

Q&A SensAbues

Q: When is drug testing used?

A: In treatment of drug abuse, social welfare, company health care, in prison and probation service.

Q: What is drug testing used for?

A: For confident and correct diagnosis, early detection of drug abuse and control of abstinence.

Q: What different techniques are used today?

A: Drug testing has been commonly used since the 1970s, when immunochemical methods was developed for detection of drugs of abuse in urine. This is still the most common method for drug testing.

1. Drug testing with urine: a sample is collected and sent to the laboratory where immunochemical methods are used for a first screening test. A positive result is not considered to be completely reliable, why a second analysis is made, using a mass spectrometric method to obtain results that are considered to be reliable. It is common in clinical drug testing to use urine strips for the screening test.
2. Drug Testing with blood is commonly used e.g. in connection with traffic controls when testing for drunk driving, or when drivers are suspected to be under the influence of drugs. If a screening test turns out to be positive, blood tests are then used to verify the presence of alcohol or narcotics in the blood sample. The disadvantage of blood tests are higher costs and shorter detection times compared to urine.
3. Drug testing in hair has been in use since the 1970s but has not really found any practical use except in the field of forensic science, e.g. for investigations of cause of death. It is well known that drug substances are accumulated in the hair and methods for sample preparation, analysis and interpretation of results are well developed.
4. Drug Testing in saliva is being developed at present. Saliva tests have mainly been found to be of interest in the field of traffic medicine, as an alternative to blood tests. Sampling methods, analytical methodologies is under development and practical experience is being gathered. Saliva tests could potentially replace urine testing, but the technique has still to be developed further. The driving factor is the possibility of getting a simpler and quicker technique, but yet as reliable as urine tests.

5. Drug Testing in sweat has been proven for some time and can be applied by using a special dressing plaster on the test person, which is then sent for analysis. One can also analyze skin swabs. The practical use is still very limited.

In conclusion, even if the drug testing methods that are used today are proven and working well, i.e. urine or blood samples, intensive research is ongoing in order to find simpler alternatives. This is partly driven by the need for a test that is “better”, particularly in terms of being easy and fast, e.g. not requiring a special room (toilet) for urine sample collection, or in the case of blood tests, does not require medically trained personnel.

Q: Is drug detection with breath test new?

A: Yes, it is a totally new and unique technique. Scientific research, verifying drug detection by breath air, has been documented in several publications, has been going on since 2009 in order to develop a technique for commercial use.

Q: How does it work?

A: By using a specially developed portable detector or sample collector, together with an analyzing technique combining liquid chromatography and mass spectrometry, very small amounts of drug substances present in the exhaled breath air can be detected.

Q: What are the advantages with a breath test?

A: Compared to e.g. urine tests or blood tests, breath test is a simple, fast and accurate technique. Taking a breath test does not require any trained medical staff when collecting the test samples.

Q: Does it replace drug testing such as urine, blood or saliva tests?

A: It should primarily be regarded as a complement, although it may replace other drug testing techniques because of its advantages over other techniques.

Q: Which drugs can be detected?

A: The test can already detect common drugs such amphetamine, methamphetamine, cannabis, cocaine, ecstasy, Subutex, heroin, benzodiazepine and morphine. Research is continuing in order to detect what are commonly known as "internet drugs".