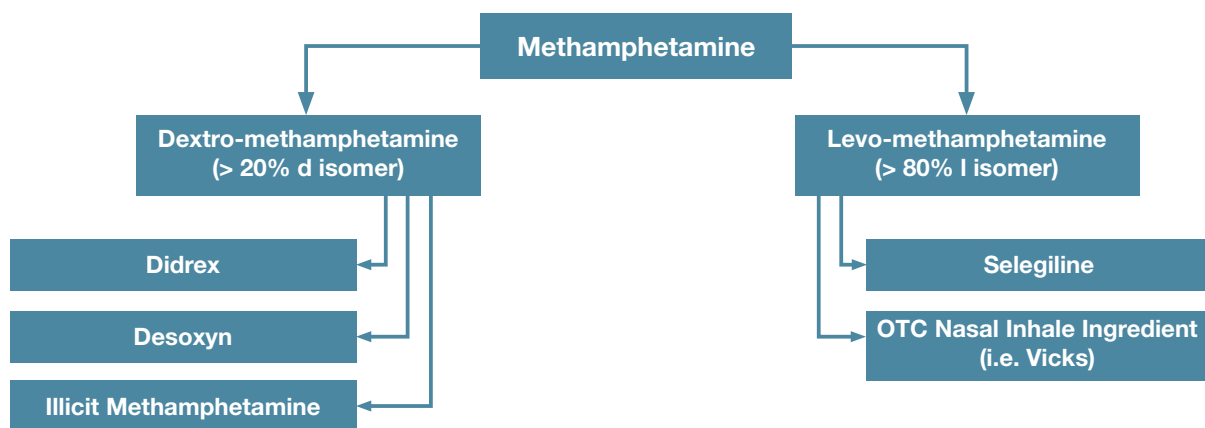


METHAMPHETAMINE

Methamphetamine occurs as two isomers (mirror image compounds): dextro-methamphetamine (d) and levo-methamphetamine (l).¹ The d-isomer is a powerful central nervous system (CNS) stimulant used as a prescription medication for several conditions or as an illicit drug of abuse.² The l-isomer has reduced CNS activity and has a lower abuse potential.² 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 urine methamphetamine positives to show the percentage of each isomer.

The figure below indicates the ratio of d and l isomers and their common sources.^{1,4,5}



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.

In cases where methamphetamine is observed at concentrations below 1% of the total amphetamine concentration in urine, this may be the result of a process impurity or unknown metabolic pathway.⁶ Precision Diagnostics will suppress methamphetamine results within this percentile in oral fluid specimens. In urine specimens, low methamphetamine results cannot be suppressed so d/l isomer testing may narrow down the potential source. However, certain prescription medications such as Dexedrine contain 100% d amphetamine isomer.⁷

Detection Windows

In urine, methamphetamine can be detected 1-4 days after a single dose, and up to 7 days after chronic use.⁸ In extreme chronic use cases, methamphetamine has been shown to have lingering low-level positives surpassing 7 days.⁹

In oral fluid, methamphetamine can be detected for at least 24 hours after single use and 3 days or more with chronic use.¹⁰ Methamphetamine can be sequestered in the oral cavity for extended periods of time. This ion trapping may contribute to extended detection windows in some instances.¹¹

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

(800) 635-6901 Option 2

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Precision Diagnostics is a leader in clinical laboratory testing and medication adherence monitoring. Specializing in qualitative and quantitative drug testing, our innovative state-of-the art technology provides new levels of data visibility and pricing transparency.

Precision's role is to ensure each participant, from the patient to the provider and the payer, benefits from our continued commitment to the principles of value-based care and medically necessary test utilization.

Precision Diagnostics

4215 Sorrento Valley Blvd.

Suite 100

San Diego, CA 92121

(800) 635-6901

info@precisiondxlab.com

precisiondxlab.com



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