



***d* and *l* Isomer Testing**

Many prescription and illicit drugs exist in two molecular forms, known as stereoisomers. While they appear to be the same molecule, because they have the same chemical formula and very similar chemical properties, they are in fact different compounds and can have very different effects on the body.

Methamphetamine is an isomer drug and exists in two forms: *d*- and *l*-. The *d*- form is most frequently used as a prescription stimulant and appetite suppressant. The *l*- form is available over-the-counter and is the active ingredient in VICKS Vapor Rub. Illegally produced methamphetamine can contain mixtures of both with most being the *d*-Isomers. Both, *d*- and *l*- forms will register a positive methamphetamine result by both immunoassay and HPLC confirmations.

To differentiate between the two isomers Capstone Diagnostics performs an additional analysis, at no cost to the patient or provider, which reports the amount (or percentage) of *d*- isomer present in a specimen. A report that indicates more than 20% *d*-methamphetamine present indicates the use of illicit methamphetamine.