

Drug Testing FAQs

What is drug testing?

Drug testing is the evaluation of a urine, blood or other type of biological sample to determine if the subject has been using the drug or drugs in question. There are many circumstances that may lead to drug testing in the workplace:

- Pre-employment or random, work-related drug testing to identify on-the-job drug abuse
- Post-accident drug testing - a vehicular or on-the-job accident which may have involved human error and resulted in casualties or property damage
- Safety-related - if an employee's job could lead to safety issues if judgement or physical ability were impaired

Drug testing is often done when applying for employment, especially for positions that may involve federal building contracts, airline industries, railways, and other workplaces where public safety is of the utmost importance. Workplace drug testing is now common in general for many Australian employers to lessen the impact from drug abuse and lower productivity in the workplace. Many companies may also offer employee-assistance programs to support substance-abuse treatment.

Workplace drug screening is primarily limited to drugs with the potential for abuse, including some prescription drugs, and alcohol. Prescription drug abuse has been reported as a growing problem in Australia.

Pre-employment workplace drug testing usually requires that the applicant give an oral fluids or urine sample. In certain jobs, especially those that require a high level of safety, employees may be subject to random drug screening, as well. Random drug screening may be used in instances of workplace accidents, and if the employer has suspicion that the employee is abusing drugs. Random drug testing may occur without cause for suspicion depending upon legislative requirements or company policy.

What types of laboratory tests are used for drug testing?

It is important to be sure that the drug testing occurs at a reputable and NATA-accredited laboratory. Any credible drug screening program will involve a two-step process. Initial (immunoassay) and confirmatory (gas chromatography-mass spectrometry [GC-MS]) testing are the methods most commonly utilised to test for drugs. Using a combination of both tests allows a high level of sensitivity and specificity, meaning there is an extremely low chance for false positives or false negatives.

The immunoassay is performed first and is often used as a screening method. If the immunoassay is negative, no further action is required, and the results are reported as negative. If the sample is positive, an additional confirmatory GC-MS analysis is performed on a separate portion of the biological sample. The more specific GC/MS is used as a confirmatory test to identify individual drug substances or metabolites and quantify the amount of the substance. Confirmatory tests, such as GC-MS should be utilised prior to reporting positive drug test results.

What happens during workplace drug testing?

Pre-Employment Drug Testing

An applicant is notified that pre-employment workplace drug testing will need to take place as part of the application process, and may have to present for testing within a specified time frame, for example within 24 hours, to lessen the chance that drugs in their system will be excreted and undetectable.

Random Drug Testing

Random drug testing is conducted at many workplaces throughout Australia. Testing is generally conducted with little warning.

Employers may use a standard six-panel test of "street drugs" that includes Marijuana (THC), Cocaine, Opiates (e.g., codeine, morphine), Benzodiazepines (sedatives), Amphetamines and Methylamphetamines (XTC, Speed, Meth Ice). Alcohol is usually screened as well.

How long can drugs be detected in the body with a drug test?

Many variables may affect the amount of time that a drug remains detectable in the urine or other biological samples, including a drug's half-life, the subject's state of hydration and fluid balance, frequency of use, route of administration, cut-off concentration used by the testing lab to detect the drug, and many other variables. Each person and circumstance is different, and the best way to avoid detection of an abusable drug is to not use the drug.

General guidelines are available for detection times. Many drugs stay in the system from 2 to 4 days, although chronic use of marijuana can stay in the system for 3 to 4 weeks. Drugs with a long half-life such as diazepam, may also stay in the system for a prolonged period of time. Drugs can be detected in hair samples up to six months, although urine samples are used for most workplace drug screening tests. Examples of drugs that can be detected in hair-testing include alcohol, marijuana, cocaine, and amphetamines.

DRUG	CLASS	STREET NAME	PRESCRIPTION BRAND NAME EXAMPLES	DETECTION TIME IN URINE
<u>Amphetamine</u>	Stimulant	speed	Dexedrine, Bensedrine	Up to 2 days
<u>Barbiturates</u>	depressants / sedatives / hypnotics	downers, barbs, rebs	Amytal, Fiorinal, Nembutal, Donna	short-acting: 2 days long-acting: 1-3 weeks (based on half-life)
<u>Benzodiazepines</u>	depressants / sedatives / hypnotics	bennies	Valium, Ativan, Xanax, Serapax	therapeutic dose: 3 days chronic use: 4-6 weeks or longer
<u>Cocaine</u> (benzoyl ecgonine metabolite)	Stimulant	coke, crack, rock cocaine	N/A	Up to 4 days
<u>Codeine</u>	Analgesic / Opiate	N/A	N/A	2 days
<u>Heroin</u>	Analgesic / Opiate	smack, tar, chasing the tiger	N/A	2 days
<u>Marijuana</u> , Cannabinoids	Hallucinogen	pot, dope, weed, hash, hemp	Marinol, Cesamet	Single use: 2 to 7 days Prolonged, chronic use: 1 to 2 months or longer
<u>Methadone</u>	Analgesic / Opiate	fizzies	Dolophine	3 days
<u>Methamphetamine</u>	Stimulant	speed, ice, crystal, crank	Desosyn, Methedrine	Up to 2 days
<u>Methaqualone</u>	depressants / sedatives / hypnotics	ludes, disco bisquits, 714, lemmons	Quaalude, Mandrax	Up to 14 days
<u>MDMA</u> (methylenedioxy-methamphetamine)	Stimulant	ecstasy, XTC, ADAM, lover's speed	N/A	Up to 2 days
<u>Morphine</u>	Analgesic / Opiate	N/A	Duramorph, Roxanol	2 days

*Note: This table should be used as a general guideline only. Many variables may affect the amount of time that a drug remains detectable in the urine or other biological samples, including a drug's half-life, the subject's state of hydration and fluid balance, frequency of use, route of administration, cut-off concentration used by the testing lab to detect the drug, or other variables.

Drugs may be detected in oral fluids for several days after use, however, onsite screening devices are limited to a 12-hour period for Cannabis and 24-hour period for other drugs.

How long does it take get workplace drug testing results?

Results from workplace drug testing are fairly quick and can usually be received in a few days. An employer may also request to have the test done with a rapid test that can provide results on the same day. Negative results are usually received on the spot; however, a positive screen will require further testing that may take 2-3 days. It is important to notify the collector of any medications currently in use, including prescription, over-the-counter or herbal medications. The donor may have to provide proof of a valid prescription for prescription medications.

What are the chances that a workplace drug test will result in a false positive or a false negative?

A concern for anyone undergoing drug testing is the possibility of a false positive result. Initial screening drugs tests may infrequently result in false positive results, although confirmatory (GC-MS) testing greatly lessens the chances of a false positive - reducing the risk to close to zero.

It is important that a person undergoing drug testing complete an accurate history of all prescription, OTC, and herbal drug use prior to the time of the sample collection. Certain substances, over-the-counter (OTC) or prescription drugs may result in false positives due to cross-reactivity with other substances, although many assays have been reformulated to avoid these possibilities. For example, poppy seeds have been reported to lead to a false positive result for opiates, and decongestants (pseudoephedrine) have been implicated in causing false positives for amphetamines. The body metabolizes codeine to morphine and both substances may be found upon testing. On the other hand, if benzoylecgonine, the main metabolite of Cocaine is detected, the subject cannot claim that the result is a false positive due to Novocaine administration, or any other "-caine" drug. Benzoylecgonine is only found in nature as a metabolite of cocaine, and there would no other valid reason for it to be present in a drug screen. As previously mentioned, confirmatory testing with GC-MS will identify individual drugs or metabolites in a sample, and almost eliminate the chance for a false positive result.

Other abnormalities in the urine screen may indicate that results may be a false negative or that there was deliberate adulteration of the sample. For example, a low creatinine lab value can indicate that a urine sample was tampered with - either the subject diluted their urine by consuming excessive water just prior to testing, or water was added to the urine sample. Creatinine levels are often used in conjunction with specific gravity to determine if samples have been diluted. To help avoid this problem, the testing lab may colour the water in their toilet blue to prevent the sample being diluted with water from the toilet.

Subjects may also attempt to add certain enzymes to the urine sample to affect stability, but this often changes the pH, which is also tested. The argument of

inhalation of "passive" smoke from being in a room with people smoking cannabis is not valid, as the cut-off concentrations for lab analysis are set well above that which might occur for passive inhalation. All of these variables, and others, are looked at in the lab analysis, keeping one step ahead of those that attempt to foil drug tests.

In some labs, patients who receive a positive result may have the option to pay for an independent retest of the urine sample that was originally submitted. A new urine sample is not allowed for the retest as the drug in question may have been excreted from the body by that time.

The results of drug testing remain confidential and kept separate from the regular employee work file.



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