

Making a Difference

Our laboratory has an aggressive research and development program and has made significant breakthroughs in the field of analytical toxicology by developing procedures to provide advanced forensic toxicology using alternate specimens, such as hair, fingernail and umbilical cord. Our research activities are funded largely by agencies within the National Institutes of Health (NIH). We offer customized drug testing for a variety of clients, including research organizations, hospitals, reference laboratories, universities, and court systems.

Specializing in Alternate Specimen Drug Testing

Douglas Lewis, President and Scientific Director, and Joseph Jones, Vice President of Laboratory Operations, have over 40 years of combined experience in forensic toxicology and are available to answer questions regarding customizing of assays, research, and reported results. Sharing forensic toxicology knowledge is considered an essential part of our contribution to our clients and the communities they serve.



Our Vision

To develop practical solutions from promising science.

Our Values

Advance the Gold Standard in Forensic Toxicology through the following Values: Leadership; Integrity; Innovation; Quality; and Collaboration.

Did You Know:

Hair acts like an environmental sponge and absorbs substances to which it is exposed.



Advanced Drug Testing
for Children Exposed to
Substances of (Ab)use.

Children exposed to substances of (ab)use (SOA) are often vulnerable to violence, neglect, sexual abuse, physical abuse, criminals and/or criminal activity. Statistically, more than one problem may exist if there is conclusive evidence that a child has been exposed to SOA.

Drug testing, especially with hair, has become a widely used option for detection of SOA environments. However, for many children, the dangerous environments go undetected because the routine drug test ordered is not sensitive enough.

We can help you,
help them.

Why do they test hair for SOA?

Hair testing has been around for years, and has gained great recognition as a viable, non-invasive, alternate specimen for testing SOA. It provides a test sample that is simple to collect, and easy to ship and store.

Drugs and metabolites are incorporated into hair during formation, after formation, and after hair has emerged from the skin¹.

A 1.5-inch sample of approximately 100 mg (about the width of a #2 pencil) can provide up to a 3 month window of detection for most SOA.

¹ Henderson, G.L. (1993). *Forensic Sci. Int., Mechanisms of drug incorporation into hair*, Vol. 63, pp. 19-29, PMID: 8138221.

² *In vivo* (Latin for "within the living") is experimentation using a whole, living organism as opposed to a partial or dead organism.

How is exposure being missed?

The gap in SOA exposure detection deals with the parameters of traditional, routine hair testing.

Routine hair tests don't place the focus on environmental exposure, but rather on remnant metabolites that would be left after ingestion. Testing for ingestion generally places focus on drug metabolites that have been processed by the body *in vivo*² and doesn't focus on any native metabolites found in the environment.

What is the solution?

At USDTL, we have a history of helping the next generation. The epidemic of SOA-addicted newborns in the late 1980's compelled us to be the first laboratory to offer umbilical cord testing for SOA detection and we continue to seek advancement of SOA testing options.

Once again, we find ourselves disheartened by the rate of children being overlooked due to lack of options available, so we made it our mission to create a hair test that is optimized for sensitivity to SOA exposure.

Using a hair test that is more sensitive to exposure could help detect situations an

endangered child may face, such as: passive inhalation of SOA smoke, contact with SOA smoke, contact with sweat or skin oil of a substance (ab)user, contact with the physical substance and accidental or intentional ingestion of SOA.

We have offered hair testing since 1994 and our toxicologists have become renowned experts in the field. We place extreme emphasis on the human being connected to the other end of the tests, so all of our tests follow a strict, electronic barcode, chain of custody procedure.

By creating better options that lead to better knowledge, we feel that we have, once again, taken a step toward the safety of those who need us the most.

Join us in our efforts by contacting our representative with your questions. If you would like additional information, please visit us online at www.USDTL.com.

Benefits of Using Child Hair Testing



Window of Detection: Up to 3 months for most SOA.



Simple Collection: Non-invasive, non-intrusive specimen collection.



Best Option Available: Tests for exposure AND ingestion, not just ingestion.