make sure there is a positive identification of the person taking the test.
3. Caveat: Sometimes hair dye or other hair processing treatments affect the results.
4. If you elect to use only a urine test, make sure the lab you use does a GCMS test.

If the test is positive, have the test subject be required to pay for the test.

# Sample Urine Analysis Report

CLIENT INFORMATION  
 T329 00  
 TOP TECH LABS (TC)  
 816 SEERS DR  
 SCHAUMBURG, IL 60173



PRINTED: 03/23/2001 13:56	ACCESSION #
REQ. #	PATIENT ID #
DATE OF BIRTH	COMPANY NAME
AGE/SEX	COLLECTION SITE DAVID LEVY
SS #	SPECIMEN TYPE OTH

PATIENT NAME	LAB ID #
REFERRING CLIENT (TOP TECH LABS, ETC)	

TEST RESULT UNITS REFERENCE RANGE  
 COLLECTED: 03/22/2001 18:05 RECEIVED: 03/23/2001 11:00 RESULTS TO MRD  
 CODES ORDERED: SE4C (PerfAt)

EIA PANEL 4-CONF  
 AMPHETAMINE  
 COCAINE METABOLITE  
 OPIATE  
 PHENCYCLIDINE  
 MARIJUANA METABOLITE  
 CERTIFYING SCIENTIST

NEGATIVE [NEG]  
 NEGATIVE [NEG]  
 NEGATIVE [NEG]  
 NEGATIVE [NEG]  
 NEGATIVE [NEG]

DANIEL D. BRETL, B.S.

**MAR 23 2001**  
**MRO-NEGATIVE**  
*[Signature]*  
 MEDICAL REVIEW OFFICER

DRUG CUTOFF LEVELS (NG/ML)	EIA SCREEN	GC/MS
AMPHETAMINES	1000	500
CANNABINOIDS	50	15
COCAINE METABOLITE	300	150
OPIATES	2000	2000
PHENCYCLIDINE	25	25
BARBITURATES/BENZODIAZEPINES	200	POS/NEG
METHAQUALONE/METHADONE/DARVON	300	POS/NEG

TO THE EMPLOYER: This information CANNOT be re-released without the specific consent of the employee, except for reasons of litigation in a court of law. General authorizations DO NOT qualify. As in any screening procedure, false positives may occur. Unconfirmed positive results do NOT meet forensic requirements of the CAP Laboratory Accreditation Program. Prescription drugs, over-the-counter medications and certain foods can be detected. WE SUGGEST THE USE OF A MEDICAL REVIEW OFFICER TO INTERPRET THESE RESULTS.

SPECIMEN TESTED UNDER CHAIN OF CUSTODY PROTOCOLS.  
 Dilute Specimen

[\*Indicates Critical Result] = I0, H, L, [Indicates Abnormal Result]  
 FINAL REPORT - ALL TESTS COMPLETE  
 CDC,PT 03/23/2001 13:56 \* END OF REPORT

# Sample Hair Follicle Test Report

UNITED STATES DRUG TESTING LABORATORIES  
1700 S. MOUNT PROSPECT ROAD  
DES PLAINES, ILLINOIS 60018  
(800) 235-2357  
FAX (847) 375-0775

## FINAL TOXICOLOGY REPORT

03/27/01 (Tue)

\*\*\*\*\*CONFIDENTIAL\*\*\*\*\*

11:35am

Client Name : TOP TECH LABS, INC  
Contact : ATTN: KEN STOLLER/PRESIDENT  
Address : 816 SPERS DRIVE  
SCHAUBURG, ILL 60173  
Date Received : 3/23/01  
Date Collected : 3/22/01  
FAX: 847.330-0755

## SPECIMEN IDENTIFICATION

Name  
Client Number  
Analysis Requested

USDTL Lab Number:

## RESULTS:

Cocaine DETECTED  
Benzoyllecgonine (Cocaine Metabolite) DETECTED  
Cocacethylene (Cocaine Metabolite) DETECTED

The presence of Cocaine, Benzoyllecgonine and Cocacethylene was confirmed by Gas Chromatography/Mass Spectrometry, which has a detection cutoff of 0.1 ng/milligram for Cocaine, Benzoyllecgonine and Cocacethylene.

The result was 1.08 ng/mg of Cocaine.  
0.38 ng/mg of Benzoyllecgonine.  
1.08 ng/mg of Cocacethylene.

Unless reported as detected, the following drugs or classes were screened for by immunoassay and were not detected at the cutoff concentrations:\*\*

Amphetamines 0.5 ng/milligram  
Cannabinoids 0.005 ng/milligram  
Cocaine Metabolite (Benzoyllecgonine) 0.5 ng/milligram  
Opiates 0.2 ng/milligram  
Phencyclidine (PCP) 0.3 ng/milligram

Douglas E. Lewis  
Technical Director

\*Note: The amount of hair processed for analysis determines the final sensitivity of the assays. The cutoffs described above are based on analyzing 50 milligrams of hair. Smaller samples will have proportionally higher cutoffs.