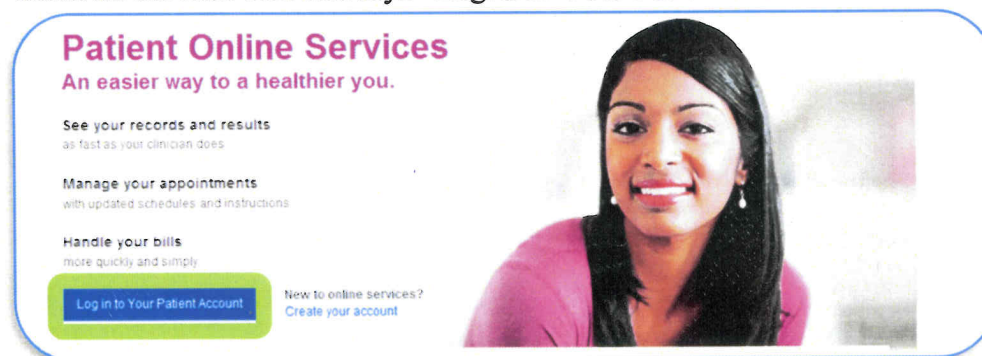


# Instructions for Accessing your *CYP2D6* Test Results

1. Go to the website [www.mayoclinic.org](http://www.mayoclinic.org)
2. In the gray bar on the top of the screen, click on “Log in to Patient Account”



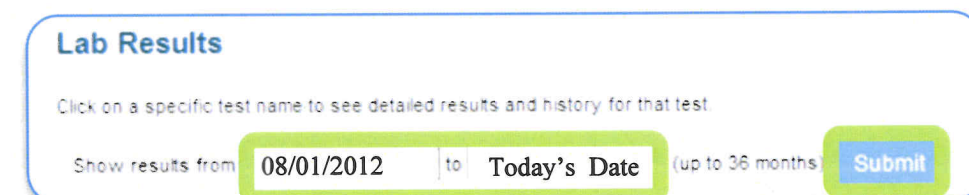
3. Click on the blue box that says “Log in to Your Patient Account”



4. If you are already registered for patient online services, type in your “Personal User Name” and “Password”. If you are new to patient online services, click on the gray box that says “Create Your Account” and follow the instructions.
5. After you are logged in to your account, under the heading “Your record,” click on “Lab results”



6. Set the date range from 08/01/2012 to today’s date and click “Submit”



7. Scroll down to find and click on “*CYP2D6* Phenotype Interpretation”

# Pharmacogenomic Testing & CYP2D6:

## Finding the Right Medication for You

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### What is pharmacogenomics?

Pharmacogenomics, or pharmacogenetics, is the study of how your genes affect your body's response to medications. The word "pharmacogenomics" is combined from the words *pharmacology* and *genomics*:

- *Pharmacology* deals with the uses and effects of medications.
- *Genomics* deals with understanding genes and their roles.

Genes carry information that you inherit from your parents. Genes determine which characteristics you have, such as your eye color and blood type. Your genes also help to determine how your body responds to medications.

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### What is the purpose of pharmacogenomic testing?

The purpose of pharmacogenomic testing is to find out if a medication is right for you.

Pharmacogenomic testing can help to determine:

- how likely a medication is to work for you,
- the correct dose of a medication, or
- if you are at risk for serious side effects from a medication.

A pharmacogenomic test may help to predict your response to one or a few medications. However, it cannot tell you how you will respond to all medications.

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### What is CYP2D6?

*CYP2D6* is the name of a gene that is involved in the processing of certain medications. Changes in the *CYP2D6* gene can affect the way that your body responds to these medications. For example, *CYP2D6* is involved in the processing of codeine, a medication commonly used to treat pain. Some people have a change in *CYP2D6* that causes their bodies to process codeine very slowly or not at all. These people are not likely to get pain relief and should take a different medication. Other people have a change in *CYP2D6* that causes their bodies to process codeine too quickly. In these cases, people may have serious side effects and need a different dose of codeine or a different medication. Changes in the *CYP2D6* gene can also affect your response to other medications.

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## What are the limitations of this testing?

- These test results help to predict your response to medications processed by *CYP2D6*. However, not all medications are processed by *CYP2D6*.
  - *CYP2D6* testing is one tool that can help determine the right dose and right medication for you, but other things such as your age, lifestyle, other medications you are taking, and your overall health can affect your treatment.
  - Even if your results predict that you process *CYP2D6*-related medications at a regular rate, you could still have side effects from one of these medications.
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## For more information:

If you have questions about this information, you may talk with your health care provider or a pharmacist at Mayo Clinic.

Mayo Clinic in Rochester, MN  
507-284-2511

You may also refer to any of these resources:

- Pharmacogenomics Video: [http://www.youtube.com/watch?v=fGjG\\_9EEeeA](http://www.youtube.com/watch?v=fGjG_9EEeeA)
- Mayo Clinic Center for Individualized Medicine:  
<http://mayoresearch.mayo.edu/center-for-individualized-medicine/pharmacogenomics.asp>
- National Institutes of Health (NIH): <http://www.genome.gov/27530645>
- The U.S. Food and Drug Administration (FDA):  
<http://www.fda.gov/drugs/scienceresearch/researchareas/pharmacogenetics/ucm083378.htm>

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