

# Interpretation of Opiate Urine Drug Screens

## Summary

Urine drug testing is highly reliable, but false positives can rarely occur for some drugs. As always, clinical judgment is necessary when interpreting test results. The length of time a drug can be detected in the urine varies due to several factors, including hydration, dosing, metabolism, body mass, urine pH, duration of use, and a drug's particular pharmacokinetics.

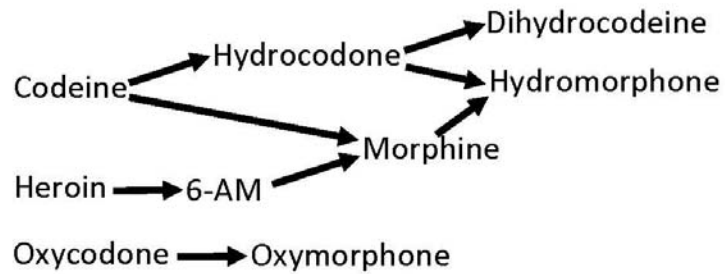
(See table below for some “average” times for different drugs)

Length of Time Drugs of Abuse Can Be Detected in Urine Drug	Time
Alcohol	7-12 h
Amphetamine	48 h
Methamphetamine	48 h
<b>Barbiturate</b>	
Short-acting (eg, pentobarbital)	24 h
Long-acting (eg, phenobarbital)	3 wk
<b>Benzodiazepine</b>	
Short-acting (eg, lorazepam)	3 d
Long-acting (eg, diazepam)	30 d
Cocaine metabolites	2-4 d
<b>Marijuana</b>	
Single use	3 d
Moderate use (4 times/wk)	5-7 d
Daily use	10-15 d
Long-term heavy smoker	30 d
<b>Opioids</b>	
Codeine	48 h
Heroin (detected as morphine)	48 h
Hydromorphone	2-4 d
Methadone	3 d
Morphine	48-72 h
Oxycodone	2-4 d
Propoxyphene	6-48 h
Phencyclidine	8 d

-- Mayo Clinic Proc. 2008; 83(1)66-76

Sometimes the specific drug ingested is not detected, but instead one of its metabolites is found.

### Opiate/Opioid Metabolism



\*Fentanyl (Duragesic) is not easily detected in either urine or serum.

Drug	Half-life (hr)	Metabolites	Concentrations above the cutoff will screen positive for
morphine	1.5 - 6.5	normorphine, <b>hydromorphone (&lt;2.5%)</b>	Opiates
codeine	1 - 4	<b>morphine, hydrocodone (&lt;11%)</b> , norcodeine	Opiates
oxycodone	4 - 12	<b>oxymorphone</b> , noroxycodone	Oxycodone
oxymorphone	3 - 6	6-hydroxy-oxymorphone	Oxycodone
hydrocodone	3.5 - 9	<b>hydromorphone</b> , norhydrocodone, <b>dihydrocodeine</b>	Opiates
hydromorphone	3 - 9	hydromorphol	Opiates

**For more information visit:**

<https://www.fda.gov/MedicalDevices/ProductsandMedicalProcedures/InVitroDiagnostics/DrugsofAbuse/Tests/default.htm>