Oral Fluid Screening for Impaired Drivers

Responsibility.org and NASID Position:

Responsibility.org and the National Alliance to Stop Impaired Driving (NASID), a coalition established by Responsibility.org, are dedicated to eliminating all forms of impaired driving. When law enforcement suspects a driver may be impaired by a substance other than alcohol, we support the use of oral fluid screening as a technology to quickly identify recent drug consumption. This tool helps establish probable cause in impaired driving cases. Currently, many drug and multiple-substance impaired drivers—individuals who operate a motor vehicle while impaired by two or more potentially impairing drugs, including alcohol—avoid detection. Oral fluid technology should supplement existing drug detection processes to help identify these individuals and inform sentencing, supervision, and treatment decisions that take drug use into account. Additionally, public education on oral fluid screening is essential to maximize the deterrence of impaired driving and increase road safety.

This paper includes the most current and relevant data for this position as of August 26, 2025.

Overview:

Oral fluid field drug screening (OFFDS) is a valuable tool for addressing the growing concern of drug and multiple-substance impaired driving. For officers who are not specially trained in drug impairment detection, oral fluid screening can aid in identifying drivers who may have recently consumed drugs and would otherwise escape detection.

How oral fluid field drug screening works:

OFFDS analyzes oral fluid to detect recent (within 24 hours) drug use; it does not, however, detect impairment. Oral fluid immunoassay tests utilize antibodies that bind to certain drugs, or their metabolites present in saliva, indicating their presence through a color-change reaction on a test strip. The saliva sample is collected and analyzed in less than 10 minutes, which is critical as drug levels dissipate quickly, resulting in the loss of vital information. OFFDS devices typically include an oral fluid collection system consisting of a collection device, a test cartridge, and an analyzer. When impairment is suspected, law enforcement officers use a collection device, such as a swab, to obtain an oral fluid sample from an individual. They then insert the sample and cartridge into the analyzer, which determines drug presence through an objective test strip reading. OFFDS devices are also available on the market that do not include an analyzer, but allow for a visual read of the test strip. Oral fluid analyzers do not test for alcohol.

OFFDS devices screen for specific drugs or drug classes that commonly appear among impaired drivers (THC, cocaine, methamphetamine, amphetamine, opioids, and benzodiazepines). A positive result indicates recent drug use, which, alongside the officer's evaluation of

impairment, helps confirm drug consumption that occurred around the time of driving rather than several days or weeks earlier.

OFFDS devices perform preliminary screening tests that can be used to establish probable cause in combination with other evidence of impairment. At the time of testing, law enforcement has concluded that a driver is likely impaired and unable to operate a motor vehicle safely based upon several established tools (e.g., Standardized Field Sobriety Testing (SFST)) and observations (e.g., behavior before and during a stop). The OFFDS is used to identify what drug class(es) is/are likely causing the observed impairment. The devices indicate drug presence above established cut-off levels. They do not quantify drug levels and are not admissible in court as evidence. Only a confirmation sample analyzed in a forensic laboratory, such as a blood test or an oral fluid sample, can be used for evidentiary purposes.

OFFDS device performance may vary amongst devices and depends on the quality of the instrumentation. Therefore, agencies must be careful when determining which instruments to deploy in the field. Pilot testing an OFFDS program is advised to assess the overall accuracy of devices and obtain officer feedback about performance and usability. The Society of Forensic Toxicologists (SOFT) offers guidelines for establishing oral fluid pilots.

Oral fluid screening offers the following advantages:

- Identifies **recent drug use (within 24 hours);**
- Provides easy, fast, gender-neutral collections that are minimally invasive;
- Allows pre-arrest sample collection without requiring a warrant;
- Demonstrates accuracy, sensitivity, and specificity;
- Informs decision to call for a Drug Recognition Expert (DRE) to assist with the case;
- Supports search warrant requests for additional toxicology samples if results indicate a need;
- Quickly identifies both recent drug and poly-drug use;
- Contributes to probable cause and admissibility in certain hearings;
- Creates option for administrative license suspension/revocation roadside for arrested drug-impaired drivers; and,
- Serves as a deterrent when the public knows law enforcement can identify drug use at the roadside.

Research Highlights:

- The Driving Under the Influence of Drugs, Alcohol and Medicines (DRUID) project, a comprehensive European Union drugged driving study, included an evaluation of eight oral fluid screening devices. Of these, three devices correctly identified more than 80% of both drug-positive and drug-negative drivers (Schulze et al., 2012).
- In its report on drug-impaired driving, the US Government Accountability Office (GAO) noted that the "development of an accurate roadside drug-testing device, comparable to

breath sensors for alcohol detection could increase law enforcement officers' ability to identify drivers who have used drugs" (GAO, 2015).

- The Minnesota Department of Public Safety's Office of Traffic Safety (OTS), in collaboration with other state traffic safety stakeholders, conducted a legislatively mandated roadside oral fluid testing pilot from January to August 2024. OTS submitted a report of the findings to the legislature in February 2025. The pilot revealed that 62% of drivers had more than one drug in their system at the time of testing, and 90% of those who tested positive for alcohol also had one or more drugs in their system. Additionally, the pilot program confirmed that both the "SoToxa™" and the "Dräger DrugTest 5000" met the required standards for reliability, accuracy, and practicality (Minnesota Department of Public Safety, OTS, 2025).

- An oral fluid study conducted in Miami-Dade County, Florida revealed that approximately 39% of drivers with a BAC of .08 or above tested positive for drugs (Logan et al., 2014).

- A Vermont evaluation of two oral fluid screening devices found that the accuracy of both devices was over 90% (Logan & Mohr, 2015). False positive rates ranged from less than 1% to 4%.

- A Dane County, Wisconsin oral fluid pilot found results were consistent with the combined screening results observed in evidentiary blood samples. Like the Miami study, in Wisconsin, nearly 40% of the subjects with BACs exceeding 0.10, screened positive for one or more drug categories (Edwards et al., 2017).

- An oral fluid pilot study in Oklahoma determined that "oral fluid testing is a viable option both at the roadside and in a laboratory setting" (Veitenhemier & Wagner, 2017).

- The Michigan State Police five-county oral fluid pilot program yielded promising results: Of the 92 samples collected, 88 samples were confirmed by an independent laboratory and/or evidentiary blood test findings (Michigan State Police, 2019) which led to the expansion of the program across the state. Phase II of the pilot ran from October 2019 to September 2020 and involved 65 participating law enforcement agencies. In the Phase II report released in 2021, the Michigan State Police analyzed the statewide pilot data and determined that "oral fluid testing has been found to be accurate for purposes of preliminary roadside testing" (Michigan State Police, 2021).

Prevalence:

As of August 2025, seven states authorize roadside oral fluid screening in statute, though not all actively conduct testing in practice. While implementation approaches vary, the use of oral fluid screening has expanded significantly in recent years. Currently, 21 states and jurisdictions conduct roadside testing to some degree.

Oral fluid screening has been used internationally for many years: Argentina, Australia, Austria, Belgium, Brazil, Canada, Chile, Colombia, France, Germany, Ireland, Italy, the Netherlands, New Zealand, Poland, Portugal, South Africa, South Korea, Spain, Sweden, Turkey, United Kingdom, and Vietnam. Spain has one of the most extensive oral fluid programs in the world with more than 800 instruments actively deployed.

In 2018, the Alabama Department of Forensic Sciences (ADFS) approved three roadside oral fluid devices for statewide use including the "Abbott SoToxa™", "Dräger DrugTest 5000", and "Randox MultiSTAT". In 2024, ADFS approved its fourth device, the "Securetec DrugWipe" (Harper et al., 2023).

Depending on state statutes, oral fluid can also be used as an evidential toxicology sample. Evidential tests are analyzed in a toxicology lab, similar to blood testing. Law enforcement can easily collect these samples without medical personnel, which allows for much earlier collection in the investigative process compared to blood samples. States such as Alabama and New York have evidential oral fluid programs, and Louisiana and Ohio are running pilot programs.

Access NASID's interactive map of state oral fluid laws and implementation status for more details.

Established in 1991 as a national not-for-profit organization, Responsibility.org has led the fight to eliminate impaired driving and underage drinking. NASID is a coalition established and led by Responsibility.org to eliminate all forms of impaired driving, especially multiple-substance impaired driving, through effective and proven measures such as DUI system reform, DUI detection, expanding drug testing, and improved use of data and technology. This paper was reviewed by NASID's Oral Fluid Working Group.

References:

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For additional background and legal analysis, refer to:

Flannigan, J., Moore, C., & Talpins, S. (2017). Oral fluid testing for impaired driving enforcement. *Police Chief Magazine*, Jan 2017, 58-63. Accessible [here](#).

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View the Society of Forensic Toxicologists' Oral Fluid Subcommittee's answers to frequently asked questions about oral fluid screening [here](#).

For information on how to implement a successful roadside OFFS program and additional helpful resources, please visit the NASID oral fluid resource page [here](#).