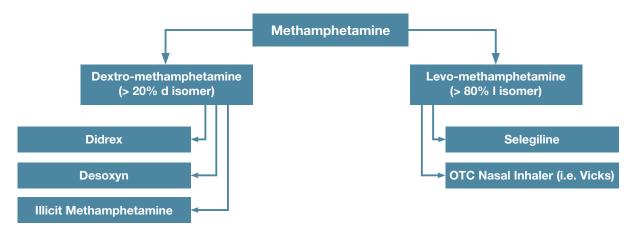


METHAMPHETAMINE

Methamphetamine occurs as two isomers (mirror image isomeric compounds): dextro-methamphetamine (d) and levo-methamphetamine (l). The d-form is a powerful and highly addictive central nervous system (CNS) stimulant used largely as an illicit drug of abuse. The I-form lacks CNS activity, and has a lower abuse potential. Methamphetamine is present in many drugs used for treatment of the following conditions: hyperactivity disorders, obesity, Parkinson's disease and nasal congestion. Routine testing methods for Methamphetamine do not have the ability to distinguish between the two isomers. 1.3.4 Precision Diagnostics offers further testing of a methamphetamine positive to show the percentage of each isomer.

Per SAMHSA guidelines, the following have been clinically proven to result in a positive for Methamphetamine within the ranges of the isomer percentages listed below.^{1,2,4}



Methamphetamine readily metabolizes into Amphetamine when consistent with the d isomer, while Methamphetamine consistent with the I isomer is a poor metabolizer to Amphetamine.² There is no reverse metabolism, therefore, Amphetamine does not metabolize to Methamphetamine.¹

Per clinical research, it has been found that in urine, Methamphetamine can be detected 24-60 hours after a single dose, and up to 144, or approximately 6 days with chronic use. In oral fluid, Methamphetamine can be detected for at least 24 hours after single use and 3 days or more with chronic use.⁵

Precision Diagnostics offers methamphetamine testing for both urine and oral fluid, as well as d/l isomer testing for urine. The d/l isomer testing can only be ordered in conjunction with urine methamphetamine testing.

A Precision Diagnostics trained Clinical Support Specialist can assist with further review of your patient's results

(800) 635-6901 Option 2

References:

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- 2. Fitzgerald, R. L., Ramos, J. M., Bogema, S. C., Polis, A., (1988) Resolution of Methamphetamine 3. Baselt, Randall C., Disposition of Toxic Drugs and Chemicals in Man, 10th ed. Biomedical Publications, Seal Beach, CA. 2014; 1263-1267.
- 3. White, R. M. and Black, M. L., Pain Management Testing Preference, AACC Press, Washington DC. 2007; 25-47.
- 4. Cody, JT, Schwarzhoff, R. (1993) Interpretation of methamphetamine and amphetamine enantiomer data. Journal of Analytical Toxicology. 17: 23-25.
- 5. Verstraete, Alain G. (2004) Detection Times of Drugs of Abuse in Blood, Urine, and Oral Fluid. The Drug Monit. 26(2): 200-205.

Precision Diagnostics, a leader in clinical laboratory testing and medication adherence monitoring, is transforming healthcare through the delivery of comprehensive, insightful clinical data that can help improve patient outcomes and manage costs. Specializing in providing quantitative drug testing, Precision Diagnostics' innovative state-of-the art technology provides insurers, pharmacies, medical practitioners, and patients with new levels of visibility and transparency that allows doctors to better assess patients' medication adherence, ensure patient compliance, and improve outcomes.

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