

Article: Pharmacology of *R*-(-)-methamphetamine in humans: A systematic review of the literature

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Key Points:

- Methamphetamine (meth) is available as two forms: (+)-meth is a strong stimulant and (-)-meth is a nasal decongestant.
- Little is known about the metabolism and effects of (-)-meth in humans, although it can be purchased without a prescription.

Glossary:

Oral fluid = clear liquid secreted in the mouth.

Stimulant = drug that increases physical or mental activity.

Why this article matters: This article summarizes everything we know about the metabolism and effects of (-)-meth in humans and points out where we are missing information. These gaps in our knowledge impact forensic toxicology and law enforcement as methamphetamine is a drug of abuse.

Description of the Study: We carefully searched the scientific literature for all studies on (-)-meth in humans and summarized what was found.

Research Questions: What do we know about the metabolism and effects of (-)-meth in humans? How many people were included in these studies?

Important Results: Most of what we know about (-)-meth metabolism in humans comes from studies on urine; information is lacking from blood, plasma, and oral fluid. Only 99 people were included in these studies.

How the results will be used: This work highlights areas where future research on (-)-meth in humans is needed. If completed, drug testing accuracy and criminal investigations related to methamphetamine will be improved.