



## URINE DRUG TESTING PRESUMPTIVE AND DEFINITIVE

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ELITE CLINICAL LABORATORY

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## ◀ Objective of Urine Drug Testing

The primary objective of urine drug testing (UDT) is to provide physicians with a reliable method for detecting the presence or absence of specific drugs and their metabolites. This assists in:

## ◀ Monitoring Compliance with Prescription Medications

Prescription drug compliance refers to how closely patients follow the medication regimen prescribed by their healthcare providers. Urine drug testing plays an instrumental role in verifying if:

- Patients are taking their medications as prescribed.
- Patients are taking the correct dosage.
- The prescribed drug is being metabolized appropriately in the body.

### **Significance for Physicians:**

Ensuring compliance is vital for therapeutic efficacy and patient safety. Non-compliance can lead to treatment failures, complications, or potentially harmful drug interactions. Regular monitoring can also prevent potential diversion, where prescribed medications might be sold or given to others.

## ◀ Identifying Potential Drug Abuse or Misuse

Drug abuse refers to the habitual taking of addictive or illegal drugs, while misuse can refer to not following medical instructions, such as overusing or underusing a prescribed medication. UDT helps in:

- Detecting the presence of drugs that were not prescribed.
- Identifying patterns consistent with binge use or other misuse behaviors.
- Recognizing the absence of a prescribed drug, which might suggest diversion.

### **Significance for Physicians:**

Identifying abuse or misuse early can lead to timely interventions, reducing the risk of addiction, overdose, and associated health complications. It allows healthcare providers to direct patients to necessary resources or treatments.





## ◀ Assisting in Diagnosis and Treatment Decisions for Patients

UDT can be a diagnostic tool in assessing specific health conditions or symptoms where drug use might be a contributing factor. For example, unexplained drowsiness, altered mental states, or certain cardiac symptoms might be influenced by drug use.

### **Significance for Physicians:**

Having a clear understanding of a patient's drug profile can guide diagnostic evaluations. It aids in differentiating between symptoms caused by drug interactions, side effects, or other medical conditions. This clarity ensures that treatments or interventions prescribed are appropriate and safe.

## ◀ Ensuring Safety in Workplaces or Other Settings Where Drug Use May Pose a Risk:

In many professions, especially where public safety is concerned (e.g., pilots, bus drivers, and machinery operators), it's critical that individuals are not under the influence of impairing substances. UDT can:

Detect recent drug use, ensuring that employees are fit for duty.

- Serve as a deterrent for drug use, knowing that regular or random testing occurs.
- Confirm or rule out drug use in post-accident investigations.

### **Significance for Physicians:**

Physicians play a vital role in workplace safety by conducting these tests, interpreting results, and providing expert advice on fitness for duty. A clear understanding of the implications of positive tests in these settings can guide appropriate medical recommendations and follow-up actions.

## ◀ Identifying Compounds: What Does This Testing Detect?

Our comprehensive UDT identifies a wide array of drugs, both prescribed and illicit. Specifically, it detects:

- Commonly prescribed medications, such as opioids, benzodiazepines, and antidepressants.
- Illicit substances, including morphine, MDA, Phencyclidine (PCP) and more.
- Over-the-counter medications and their potential interactions with other drugs.
- Drug metabolites, which are products of drug breakdown in the body, offering insights into the timing and quantity of drug usage.

## ◀ Drug Classes

Urine drug testing typically focuses on a wide variety of drug classes to ensure comprehensive results. Here's a breakdown of common drug classes for both screening and confirmation testing:

### Screening (Presumptive)

Amphetamines  
Barbiturates  
Benzodiazepines  
Buprenorphine  
Cocaine Metabolites  
Ethanol  
Methadone  
Opiates  
Cannabinoids  
Ecstasy



### Confirmation (Definitive)

#### Stimulants

Amphetamine  
Methylphenidate  
Phentermine

#### Amphetamines

Methamphetamine

#### Benzodiazepines

7-Aminoclonazepam  
Nordiazepam  
Oxazepam  
Temazepam  
Lorazepam  
Alpha Hydroxylprazolam

#### Muscle Relaxers/ Sleeping Aids

Carisprodol  
Gabapentin  
Ketamine  
Norketamine  
Meprobamate  
Pregabalin  
Zolpidem  
Cyclobenzaprine

#### Barbiturates

Butalbital  
Phenobarbital  
Pentobarbital/Amobarbital

#### Tricyclic Anti-Depressants

Amitriptyline  
Nortriptyline

#### Opiates/Synthetics:

Codeine  
Morphine  
Hydrocodone  
Hydromorphone  
Oxycodone  
Oxymorphone  
Meperidine  
Normeperidine

#### Illicits/Others:

6-Acetyl-Morphine  
Benzoyllecgonine  
MDA  
MDMA  
Phencyclidine (PCP)  
THC-COOH  
EtS

#### Opioids

Buprenorphine  
Norbuprenorphine  
Fentanyl  
Norfentanyl  
Methadone  
EDDP  
Tapentadol  
Tramadol  
O-Desmethyltramadol

#### Alcohol

Ethanol (EtS)

**At Elite Clinical Laboratory, we also perform the Validity testing for pH, Specific Gravity and Urine Creatinine.**

## ◀ Collection, Sample Handling, and Shipping Criteria

### Collection:

- Use a clean, dry, sterile container.
- Ensure a sufficient volume of at least 30 ml.
- Make sure the sample is fresh (preferably within 2 hours of collection).

### Sample Handling:

- Securely cap the specimen container.
- Mix the sample gently to ensure any settled particles are evenly distributed.
- Label the specimen container with two identifiers - Patient's name & DOB or Patient's name and Sample collection date.

### Shipping Criteria:

- Samples should be securely packed to prevent breakage or leakage during transport.
- Specimens should be stored at 2-8°C if not being shipped immediately and can be refrigerated for up to 5 days.
- The Stability Period for the urine samples is 10 days from the collection date.
- Ensure the inclusion of relevant paperwork, including a completed requisition form, inside the shipment package.

## ◀ Possible Outcomes of the Testing

- Negative Result: No drugs or their metabolites were detected. However, this does not completely exclude the possibility of drug use.
- Positive Presumptive Result: Indicates that one or more drugs or their metabolites may be present, but confirmation is required.
- Confirmed Positive Result: Advanced techniques like Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS) confirm the presence of a specific drug or its metabolite.
- Invalid Result: The sample showed characteristics of adulteration or dilution, and a retest may be recommended.

## ◀ Necessity of Urine Drug Testing

Urine drug testing provides invaluable information for:

- Clinical Decision Making: Helps in adjusting drug therapy, assessing potential drug interactions, and ensuring patient safety.
- Substance Abuse Management: Facilitates the identification and treatment of substance use disorders.
- Legal and Occupational Requirements: Satisfies mandated testing requirements for specific professions or legal situations.
- Patient Safety: Ensures that patients are not at risk due to undisclosed or unknown drug use.

Urine drug testing is a critical tool for physicians, enabling better patient care, safer workplaces, and a comprehensive understanding of an individual's drug use or potential misuse. The Elite Clinical Laboratory is committed to providing accurate, reliable, and timely results to support these vital decisions.





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