



CYP2C9, CYP2C19, CYP2D6, CYP3A4,
CYP1A2, plus VKORC1 and COMT

DME Genotype Panel

Did you know?
**A simple genetic test could
make your medications
safer and more effective**

How the process works:

Healthcare provider orders the Drug Enzyme Metabolizing Panel after consulting with you.

A cheek swab is collected and shipped overnight to the Iverson laboratory.

Your sample is analyzed for genetic variants. Results are processed within 24 hours after the sample is received at the lab.

Your healthcare provider gets the results through a secure online login or via fax.

Your healthcare provider selects the appropriate medication and dose using your test report and their clinical expertise.

Basic DME Panel

- CYP2D6
- CYP2C9
- CYP2C19
- VKORC1

Extended DME Panel

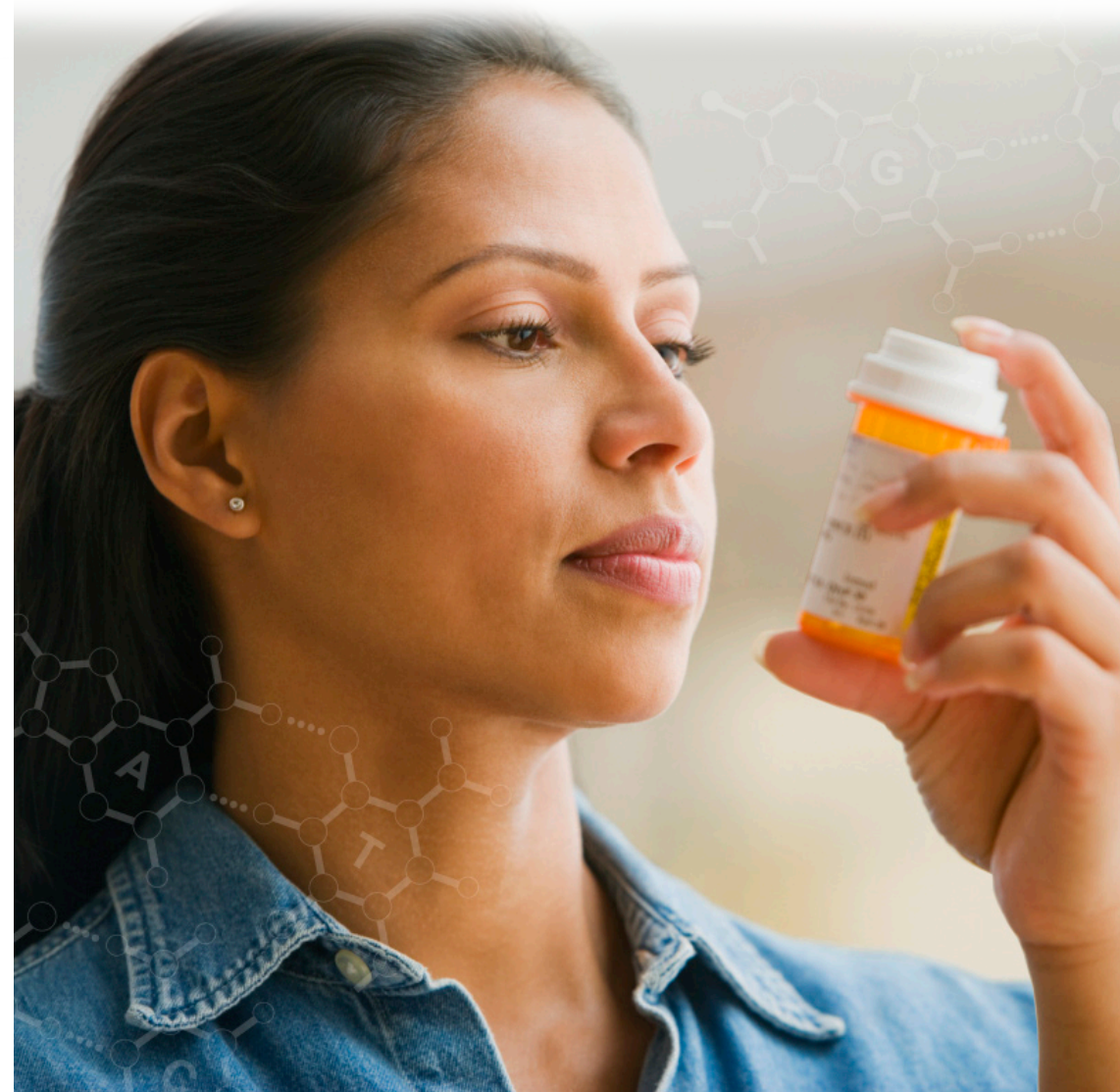
- CYP2D6
- CYP2C9
- CYP2C19
- CYP3A4
- CYP1A2
- VKORC1
- COMT

Iverson's Financial Assistance Program

Iverson offers a needs-based Financial Assistance Program for patients with financial hardship. Please have your doctor contact us at **866.900.0903** for information on the program.

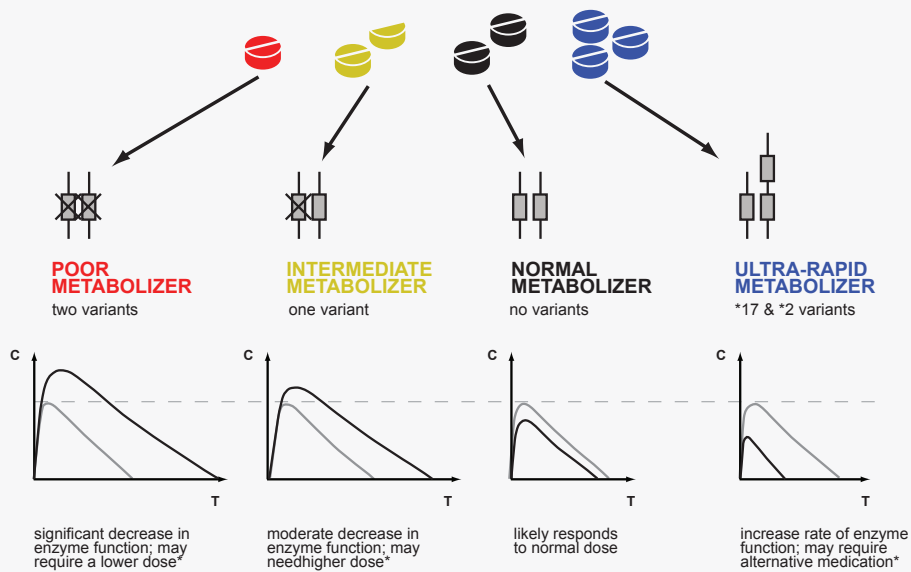
Iverson Genetic Diagnostics, Inc.

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Standard Dose

Genotype Specific Dosages



Not all people respond to the standard dose. Personalized prescribing helps your doctor select the right drug and best dose for you.

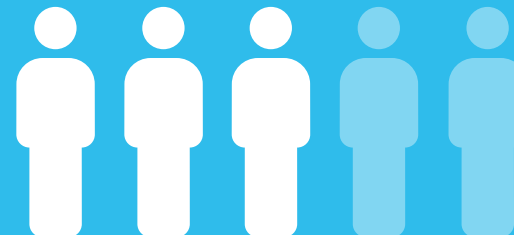
Fig. 1. Principle of calculation of genotype-based dose adjustments based on differences in pharmacokinetic parameters, such as clearance and area under the curve. The theoretic dosages for genetic subgroups of poor (PMs), intermediate (IMs), extensive (EMs), and ultrarapid metabolizers (UMs) are depicted as schematic genotype-specific dosages to obtain equal plasma concentration time courses. C, concentration; T, time. From Seeringer, A and Kirchener, J. Pharmacogenetics-guided dose modifications of antidepressants. Clin Lab Med 2008;28(4): 619-626. Used by permission. *The above suggestions regarding dosage are for active drugs only. **Dosage changes for prodrugs, such as codeine, are different.** Consult your preferred dosing information sources to learn how genotype affects the metabolism of active drugs and prodrugs.

Genetic testing helps your doctor find the best medication and dose for you. The DME Panel can show how your body breaks down medications for these common conditions and more.

- Heart conditions, including after a heart attack
- Chronic pain
- Cancer, including breast cancer
- Acid reflux
- Anxiety
- Depression and other mental health conditions
- High blood pressure
- High cholesterol
- Migraine headaches
- Enlarged prostate
- Asthma and COPD

Only a licensed doctor or other health provider can order the Drug Metabolizing Enzyme Panel. Ask your doctor about the DME panel. Or call your doctor to make an appointment. Your doctor can contact Iverson Genetics directly at **(866) 900-0903**.

Researchers estimate that commonly prescribed medications may not work in about 60 percent of patients.¹



Are you concerned about medication side effects? Do you wonder if you're getting the proper medication—or if a different one would work better?

Genetic testing can help

A simple test can reveal how your body is likely to process many common medications. Your doctor can act on the results to prescribe medications with less risk of side effects, including bad reactions. Genetic testing also helps your doctor find the most effective medication and dose for you.

What is genetic testing?

Your genetic makeup is different from everyone else's. Gene variations are responsible for differences in everything from hair and eye color to how your body breaks down medications. Genetic testing is the only way to find your unique gene variations.

What does the DME Panel look for?

The DME Panel looks for gene variations that affect how your body's enzymes work. Enzymes are substances that cause chemical reactions within the body.

Enzymes are involved in all your body's functions. Some enzymes break down food inside the body. Others break down medications. The DME Panel looks for gene variations that affect one family of enzymes. This family is called the "P450 enzymes." These enzymes break down **up to 80 percent of all medications.**¹

1. Wilkinson GR. Drug metabolism and variability among patients in drug response. *N Engl J Med.* 2005;352:2211-2221.

What happens if I have a gene variation?

If the DME Panel finds gene variations, your medications might not work as expected or you might have more side effects.

People with gene variations that affect the P450 family are more likely to have medication problems than people without these variations. Problems can include bad reactions or less benefit from medications. Researchers estimate that commonly prescribed drugs may not work in about 60 percent of patients.¹

How can genetic testing help me?

Because different enzymes break down different medications, knowing which gene variations you have is just as important as knowing if you have any. Genetic testing gives you and your doctor valuable information about your response to medications. This information is critical for preventing side effects. It also helps your doctor prescribe the most effective medication and dose for you.

Am I likely to have a gene variation?

Yes. One in every 2 people has a gene variation that affects the P450 enzymes. You might have just 1 gene variation or several variations that change how your body processes medications.

How can I get the DME Panel test?

Only a licensed doctor or other health care provider can order the DME Panel. Your doctor can contact Iverson Genetics directly at (866) 900-0903.

How is the test done?

Your doctor takes a blood sample or swabs the inside of your cheek for a sample of cells. Then your doctor sends the sample to the Iverson Genetics laboratory for analysis. Results are available quickly.

Will insurance pay for the test?

Medicare, Tricare and VA have covered the cost for people with certain conditions. Private insurance companies may pay if your doctor considers the test medically necessary. You can ask your insurance company if it covers P450 testing, or Iverson Genetics can check to see if you are covered.

Results last for a lifetime.

Your P450 genetic results are like your blood type—they never change. Iverson provides a handy wallet card so you can show results to all your doctors. This gives them critical information for your treatment.



The test can be administered in your doctor's office with a simple cheek swab or blood sample.

When is genetic DNA testing beneficial for my health?

Please take this simple survey:

1. Are you currently taking 4 or more medications monthly? Yes No
2. Have you or anyone in your family ever been hospitalized for taking a medication? Yes No
3. Have you or anyone in your family ever felt ill after taking a new medication? Yes No
4. Has your doctor changed your dose of medication due to a lack of response or a reaction to the medication? Yes No
5. Do you take your prescribed medication and you still aren't feeling better? Yes No
6. Are you taking or is your doctor considering prescribing to you pain medicine, tamoxifen or Plavix? Yes No
7. Do you take herbal supplements regularly in addition to your medication? Yes No

If you answered YES to any of these questions, you may have experienced a side effect or adverse drug reaction to the medicine you were prescribed.