



Whitepaper:
**Dual-Methodology Testing
Remains the Best Practice in
Safety-Sensitive Workforces**

Written by Lanson Hoopai

DISA Global Solutions

May 2026





Dual-Methodology Testing Remains The Best Practice in Safety-Sensitive Workforces

» **Written by Lanson Hoopai**

DISA Healthcare Technology

May 2026

Today, top-performing organizations in safety-sensitive industries use comprehensive screening in their hiring processes, pairing short-term drug testing methodologies, such as urine and oral fluid, with long-term drug testing like hair. This combined methodology extends the detection window and has firmly established itself as the industry standard and the proven best practice for workforce protection.

This article will cover the significant differences in positivity rates between dual-methodology testing and short-term testing alone, the reasons for these differences, and the evolving trends. The data is clear: **Drug testing with dual methodologies is the best practice for employers and owners alike.**

Table of Contents

Pg. 1	» Foreword from Psychomedics
Pg. 2	» Executive Summary
Pg. 3	» 2025 Positivity Rate Data
Pg. 4	» Detection Windows and Drug Metabolism
Pg. 5	» Consortium Benefits for Contractors
Pg. 6	» Why Owners Choose DISA's Contractor Consortium
Pg. 7	» The Importance of Short-Term Testing
Pg. 8	» Long-Term Behavior vs. Temporary Abstinence
Pg. 8	» The Economics of Ensuring a Safer Facility
Pg. 9	» The Deterrence Effect
Pg. 10	» Dual Methodologies for Maximum Coverage
Pg. 11	» Positivity Rate by Methodology

Foreword from Psychomedics

Written by Shannon Shoemaker, CRO, Psychomedics



The findings in this whitepaper closely mirror what Psychomedics has consistently seen across millions of hair tests and multiple independent workforce studies over the years. The data continues to reinforce something we strongly believe: **long-window detection matters, especially in safety-sensitive industries.**

While short-term testing methodologies like urine and oral fluid play an important role in identifying recent use, long-term testing with hair provides a much broader view into ongoing or lifestyle drug use patterns. Across industry data and real-world workforce populations, long-term testing continues to identify significantly more drug users, often 9-10 times more for drugs like cocaine, opioids, and amphetamines, than short-term methodologies alone.

That difference is driven by the long-term detection window of hair testing, which helps reduce the effectiveness of temporary abstinence and creates a stronger deterrent effect overall.

We appreciate DISA's partnership and leadership in continuing to educate the industry with meaningful, data-driven insights like these. Together, we remain focused on helping owners and contractors create safer workplaces, strengthen workforce integrity, and reduce risk across safety-sensitive environments.



Executive Summary – Three Key Takeaways

Safety-sensitive owners need drug testing programs that identify risk before it reaches the site. DISA's data shows dual-methodology testing remains the best practice because it pairs short-term detection with long-term visibility. Together, these drug testing methodologies provide broader coverage, stronger deterrence, and a more complete view of workforce risk than either method alone.

Key Takeaway: Dual drug testing methodologies identify significantly more positives

DISA's 2024-2025 analysis found that programs using dual testing methodologies identified 214% more positive tests than short-term methodologies alone. In 2025, oral fluid and urine testing identified 8 and 12 positives per 1,000 tests respectively, while hair combined with urine identified 40 positives per 1,000 tests. For safety-sensitive environments, that difference represents a material gap in visibility.

Positivity Rate by Methodology (2024-2025)

Testing Methodology	Positivity Rate
Short Term (Standalone)	1.26%
Dual Methodology (Urine & Hair)	3.96%

Key Takeaway: Each methodology closes a different safety gap

Short-term testing helps identify recent or infrequent use, as well as identifying additional drugs not included in other methodologies. Hair testing helps identify longer-term patterns of use, especially where temporary abstinence could allow a donor to pass a short-term screen. DISA's data showed long-term methodologies alone missed one out of ten positives detected by short-term methods, reinforcing why the strongest programs use both.

Key Takeaway: DISA's Contractor Consortium gives owners a stronger compliance model

DISA's Contractor Consortium gives owners a standardized way to manage contractor access across a large, vetted safety-sensitive workforce. Owners gain clearer red/green access decisions, better compliance visibility, and faster contractor site access, while also saving contractors time and money.

Scale is a major owner advantage. **The DISA consortium supports 420+ owner mandates, 25,000+ participating contractor companies, and 4+ million contractor employees.** Paired with dual methodologies, that network gives owners a broader work-ready labor pool, a stronger safety standard, and a more efficient way to administer it.

DISA's unique value comes from flexibility, scale, and integrations. Owners can customize requirements, use multiple testing methodologies, configure annual and return-to-duty rules. Our consortium connects with safety portals, badge systems, safety councils, contractor systems, and ATS/HRIS platforms. With one provider for drug testing, background screening, and occupational health services, DISA delivers a more complete contractor compliance solution across the largest available safety-sensitive labor force.



2025 Positivity Rate Data

2025 positivity data from the DISA Contractor Consortium (DCC) lays out the clear advantages, especially in safety-sensitive industries, of the extended detection window facilitated by dual methodologies:

Only Short-Term Drug Testing:

- **Oral Fluid Testing** - Identified 8 positive tests out of every 1,000 tests administered.
- **Urine Testing** - Identified 12 positive tests out of every 1,000 tests administered.

Dual Methodology Testing:

- **Hair & Urine** - Identified 40 positive tests out of every 1,000 tests administered.

Furthermore, annual positivity data trends highlight a growing gap in methodology positivity rates between short-term only programs and dual-methodology programs over the last two years.

In 2023, positivity rates for programs with dual methodologies were 191% higher than programs only testing with short-term methodologies. **By 2025, that number has increased to 225%.**

Dissecting DISA's 2025 Drug Testing Statistics

When you drill down to DISA's 2025 data for individual substances, the detection rates paint a clear picture:

- **Marijuana:** Hair testing was 1.5 times as effective (1.27% positivity vs. 0.83% for urine).
- **Cocaine:** Hair testing was 9 times as effective (1.42% positivity vs. 0.15% for urine).
 - **Note:** Each year, **cocaine consistently exceeds marijuana in hair testing positivity rates.**
- **Amphetamines:** Hair testing was 3.4 times as effective (0.49% positivity vs. 0.14% for urine).
- **Opioids:** Hair testing was 5 times as effective (0.16% positivity vs. 0.03% for urine).

Dual Methodologies are the Best Practice for a Safer Facility

Programs with a dual methodology of urine and hair remain the gold standard for safety. Historical testing data shows that using long- and short-term testing methodologies reduces the risk of contractors arriving on site under the influence more effectively than one or the other. As a result, **leading safety-sensitive facilities require both.**

Each method fills a different gap. Long-term testing, such as hair, identifies more positive tests overall and more effectively detects lifestyle use. Short-term testing, such as urine or oral fluid, is more effective at detecting recent or infrequent use. Together, they create a more complete and more effective screening approach.

Did the industry miss 19,000 drug test positives?

Based on historical positivity rates:

DISA performed 700,000 short-term only tests from 2024 to 2025. With historical positivity rate data, we can model the impact of industry-wide dual methodologies. (urine and hair)

» Short-term Testing Only at 1.26% = **8,820 positives**

» Dual Methodology at 3.96% = **27,720 positives**

Statistically, if all tests were dual methodology, **we could have 19,000 additional positive tests!** (primarily cocaine, amphetamines, and opioids)

The difference is significant. A short-term only program would detect only one-third of the positives identified by a dual-methodology program. On the other hand, long-term methodologies miss 1 out of 10 positives detected by short-term methodologies in a dual-methodology program, reinforcing the value of using both methods together.



Detection Windows and Drug Metabolism

But at a granular level, why does it matter which testing methodology employers in safety-sensitive industries decide to use?

The answer lies in how the human body metabolizes different substances. The success of any screening program relies entirely on its “detection window”: the specific timeframe in which a laboratory can definitively identify the presence of an illicit substance.

Short-term vs. Long-term

- **Drugs such as cocaine, heroin, and methamphetamine metabolize and clear the body more quickly for short-term methodologies.** This results in tightened detection windows. Additionally, these substances are detectable in oral fluid for an even shorter period than in urine.
- **THC is highly fat-soluble.** In urine testing, laboratories typically detect THC metabolites rather than active THC itself. Because THC is stored in body fat and released over time, urine testing often has a longer detection window for marijuana than other drugs.
- **Oral fluid testing typically identifies recent marijuana use.** It does this by detecting the parent THC in saliva. This makes oral fluid better suited to identifying more recent use than urine.
- **Exact detection times vary.** This is based on the drug, frequency of use, individual metabolism, test cutoff levels, and the laboratory method used.

The goal of screening a new applicant or current employee is to assess their behavioral patterns and determine whether they will be a positive addition to your workforce or pose an ongoing risk.

Hair Testing Provides Long-Term Detection Windows

1. As the heart pumps blood throughout the body, that blood nourishes the cellular structures located beneath the scalp.
2. As these cells rapidly divide to form a hair shaft, trace amounts of circulating drugs are captured permanently within the solid core of the hair follicle.
3. Because human hair grows at a highly predictable rate of approximately one-half inch per month, a standard sample provides a deeply accurate, unalterable historical record of drug consumption spanning up to the previous 90 days.

This extended detection window completely alters the dynamics of applicant screening. With screening programs that use only oral fluid or urine tests, most applicants suffering from a severe substance abuse disorder simply need to abstain from using drugs for several days to pass a urine screen (marijuana’s longer detection window excepted).

But no such avoidance method exists for hair testing: the chemical record of the applicant’s lifestyle remains securely locked in their hair shaft, completely unaffected by temporary abstinence.

The only option? Stop using the drug for several months, resulting in a behavior change.



Consortium Benefits for Contractors

The DISA Contractor Consortium (DCC) helps contractors reduce duplicate testing, lower administrative burden, and move qualified workers across participating sites with less delay. Instead of managing separate testing pools, repeated enrollment steps, and site-by-site compliance requirements, contractors work through a single coordinated program that simplifies access across a broad network of participants.

That broader participating base matters. When owners participate in the same consortium, contractors face fewer duplicate testing events, less paperwork, and less time away from the job. When owners move to a narrower path, or a short-term-only path, contractors often face the opposite result: more duplicate testing, more administrative friction, and more crew downtime.

Example:

- One 20-person contractor crew works across 4 nearby owner sites.
- If all owner sites participate in the same DISA consortium at a 50% rate, the crew would average 10 random selections per year.
- In 2 separate programs, the number of random selections doubles to ~20 annually
- In 4 separate programs, the number of random selections quadruples to ~40 annually
- When the sites a contractor visits participate in DISA's consortiums, they see far fewer duplicative testing events than in a model where each owner administers a separate program.

Why that matters:

- Less time scheduling, traveling, and testing
- Fewer interruptions to crew deployment
- Lower compliance burden for the contractor
- Faster movement of workers between sites
- Direct savings from avoiding redundant testing
- More productive labor hours kept on the job site

Direct Cost Savings, Beyond Time & Administrative Burden

In 2025, DISA's Contractor Consortium helped participating contractors avoid 178,600 redundant tests and save \$21.9 million. This is due to a company with ten participating employees saving about \$1,200 by participating in a single program rather than two separate programs.

For a company participating in four separate programs, the savings quickly rise to \$3,600. Those figures do not include recovered labor time, reduced travel, or the efficiency gained when workers stay on the job site or get on site faster!



DISA Global Solutions

Dual-Methodology Testing Remains the Best Practice in Safety-Sensitive Workforces

Get More Information » www.disa.com/owners

Why Owners Choose the DISA Contractor Consortium (DCC)

DISA's Contractor Consortium helps owners mitigate risk and maintain contractor compliance!

An Established Model

The DISA Contractor Consortium was founded in 1992. It supports 25,000+ participating companies and 4+ million workers across 420+ owner mandates.

When owners choose the DISA Contractor Consortium, they are not just choosing a testing method; they are choosing the longest-running and most established consortium model in the industry.

Owners get access to the largest, most diversified contractor compliance program of its kind and the largest vetted safety-sensitive contractor pool in the nation. **Scale matters.** A larger

participating network gives contractors a broader path into compliance, reduces friction across sites, and helps owners maintain a mobile, work-ready contractor population.

The DISA Contractor Consortium reduces guesswork by **standardizing screening requirements**, managing non-compliant contractors, providing auditing at both the company and employee levels, and helping prevent individuals from job-hopping between sites.

Benefits of Joining a Contractor Consortium:

- Lower compliance burden for the contractor
- Less time spent scheduling, traveling, and collecting tests
- Qualified workers can move faster between participating sites
- Direct cost savings from avoiding redundant testing

Why more owners choose the DISA Contractor Consortium (DCC):

- It is the Most Customizable Consortium
 - Owners can customize and use multiple methodologies
 - Configurable requirements (*annual testing, return-to-duty, and more*)
- Integrated with Safety Portals, Badge Systems, and Safety Councils
 - Plus, direct contractor and ATS/HRIS system integration
- One Provider for Drug Testing, Backgrounds, and Health Services
- Diverse Labor Force across multiple safety-sensitive industries

When more owners participate in the same consortium, contractors benefit from reduced redundant testing, expedited onboarding, real-time compliance visibility, and easier movement across participating sites. Owners benefit from quick and easy red/green site access decisions, faster site access, better tracking, and an easier model to administer.



**420+ Participating
Owners Mandates**



**25,000+ Participating
Contractor Companies**



**4 Million+ Participating
Contractor Employees**



The Importance of Short-Term Testing in Your Program

While long-term testing methodologies are one of the strongest tools available for a screening program, the strongest programs use both short- and long-term methods because each one answers a different safety question.

Long-term testing helps identify substance use patterns. Short-term testing helps identify recent or infrequent use that may not appear on a hair test. DISA's drug testing data supports this approach. Sites using both short- and long-term testing identified 10% more positives than long-term testing alone. Put another way, **long-term methodologies miss 1 out of 10 positives detected by short-term methodologies.**

This indicates that the donor either:

- Used very recently (hair detection windows start days after use)
- Used infrequently enough to fall below hair testing cutoffs
- Used a drug not included on the hair testing panel

» **One of those gaps is solved by urine testing's broader 10-panel coverage.** A standard DISA urine test is a 10-panel test, while hair testing is a 6-panel test. While these additional substances are only tested for with short-term methodologies and detected less often, they still create risk and add up to more positives than a recognized threat like opiates. Removing urine testing would reduce visibility into those substances and weaken your overall program.

Beyond positivity rates, short-term testing offers other key benefits for your program. In each case, short-term methodologies like urine help close gaps and reduce your safety risk.

» **Short-term testing fits some use cases better than long-term testing.** Post-accident and reasonable-suspicion testing focus on recent use and potential current impairment. A 90-day lookback period is valuable for understanding behavioral patterns and creating deterrence, but it may not answer the immediate question following an incident or an observed impairment concern. In those situations, a shorter detection window is an important part of the response.

» **Urine testing supports reciprocity across the DISA Contractor Consortium.** Contractors benefit from a shared program because it helps eligible workers move across more than 420 participating owner sites with less duplicate testing and less delay. The DISA Contractor Consortium creates a work-ready, mobile workforce that benefits from quicker access to sites. Urine testing is the most common methodology used today, and a program without urine testing creates inefficiencies and lost reciprocity for contractors. This increases costs from separate testing events that pull workers away from the jobsite more often and create blind spots for site owners.

The best practice is not one instead of the other. The best practice is a dual-methodology approach that combines hair and urine testing. Hair testing strengthens long-term detection and deterrence. Urine testing strengthens recent-use detection, broadens your panel coverage, and keeps contractors on site more often via reciprocity with other similar programs. Together, owners create a more comprehensive safety standard, while helping contractors save time and money.



Changing Long-Term Behavior vs. Temporary Abstinence

In 2024, Psychemedics, the largest hair testing laboratory in the US, saw an overall positivity rate across all industries of 8.4%. One safety-sensitive sector (transportation) reported a positivity rate of 9.5%. This was driven predominantly by the chronic use of cocaine and methamphetamine.

Quest Diagnostics, one of the largest laboratories for urine-based drug testing, reported an overall U.S. positivity rate of 4.4% for traditional urine testing in 2024. However, for the *same workforce*, overall hair-testing positivity was 17.2% and random-testing positivity was an astonishing 22.5%.

These metrics strongly suggest that once employees bypass the initial pre-employment screening via temporary abstinence, a percentage of

employees resumed their chronic drug use while actively employed. This theory is further supported by the increasing trend toward higher positivity rates from dual-methodology testing when compared with only short-term testing programs.

DISA Contractor Consortium Positivity Rates vs. the General Workforce

The DISA Contractor Consortium has significantly lower positivity rates than the general workforce. This stems from years of education and awareness among industry contractors, as well as the significant impact a positive test has on an individual.

An individual who tests positive in the DISA Contractor Consortium is restricted from accessing other sites in the same consortium. This means a failed test may result in loss of work opportunities beyond the current role. This extended impact means individuals take it seriously.

Over the last two years, despite lower overall positivity rates, DISA's dual methodology testing recorded a 3.96% positivity rate and across all consortiums, DISA identified 12,600 individuals with positive drug tests.

The Economics of a Safer Facility

A comprehensive screening program is a practical way to reduce long-term costs. Drug testing creates real financial value by lowering the risk of impaired employees or contractors entering your site. When weighed against the downstream costs tied to substance use, the return is clear.

Impairment affects more than accident risk. It drives ongoing costs through absenteeism, turnover, lower work quality, and higher healthcare expenses.

According to the latest data, each employee with an untreated substance use disorder costs an employer an average of \$8,817 per year. The financial risk grows even further when impairment contributes to workplace incidents. Substance abuse is linked to \$92.65 billion in productivity losses tied to morbidity.

The Economic Liability of Abuse:

- The monetary impact of a heavy equipment accident scales exponentially based on the severity of the outcome. Standard property damage averages \$6,600 per vehicle for a collision without injuries, covering repairs and immediate operational downtime.



- An accident resulting in physical harm dramatically increases the financial burden, averaging [\\$45,000 for an evident injury](#) and escalating to \$174,000 for a disabling injury.
- An accident resulting in a fatality ranges from [\\$500,000 to over \\$5.4 million](#) due to catastrophic legal settlements, severe regulatory fines, and massive insurance premium hikes.

Furthermore, organizations managing highly specialized, continuous-operation facilities face unique economic risks. A large-scale refinery typically operates 24 hours a day, 365 days a year; if an impaired worker makes a critical error that forces an emergency shutdown, a single hour of facility downtime can cost an operator over \$360,000, and a mistake that halts production for a full day can result in excess of \$8.6 million in lost revenue.

The Deterrence Effect: Comprehensive Screening Helps Site Safety

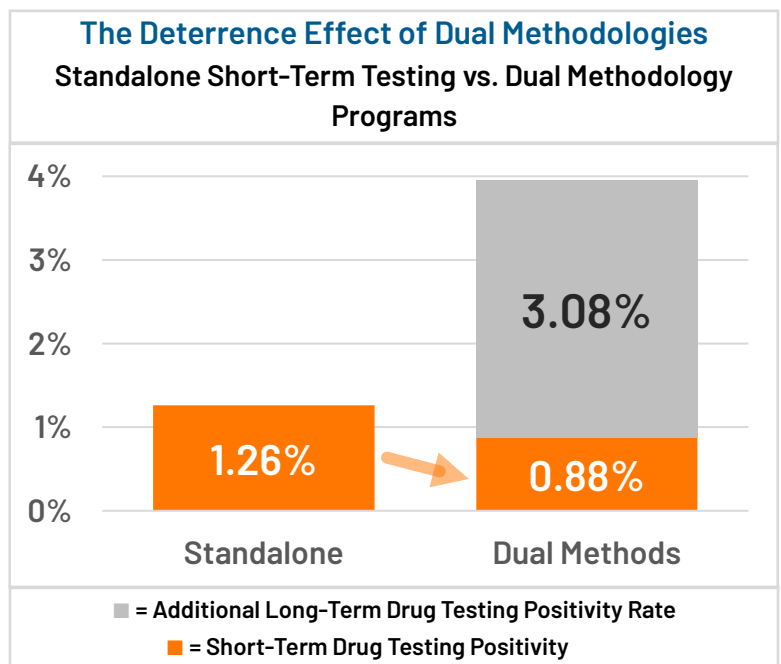
One of the most powerful financial benefits of maintaining a rigorous testing program is the psychological phenomenon known as the “deterrence effect.”

When a company actively advertises and enforces a comprehensive screening policy, the behavior of the regional labor pool fundamentally changes.

Online forums share strategies for calculating the number of days required to abstain from drug use to pass a short-term drug test, how a donor can attempt to detox faster, and even misinformation on how to cheat a test. However, these same communities widely acknowledge that long-term, direct observed drug testing with hair (where a trained technician clips the required sample in plain view) is practically impossible to defeat.

Programs with dual-methodology testing saw 30% lower short-term test positivity vs. programs with only short-term testing. This indicates a strong deterrent effect when donors know they'll be dual tested. When an organization explicitly mandates a higher level of screening, habitual substance abusers simply self-select out of the applicant pool by abandoning their applications and actively seeking employment with competitor companies that only require basic screening. This deterrence effect yields substantial cost savings, before testing even begins, by filtering out employees who would be safety liabilities from the process.

“Programs with dual-methodology testing saw **30% lower short-term test positivity** vs. programs with only short-term testing. This indicates a strong deterrent effect when donors know they'll be dual tested.”





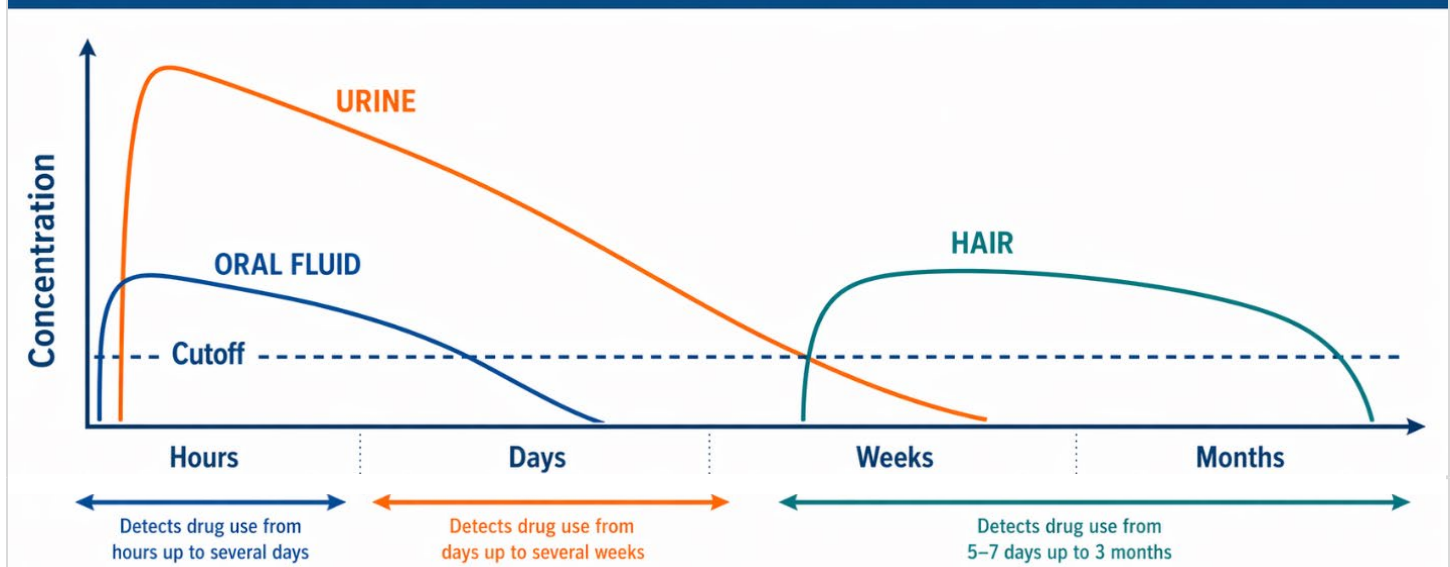
Implementing Dual Methodologies for Maximum Coverage

Because of the distinct strengths and limitations of each testing method, industry leaders consistently adopt the best practice of combining short- and long-term screening through dual methodologies.

Short-term methodologies readily capture sporadic weekend users who may not use frequently enough to meet the minimum testing thresholds for a hair analysis. Short-term testing also captures more drugs than appear on a standard 6-panel hair test. The positivity rates for these additional drugs, while not high positivity rates, add up to meaningful detection rates.

Conversely, **longer-term methodologies** catch habitual, chronic users who might successfully pass an oral fluid or urine test by abstaining for a few days to a few weeks.

Windows of Detection



By using short- and long-term testing methodologies together, you close gaps in the screening process and reduce risk in safety-sensitive workplaces before individuals ever reach your site. Applicants cannot simply abstain from drug usage to pass a pre-employment urine or oral fluid screen. Dual-methodology programs drive behavior change and reduce on-site risk.



Positivity Rate by Methodology (2024-2025)

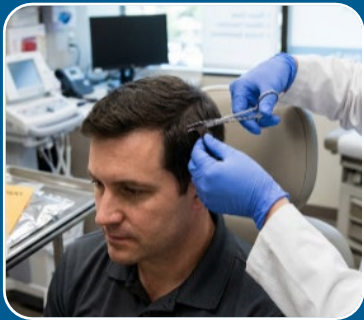
We analyzed two years of positivity data for DISA's short- and long-term drug testing consortiums. We saw three key insights from the 102,000 tests where a donor provided both samples on the same day.

Dual Methodology Insights:

- 1. Consortium sites that used both short- and long-term testing identified **10% more positive tests** than sites that used long-term testing alone, and **214% more positive tests** than sites using only short-term methodologies.
- 2. In dual methodology programs, **long-term methodologies miss 1 out of 10 positives detected by short-term methodologies**. This gap suggests the donor used very recently, used drugs not included in hair testing panels, or used infrequently enough to fall below hair cutoff levels.
- 3. **Dual methodologies have a strong deterrent effect**. Programs with dual-methodology testing saw **30% lower short-term test positivity** vs. programs with only short-term testing, indicating a strong deterrent effect when donors know they'll be dual tested.

Positivity Rate by Methodology – (2024-2025)			
Testing Methodology	Positive Tests	All Tests	Positivity Rate
Short Term (Standalone)	8,846	699,384	1.26%
Dual Methodology (Urine & Hair)	4,040	102,140	3.96%

Dual methodologies are the clear choice for [sites that prioritize safety](#).



Stronger Safety Standard with DISA's Contractor Consortium, Hair Testing, and Dual Methodologies

The DISA Contractor Consortium helps owners strengthen contractor compliance and reduce administrative burden. Backed by the largest contractor pool in the nation, we help reduce redundant testing and save contractors time and money while moving qualified workers across participating sites with less friction.

For more information or to get started today, visit:
www.disa.com/owners