

Evaluation of Amphetamine type substances (previously Sympathomimetic Amine)

Cut-off value

300 µg/L

Cross-reactivity

This assay detects:

- amphetamine (speed)
- methamphetamine (ice, crystal meth)
- methylenedioxymethamphetamine (MDM or ecstasy)
- methylenedioxyamphetamine (MDA)
- methylenedioxyethylamphetamine (MDE or eve)
- methylbenzodioxolybutanamine (MBDB)

A low level of cross-reactivity is present with some chemically related compounds:

Pseudoephedrine	0.9%
Phenylpropanolamine	0.3%
Ephedrine	0.5%
Phentermine	3.3%

Some of these compounds are present in prescription and over-the-counter preparations.

Medico-legal samples that are positive by screening immunoassay should be confirmed by LCMS. This can be arranged by phoning the laboratory.

This additional service is not covered under the Medicare Benefits Schedule.

Metabolism

Up to 30% of **amphetamine** (half-life = 4-8 hours) is excreted as unchanged drug in the urine in 24 hours. This percentage increases as the urine becomes more acidic. Deamination is the major route of elimination and the metabolised portion consists mainly of conjugates with benzoic acid.

Up to 43% of **methamphetamine** (half-life = 9 hours) is excreted as unchanged drug in the urine in 24 hours. This percentage increases as the urine becomes more acidic. The remainder is metabolised to amphetamine, benzoates, and other conjugates.

Methamphetamine is also a metabolite of selegiline (Eldepryl).

Interferences

High levels of Bupropion and Ranitidine may cause false positive results.