Cotinine Testing for Nicotine

If you've ever applied for a new job, you may have had to take a drug test. Many federal, state, and private employers require this testing to ensure employees can be trusted to protect important information, or even the health and safety of others.

But did you know that some employers, insurance companies, and other institutions sometimes test for nicotine -- the active ingredient in tobacco products?

How Does the Test Work?

There are a couple of ways to test for nicotine and cotinine, the product created after nicotine enters your body:

- **Qualitative testing:** It simply looks for whether or not you have nicotine in your body.
- **Quantitative testing:** It actually measures the concentration of nicotine or cotinine in your body. It gives more information about your tobacco habits. It can tell whether you're an active smoker or if you've recently quit. If you're not a tobacco user, it can tell if you've been breathing in a lot of tobacco smoke or not.

What Does the Test Look For?

Usually, the tests look for cotinine, not nicotine. That's because cotinine is more stable and lasts longer in your body. The only reason you'd have cotinine in your body is if you processed nicotine.

Cotinine can show up in a blood or urine test. If you have to do a blood test, a lab tech will insert a needle into your vein to collect the sample. If you have to do a urine test, you'll submit a random urine sample, which means the sample can be taken at any time of day.

\If you've quit smoking or using other tobacco products and you're now on a nicotine replacement product, you may need a test that looks for nicotine, cotinine, and *anabasine*, a substance that's found in tobacco but not in nicotine replacement products.

If you test positive -- meaning anabasine is present in your body -- that indicates you're actually still using tobacco. It wouldn't show up if you were just using nicotine replacement products.

When and Why Are the Tests Ordered?

There are a lot of reasons why you might have to take a nicotine or cotinine test. Some of the most common reasons include:

- Court-ordered testing in child custody cases
- For smoking cessation programs
- When applying for health or life insurance
- Before certain surgeries
- For employment
- If your doctor suspects nicotine overdose

How Long Does Nicotine Stay in My System?

The amount of nicotine in your blood rises just seconds after you light up. But how much you inhale and how much nicotine is in the cigarette both affect how much. People also process nicotine differently depending on their genetics.

Generally, nicotine will leave your blood within 1 to 3 days after you stop using tobacco, and cotinine will be gone after 1 to 10 days. Neither nicotine nor cotinine will be detectable in your urine after 3 to 4 days of stopping tobacco products.

If you smoke menthol cigarettes or breathe in secondhand menthol smoke, cotinine may stay in your urine longer.

A saliva test is considered the most sensitive way to detect cotinine, and it can detect it for up to 4 days. Hair testing is a reliable way to figure out long-term use of tobacco products and can be very accurate for as long as 1 to 3 months after you stop using tobacco. It can even detect nicotine for up to 12 months.

What Do Results Mean?

If your levels of nicotine are moderate, it might mean you used tobacco and stopped about 2 to 3 weeks before the test.

It's possible for people who don't use tobacco to test positive for a low level of nicotine if they're exposed to tobacco smoke in their surroundings.

If the test can't detect any nicotine or cotinine in your system (or it can only detect very low levels), it likely means you don't use tobacco and you haven't breathed in smoke in your environment, or you were once a tobacco user, but you've given up tobacco and nicotine products for several weeks.