

Substance Use Toxicology Fact Sheet: ChildGuard®

Overview

- Hair is a useful specimen type that provides a long detection window compared to other popular drug testing strategies such as urine or oral fluid testing.
 - Hair is a non-invasive collection that does not present gender issues during the collection procedure.
 - Head hair grows an average rate of 0.5 inches per month and USDTL only analyzes the 1.5 inches of hair closest to the scalp.
 - Drug and alcohol biomarkers may be detectable in hair for up to approximately 3 months.
 - Due to difference of the growth rate and the growth pattern of body hair differs. Drug and alcohol biomarkers may be detectable in body hair for up to approximately 12 months. Head hair and body hair should not be mixed.
- All non-negative specimens are confirmed using a second aliquot of the original specimen, which dramatically increases the specificity and accuracy of the final toxicology result.
- Specimens may only be submitted through client business accounts.
- This test was developed, and the performance characteristics were determined by United States Drug Testing Laboratories as a Laboratory Developed Test (LDT). Therefore, it does not require clearance by the United States Food and Drug Administration (FDA). This test is intended for forensic purposes.

Methodology

- Initial screen and confirmation. All specimens are initially tested using Immunoassay, Laser Diode Thermal Desorption Tandem Mass Spectrometry (LDTD-MS/MS), or Liquid Chromatography Tandem Mass Spectrometry (LC/MS/MS), and non-negative specimens are reflexed to LC/MS/MS or 2-Dimensional Gas Chromatography-Tandem Mass Spectrometry (GC/GC/MS/MS) or Gas Chromatography Mass Spectrometry (GC/MS) for confirmation testing.

Test Performed

7 Days a Week.

Turnaround Time

- Negative screening test results within 1 business day of receipt in the laboratory.
- Further confirmation testing requires an additional 1-2 business days.
- Turnaround time begins from receipt of the valid specimen –accompanied by a properly documented valid order– into the laboratory.
- Some tests require additional time to process and will fall outside the standard turnaround time window.

Reports

- Results are available through the USDTL web portal.
- Results are not provided via telephone.
- Results can only be discussed with authorized agents.
- Results are only discussed with individuals who have been authorized by the client in writing.

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Compliance Category

Laboratory Developed Test (LDT).

New York State Department of Health Status

This test is approved by the NYSDOH.

Specimen Requirements

For all tests below a 10-panel, specimen volume should be at least 100mg of specimen. This is equal to a bundle of hair that is 1.5 inches in length and about ¼ inch in diameter, the diameter of a #2 pencil. For EtG, add-ons, and/or any tests 10-panel and above, at least 150mg of specimen should be submitted. We recommend weighing the specimen on a gem scale.

Specimen Preparation

Please refer to the ChildGuard® Collection Instructions.

Specimen Container

Foil in tamper-evident sealed envelope.

Storage Conditions

Specimens should be stored in a dry, dark area at room temperature and may be shipped at ambient temperature.

Unacceptable Conditions

Tamper-evident security seal absent or not intact, chain of custody documentation incomplete, hair not aligned properly, unable to identify root end, obvious mixing of head and body hair. See collection instructions for more details.

Stability

1 year ambient.

Specimen Retention

- Negative specimens are maintained under chain of custody for at least 7 days.
- Positive specimens are maintained under chain of custody for at least 1 year.

Special Precaution

Do not use ethanol-based products in or around the collection area when collecting specimens.

Limitations

- Time, dose, or frequency of use may not be inferred.
- A negative result is not evidence of abstinence.
- Conclusive evidence of environmental exposure does not infer abstinence.
- The result of a subsequently collected specimen does not refute the validity of the results of a previous specimen.
- Single doses are unlikely to produce a positive result.
- Cosmetic treatment such as bleaching, dyeing, permanent waving, or chemical straightening may alter the results.
- Environmental exposure may be detected in both the ChildGuard® and regular hair tests.
- Ingestion may be detected with both the ChildGuard® and regular hair tests.

Information is up-to-date as of 05.02.2025.

Hair and Fingernail Testing - Alcohol & Other Drugs

Panels:	18	17	16	15	14	13	12	10	9	7	5
Amphetamines amphetamine, MDA, MDEA, MDMA, methamphetamine*	●	●	●	●	●	●	●	●	●	●	●
Cannabinoids carboxy-Δ9-THC	●	●	●	●	●	●	●	●	●	●	●
Cocaine benzoylecgonine, cocaethylene, cocaine, norcocaine	●	●	●	●	●	●	●	●	●	●	●
Opiates 6-MAM, codeine, hydrocodone, hydromorphone, morphine, norhydrocodone	●	●	●	●	●	●	●	●	●	●	●
Phencyclidine phencyclidine (PCP)	●	●	●	●	●	●	●	●	●	●	●
Benzodiazepines alprazolam, diazepam, midazolam, nordiazepam, oxazepam, temazepam	●	●	●	●	●	●	●	●	●	●	
Barbiturates amobarbital, butalbital, pentobarbital, phenobarbital, secobarbital	●	●	●	●	●	●	●	●	●	●	
Methadone EDDP, methadone	●	●	●	●	●	●	●	●	●		
Oxycodone noroxycodone, oxycodone, oxymorphone	●	●	●	●	●	●	●	●	●		
Meperidine normeperidine	●	●	●	●	●	●	●	●			
Tramadol tramadol	●	●	●	●	●	●	●				
Fentanyl acetyl fentanyl, acetyl norfentanyl, fentanyl, norfentanyl	●	●	●	●	●	●	●				
Ketamine ketamine, norketamine	●	●	●	●	●	●					
Buprenorphine buprenorphine, norbuprenorphine	●	●	●	●	●						
Zolpidem zolpidem (e.g. Ambien®)	●	●	●	●							
Kratom 7-hydroxymitragynine, mitragynine	●	●	●								
Gabapentin gabapentin	●	●									
Xylazine hydroxy-xylazine, xylazine	●										

*D/L Methamphetamine Isomer testing is available upon request for specimens that test positive for methamphetamine. Turnaround time is 5-7 business days. Turnaround time is 2-4 business days for additional add-ons or for any testing of hair or fingernail 15-panel and above.

Hair Detection Window: Up to approximately 3 Months

Fingernail Detection Window: Up to approximately 3-6 Months

Additional Add-On or Stand Alone Options

Cotinine

cotinine, nicotine

Diphenhydramine

diphenhydramine

EtG (Direct Ethanol Biomarker)

ethyl glucuronide

Gabapentin

gabapentin

High-Potency Opioids (HPOs)

6-β-Naltrexol (naltrexone metabolite), butorphanol (e.g. Stadol®), nalbuphine (e.g. Nubain®), naloxone (e.g. Narcan®), naltrexone (e.g. Revia®)

Kratom

7-hydroxymitragynine, mitragynine

Medetomidine

medetomidine

Phenibut

phenibut

Propofol Glucuronide

propofol glucuronide (e.g. Diprivan®)

Psilocin

psilocin

Tianeptine

tianeptine, tianeptine MC5

Xylazine

hydroxy-xylazine, xylazine

Hair Exposure Drug Testing (ChildGuard®): Up to approximately 3 Months

		Panels: 12 10 9 7 5				
Amphetamines	amphetamine, MDA, MDEA, MDMA, methamphetamine	●	●	●	●	●
Cannabinoids	Δ8-THC, Δ9-THC, Δ10-THC, cannabidiol (CBD), carboxy-Δ9-THC	●	●	●	●	●
Cocaine	benzoylecgonine, cocaethylene, cocaine, norcocaine	●	●	●	●	●
Opiates	6-MAM, codeine, hydrocodone, hydromorphone, morphine, norhydrocodone	●	●	●	●	●
Phencyclidine	phencyclidine (PCP)	●	●	●	●	●
Benzodiazepines	alprazolam, diazepam, midazolam, nordiazepam, oxazepam, temazepam	●	●	●	●	
Barbiturates	amobarbital, butalbital, pentobarbital, phenobarbital, secobarbital	●	●	●	●	
Methadone	EDDP, methadone	●	●	●		
Oxycodone	noroxycodone, oxycodone, oxymorphone	●	●	●		
Meperidine	normeperidine	●	●			
Tramadol	tramadol	●				
Fentanyl	acetyl fentanyl, acetyl norfentanyl, fentanyl, norfentanyl	●				

Additional Add-On or Stand Alone Options

Extended Cannabinoids

Δ8-tetrahydrocannabinol (THCP), Δ9-tetrahydrocannabinol (THCP), cannabidiol (CBDP), hexahydrocannabinol (HHC)

Higher hair exposure testing panels are available upon consultation.