



PHARMACOGENOMIC (PGx) TESTING

A patient-friendly guide to understanding how genetic information may support personalized medication management.



Medication response can vary from person to person.

PGx testing examines specific genetic variations that may affect how your body processes or responds to certain medications.



What Is PGx Testing?

Pharmacogenomics, sometimes called pharmacogenetics, is the study of how a person's genetic makeup can influence their response to medications.

Certain genes help control enzymes and other biological processes involved in how medications are absorbed, metabolized, transported, and eliminated from the body. Genetic variations can cause some people to process certain medications more quickly or slowly than others.

For example, variations in genes such as **CYP2D6**, **CYP2C19**, and **CYP2B6** may influence the metabolism of certain psychiatric medications. Depending on the medication and the individual's genetic results, this information may help a healthcare provider consider whether a medication or dose may require additional consideration.

The FDA recognizes a number of gene-drug relationships for which there is evidence that genetic variation can affect medication metabolism, drug exposure, or, in some cases, the risk of adverse effects.

A helpful point to remember

PGx testing is one component of personalized medication management. It is not a replacement for a comprehensive psychiatric evaluation or clinical judgment.



What Does the Test Involve?

The process is generally simple and may not require a blood draw.

PGx testing is generally simple and does not require a blood draw. Depending on the laboratory, testing may involve:



Cheek swab

A sample collected from inside the cheek.



Saliva sample

A saliva sample may be collected instead.



Occasionally, a blood sample

Some laboratories may use a blood sample.

The sample is sent to a laboratory where DNA is analyzed for specific genetic variants. The laboratory then provides a report that may contain information about how your genetic profile relates to the metabolism or potential response to certain medications.

Results are generally available after the laboratory completes its analysis. The exact turnaround time varies by laboratory and test.



What Can PGx Testing Tell Me?

PGx testing may provide information about:

- How quickly or slowly you may metabolize certain medications
- Whether you may have genetic factors associated with altered medication exposure
- Potential gene-drug interactions
- Whether certain medications may require additional consideration regarding dose or monitoring
- Genetic factors associated with the risk of certain medication-related adverse reactions
- Medication options that may warrant further consideration based on your genetic profile



Understanding Your Results

Your genetic results are one piece of the overall clinical picture.

Your provider will interpret the results together with your symptoms, psychiatric diagnosis, medical history, previous medication trials, current medications, other medical conditions, side effects, and treatment goals.



What PGx Testing Cannot Tell You

PGx testing is not a test that can tell you exactly which medication will work best for you. Genetics is only one factor affecting medication response.

- Diagnosis, age, medical conditions, other medications, drug interactions, lifestyle, adherence, and environmental factors can also influence how you respond to treatment.
- It does not diagnose depression, anxiety, ADHD, bipolar disorder, PTSD, or other psychiatric conditions.
- It does not replace a psychiatric evaluation.
- It does not guarantee that a medication will work.
- It does not guarantee that you will not experience side effects.
- It does not determine the exact dose you will need.
- It does not eliminate the possibility of medication trial and adjustment.

A helpful point to remember

The FDA notes that many pharmacogenetic associations provide information about medication metabolism, while evidence that testing improves clinical outcomes is more limited for some gene-drug relationships.

Think of PGx as additional information, not a stand-alone answer.

Your provider combines the test results with your clinical history and treatment goals when considering medication choices.



Who Might Consider PGx Testing?

PGx testing may be considered for patients who:

- Have experienced significant side effects from psychiatric medications
- Have had inadequate responses to multiple medications
- Have tried several medications without satisfactory improvement
- Take multiple medications and may have concerns about medication interactions
- Have difficulty tolerating standard medication doses
- Are starting psychiatric medication and want additional information to discuss with their provider
- Have a history suggesting that medication metabolism may be clinically relevant

A helpful point to remember

Testing is not necessarily appropriate or necessary for everyone. Your provider can discuss whether PGx testing may be useful based on your individual circumstances.



How Much Does PGx Testing Cost?

The cost of PGx testing varies depending on the laboratory, the specific genetic panel ordered, and your insurance coverage.

Some insurance plans may cover PGx testing when specific medical-necessity criteria are met, while other plans may provide limited coverage or no coverage. Patients may also have deductibles, copayments, or coinsurance.

Some laboratories offer self-pay or financial-assistance programs for patients whose insurance does not cover testing.

Because coverage and out-of-pocket costs can vary, patients should confirm the expected cost with the testing laboratory and their insurance company before testing. We recommend asking the laboratory whether they will perform an insurance benefits investigation and whether you will be notified before being billed for an amount above your expected responsibility.

Historically, PGx panels have often cost several hundred dollars when paid out of pocket, although prices vary considerably by laboratory and testing panel.



Important Cost & Coverage Note

A helpful point to remember

St. Francis Xavier Psychiatric Services, LLC does not guarantee insurance coverage or a specific out-of-pocket cost for PGx testing. Patients are responsible for understanding their insurance benefits and any applicable laboratory charges.



What Happens After the Test?

Once your results are available, your provider can review them with you and explain what they may mean in the context of your treatment. The results may be used as additional information when considering medication selection, dosing, or monitoring. They are not used by themselves to determine your treatment.



Medication safety reminder

You should never stop, start, or change a psychiatric medication based solely on a PGx report. Medication changes should be discussed with your prescribing healthcare provider.



Is PGx Testing Right for Me?

PGx testing can be a useful tool for some patients, particularly when medication selection or tolerability has been challenging. However, it is not necessary for every patient and does not replace evidence-based psychiatric treatment.

At St. Francis Xavier Psychiatric Services, LLC, we take a personalized approach to medication management. When appropriate, we can discuss whether PGx testing may provide useful additional information as part of your individualized treatment plan.

If you are interested in PGx testing, please discuss it with your provider during your appointment.

ST. FRANCIS XAVIER PSYCHIATRIC SERVICES, LLC

Personalized information to support informed conversations about psychiatric medication management.