EXAMPLE REPORT · COMPLETE REPORT FOR YOUR DOCTOR OR PHARMACIST

Psychiatric Report

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Report version	Created	Data source	Genome build
4.6	**Nov 8, 2026**	**23andMe**	**GRCh37**

28 medications · 4 genes · 3 drug classes

This complete edition includes every gene result and every medication in this report tier, including results labeled “Use as directed,” all source guidance, evidence levels and limitations.

This is not a clinical test. Results are predictions from consumer DNA data and published research. The quality of submitted data is not independently verified and errors can affect the report. Do not change a dose or stop a medication without talking to your prescriber. Confirm any result that matters with a clinical-grade test.

Coverage depends on your data and report tier. A medication missing from this report may still have guidance from a clinical guideline or product label.

Reading the guidance

CONSIDER ALTERNATIVE 9 · USE WITH CAUTION 18 · USE AS DIRECTED 1 · UNABLE TO DETERMINE 0

Use as directed: no change suggested by the assessed genetic findings. Use with caution: a dose change, slower titration or monitoring may be suggested. Consider alternative: discuss another medication or the source’s dose advice. Unable to determine: the available data could not establish a result. These labels do not guarantee effectiveness or freedom from side effects.

Report contents

Gene results at a glance · Complete medication guidance · Gene details and frequencies · About this report

Antidepressants	14 medications	Antipsychotics	12 medications
Psychostimulants	2 medications		

Your genes at a glance

All 4 results. Evidence and actionability differ by gene and medication. An activity score adds the activity values of your gene copies; higher scores indicate more enzyme activity. The detailed gene section explains each result.

GENE	YOUR TWO COPIES	GENOTYPE	PHENOTYPE	ACTIVITY SCORE
CYP2B6		*1/*1	Normal Metabolizer	-
CYP2C19		*1/*2	Intermediate Metabolizer	-
CYP2D6		*4/*4	Poor Metabolizer	0.0
CYP3A4		*1/*1	Normal Metabolizer	-

Color shows the overall gene result. Dot fill shows each copy's function; lettered dots show your DNA letters where copy function isn't defined.

Normal / typical / favorable · Intermediate / decreased · Poor / increased risk · Rapid / increased · Not determined

Filled dots: works normally. Half-filled: works less well. Empty: does not work. Ringed: more active than usual. Dotted gray: not determined. Letters show DNA bases without assigning copy function. A non-normal allele does not necessarily change medication guidance.

Complete medication guidance

All 28 medications, grouped by drug class. Each source's wording and evidence level are retained; sources may offer different recommendations.

Antidepressants 14 medications

8 Consider alternative 6 Use with caution

SNRIS

Venlafaxine

CONSIDER ALTERNATIVE

Effexor XR

Your body breaks down this drug much more slowly, which has been linked to more side effects. A different antidepressant may be a better choice.

CYP2D6 Poor metabolizer

CYP2D6: Poor metabolizer

CPIC GUIDELINE, CYP2D6 CONSIDER ALTERNATIVE Evidence: optional Read the guideline

WHAT IT MEANS Decreased metabolism of venlafaxine to the active metabolite O-desmethylvenlafaxine and greatly decreased O-desmethylvenlafaxine:venlafaxine ratio compared with normal and intermediate metabolizers. Although the clinical impact is unclear, poor metabolizer status has been associated with adverse effects.

WHAT THE GUIDELINE SUGGESTS Consider a clinically appropriate alternative antidepressant not predominantly metabolized by CYP2D6.

CYP2D6: Poor metabolizer

FDA DRUG LABEL, CYP2D6 USE WITH CAUTION See the FDA table

IN PLAIN WORDS Your body breaks down venlafaxine much more slowly than normal, causing the drug to build up in your system. A lower dose may be needed to avoid side effects.

WHAT IT MEANS Alters systemic parent drug and metabolite concentrations. Consider dosage reductions.

WHAT THE LABEL SUGGESTS Consider dosage reductions.

Citalopram

USE WITH CAUTION

Celexa

Your body may break down the drug more slowly, increasing side effects. Your doctor may use a lower dose or adjust it more slowly.

CYP2C19 Intermediate metabolizer

CYP2C19: Intermediate metabolizer

CPIC GUIDELINE, CYP2C19 — USE WITH CAUTION — Evidence: moderate — Read the guideline

WHAT IT MEANS Reduced metabolism when compared with CYP2C19 normal metabolizers. Higher plasma concentrations may increase the probability of side effects.

WHAT THE GUIDELINE SUGGESTS Initiate therapy with recommended starting dose. Consider a slower titration schedule and lower maintenance dose than normal metabolizers.

CYP2C19: Intermediate metabolizer

FDA DRUG LABEL, CYP2C19 — USE AS DIRECTED — See the FDA table

IN PLAIN WORDS Your body breaks down citalopram slightly slower than normal. The standard dose should work as expected.

WHAT IT MEANS No FDA guidance for your genotype

WHAT THE LABEL SUGGESTS Initiate therapy with recommended starting dose.

Escitalopram

USE WITH CAUTION

Lexapro

Your body may break down the drug more slowly, increasing side effects. Your doctor may use a lower dose or adjust it more slowly.

CYP2C19 Intermediate metabolizer

CYP2C19: Intermediate metabolizer

CPIC GUIDELINE, CYP2C19 — USE WITH CAUTION — Evidence: moderate — Read the guideline

WHAT IT MEANS Reduced metabolism when compared with CYP2C19 normal metabolizers. Higher plasma concentrations may increase the probability of side effects.

WHAT THE GUIDELINE SUGGESTS Initiate therapy with recommended starting dose. Consider a slower titration schedule and lower maintenance dose than normal metabolizers.

Fluvoxamine

USE WITH CAUTION

Luvox

Your body breaks down this drug much more slowly. A lower starting dose, a slower increase, or a different drug may be safer.

CYP2D6 Poor metabolizer

CYP2D6: Poor metabolizer

CPIC GUIDELINE, CYP2D6 USE WITH CAUTION Evidence: optional Read the guideline

WHAT IT MEANS Greatly reduced metabolism of fluvoxamine to less active compounds compared with normal metabolizers. Higher plasma concentrations may increase the probability of side effects.

WHAT THE GUIDELINE SUGGESTS Consider a 25 to 50% lower starting dose and slower titration schedule as compared with normal metabolizers or consider a clinically appropriate alternative antidepressant not predominantly metabolized by CYP2D6.

Paroxetine

USE WITH CAUTION

Paxil, Seroxat

Your body processes this drug very slowly, so you may need half the usual dose to avoid side effects.

CYP2D6 Poor metabolizer

CYP2D6: Poor metabolizer

CPIC GUIDELINE, CYP2D6 USE WITH CAUTION Evidence: moderate Read the guideline

WHAT IT MEANS Greatly reduced metabolism compared with CYP2D6 normal metabolizers. Higher plasma concentrations may increase the probability of side effects.

WHAT THE GUIDELINE SUGGESTS Consider a 50% reduction in recommended starting dose, slower titration schedule, and a 50% lower maintenance dose as compared with normal metabolizers.

Sertraline

USE WITH CAUTION

Zoloft

Your body processes this drug a bit more slowly. You can start at the usual dose, but your doctor may raise it slowly, and a lower ongoing dose may be enough.

CYP2C19 Intermediate metabolizer **CYP2B6** Normal metabolizer

CYP2C19: Intermediate metabolizer; **CYP2B6:** Normal metabolizer

CPIC GUIDELINE, BOTH GENES TOGETHER USE WITH CAUTION Evidence: moderate Read the guideline

WHAT IT MEANS CYP2C19: Reduced metabolism of sertraline to less active compounds when compared to CYP2C19 normal metabolizers. CYP2B6: Normal metabolism of sertraline to less active compounds.

WHAT THE GUIDELINE SUGGESTS Initiate therapy with recommended starting dose. Consider a slower titration schedule and lower maintenance dose.

From the combined CYP2C19 and CYP2B6 table in CPIC's guideline for serotonin reuptake inhibitor antidepressants.

Sertraline

USE WITH CAUTION

Zoloft

Your body processes this drug a bit more slowly. You can start at the usual dose, but your doctor may raise it slowly, and a lower ongoing dose may be enough.

CYP2C19 Intermediate metabolizer **CYP2B6** Normal metabolizer

CPIC reads your CYP2C19 and CYP2B6 results together for sertraline, so this label reflects both genes.

Vortioxetine

USE WITH CAUTION

Trintellix, Brintellix

Your body clears this drug much more slowly. Half the usual starting dose is advised, or a different antidepressant.

CYP2D6 Poor metabolizer

CYP2D6: Poor metabolizer

CPIC GUIDELINE, CYP2D6 USE WITH CAUTION Evidence: moderate Read the guideline

WHAT IT MEANS Greatly reduced metabolism of vortioxetine to inactive compounds compared with normal metabolizers. Higher plasma concentrations may increase the probability of side effects.

WHAT THE GUIDELINE SUGGESTS Initiate 50% of starting dose (e.g., 5 mg) and titrate to the maximum recommended dose of 10 mg or consider a clinically appropriate alternative antidepressant not predominantly metabolized by CYP2D6.

CYP2D6: Poor metabolizer

FDA DRUG LABEL, CYP2D6 USE WITH CAUTION See the FDA table

IN PLAIN WORDS Your body breaks down vortioxetine much more slowly than normal, causing the drug to build up to higher levels. A lower maximum dose is recommended to reduce the risk of side effects.

WHAT IT MEANS Results in higher systemic concentrations. The maximum recommended dose is 10 mg.

WHAT THE LABEL SUGGESTS The maximum recommended dose is 10 mg.

Amitriptyline

CONSIDER ALTERNATIVE

Elavil

Your two genes together change how your body handles this drug. It may cause more side effects or not work as well, so a different antidepressant is often suggested.

CYP2D6 Poor metabolizer **CYP2C19** Intermediate metabolizer

CYP2D6: Poor metabolizer (activity score 0.0); **CYP2C19:** Intermediate metabolizer

CPIC GUIDELINE, BOTH GENES TOGETHER CONSIDER ALTERNATIVE Evidence: optional Read the guideline

WHAT IT MEANS CYP2D6: Greatly reduced metabolism of TCAs to less active compounds compared to normal metabolizers; Higher plasma concentrations of active drug will increase the probability of side effects CYP2C19: Reduced metabolism of tertiary amines compared to normal metabolizers

WHAT THE GUIDELINE SUGGESTS Avoid amitriptyline use. If a amitripyline is warranted, consider a 50% reduction of recommended starting dose. Utilizing therapeutic drug monitoring to guide dose adjustments is strongly recommended.

From the combined CYP2D6 and CYP2C19 table in CPIC's guideline for tricyclic antidepressants. CYP2D6 is matched on its activity score.

CPIC reads your CYP2D6 and CYP2C19 results together for amitriptyline, so this label reflects both genes.

Clomipramine

CONSIDER ALTERNATIVE

Anafranil

Your two genes together change how your body handles this drug. It may cause more side effects or not work as well, so a different antidepressant is often suggested.

CYP2D6 Poor metabolizer **CYP2C19** Intermediate metabolizer

CYP2D6: Poor metabolizer (activity score 0.0); **CYP2C19:** Intermediate metabolizer

CPIC GUIDELINE, BOTH GENES TOGETHER CONSIDER ALTERNATIVE Evidence: optional Read the guideline

WHAT IT MEANS CYP2D6: Greatly reduced metabolism of TCAs to less active compounds compared to normal metabolizers; Higher plasma concentrations of active drug will increase the probability of side effects CYP2C19: Reduced metabolism of tertiary amines compared to normal metabolizers

WHAT THE GUIDELINE SUGGESTS Avoid clomipramine use. If a clomipramine is warranted, consider a 50% reduction of recommended starting dose. Utilizing therapeutic drug monitoring to guide dose adjustments is strongly recommended.

From the combined CYP2D6 and CYP2C19 table in CPIC's guideline for tricyclic antidepressants. CYP2D6 is matched on its activity score.

CPIC reads your CYP2D6 and CYP2C19 results together for clomipramine, so this label reflects both genes.

Desipramine

CONSIDER ALTERNATIVE

Norpramin

Your body breaks down this drug much more slowly, so it can build up and cause side effects. A different medicine is usually suggested.

CYP2D6 Poor metabolizer

CYP2D6: Poor metabolizer

CPIC GUIDELINE, CYP2D6 CONSIDER ALTERNATIVE Evidence: optional Read the guideline

WHAT IT MEANS Greatly reduced metabolism of TCAs to less active compounds compared to normal metabolizers. Higher plasma concentrations of active drug will increase the probability of side effects.

WHAT THE GUIDELINE SUGGESTS Avoid tricyclic use due to potential for side effects. Consider alternative drug not metabolized by CYP2D6. If a TCA is warranted, consider 50% reduction of recommended starting dose. Utilize therapeutic drug monitoring to guide dose adjustments.

Doxepin

CONSIDER ALTERNATIVE

Sinequan, Quitaxon, Aponal

Your two genes together change how your body handles this drug. It may cause more side effects or not work as well, so a different antidepressant is often suggested.

CYP2D6 Poor metabolizer **CYP2C19** Intermediate metabolizer

CYP2D6: Poor metabolizer (activity score 0.0); **CYP2C19:** Intermediate metabolizer

CPIC GUIDELINE, BOTH GENES TOGETHER CONSIDER ALTERNATIVE Evidence: optional Read the guideline

WHAT IT MEANS CYP2D6: Greatly reduced metabolism of TCAs to less active compounds compared to normal metabolizers; Higher plasma concentrations of active drug will increase the probability of side effects CYP2C19: Reduced metabolism of tertiary amines compared to normal metabolizers

WHAT THE GUIDELINE SUGGESTS Avoid doxepin use. If a doxepin is warranted, consider a 50% reduction of recommended starting dose. Utilizing therapeutic drug monitoring to guide dose adjustments is strongly recommended.

From the combined CYP2D6 and CYP2C19 table in CPIC's guideline for tricyclic antidepressants. CYP2D6 is matched on its activity score.

CPIC reads your CYP2D6 and CYP2C19 results together for doxepin, so this label reflects both genes.

Imipramine

CONSIDER ALTERNATIVE

Tofranil

Your two genes together change how your body handles this drug. It may cause more side effects or not work as well, so a different antidepressant is often suggested.

CYP2D6 Poor metabolizer **CYP2C19** Intermediate metabolizer

CYP2D6: Poor metabolizer (activity score 0.0); **CYP2C19:** Intermediate metabolizer

CPIC GUIDELINE, BOTH GENES TOGETHER CONSIDER ALTERNATIVE Evidence: optional Read the guideline

WHAT IT MEANS CYP2D6: Greatly reduced metabolism of TCAs to less active compounds compared to normal metabolizers; Higher plasma concentrations of active drug will increase the probability of side effects CYP2C19: Reduced metabolism of tertiary amines compared to normal metabolizers

WHAT THE GUIDELINE SUGGESTS Avoid imipramine use. If imipramine is warranted, consider a 50% reduction of recommended starting dose. Utilizing therapeutic drug monitoring to guide dose adjustments is strongly recommended.

From the combined CYP2D6 and CYP2C19 table in CPIC's guideline for tricyclic antidepressants. CYP2D6 is matched on its activity score.

CPIC reads your CYP2D6 and CYP2C19 results together for imipramine, so this label reflects both genes.

Nortriptyline

CONSIDER ALTERNATIVE

Pamelor

Your body breaks down this drug very slowly, so it builds up and side effects are more likely. A different drug is usually suggested.

CYP2D6 Poor metabolizer

CYP2D6: Poor metabolizer

CPIC GUIDELINE, CYP2D6 CONSIDER ALTERNATIVE Evidence: strong Read the guideline

WHAT IT MEANS Greatly reduced metabolism of TCAs to less active compounds compared to normal metabolizers. Higher plasma concentrations of active drug will increase the probability of side effects.

WHAT THE GUIDELINE SUGGESTS Avoid tricyclic use due to potential for side effects. Consider alternative drug not metabolized by CYP2D6. If a TCA is warranted, consider 50% reduction of recommended starting dose. Utilize therapeutic drug monitoring to guide dose adjustments.

Trimipramine

CONSIDER ALTERNATIVE

Surmontil

Your two genes together change how your body handles this drug. It may cause more side effects or not work as well, so a different antidepressant is often suggested.

CYP2D6 Poor metabolizer **CYP2C19** Intermediate metabolizer

CYP2D6: Poor metabolizer (activity score 0.0); **CYP2C19:** Intermediate metabolizer

CPIC GUIDELINE, BOTH GENES TOGETHER CONSIDER ALTERNATIVE Evidence: optional Read the guideline

WHAT IT MEANS CYP2D6: Greatly reduced metabolism of TCAs to less active compounds compared to normal metabolizers; Higher plasma concentrations of active drug will increase the probability of side effects CYP2C19: Reduced metabolism of tertiary amines compared to normal metabolizers

WHAT THE GUIDELINE SUGGESTS Avoid trimipramine use. If a trimipramine is warranted, consider a 50% reduction of recommended starting dose. Utilizing therapeutic drug monitoring to guide dose adjustments is strongly recommended.

From the combined CYP2D6 and CYP2C19 table in CPIC's guideline for tricyclic antidepressants. CYP2D6 is matched on its activity score.

CPIC reads your CYP2D6 and CYP2C19 results together for trimipramine, so this label reflects both genes.

Antipsychotics 12 medications

1 Consider alternative 10 Use with caution 1 Use as directed

Aripiprazole

USE WITH CAUTION

Abilify

Your body clears aripiprazole slowly, so more of it builds up and side effects are more likely. A lower maximum dose is advised.

CYP2D6 Poor metabolizer

CYP2D6: Poor metabolizer

DPWG GUIDELINE, CYP2D6 USE WITH CAUTION Evidence: moderate Read the guideline

WHAT IT MEANS Decreased CYP2D6 activity raises the combined blood level of aripiprazole and its active metabolite, increasing the risk of side effects.

WHAT THE GUIDELINE SUGGESTS Administer no more than 10 mg/day, 300 mg/month or 720 mg/2 month (68-75% of the standard maximum dose of aripiprazole).

Aripiprazole

USE WITH CAUTION

Abilify

Your body clears aripiprazole slowly, so more of it builds up and side effects are more likely. A lower maximum dose is advised.

CYP2D6 Poor metabolizer

CYP2D6: Poor metabolizer

FDA DRUG LABEL, CYP2D6 USE WITH CAUTION See the FDA table

IN PLAIN WORDS Your body breaks down aripiprazole much more slowly than normal, causing the drug to build up and increasing the risk of side effects. A lower dose is recommended.

WHAT IT MEANS Results in higher systemic concentrations and higher adverse reaction risk. Dosage adjustment is recommended. Refer to FDA labeling for specific dosing recommendations.

WHAT THE LABEL SUGGESTS Adjust the dosage as the FDA label directs for CYP2D6 poor metabolizers.

Aripiprazole Lauroxil

USE WITH CAUTION

Aristada

Your body breaks down aripiprazole lauroxil more slowly than normal, causing higher levels of the drug in your system. A lower dose is recommended to reduce the risk of side effects.

CYP2D6 Poor metabolizer

CYP2D6: Poor metabolizer

FDA DRUG LABEL, CYP2D6 USE WITH CAUTION See the FDA table

WHAT IT MEANS Results in higher systemic concentrations. Dosage adjustment is recommended. Refer to FDA labeling for specific dosing recommendations.

WHAT THE LABEL SUGGESTS Adjust the dosage as the FDA label directs for CYP2D6 poor metabolizers.

Brexpiprazole

USE WITH CAUTION

Rexulti

Your body clears brexpiprazole slowly, so more of it builds up. Half the usual dose is advised.

CYP2D6 Poor metabolizer

CYP2D6: Poor metabolizer

DPWG GUIDELINE, CYP2D6 USE WITH CAUTION Evidence: moderate Read the guideline

WHAT IT MEANS Decreased CYP2D6 activity reduces the metabolism of brexpiprazole, so the risk of side effects is theoretically increased.

WHAT THE GUIDELINE SUGGESTS Use half of the normal dose.

Brexpiprazole

USE WITH CAUTION

Rexulti

Your body clears brexpiprazole slowly, so more of it builds up. Half the usual dose is advised.

CYP2D6 Poor metabolizer

CYP2D6: Poor metabolizer

FDA DRUG LABEL, CYP2D6 USE WITH CAUTION See the FDA table

IN PLAIN WORDS Your body breaks down brexpiprazole much more slowly than normal, causing the drug to build up in your system. A lower dose is recommended to reduce the risk of side effects.

WHAT IT MEANS Results in higher systemic concentrations. Dosage adjustment is recommended. Refer to FDA labeling for specific dosing recommendations.

WHAT THE LABEL SUGGESTS Adjust the dosage as the FDA label directs for CYP2D6 poor metabolizers.

Clozapine

USE WITH CAUTION

Clozaril

Your body breaks down clozapine much more slowly than normal, causing the drug to build up to higher levels in your system. A lower dose may be needed to reduce the risk of side effects.

CYP2D6 Poor metabolizer

CYP2D6: Poor metabolizer

DPWG GUIDELINE, CYP2D6 USE AS DIRECTED Evidence: moderate Read the guideline

IN PLAIN WORDS Your CYP2D6 result does not change how clozapine should be dosed.

WHAT IT MEANS CYP2D6 variation can change clozapine blood levels, but this has no clinical consequences.

WHAT THE GUIDELINE SUGGESTS No action is required. Use standard clozapine dosing.

CYP2D6: Poor metabolizer

FDA DRUG LABEL, CYP2D6 USE WITH CAUTION See the FDA table

WHAT IT MEANS Results in higher systemic concentrations. Dosage reductions may be necessary.

WHAT THE LABEL SUGGESTS Dosage reductions may be necessary.

Haloperidol

USE WITH CAUTION

Haldol

Your body clears haloperidol slowly, which raises the concentration in your blood and increases side effect risk. A lower dose is typically recommended.

CYP2D6 Poor metabolizer

CYP2D6: Poor metabolizer

DPWG GUIDELINE, CYP2D6 USE WITH CAUTION Evidence: moderate Read the guideline

WHAT IT MEANS Decreased CYP2D6 activity reduces conversion of haloperidol, increasing plasma concentration approximately 1.7-fold. This is associated with an increased risk of side effects.

WHAT THE GUIDELINE SUGGESTS Use 60% of the normal dose.

Iloperidone

USE WITH CAUTION

Fanapt

Your body breaks down iloperidone much more slowly than normal, causing the drug to build up and increasing the risk of heart rhythm problems. The dose should be cut in half.

CYP2D6 Poor metabolizer

CYP2D6: Poor metabolizer

FDA DRUG LABEL, CYP2D6 USE WITH CAUTION See the FDA table

WHAT IT MEANS Results in higher systemic concentrations and higher adverse reaction risk (QT prolongation). Reduce dosage by 50%.

WHAT THE LABEL SUGGESTS Reduce the dosage by 50%.

Perphenazine

USE WITH CAUTION

Trilafon

Your body breaks down perphenazine much more slowly than normal, causing the drug to build up in your system. This increases your risk of side effects.

CYP2D6 Poor metabolizer

CYP2D6: Poor metabolizer

FDA DRUG LABEL, CYP2D6 USE WITH CAUTION See the FDA table

WHAT IT MEANS Results in higher systemic concentrations and higher adverse reaction risk.

WHAT THE LABEL SUGGESTS No specific dosing change in the FDA table. Refer to FDA labeling.

Pimozide

USE WITH CAUTION

Orap

Your body clears pimozide slowly, which could raise the risk of heart rhythm side effects. Half the usual maximum dose is advised.

CYP2D6 Poor metabolizer

CYP2D6: Poor metabolizer

DPWG GUIDELINE, CYP2D6 USE WITH CAUTION Evidence: moderate Read the guideline

WHAT IT MEANS Decreased CYP2D6 activity raises the plasma concentration of pimozide, which theoretically increases the risk of QT prolongation and torsade de pointes. Following the dose limit offsets this.

WHAT THE GUIDELINE SUGGESTS Use no more than the following doses (50% of the normal maximum dose): 12 years and older, 10 mg/day; younger than 12 years, 0.05 mg/kg per day to a maximum of 2 mg/day.

CYP2D6: Poor metabolizer

FDA DRUG LABEL, CYP2D6 USE WITH CAUTION See the FDA table

IN PLAIN WORDS Your body breaks down pimozide more slowly than normal, causing higher levels of the drug in your system. A lower dose is recommended to reduce the risk of side effects.

WHAT IT MEANS Results in higher systemic concentrations. Dosages should not exceed 0.05 mg/kg in children or 4 mg/day in adults who are poor metabolizers and dosages should not be increased earlier than 14 days.

WHAT THE LABEL SUGGESTS Do not exceed 0.05 mg/kg a day in children or 4 mg a day in adults, and do not increase the dose earlier than 14 days.

Quetiapine

USE AS DIRECTED

Seroquel

Your CYP3A4 gene works normally, so the standard dose of this drug is used.

CYP3A4 Normal metabolizer

CYP3A4: Normal metabolizer

DPWG GUIDELINE, CYP3A4 USE AS DIRECTED Evidence: moderate Read the guideline

WHAT IT MEANS No clinically significant effect on quetiapine metabolism.

WHAT THE GUIDELINE SUGGESTS Use standard quetiapine dosing.

Risperidone

USE WITH CAUTION

Risperdal

Your body clears risperidone slowly, so more of it builds up and side effects are more likely. About two-thirds of the usual dose is advised, and less if side effects still occur.

CYP2D6 Poor metabolizer

CYP2D6: Poor metabolizer

DPWG GUIDELINE, CYP2D6 USE WITH CAUTION Evidence: moderate Read the guideline

WHAT IT MEANS Decreased CYP2D6 activity raises the combined blood level of risperidone and its active metabolite, and a larger share of it is risperidone, which enters the brain more easily. The share of patients with therapy failure rises from 16% to 26%.

WHAT THE GUIDELINE SUGGESTS Use 67% of the normal dose. If problematic side effects originating in the central nervous system occur despite this reduced dose, then reduce the dose further to 50% of the normal dose.

Thioridazine

CONSIDER ALTERNATIVE

Mellaril

Your body breaks down thioridazine much too slowly, causing dangerous levels to build up. This significantly increases your risk of serious heart rhythm problems. This medication should not be used.

CYP2D6 Poor metabolizer

CYP2D6: Poor metabolizer

FDA DRUG LABEL, CYP2D6 CONSIDER ALTERNATIVE Evidence: strong See the FDA table

WHAT IT MEANS Results in higher systemic concentrations and higher adverse reaction risk (QT prolongation). Predicted effect based on experience with CYP2D6 inhibitors. Contraindicated in poor metabolizers.

WHAT THE LABEL SUGGESTS Do not use thioridazine. It is contraindicated for poor metabolizers due to dangerous heart rhythm risks.

Zuclopenthixol

USE WITH CAUTION

Clopixol

Your body clears this drug slowly, so it builds up in your blood. Half the usual dose is advised.

CYP2D6 Poor metabolizer

CYP2D6: Poor metabolizer

DPWG GUIDELINE, CYP2D6 USE WITH CAUTION Evidence: moderate Read the guideline

WHAT IT MEANS Markedly decreased CYP2D6 activity reduces conversion of zuclopenthixol, raising plasma concentration approximately 1.6-fold and elevating side effect risk.

WHAT THE GUIDELINE SUGGESTS Use 50% of the normal dose.

Psychostimulants 2 medications

2 Use with caution

Amphetamine

USE WITH CAUTION

Adzenys ER

Your body breaks down amphetamine much more slowly than normal, which may cause the drug to build up and increase your risk of side effects. A lower dose or a different medication may be needed.

CYP2D6 Poor metabolizer

CYP2D6: Poor metabolizer

FDA DRUG LABEL, CYP2D6 USE WITH CAUTION See the FDA table

WHAT IT MEANS May affect systemic concentrations and adverse reaction risk. Consider lower starting dosage or use alternative agent.

WHAT THE LABEL SUGGESTS Consider a lower starting dosage or an alternative agent.

Atomoxetine

USE WITH CAUTION

Strattera

Your body processes this drug very slowly, so it builds up. It may work well but cause more side effects, so your doctor may start low and go slowly.

CYP2D6 Poor metabolizer

CYP2D6: Poor metabolizer (activity score 0.0)

CPIC GUIDELINE, CYP2D6 USE WITH CAUTION Evidence: moderate Read the guideline

WHAT IT MEANS Significantly decreased metabolism of atomoxetine may result in higher concentrations as compared to non-poor metabolizers. This may increase the occurrence of treatment-emergent side effects, but also a greater improvement of ADHD symptoms as compared with non- poor metabolizers in those who tolerate treatment. Poor metabolizer status is associated with lower final dose requirements as compared to non- poor metabolizers.

WHAT THE GUIDELINE SUGGESTS Initiate with a dose of 40 mg/day and if no clinical response and in the absence of adverse events after 2 weeks increase dose to 80 mg/day. If response is inadequate after 2 weeks consider obtaining a plasma concentration 2-4 h after dosing. If concentration is <200 ng/ml, consider a proportional dose increase to achieve a concentration to approach 400 ng/ml. If unacceptable side effects are present at any time, consider a reduction in dose.

CYP2D6: Poor metabolizer (activity score 0.0)

FDA DRUG LABEL, CYP2D6 USE WITH CAUTION See the FDA table

IN PLAIN WORDS Your body breaks down atomoxetine more slowly than normal, causing it to build up in your system. A lower dose or slower dose increases may be needed to reduce the risk of side effects.

WHAT IT MEANS Results in higher systemic concentrations and higher adverse reaction risk. Adjust titration interval and increase dosage if tolerated. Refer to FDA labeling for specific dosing recommendations.

WHAT THE LABEL SUGGESTS Adjust the titration interval and increase the dosage only if tolerated, as the FDA label directs.

Gene details and frequencies

All 4 genes. Frequency context describes populations, not your chance of a side effect. A missing frequency estimate means no supported reference is available for that result.

CYP2B6 Normal metabolizer



***1/*1** · Both copies work normally.

Breaks down efavirenz, ketamine, methadone and some drugs for depression.

1 medication lists this gene. Guidance unchanged

CYP2B6 normal metabolizer: estimated in 13.0% to 48.6% of people across population groups

These CPIC estimates describe this phenotype, not your exact DNA combination or your chance of side effects. Frequencies vary by population; no ancestry is assumed for you.

African American/Afro-Caribbean	**33.4%**	Central/South Asian	**42.2%**
East Asian	**48.6%**	European	**43.0%**
Latino	**33.6%**	Near Eastern	**29.1%**
Oceanian	**13.0%**	Sub-Saharan African	**14.3%**

Estimated from published allele frequencies, rather than a direct count of people with this result. Study coverage and methods vary. Reference: CPIC CYP2B6 frequency table and methods. Data retrieved 2026-10-17.

CYP2C19 Intermediate metabolizer



***1/*2** · One copy works and one doesn't.

Handles several SSRIs, acid reducers such as omeprazole, and the blood thinner clopidogrel.

8 medications list this gene. Changes the guidance for 8

CYP2C19 intermediate metabolizer: estimated in 19.0% to 45.9% of people across population groups

These CPIC estimates describe this phenotype, not your exact DNA combination or your chance of side effects. Frequencies vary by population; no ancestry is assumed for you.

African American/Afro-Caribbean	**31.4%**	American	**21.4%**
Central/South Asian	**40.8%**	East Asian	**45.9%**
European	**26.1%**	Latino	**19.0%**
Near Eastern	**23.5%**	Oceanian	**36.9%**
Sub-Saharan African	**29.9%**		

Estimated from published allele frequencies, rather than a direct count of people with this result. Study coverage and methods vary. Reference: CPIC CYP2C19 frequency table and methods. Data retrieved 2026-10-17.

CYP2D6 Poor metabolizer



***4/*4** · Neither copy works.

Turns on or clears about 1 in 4 prescription drugs. These include many drugs for depression, pain and ADHD.

Activity score: **0.0**. Typical range: 1.25 to 2.25.

24 medications list this gene. Changes the guidance for 24

CYP2D6 poor metabolizer: estimated in 0.3% to 6.5% of people across population groups

These CPIC estimates describe this phenotype, not your exact DNA combination or your chance of side effects. Frequencies vary by population; no ancestry is assumed for you.

African American/Afro-Caribbean	**2.3%**	American	**2.0%**
Central/South Asian	**2.4%**	East Asian	**0.8%**
European	**6.5%**	Latino	**3.1%**
Near Eastern	**2.2%**	Oceanian	**0.3%**
Sub-Saharan African	**2.0%**		

Estimated from published allele frequencies, rather than a direct count of people with this result. Study coverage and methods vary. Reference: CPIC CYP2D6 frequency table and methods. Data retrieved 2026-10-17.

CYP3A4 Normal metabolizer



***1/*1** · Both copies work normally.

Breaks down more prescription drugs than any other enzyme.

1 medication lists this gene. Guidance unchanged

About this report

4 of 4 genes have results; 28 medications have a determined guidance label.

CYP2D6 copy number is not measured. Deletions or duplications can change the CYP2D6 result.

Rare variants can be missed. Arrays test selected positions; imputation helps fill the gaps but can still miss rare variants.

How the results were read

Untested array positions are estimated using a reference panel (imputation). The two gene copies are named and matched to published phenotype tables and medication guidance.

Sources

CPIC - Clinical Pharmacogenetics Implementation Consortium: 15 medications. Peer-reviewed prescribing guidelines.

DPWG - Dutch Pharmacogenetics Working Group: 8 medications. Prescribing guidelines used across Europe.

FDA - U.S. Food and Drug Administration: 13 medications. Pharmacogenetic information in drug labels.

Source links in the medication guidance remain clickable in the PDF. Gene2Rx is not affiliated with or endorsed by CPIC, the FDA or DPWG. Research summaries can have different evidence and actionability from clinical guidelines.

Questions

What do I do now?

If you may have an unusual response to a medication you take or are considering, talk with your healthcare provider or a genetic counselor before making changes. The sources beside each finding explain its evidence and limits. Not every finding supports a treatment change.

Should I change medications or my dose based on this report?

No. Do not change a dose or stop a medication without talking to your healthcare provider first. Consumer DNA data is not clinical grade. Use this report to start a conversation with your provider, who may order a clinical lab test. Research on consumer genetic testing.

Are these expert annotations?

Each finding names its source. CPIC, FDA, DPWG and Gene2Rx interpretations have different levels of evidence. These organizations do not endorse Gene2Rx interpretations, which explain the research and its limitations alongside each finding.

Why would my results change?

Your genes do not change, but research does. Guidelines and drug labels are updated when new research meets strict standards and experts agree. Your report preserves the guidance used when it was made; an updated report may use newer guidance.

I do not see my medication. Why not?

Not every medication is affected by genetics, and some need more research before guidance exists. A medication may also be missing because of your report tier, your data or what this report covers. A missing medication may still have guidance from a clinical guideline or drug label.

Why should I confirm results before changing treatment? Consumer data is not clinical grade and the findings are predictions. Additional genetic variation, health conditions and other medicines can affect response. Discuss any treatment decision with your healthcare provider or pharmacist.

More questions: contact@gene2rx.com. Full interactive report: gene2rx.com.