

PHARMACOGENOMIC TESTING FOR

CODEINE***What is pharmacogenomic testing?***

Pharmacogenomic testing looks at changes in your genetic code, called polymorphisms, that can affect how you respond to certain medications. Some genetic changes may make it more likely to have side effects from a medication, while other genetic changes may make it less likely that the medication will help treat your symptoms. Knowing whether or not you carry these genetic changes can help your healthcare provider select the medication and/or dose that will work best for you.

Pharmacogenomic testing may not be accurate for people who have received some types of transplants. Talk to your healthcare provider if you are a transplant recipient.

***How do genetics affect my response to codeine?***

Codeine is processed (metabolized) in your body to become morphine. This happens with the help of a special protein called CYP2D6. Your body's instructions for making this special protein are located in your DNA.

Variations in these instructions can affect how much working CYP2D6 protein your body makes.

Patients who have certain types of CYP2D6 gene polymorphisms could have altered responses to the medication. Some polymorphisms can result in codeine being processed more slowly, which means that you might not receive the full benefit of this medication. Other variants can result in codeine being processed more quickly, which could cause you to receive a stronger effect, and possibly more side effects.

***What can pharmacogenomic testing for codeine tell me?***

Codeine is used to treat pain. Knowing how much working CYP2D6 your body makes can help your healthcare providers select the most appropriate dose of codeine for you. Your doctor may also choose a different medication that is not affected by CYP2D6 protein.

It is important to know that pharmacogenomic testing can influence decisions about which medication may work better for you, but it is not the only factor. Other things that can affect how you respond to a medication include your age, sex, the symptoms of your condition, other medications or supplements you are taking, any other health conditions you have (for example, liver or kidney problems)—and possibly other changes to your genetic code that have not been discovered yet.

***What can't this pharmacogenomic test tell me?***

- This pharmacogenomic test cannot tell you how your family members might respond to this medication.
- This pharmacogenomic test cannot tell you about your diagnosis.

What else should I know about this test?

Pharmacogenomic testing for codeine might provide information about how you'll respond to some, but not all, other medications. Talk to your healthcare provider for more information on how test results could apply to other medications you may be taking.

***What should I do after I receive my test results?***

Talk to your doctor or pharmacist about your results to determine whether any changes should be made to your medications. Ask them:

- What do these results mean?
- How will these results affect how I take my medication?
- Do these results affect any other medications I am taking?

DO NOT START, STOP, OR CHANGE DOSES OF YOUR MEDICATIONS WITHOUT CONSULTING YOUR HEALTHCARE PROVIDER.