

**URINE AND ORAL FLUID DRUG CLASS MATRIX COMPARISON**

Other factors to consider: Dose, time of last dose, time of collection, and route of administration can cause varied results between matrices.

	URINE	ORAL FLUID
<b>Benzodiazepines</b>	<p>Tend to see higher concentrations of metabolites.<sup>7</sup></p> <p>Lipophilic compounds can extend detection windows but consider contributing factors such as BMI, metabolism, and genetic polymorphism.<sup>8</sup></p> <ul style="list-style-type: none"> <li>- Lorazepam: excreted in the urine over a 5-day period as lorazepam glucuronide</li> <li>- Alprazolam: excreted within 72 hours, metabolite not available in prescription form</li> <li>- Clonazepam: excretion accounts for 49%-69% of a single dose; metabolite not available in prescription form</li> </ul>	<p>Tend to see higher concentrations of parent drugs.</p> <p>Unable to test for metabolites (7-aminoclonazepam, alpha-hydroxyalprazolam, nordiazepam) due to glucuronidation, polarity, and charge of drug which cannot passively diffuse into the oral cavity.<sup>1,7</sup></p> <p>Shorter detection window (2-3 days)</p>
<b>Opioids</b>	<p>Detects parent drug and metabolites.</p> <p>Codeine (cutoff 50 ng/mL) is excreted in the urine upwards of 95% within 48 hours.</p> <p>Historical data can monitor for compliance or identify re-use.</p>	<p>Parent drug more prevalent and provides insight of recent dosing.</p> <p>Codeine cutoff 1ng/mL.</p> <p>Cannot detect metabolites noroxycodone, norhydrocodone.<sup>3</sup></p>
<b>Illicit drugs</b>	<p>Methamphetamine* D/L isomer differentiates between the active and inactive forms: Dextro-methamphetamine and Levo-methamphetamine.</p> <ul style="list-style-type: none"> <li>- Only available in conjunction with a methamphetamine quantitative test</li> </ul> <p>Fentanyl analogs* are illicitly manufactured substances that are similar in chemical structure to fentanyl. They can be found mixed with other illicit drugs and counterfeit prescription pills with/without users' knowledge. The potency is often much higher than fentanyl.</p> <p>THCA lipophilic compound can be detected for several weeks for some chronic users.<sup>4</sup></p>	<p>Methamphetamine D/L isomer not available.</p> <p>Fentanyl analog testing not available.</p> <p>Due to the lower pH of the oral cavity, coupled with the nature of most illicit drugs as weak bases, plasma and saliva pH difference can cause ion trapping of positively charged drugs in the oral cavity. This can result in increasing drug concentrations and may elongate the detection window in some circumstances.<sup>1,3,5,6,7</sup></p> <p>Lower cutoff (2ng/mL) and tests for parent compound THC.</p>
<b>Alcohol*</b>	<p>Ethanol metabolites: Ethyl glucuronide (EtG) and ethyl sulfate (EtS) provide a detection window of up to 80 hours after consumption or exposure.<sup>2</sup></p>	<p>Not Available</p>

*Superscript \* indicates a separate clinical bulletin is available with additional information.*

**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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