

Tobacco Testing

Frequently Asked Questions

Who is the doing the testing?

Clinical Reference Laboratory, located in Lenexa, Kansas, specializes in human specimen and bodily fluid analysis for the purpose of health assessment screening. They are only testing for cotinine.

1. **Definition of nicotine**

A colorless, poisonous compound (alkaloid) occurring naturally in the tobacco plant. It is used in medicine and as an insecticide, and is the substance in tobacco products to which smokers can become addicted

2. **Definition of cotinine**

The major metabolite of nicotine that indicates levels of nicotine intake

Where are they located?

Clinical Reference Laboratory
8433 Quivira Road
Lenexa, Kansas, 66215

What are the specific steps in the testing process?

The test OraSure is a non-invasive oral-fluid collection process. It includes a sodium chloride pad to collect an oral specimen for laboratory processing. The pad draws oral fluid, which is rich in antibodies and contains far fewer contaminants than typically found in saliva. The pad is then transported to a lab in a vial that contains preservatives, which stabilize the sample for up to 21 days at 39 degrees Fahrenheit to 98 degrees Fahrenheit.

How are specimens disposed of once testing is complete?

Specimens are preserved for a maximum of 21 days. Once the specimen's shelf life expires, they are crushed, incinerated, or disposed according to OSHA guidelines.

Why test for cotinine?

1. Window of detection for nicotine is relatively short (2 hrs) vs. several days in cotinine
2. Because cotinine is the major metabolite of nicotine, it is usually the test of choice to evaluate tobacco use or exposure to tobacco smoke. It is stable and is only produced when nicotine is metabolized.
3. Many hospitals and corporations in the U.S. are implementing "cotinine" testing programs
4. This type of lab-based tobacco testing assays too many long-standing insurance industry customers and for health and wellness programs for over 20 years.

Will second hand smokers test positive?

1. In numerous studies, cotinine tests have been clinically designed to accommodate for the minute traces commonly found from second-hand exposure when compared to levels found in smokers.
2. The cutoff values of these tests are set by OraSure to properly distinguish passive exposure from true smokers.
 - a. Do nicotine patches, gum, or aerosols have an effect on cotinine levels? Yes. Because they all use nicotine, these devices can increase cotinine levels. The cotinine test takes this into consideration. The OraSure Test Cutoff Levels are below:

Type of Exposure	Oral Fluid 10ng/mL
Second-hand smoke	<3 ng/mL
Light smoke	3-33 ng/mL
Regular smoke	>33 ng/mL

How is the sample analyzed?

1. Screened in a certified laboratory using the OraSure® MICRO-PLATE tests which use enzyme immunoassay technology (EIA), proven reliable for routine cotinine testing.
2. Confirmation testing by gas chromatography/mass spectrometry (GC/MS or GC/MS/MS)

What is the window for detection of tobacco use by oral fluid testing?

1. Detection starts immediately after tobacco use and it can last up to 3-4 days, depending on several factors such as size of the individual, percentage of body fat present, rate of metabolism, hydration state of the individual, type of cigarette/cigar/pipe smoked or tobacco chewed, and smoking style

Can cotinine levels be used to determine the type and volume of tobacco used?

1. No. While it's true that the more a person smokes, the higher the cotinine level is likely to be.

Source: Clinical Reference Laboratory

*If it is medically inadvisable for you to achieve or attempt to achieve the standards of the non-tobacco use policy due to a medical condition or addiction, please call **The Purple Card** at (866) 788-9118. We will work with you and your physician to develop an alternative way for you to qualify for the non-tobacco payroll deductions.*