

What is pharmacogenetic testing?

Pharmacogenetic testing is a type of DNA test that uses your **genetic profile** (information about your specific genes) to predict how your body will respond to specific medications. Your provider may recommend pharmacogenetic testing to help identify what medication or medication dose might work best for you.

What are genes and how do they impact my response to medications?

Your DNA contains **genes**, which tell your body how to make different proteins. Proteins can help break down or remove medications or can help move medications throughout your body. Pharmacogenetic testing looks at your DNA to see what version of the gene you have. Different people can have different versions of the same gene, which are called variants. Variants can mean your protein works differently, possibly faster, or slower, compared to someone else. This information may help your providers to predict how you will respond to certain medications to personalize the medication or dose selected.

Should I get pharmacogenetic testing?

Pharmacogenetic testing may be recommended if you will be starting a new medication that is known to be affected by genetics or if you have a history of side effects from a certain medication. Not all medications will have available pharmacogenetic testing. It is important to speak to your provider to determine if pharmacogenetic testing is right for you.

How is the testing done?

There are several methods to obtain a DNA sample for pharmacogenetic testing, including through a blood draw, saliva (spit) collection, or cheek swab. Your provider will share the specific method for your test with you. After collecting the sample, it is sent to a clinical laboratory that evaluates your DNA.

How long will it take to receive my results?

Depending on the type of test ordered and the lab it is ordered from, your results may be available in as soon as 24 hours or may take up to a few weeks.

How will my provider use the test result?

Your provider will use the results to personalize your medications. They will identify whether your genetic results can help to determine what medications, and what dose, are most likely to work well for you.

I received my results from my provider. What should I do with them?

If you see multiple different providers, you should share your results with all your providers. It is important to discuss your results with your providers before making any changes to your medications.

How much does it cost to get a pharmacogenetic test?

Cost of testing depends on many factors, such as the laboratory performing the test, the specific gene(s) being evaluated, your medical and medication history, and your insurance coverage. If your insurance does not cover the costs, some labs may offer financial assistance. You should speak with your provider, the laboratory, or your insurance company for more specific information about expected costs.

What are some limitations to pharmacogenetics testing?

Pharmacogenetics research is growing daily, and we are often discovering new relationships between genes and medications. As more evidence becomes available, your recommended medications may change. Although your genetic test results will not change, it is possible the interpretation of your results may change over time. The medication dose that is recommended for you today may be different in the future or stay the same.

Pharmacogenetics is one of many tools that can be used to select a medication and dose. Your pharmacogenetic results are not likely to explain all of your medication responses. Many other factors such as your kidney function, age, health conditions, other medications you take, and many others may contribute to how you respond to a medication. Sometimes these non-genetic characteristics are more important than the genetic result. Your provider will consider your genetic and non-genetic characteristics when providing personalized medication recommendations.

Will I need to get another test done in the future?

Your inherited genetic information does not change, so repeating a pharmacogenetic test with the same gene(s) is usually not recommended. If a new gene or variant is identified that was not included in your previous testing and is important to the medications your provider is considering, they may determine that repeating the test is appropriate for you.

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