

What are the detection times for immunoassay and chromatography?

for most drugs: 1 to 3 days

- Long-term use of lipid soluble drugs (eg. marijuana, diazepam, ketamine, or phenycyclidine (PCP)) may extend detection to a week or more
- Immunoassay's ability to detect drugs will vary according to the drug's concentration in urine & the assay's cutoff concentration

Drug	Immunoassay (days detected)	GC, LC or MS
Amphetamines	Up to 2-5 days {caution with false positives from interfering agents}	
Benzodiazepines (regular use)	1-7 days for short-acting benzo's; 20+ days if long-acting e.g. diazepam regular use. Does not differentiate benzo's. Intermediate-acting (eg. clonazepam) may not be detected.	Varies
Cannabis/THC (depends on grade & frequency of use)	Single use – 1-3 days. Chronic use – up to 30 days. Nabilone (Cesamet®) does not contain THC & never detected in urine. Dronabinol (Marinol®), & Sativex® will produce positive results.	Varies
Cocaine + metabolite	<3-7 days (metabolite=benzoylecgonine) {Note: <u>no</u> structural similarity to other "caine"s}	1-2 days
Gabapentin	-	1-2+ days if used in high doses
Heroin & 6-MAM monoacetylmorphine	Heroin rarely detected (half-life =3-5 minutes). {Heroin, 6-MAM, morphine} 6-MAM difficult to detect (half-life=25-30 min) – detection within a few hours.	
Meperidine	1 day; but often missed; (can be specifically requested)	1 day
Methadone & EDDP	Often missed. Up to 3 days. {Up to 6 days with EDDP (methadone metabolite)}	
Opioids, various	<2-5 days: codeine, hydrocodone, hydromorphone, morphine Often missed: fentanyl, oxycodone (can be specifically requested), methadone	1-2 days

References

- 1 National Opioid Use Guideline Group (NOUGG). Canadian Guideline for Safe and Effective Use of Opioids for Chronic Non-Cancer Pain. Part B: Recommendations for Practice. April 30, 2010. Version 5.6. <http://nationalpaincentre.mcmaster.ca/opioid/>
- 2 Opioid Risk Tool: http://nationalpaincentre.mcmaster.ca/opioid/cgop_b_app_b02.html
- 3 Gourlay DL, Heit, Caplan YH. Urine Drug Testing in Clinical Practice. The art and science of patient care. Edition 4. May 31, 2010
- 4 Gourlay DL, Heit HA. Universal precautions revisited: managing the inherited pain patient. Pain Med. 2009 Jul;10 Suppl 2:S115-23.
- 5 Regier L. Substance Abuse / Addiction Chart in RxFiles Drug Comparison Charts –8th Ed. Accessed on line at: <http://www.rxfiles.ca/rxfiles/uploads/documents/CHT-Substance-Abuse.pdf>
- 6 Tenore PL. Advanced urine toxicology testing. J Addict Dis. 2010. Oct;29(4):436-48.