



Hair drugs of abuse testing offers up to a 90-day window for detection of drug use<sup>1</sup> prior to the test date and a convenient collection process that can be performed almost anywhere.

### Specimen Collection

The collector obtains a 100-milligram sample of hair (90 to 120 strands) cut at the scalp. The collector secures the hair sample in foil and completes chain-of-custody documentation in preparation for shipment to the testing laboratory. Since hair samples are obtained in full view of the collector, the process minimizes the likelihood of sample adulteration or specimen substitution.

LabCorp offers hair specimen collections in many of our patient service centers (PSCs) located throughout the United States. Our extensive network offers your employees convenient access to a LabCorp PSC.

### Testing Process

LabCorp performs the initial screening test by enzyme-linked immunosorbent assay (ELISA) microplate technology.<sup>1</sup> ELISA is one of the current screening methods with the sensitivity to detect drugs in hair specimens. LabCorp offers gas chromatography/mass spectrometry (GC/MS) or GC/MS/MS confirmation for presumptive positive screens.

Results for specimens that screen negative for all drugs are generally available within 24 hours after specimens are received at the laboratory. Results for confirmation testing of presumptive positive screens are usually available within an additional 72 hours.

### Drugs Detected

- Amphetamine/Methamphetamine/Ecstasy
- Marijuana metabolite
- Cocaine and metabolites
- Opiates (codeine, morphine, 6-acetylmorphine)
- Phencyclidine (PCP)

### Connectivity Solutions

LabCorp offers a variety of connectivity solutions to meet the unique needs of each client. From automatic faxing to Web-based applications, LabCorp's connectivity solutions assist in streamlining the result reporting process and provide an efficient method for specimen status inquiries. Our Web-based reporting and specimen status inquiry options allow clients to access information securely from any computer with Internet access. For organizations that require electronic importing of data into their proprietary system, LabCorp offers electronic data interface (EDI) capabilities for efficient result reporting.

### Available connectivity options include:

- Web-based result reporting
- Web-based specimen status
- Electronic Data Interface for result reporting
- Electronic Data Interface for specimen status
- Automatic faxing
- Voice reporting (in English and/or Spanish)

## Frequently Asked Questions

### 1. What is hair drug testing?

Drug and drug metabolite(s) are incorporated into the hair matrix from the bloodstream following drug use. Hair drug testing detects drugs that are embedded in the hair.<sup>1</sup>

### 2. How much hair is needed for a hair drug test?

A hair drug test with initial screen and confirmation requires 100-milligrams of hair (90 to 120 strands).

### 3. What time period does a hair drug test cover?

Hair growth rates vary; typically, head hair grows at an average of one-half inch per month. Therefore, a 1.5-inch hair sample detects drug use up to 90 days prior to testing.<sup>1</sup>

### 4. How does the drug detection window for hair compare to urine and oral fluid?

Drug detection times vary depending on the dose, sensitivity of the testing method used, the preparation and route of administration, the duration of use (acute or chronic), the matrix that is analyzed, the molecule or metabolite that is looked for, the pH and concentration of the matrix (urine, oral fluid), and variations in metabolic and renal clearance.<sup>2</sup>

In general, the detection time is longest in hair, followed by urine and oral fluid.<sup>2</sup> Drugs in hair may be detectable for approximately 90 days, whereas drugs in urine are generally detectable for one to seven days or longer in chronic users and in oral fluid from 5 to 48 hours.<sup>2</sup>

### 5. How soon after use can a drug be detected in hair?

Drug (and/or metabolite) can be detected approximately 7 to 10 days from the time of drug use. This is the time in which the affected hair grows from the follicle to emerge above the scalp.<sup>1</sup>

### 6. How can tests be run on people with little or no hair?

Hair may be collected from several head locations and combined to obtain the required amount of hair. If no head hair is collectable, an employer may choose to use oral fluid or urine testing to detect drug use.

### 7. Can hair collected from a brush be used?

No, a hair sample must be collected using proper chain-of-custody protocol and collection techniques. The test subject must verify the authenticity of the sample at the time of collection.

### 8. When testing for drugs, what are the differences between hair testing cut-off levels and urine testing cut-off levels?

Urine cut-off levels are expressed in nanograms per milliliter (ng/mL) or as a weight of drug per unit volume of urine. Hair cut-off levels are expressed in picograms per milligram (pg/mg) or as a weight of drug per unit weight of hair.

### 9. How does the laboratory address external exposure to certain drugs, like marijuana or crack (cocaine) smoke?

While washing the hair sample may remove some of the contamination, ultimately external exposure can be differentiated from actual use because of the presence of the drug metabolite, which is not present when environmental contamination is the source of the drug.

## References

1. Proposed revisions to Mandatory Guidelines for Federal Workplace Drug Testing Programs. *Federal Register*. April 11, 1988; 53:11970; amended June 9, 1994; 59:29908; September 30, 1997; 62:51118; April 13, 2004; 69:19675-19676,19679,19697-19698.

2. Verstraete, AG. Detection times of drugs of abuse in blood, urine, and oral fluid. *Ther Drug Monit*. 2004; 28(2):200-205.

To begin hair drugs of abuse testing or for additional information, contact us at [salesots1@labcorp.com](mailto:salesots1@labcorp.com) or 800-343-8974.

Visit our Web site: [www.LabCorpSolutions.com](http://www.LabCorpSolutions.com)



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