

Frequently Asked Questions On Urine Drug Testing

1. **What is a screening test?** The initial test, or screening test, uses an antibody to detect a drug or group of related drugs. This is called an “*Immunoassay*”. If the reaction of the antibody with the patient’s urine gives a response greater than the cut-off, the specimen is presumptively positive. Immunoassay results may be reported after repeating the immunoassay on a second sample from the original bottle. This is still a presumptive positive that has been validated by repeat immunoassay.
2. **What is a confirmation test?** Confirmation testing must be done by a procedure that is chemically different than the original assay and must have a greater level of sensitivity and specificity for the target drug(s). The drugs are extracted and separated so that each can be determined individually. The separation procedure is known as chromatography. If the drug in question is detected, the positive result is considered confirmed.
3. **What are “Adulterants”?** An adulterant is any substance added to urine in an attempt to interfere with the testing process. Common adulterants are water, salt, soap, perfume, bleach, cola, coffee, tea, strong acid; alkali (Draino), nitrite salts, eye wash solutions, or commercially available products such as Klear or Urine Luck. Anything ingested by eating or drinking is not considered an adulterant.
4. **Is there anything that a person can eat or drink to block the testing process?** No substances when taken orally are known to directly interfere with the testing process with the exception of water or excessive fluid intake (see Item #9). The liver and kidney work to eliminate toxins and/or drugs from our food by excretion in the stool or urine.
5. **What is metabolism and how does it affect drug testing?** Metabolism is the process of changing a compound into a new compound. Most ingested drugs are partially or totally metabolized to other compounds or “metabolites” by the liver to make them more water-soluble so the kidney can easily excrete them. A drug test may actually look for the metabolite of the drug because the parent compound is rarely found in the urine.
6. **What foods can cause positive test results?** Poppy seeds in a muffin contain morphine and may yield a positive result for opiates (morphine). Cookies containing marijuana leaves may yield a positive result for marijuana. Herbal teas may contain ephedrine, which may be detected in the screening test for amphetamines but will not be confirmed as either amphetamine or methamphetamine.
7. **How recently were drugs ingested?** Each drug and drug group has different metabolism and elimination properties. However, most drugs are detectable in urine at the testing limit for 2 to 4 days after the last use. Research has indicated that cocaine free base bingeing will yield positive urine results up to 10 days after cessation. Benzodiazepines, phenobarbital, and marijuana may be detectable in urine several weeks after cessation of use.
8. **Do drug concentrations in urine help determine reuse?** For drugs, which are eliminated quickly, quantitation gives little information. A positive result implies recent use. For those drugs that have long half-lives and are fat-soluble, i.e., tetrahydrocannabinol, (the active principal metabolite of cannabinoids), urine quantitation data is helpful to determine reuse when successive test results are available for interpretation.
9. **Does the variability in water intake affect urine drug concentrations?** Most definitely. One of the primary functions of the kidney is to conserve water when necessary and excretes water when we drink extra amounts. The kidney eliminates drugs and metabolites at a relatively constant rate over time. If we drink large amounts of water the drugs will be at low concentration. Conversely, if we are dehydrated (drink little water) then the drugs are at a higher concentration. Some drug users will attempt to “beat the test” by drinking large amounts of water before giving a urine specimen hoping that the drug concentration will be below the testing limit of the screening procedure.
10. **How does “Creatinine” test help with adulteration and quantitation?** Creatinine is a normal compound excreted at a constant rate by the kidney into the urine. Creatinine concentration is measured to determine the relative water content of the urine sample. Since the concentration of drugs (e.g. THC metabolite) and creatinine increase or decrease in parallel, dividing the drug concentration/creatinine concentration eliminates water as an unknown. Analysis of this data over time is valuable in assessing continued drug abstinence.

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