



# A Dynamic Approach to Drug Checking

## WHAT'S THE DEAL?

The unregulated drug supply changes over time, making it important for drug checking technologies to stay dynamic to be able to detect new drug and adulterants.

## WHAT WE LOOKED AT:

We looked at two up-and-coming drug checking technologies: paper spray (PS-MS) and surface-enhanced (SERS) and compared them to current FTIR and test strip drug checking technologies.



FENTANYL AND  
BENZO TEST STRIPS



FOURIER TRANSFORM  
INFRARED  
SPECTROSCOPY (FTIR)

## WHAT WE FOUND:



Paper spray mass spectrometry can detect **novel substances** outside of reference libraries

PS-MS and SERS can give results within

**5 min**

and both have a high sensitivity to compounds such as fentanyl and etizolam

when compared to test strips and the FTIR

## WHY DOES THIS MATTER?

As the drug supply changes over time, it's important that drug checking services adapt to stay up-to-date and best serve the community. Although no one technology is perfect, using multiple technologies at a time can best detect what's in a sample.

*CITATION: Bhuiyan I, Tobias S & Ti L. Responding to changes in the unregulated drug supply: The need for a dynamic approach to drug checking technologies. Am J Drug Alcohol Abuse. 2023;1-6. doi: 10.1080/00952990.2023.2226312*



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