Drugs | 29 June, 2023

The Benefits of Oral Fluid Drug Testing

Oral Fluid drug testing is a quick, easy, and efficient method which will save your company time and money getting your team back on the job quicker.

By using oral fluid for drug testing, you are testing your team's fitness for work right now, not looking back into their lifestyle and activities they may have undertaken weeks prior. Unlike oral fluid testing, urine testing effectively "looks back" up to three weeks, at potential historical use, which is not relevant to being fit for duty on the day of work.

As all drug tests are to be treated as an initial work site pre-screen, oral fluid testing has become increasingly visible as the preferred method. Due to the relative ease of obtaining an oral fluid sample all that is required is appropriate training in the use of the device and how to conduct drug testing.

When considering drug screening procedures, there is validity in using both oral fluid and urine testing measures, but it is important to apply these to the correct scenarios. The below topics will help you determine if oral fluid testing suits your business needs.

So, how to do you really know if someone is under the influence of drugs?

If a team member had taken drugs in the immediate period leading up to their commencement of work, they would almost certainly be under the influence and an oral fluid specimen should identify drugs as present.

In this situation, urine testing may not determine the presence of drugs at the time of the test as there is a window of up to 4 hours where the drug may not have been metabolised through their body and into their urine; this presence of drugs could be missed with urine testing.

Previous Fair Work Australia Tribunal (FWA) decisions found Oral Fluid Drug Testing in accordance with AS/NZS 4760:2019, was the better testing method to test for "fitness for duty" or impairment, over Urine Drug Testing AS 4308:2008. Oral Fluid testing has a smaller window of detection (1-3 days), hence it shows recent use of the drug and can demonstrate "under the influence" testing better.

The Australian Standards reflect progress in science, technology, and systems. The previous standard (AS/NZS 4760:2006) was released in 2006 however, in the subsequent years there have been significant advancements in the procedures for specimen collection on-site and in technology to detect drugs in oral fluid through immunoassay screening.

Adulterants & Oral Fluid Testing

One of the major challenges of urine drug testing is adulteration, a practice involving manipulation of a urine specimen with chemical adulterants to produce a false negative test result. This problem is compounded by the number of easily obtained chemicals that can effectively adulterate a urine specimen. Urine drug testing is most prone to being adulterated but it is very hard to adulterate an oral fluid sample. Not only are there fewer available substances and the possibility of adulteration using the oral fluid matrix, but oral fluid samples are also collected under direct observation.

It is a requirement to supervise the donor 10 minutes before performing the oral fluid drug screening test, to prevent any adulteration attempts and to remain in accordance with AS/NZS 4760:2019 requirements.

This time allowance and the direct observation of the donor prior to testing significantly reduces the effect of any substance that may have been taken orally.

Oral Fluid Testing: Medicinal Cannabis, Cannabidiol (CBD) Oil and Oral intake of Tetrahydrocannabinol (THC).

There has been a major market shift toward producing a variety of CBD products; products which can be grouped into standardized, medical grade cannabis plant-derived or synthetically produced re has standardized and contain unknown amounts of THC and CBD. (Belackova V, 2015)

Cannabis medicines contain a wide variety of chemical compounds, including the Cannabinoids Δ9-tetrahydrocannabinol (THC) which is psychoactive, and the non-psychoactive cannabidiol (CBD).

The use of Medicinal Cannabis and CBD oil should be treated like any other prescription medication and declared to employers at the commencement of the prescription and declared at the time of a drug test as prescription medication. As with any other prescription medicine, prescription cannabis needs to be confirmed as a prescription when a drug test is conducted, and the THC content confirmed at a laboratory using LC-MS.

Medicinal cannabis is given at a range of THC concentrations. The GP should give a low dose for new prescribers and adjust the level with time and increased usage. The use of medicinal cannabis does not make the subject exempt from legal prosecution when driving.

As at March 2023 the Therapeutic Goods Administration (TGA) has approved only two cannabis-based medicines, although exemptions can be obtained from the TGA, by a doctor for prescribing Cannabis leaf products if circumstances warrant.

CBD that has been obtained legally in Australia should not contain a THC content above 5ng/ml. CBD should not show up as positive for cannabis on a drug test if the CBD is medical grade. However, there may be CBD products from an unregulated source on the market which have an elevated THC level and they may give a positive response.

Contamination of the mucus membrane of the oral cavity by THC capsules, taken orally, has been found to be minimal. (Niedbala RS, 2001) (Milman G, 2010)

Taking medicinal marijuana in capsule form as a suppository should not affect an oral fluid test.

Food-derived THC can be detected by measuring THC metabolites in urine. However, the time window within which THC is detected in urine may not correlate with the window within which the subject is impaired. Higher concentrations of THC must be taken in food than in smoked THC to get the same level of impairment.

Performance of Oral Fluid Tests in Detecting THC in a Donor

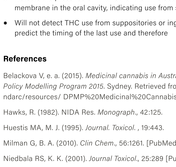
Oral fluid testing is highly sensitive and specific for showing impairment over the first 3 hours after smoking THC. After this time specificity is reduced.

For drug screening purposes adequate sensitivity is best achieved with an assay directed towards the detection of THC, rather than of the THC metabolites 11-OH-THC or THC-COOH found in urine samples. The mucus membrane in the oral cavity is exposed to high concentrations of THC during smoking and serves as the source of THC found in oral fluid. (Hawks, 1982)

Detection of cannabinoids in urine is indicative of prior cannabis exposure, but the long excretion half-life of the metabolite, THC-COOH, makes it difficult to predict the timing of past drug use.

A positive urine test for cannabinoids indicates only that drug exposure has occurred. The result does not provide information on the route of administration, the amount of drug exposure, when drug exposure occurred, or the degree of impairment. (Huestis MA, 1995)

The duration and window of the positivity in a urine test does not reflect the impairment window so it is not possible to draw a correlation between the detection of THC in urine and impairment.



(Alcolizer Technology, 2019)

Urine Drug Testing is still the preferred testing for Pre-employment Drug Testing, as it has a longer window of detection (1 - 21 days) and allows the future employer to test a donor's lifestyle prior to employing them.

Summary

Oral fluid Drug Testing:

- Can identify drugs in a donor in the immediate period prior to commencement of work
- Is supported by the Fair Work Tribunal as a better testing method for "fitness for duty"
- Can be easily undertaken and under direct observation of the donor
- Samples are difficult to adulterate
- Will not detect CBD, if medical-grade CBD is used
- Detects the presence of THC rather than metabolites, which aligns with THC present in the mucus membrane in the oral cavity, indicating use from smoking
- Will not detect THC use from suppositories or ingestion, but urine testing in these scenarios cannot predict the timing of the last use and therefore

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About Alcolizer Technology

Alcolizer Technology is a world-leader in the field of Alcohol and other Drugs testing.

For safety officers, managers and operators having a comprehensive drug and alcohol policy that fits the operational environment, risk regimes, budgets and staff lifestyle impacts is critical in determining which test procedures are appropriate. Alcolizer Technology is a world-leader in Alcohol and Other Drugs (AOD) testing solutions and can assist in AOD policy and procedure development.

As the manufacturer of Alcolizer and Druglizer devices and provider of class leading on-site testing services for alcohol and other drugs, we are best placed to provide device training, certified collection training, education, and awareness.

Reasonable Suspicion Testing Training details the responsibilities of managers and supervisors who may be required to identify employees that may pose a risk to themselves and fellow workmates because of drugs or alcohol.

For further information on drug and alcohol testing, policy development or training please contact your local Alcolizer Technology sales representative.

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