

Pharmacogenetics Reports

The following pages provide examples of **Frequently Asked Questions (FAQs)** from the reports.

These FAQs are based on the "Predicted Normal Metabolizer" or "Predicted Normal Function" report outcomes.

FAQs are provided for the following reports:

- CYP2C19 Drug Metabolism (p. 2)
- DPYD Drug Metabolism (p. 3)
- SLCO1B1 Drug Transport (p. 4)

CYP2C19 Drug Metabolism ("predicted normal metabolizer" result)

What does this test do?

This test looks for three DNA variants in the CYP2C19 gene: *2 (c.681G>A), *3 (c.636G>A), and *17 (c.-806C>T). These variants are associated with altered CYP2C19 enzyme function.

This test provides information about how these specific DNA variants may affect the function of the CYP2C19 enzyme.

This test does not include all possible DNA variants that may affect the function of the CYP2C19 enzyme or other proteins involved in the processing of medications.

What does this test not do?

This test does not diagnose any health conditions, determine drug response, provide medical advice, or determine whether a medication is indicated for you.

This test does not provide information on associations between variants detected and any specific medications.

This test does not include all possible DNA variants that may affect the function of the CYP2C19 enzyme or other proteins involved in the processing of medications.

This test does not account for lifestyle or other health factors that may affect your body's ability to process medications.

Do not use this result to start, stop, or change any course of treatment. Medications should always be taken as directed. Making changes on your own can increase the chance of experiencing harmful side effects or reduce intended benefits of the medication.

Results from this test should not be used to make medical decisions. Results should be confirmed in a clinical setting with independent genetic testing before taking any medical action.

What should I do if I'm taking any medication?

You should not use this result to start, stop, or change any course of treatment. Medications should always be taken as directed. Making changes on your own can increase the chance of experiencing harmful side effects or reduce intended benefits of the medication.

If you have questions or concerns about your result, talk to a healthcare professional, such as a doctor or a pharmacist, about the medication(s) you are taking.

Results from this test should not be used to make medical decisions. Results should be confirmed in a clinical setting with independent genetic testing before taking any medical action.

What is pharmacogenetics?

Pharmacogenetics is the study of how genes and genetic variants may affect the processing of medications in the body. The term "pharmacogenetics" is sometimes used interchangeably with the term "pharmacogenomics."

What are the advantages of sharing my results with a healthcare professional?

A healthcare professional can help you learn more about how DNA variants may impact the processing of some medications, or if you have concerns about your results. Your healthcare provider could consider both genetic and non-genetic factors when choosing an appropriate course of treatment.

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Do not use this result to start, stop, or change any course of treatment. Medications should always be taken as directed. Making changes on your own can increase the chance of experiencing harmful side effects or reduce intended benefits of the medication.

You can print a summary of all your Pharmacogenetics reports to share with a healthcare professional.

If you have questions about your results or how they might affect you or your family, a genetic counselor may be able to help. Learn more about genetic counseling.

What are some non-genetic factors that can affect how the body processes medications?

Both genetic and non-genetic factors affect how the body processes medications.

Non-genetic factors that may influence how the body processes medications include age, body weight, having certain health conditions, treatment adherence, and interactions among different medications or dietary supplements that you may be taking. Learn more about other factors.

My genetic profile says that I am predicted to be a CYP2C19 normal metabolizer. What does this mean?

The DNA variants in this report impact the function of the CYP2C19 enzyme. Having a **CYP2C19 normal metabolizer** profile means that your CYP2C19 enzyme is likely to metabolize medications at a **normal rate**. However, most medications will not be affected by the DNA variants included in this report.

Keep in mind that this genetic result alone does not determine your body's ability to process medications. You could still have another variant not included in this test that could affect your ability to process medications. Moreover, non-genetic factors such as age, weight, liver function, and drug-drug interactions can also impact how medications are processed. Learn more about other factors.

Do not use this result to start, stop, or change any course of treatment. Medications should always be taken as directed. Making changes on your own can increase the chance of experiencing harmful side effects or reduce intended benefits of the medication.

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DPYD Drug Metabolism ("predicted normal metabolizer" result)

What does this test do?

This test looks for two DNA variants in the DPYD gene: *2A (c.1905+1G>A) and D949V (c.2846A>T). These variants are associated with reduced DPD enzyme function.

This test provides information about how these specific DNA variants may affect the function of the DPD enzyme.

This test does not include all possible DNA variants that may affect the function of the DPD enzyme or other proteins involved in the processing of medications.

What does this test not do?

This test does not diagnose any health conditions, determine drug response, provide medical advice, or determine whether a medication is indicated for you.

This test does not provide information on associations between variants detected and any specific medications.

This test does not include all possible DNA variants that may affect the function of the DPD enzyme or other proteins involved in the processing of medications.

This test does not account for lifestyle or other health factors that may affect your body's ability to process medications.

Do not use this result to start, stop, or change any course of treatment. Medications should always be taken as directed. Making changes on your own can increase the chance of experiencing harmful side effects or reduce intended benefits of the medication.

Results from this test should not be used to make medical decisions. Results should be confirmed in a clinical setting with independent genetic testing before taking any medical action.

What should I do if I'm taking any medication?

You should not use this result to start, stop, or change any course of treatment. Medications should always be taken as directed. Making changes on your own can increase the chance of experiencing harmful side effects or reduce intended benefits of the medication.

If you have questions or concerns about your result, talk to a healthcare professional, such as a doctor or a pharmacist, about the medication(s) you are taking.

Results from this test should not be used to make medical decisions. Results should be confirmed in a clinical setting with independent genetic testing before taking any medical action.

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A healthcare professional can help you learn more about how DNA variants may impact the processing of some medications, or if you have concerns about your results. Your healthcare provider could consider both genetic and non-genetic factors when choosing an appropriate course of treatment.

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What are some non-genetic factors that can affect how the body processes medications?

Both genetic and non-genetic factors affect how the body processes medications.

Non-genetic factors that may influence how the body processes medications include age, body weight, having certain health conditions, treatment adherence, and interactions among different medications or dietary supplements that you may be taking. Learn more about other factors.

My genetic profile says that I am predicted to be a DPYD normal metabolizer. What does this mean?

The DNA variants in this report impact the function of the DPD enzyme. Having a **DPYD normal metabolizer** profile means that your DPD enzyme is likely to metabolize medications at a **normal rate**. In fact, most medications will not be affected by the DNA variants included in this report.

Keep in mind that this genetic result alone does not determine your body's ability to process medications. You could still have another variant not included in this test that could affect your ability to process medications. Moreover, non-genetic factors such as age, weight, liver function, and drug-drug interactions can also impact how medications are processed. Learn more about other factors.

Do not use this result to start, stop, or change any course of treatment. Medications should always be taken as directed. Making changes on your own can increase the chance of experiencing harmful side effects or reduce intended benefits of the medication.

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SLCO1B1 Drug Transport ("predicted normal function" result)

What does this test do?

This test looks for one DNA variant in the SLCO1B1 gene: c.521T>C (found in the *5, *15, and *17 haplotypes). This variant is associated with reduced SLCO1B1 transporter protein function.

This test provides information about how this specific DNA variant may affect the function of the SLCO1B1 transporter protein.

This test does not include all possible DNA variants that may affect the function of the SLCO1B1 transporter protein or other proteins involved in the processing of medications.

What does this test not do?

This test does not diagnose any health conditions, determine drug response, provide medical advice, or determine whether a medication is indicated for you.

This test does not provide information on associations between a variant detected and any specific medications.

This test does not include all possible DNA variants that may affect the function of the SLCO1B1 transporter protein or other proteins involved in the processing of medications.

This test does not account for lifestyle or other health factors that may affect your body's ability to process medications.

Do not use this result to start, stop, or change any course of treatment. Medications should always be taken as directed. Making changes on your own can increase the chance of experiencing harmful side effects or reduce intended benefits of the medication.

Results from this test should not be used to make medical decisions. Results should be confirmed in a clinical setting with independent genetic testing before taking any medical action.

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What are the advantages of sharing my results with a healthcare professional?

A healthcare professional can help you learn more about how DNA variants may impact the processing of some medications, or if you have concerns about your results. Your healthcare provider could consider both genetic and non-genetic factors when choosing an appropriate course of treatment.

Results from this test should not be used to make medical decisions. Results should be confirmed in a clinical setting with independent genetic testing before taking any medical action.

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You can print a summary of all your Pharmacogenetics reports to share with a healthcare professional.

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Why doesn't this report include examples of medications processed by SLCO1B1?

The Food and Drug Administration (FDA) has not authorized the inclusion of specific medication information in the SLCO1B1 Drug Transport report. However, there are some medications that are processed in part by the SLCO1B1 transporter protein. You can print a summary of all your Pharmacogenetics reports to share with a healthcare professional, who can help you better understand your genetic result and the processing of some medications by SLCO1B1.

My genetic profile says that I am predicted to have SLCO1B1 normal function. What does this mean?

The DNA variant in this report impacts the function of the SLCO1B1 transporter protein. Having **SLCO1B1 normal function** means that you likely have fully functional SLCO1B1 transporter protein function. The SLCO1B1 transporter protein moves certain medications from the blood into the liver for processing and removal. Most medications will not be affected by the DNA variant included in this report.

Keep in mind that this genetic result alone does not determine your body's ability to process medications. You could still have another variant not included in this test that could affect your ability to process medications. Moreover, non-genetic factors such as age, weight, liver function, and drug-drug interactions can also impact how medications are processed. Learn more about other factors.

Do not use this result to start, stop, or change any course of treatment. Medications should always be taken as directed. Making changes on your own can increase the chance of experiencing harmful side effects or reduce intended benefits of the medication.

Results from this test should not be used to make medical decisions. Results should be confirmed in a clinical setting with independent genetic testing before taking any medical action.