

Full Report

Prepared for **Leslie Knope** · Oct 27, 2026 · Version 4.5

23andMe · GRCh37 · 30 genes · 120 medications

All results, summarized. Use the detailed report for full source recommendations, evidence, dose calculations and frequencies.

Sources may offer different advice.

Not a clinical test. Do not change or stop a medication without your prescriber. Confirm important findings with a clinical-grade test. Missing or undetermined results do not mean normal results.

Anesthesia genes couldn't be checked. RYR1 and CACNA1S can't be read reliably from array data, so 7 anesthesia medications show "Unable to determine." This is not a negative result. If you or a relative ever reacted badly to anesthesia, tell your anesthesia team.

Gene results

GENE	COPIES	GENOTYPE	PHENOTYPE	SCORE
ABCG2		rs2231142G/rs2231142G	Normal Function	-
ADH1B		rs1229984C/rs1229984C	Normal Function	-
AKT1		rs2494732C/rs2494732T	Decreased Function	-
ALDH2		rs671G/rs671G	Normal Function	-
BCHE		Reference/Reference	Normal Metabolizer	-
CACNA1S		Not determined	Not checked	-
CHRNA5		rs16969968A/rs16969968A	Increased Risk	-
COMT		rs4680A/rs4680G	Intermediate Function	-
CYP1A2		*1/*30	Rapid Metabolizer	-
CYP2A6		*1/*1	Normal Metabolizer	-
CYP2B6		*1/*1	Normal Metabolizer	-
CYP2C19		*1/*2	Intermediate Metabolizer	-
CYP2C9		*1/*2	Intermediate Metabolizer	1.5
CYP2D6		*4/*4	Poor Metabolizer	0.0
CYP3A4		*1/*1	Normal Metabolizer	-
CYP3A5		*1/*3	Intermediate Metabolizer	-
CYP4F2		*1/*3	Intermediate Metabolizer	-
DPYD		Reference/Reference	Normal Metabolizer	2.0
FAAH		rs324420C/rs324420C	Normal Function	-
GIPR		rs1800437C/rs1800437G	Decreased Function	-
GLP1R		rs10305420C/rs10305420C	Typical Response	-
IFNL3		rs12979860C/rs12979860C	Favorable Response Genotype	-
NAT2		*16/*5	Poor Metabolizer	-
NUDT15		*1/*1	Normal Metabolizer	-
RYR1		Not determined	Not checked	-
SLCO1B1		*15/*1A	Decreased Function	-
SULT1A1		*1/*1	Normal Function	-
TPMT		*1/*1	Normal Metabolizer	-
UGT1A1		*1/*28+*60+*80	Intermediate Metabolizer	-
VKORC1		-1639A/-1639G	Decreased Expression	-

Score: gene activity score, where defined. Glyph fill shows each copy's function; color shows the overall phenotype. Full explanations and typical activity ranges are in the detailed report.

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

All medications

Summaries describe the report's overall guidance. "Use as directed" does not guarantee effectiveness or freedom from side effects. Brand names are shown where available.

Summaries use Gene2Rx wording. Summary sources: CPIC = Clinical Pharmacogenetics Implementation Consortium; DPWG = Dutch Pharmacogenetics Working Group; FDA = U.S. Food and Drug Administration drug information; Gene2Rx = research summary. "Report note" is a report explanation without a source summary. See the detailed report for all sources and recommendations.

CYP2D6 copy number is not measured. Arrays test selected positions; imputation helps fill gaps but can still miss rare variants. Not checked: CACNA1S, RYR1.

Antidepressants 14

MEDICATION	GUIDANCE	GENES	SUMMARY
Venlafaxine Effexor XR	● Consider alternative	CYP2D6	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. (Summarized from CPIC)
Citalopram Celexa	● Use with caution	CYP2C19	Your body may break down the drug more slowly, increasing side effects. Your doctor may use a lower dose or adjust it more slowly. (Summarized from CPIC)
Escitalopram Lexapro	● Use with caution	CYP2C19	Your body may break down the drug more slowly, increasing side effects. Your doctor may use a lower dose or adjust it more slowly. (Summarized from CPIC)
Fluvoxamine Luvox	● Use with caution	CYP2D6	Your body breaks down this drug much more slowly. A lower starting dose, a slower increase, or a different drug may be safer. (Summarized from CPIC)
Paroxetine Paxil, Seroxat	● Use with caution	CYP2D6	Your body processes this drug very slowly, so you may need half the usual dose to avoid side effects. (Summarized from CPIC)
Sertraline Zoloft	● Use with caution	CYP2C19 CYP2B6	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. (Summarized from CPIC)
Vortioxetine Trintellix, Brintellix	● Use with caution	CYP2D6	Your body clears this drug much more slowly. Half the usual starting dose is advised, or a different antidepressant. (Summarized from CPIC)
Amitriptyline Elavil	● Consider alternative	CYP2D6 CYP2C19	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. (Summarized from CPIC)
Clomipramine Anafranil	● Consider alternative	CYP2D6 CYP2C19	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. (Summarized from CPIC)
Desipramine Norpramin	● Consider alternative	CYP2D6	Your body breaks down this drug much more slowly, so it can build up and cause side effects. A different medicine is usually suggested. (Summarized from CPIC)
Doxepin Sinequan, Quitaxon, Aponal	● Consider alternative	CYP2D6 CYP2C19	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. (Summarized from CPIC)
Imipramine Tofranil	● Consider alternative	CYP2D6 CYP2C19	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. (Summarized from CPIC)
Nortriptyline Pamelor	● Consider alternative	CYP2D6	Your body breaks down this drug very slowly, so it builds up and side effects are more likely. A different drug is usually suggested. (Summarized from CPIC)
Trimipramine Surmontil	● Consider alternative	CYP2D6 CYP2C19	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. (Summarized from CPIC)

Antipsychotics 12

MEDICATION	GUIDANCE	GENES	SUMMARY
Aripiprazole Abilify	● Use with caution	CYP2D6	Your body clears aripiprazole slowly, so more of it builds up and side effects are more likely. A lower maximum dose is advised. (Summarized from DPWG)
Aripiprazole Lauroxil Aristada	● Use with caution	CYP2D6	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. (Summarized from FDA)
Brexipiprazole Rexulti	● Use with caution	CYP2D6	Your body clears brexipiprazole slowly, so more of it builds up. Half the usual dose is advised. (Summarized from DPWG)
Clozapine Clozaril	● Use with caution	CYP2D6	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. (Summarized from FDA)
Haloperidol Haldol	● Use with caution	CYP2D6	Your body clears haloperidol slowly, which raises the concentration in your blood and increases side effect risk. A lower dose is typically recommended. (Summarized from DPWG)
Iloperidone Fanapt	● Use with caution	CYP2D6	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. (Summarized from FDA)
Perphenazine Trilafon	● Use with caution	CYP2D6	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. (Summarized from FDA)
Pimozide Orap	● Use with caution	CYP2D6	Your body clears pimozide slowly, which could raise the risk of heart rhythm side effects. Half the usual maximum dose is advised. (Summarized from DPWG)
Quetiapine Seroquel	● Use as directed	CYP3A4	Your CYP3A4 gene works normally, so the standard dose of this drug is used. (Summarized from DPWG)
Risperidone Risperdal	● Use with caution	CYP2D6	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. (Summarized from DPWG)
Thioridazine Mellaril	● Consider alternative	CYP2D6	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. (Summarized from FDA)
Zuclopenthixol Clopixol	● Use with caution	CYP2D6	Your body clears this drug slowly, so it builds up in your blood. Half the usual dose is advised. (Summarized from DPWG)

Psychostimulants 2

MEDICATION	GUIDANCE	GENES	SUMMARY
Amphetamine Adzenys ER	● Use with caution	CYP2D6	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. (Summarized from FDA)
Atomoxetine Strattera	● Use with caution	CYP2D6	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. (Summarized from CPIC)

Movement disorders 3

MEDICATION	GUIDANCE	GENES	SUMMARY
Deutetrabenazine Austedo	● Use with caution	CYP2D6	Your body breaks down deutetrabenazine much more slowly than normal, causing the drug to build up and raising the risk of heart rhythm problems. A lower maximum dose is recommended. (Summarized from FDA)
Tetrabenazine Xenazine	● Use with caution	CYP2D6	Your body breaks down tetrabenazine much more slowly than normal, causing the drug to reach higher levels in your system. A lower maximum dose is required to avoid side effects. (Summarized from FDA)

MEDICATION	GUIDANCE	GENES	SUMMARY
Valbenazine Ingrezza	● Use with caution	CYP2D6	Your body breaks down valbenazine much more slowly than normal, causing the drug to build up. This raises your risk of heart rhythm problems, so a lower dose may be needed. (Summarized from FDA)

Anticonvulsants 4

MEDICATION	GUIDANCE	GENES	SUMMARY
Brivaracetam Briviact	● Use with caution	CYP2C19	Your body breaks down this drug more slowly, so more of it builds up. This can raise the risk of side effects. (Summarized from FDA)
Clobazam Onfi, Frisium	● Use with caution	CYP2C19	Your body breaks down clobazam more slowly than normal, causing higher levels of the drug's active form to build up. A lower dose may be needed to reduce the risk of side effects. (Summarized from FDA)
Fosphenytoin Cerebyx	● Use with caution	CYP2C9	Your body clears this drug more slowly, so it can build up and cause nervous system side effects. A lower starting dose and blood level checks are suggested. (Summarized from FDA)
Phenytoin Dilantin	● Use with caution	CYP2C9	Your body breaks down this drug more slowly, so it can build up. That raises the risk of side effects on the brain and nerves. (Summarized from FDA)

Pain management 13

MEDICATION	GUIDANCE	GENES	SUMMARY
Carisoprodol Soma	● Use as directed	CYP2C19	Your body breaks down carisoprodol slightly slower than normal. The standard dose should work as expected. (Summarized from FDA)
Celecoxib Celebrex	● Use as directed	CYP2C9	Your body slows the drug down slightly, but usually the normal starting dose is fine. (Summarized from CPIC)
Codeine Tylenol 3	● Consider alternative	CYP2D6	Your body turns very little codeine into its active form, so it likely won't ease your pain. A different pain reliever is usually suggested. (Summarized from CPIC)
Flurbiprofen Ansaid, Ocufer, Strefen	● Use as directed	CYP2C9	Your body slows the drug down slightly, but usually the normal starting dose is fine. (Summarized from CPIC)
Hydrocodone Hysingla ER	● Use with caution	CYP2D6	Your body makes less of hydrocodone's stronger active form. It's not clear this changes pain relief, so the usual dose is recommended, with a different pain medicine to consider if it doesn't work. (Summarized from CPIC)
Ibuprofen Advil	● Use as directed	CYP2C9	Your body slows the drug down slightly, but usually the normal starting dose is fine. (Summarized from CPIC)
Lornoxicam Xefo	● Use as directed	CYP2C9	Your body slows the drug down slightly, but usually the normal starting dose is fine. (Summarized from CPIC)
Meloxicam Mobic	● Use with caution	CYP2C9	Your body breaks down meloxicam slightly slower than normal. While there is no specific FDA guidance, your doctor may want to monitor you for side effects. (Summarized from FDA)
Oliceridine Olinvyk	● Use with caution	CYP2D6	Your body clears this drug much more slowly, raising the risk of slowed breathing and deep drowsiness. You may need doses less often. (Summarized from FDA)
Piroxicam Feldene	● Use with caution	CYP2C9	Your body breaks down piroxicam more slowly than normal, which can cause higher drug levels. Your doctor may need to adjust your dosing. (Summarized from FDA)
Pitolisant Wakix	● Use with caution	CYP2D6	Your body breaks down pitolisant much more slowly than normal, causing the drug to reach higher levels in your system. The lowest starting dose is recommended to reduce the risk of side effects. (Summarized from FDA)
Tenoxicam Mobiflex	● Use as directed	CYP2C9	Your body slows the drug slightly, but the usual starting dose is still fine. (Summarized from CPIC)
Tramadol Ultram, ConZip	● Consider alternative	CYP2D6	Your body can't turn this drug into its active form well, so it may not relieve your pain. A different pain medicine is advised. (Summarized from CPIC)

Cardiovascular 7

MEDICATION	GUIDANCE	GENES	SUMMARY
Propafenone Rythmol SR	● Use with caution	CYP2D6	Your body breaks down this drug much more slowly, so an irregular heartbeat is more likely. Some other drugs raise this risk even more. (Summarized from FDA)
Hydralazine Apresoline	● Use with caution	NAT2	Your body breaks down hydralazine slowly, which means you need a lower starting dose. Higher doses may increase side effects, including a rare immune reaction. (Summarized from CPIC)
Carvedilol Coreg, Coreg CR	● Use with caution	CYP2D6	Your body breaks down carvedilol much more slowly than normal, causing the drug to build up in your system. This increases your risk of dizziness and other side effects. (Summarized from FDA)
Metoprolol Lopressor, Toprol XL	● Use with caution	CYP2D6	Your body clears this drug very slowly, so it can build up. Your doctor may start with the lowest dose and watch your heart rate. (Summarized from CPIC)
Clopidogrel Plavix	● Consider alternative	CYP2C19	Your body turns this drug into its active form more slowly, so it may not protect you as well. A different blood thinner is usually suggested. (Summarized from CPIC)
Warfarin Coumadin	● Use with caution	CYP2C9 VKORC1 CYP4F2	Your genes suggest a lower dose may be safer. Your doctor can decide. (Report note) Estimated dose: 3.2-4.4 mg/day (lower than typical starting dose). See the detailed report for the calculation and its limitations.
Mavacamten Camzyos	● Use with caution	CYP2C19	Your body breaks down mavacamten slightly slower than normal, which may lead to higher drug levels. Your doctor will monitor you closely and adjust the dose based on your response. (Summarized from FDA)

Cholesterol medications 7

MEDICATION	GUIDANCE	GENES	SUMMARY
Atorvastatin Lipitor	● Use with caution	SLCO1B1	More of this statin stays in your blood, which can raise the chance of muscle side effects. Your doctor may limit the dose. (Summarized from CPIC)
Fluvastatin Lescol	● Use with caution	CYP2C9 SLCO1B1	Your genes make this statin build up in your blood, which can raise the risk of muscle problems. A lower starting dose or a dose limit is suggested. (Summarized from CPIC)
Lovastatin Mevacor	● Consider alternative	SLCO1B1	Your genes make this statin build up in your blood, which may raise your risk of muscle problems. A different statin, or a low dose of this one, is often suggested. (Summarized from CPIC)
Pitavastatin Livalo	● Use with caution	SLCO1B1	More of this statin stays in your blood, so muscle side effects are more likely. Your doctor may keep the dose low or suggest another statin. (Summarized from CPIC)
Pravastatin Pravachol	● Use with caution	SLCO1B1	Your body may process this drug more slowly, so higher doses might carry added risks. (Summarized from CPIC)
Rosuvastatin Crestor	● Use as directed	ABCG2 SLCO1B1	Your genes support the usual starting dose of this statin. (Summarized from CPIC)
Simvastatin Zocor	● Use with caution	SLCO1B1	More of this statin stays in your blood, so muscle side effects are more likely. Your doctor may use a different statin or a lower dose. (Summarized from CPIC)

Antiemetics 4

MEDICATION	GUIDANCE	GENES	SUMMARY
Dronabinol Syndros	● Use with caution	CYP2C9	Your body breaks down dronabinol more slowly than normal, which may cause the drug to build up and increase the risk of side effects. Extra monitoring is recommended. (Summarized from FDA)

MEDICATION	GUIDANCE	GENES	SUMMARY
Metoclopramide Reglan	● Use with caution	CYP2D6	Your body breaks down metoclopramide much more slowly than normal, causing the drug to build up and increasing the risk of side effects. A lower dose is recommended. (Summarized from FDA)
Ondansetron Zofran	● Use as directed	CYP2D6	There is not enough evidence to know how your CYP2D6 result affects your response to ondansetron. CPIC makes no prescribing recommendation based on this result. (Summarized from CPIC)
Tropisetron Navoban	● Use as directed	CYP2D6	There is not enough evidence to know how your CYP2D6 result affects your response to tropisetron. CPIC makes no prescribing recommendation based on this result. (Summarized from CPIC)

Proton pump inhibitors 4

MEDICATION	GUIDANCE	GENES	SUMMARY
Dexlansoprazole Dexilant	● Use with caution	CYP2C19	Your body clears this drug more slowly. A lower dose may be needed for long-term use to prevent side effects. (Summarized from CPIC)
Lansoprazole Prevacid	● Use with caution	CYP2C19	Your body clears this drug more slowly. A lower dose may be needed for long-term use to prevent side effects. (Summarized from CPIC)
Omeprazole Prilosec, Losec	● Use with caution	CYP2C19	Your body clears this drug more slowly. A lower dose may be needed for long-term use to prevent side effects. (Summarized from CPIC)
Pantoprazole Protonix	● Use with caution	CYP2C19	Your body clears this drug more slowly. A lower dose may be needed for long-term use to prevent side effects. (Summarized from CPIC)

Oncology 13

MEDICATION	GUIDANCE	GENES	SUMMARY
Belinostat Beleodaq	● Use as directed	UGT1A1	Your body may process this drug a little more slowly. The FDA has no special advice for this, so the usual dose is used. (Summarized from FDA)
Belzutifan Welireg	● Use as directed	CYP2C19	Your CYP2C19 result means somewhat lower CYP2C19 activity than usual, but the FDA gives no genetic dosing change for belzutifan at this result. (Summarized from FDA)
Capecitabine Xeloda, Xitabin, Kapetral	● Use as directed	DPYD	Your body processes capecitabine normally. You have a typical risk of side effects, and the standard dose is expected to be appropriate. (Summarized from CPIC)
Erdafitinib Balversa	● Use as directed	CYP2C9	Your CYP2C9 result means somewhat lower CYP2C9 activity than usual, but the FDA gives no genetic dosing change for erdafitinib at this result. (Summarized from FDA)
Fluorouracil Adrucil, Carac	● Use as directed	DPYD	Your body breaks down this drug normally. Your risk of side effects is typical, and the usual dose is used. (Summarized from CPIC)
Gefitinib Iressa	● Use with caution	CYP2D6	Your body breaks down gefitinib more slowly than normal, causing higher levels of the drug in your system. This increases the risk of side effects and closer monitoring may be needed. (Summarized from FDA)
Irinotecan Camptosar, Onivyde	● Use as directed	UGT1A1	Your body breaks down irinotecan slightly slower than normal. The standard dose should work as expected. (Summarized from FDA)
Mercaptopurine Purinethol	● Use as directed	TPMT NUDT15	Both genes that affect this drug look normal, so a standard starting dose is expected. (Summarized from CPIC)
Nilotinib Tasigna	● Use as directed	UGT1A1	Your UGT1A1 result means somewhat lower UGT1A1 activity than usual, but the FDA gives no genetic dosing change for nilotinib at this result. (Summarized from FDA)
Pazopanib Votrient	● Use as directed	UGT1A1	Your UGT1A1 gene works a bit less than average. The FDA gives no dose change for your result, so the usual dose is used. (Summarized from FDA)
Sacituzumab Govitecan-Hziy Trodelyv	● Use as directed	UGT1A1	Your body processes this drug a bit slower than average. The FDA gives no dose change for your result, so the usual dose is used. (Summarized from FDA)

MEDICATION	GUIDANCE	GENES	SUMMARY
Thioguanine Lanvis, Tabloid	● Use as directed	TPMT NUDT15	Both genes that affect this drug look normal, so a standard starting dose is expected. (Summarized from CPIC)
Tamoxifen Nolvadex, Soltamox	● Consider alternative	CYP2D6	Your body makes very little of this drug's active form, so it may not work well to stop breast cancer from coming back. Another hormone therapy is advised. (Summarized from CPIC)

Immunosuppressants 4

MEDICATION	GUIDANCE	GENES	SUMMARY
Abrocitinib Cibinqo	● Use as directed	CYP2C19	Your body may process this drug a little more slowly. The drug label has no special advice for this, so the usual dose is used. (Summarized from FDA)
Azathioprine Imuran	● Use as directed	TPMT NUDT15	Both genes that affect this drug look normal, so a standard starting dose is expected. (Summarized from CPIC)
Siponimod Mayzent	● Use with caution	CYP2C9	Your body breaks down siponimod slower than normal, causing the drug to reach higher levels in your system. Your doctor will need to adjust your dose based on your specific genetic profile. (Summarized from FDA)
Tacrolimus Prograf	● Use with caution	CYP3A5	Your body breaks down this drug faster than many people do, so the usual dose may fall short. A higher starting dose and blood tests are advised. (Summarized from CPIC)

Antivirals 5

MEDICATION	GUIDANCE	GENES	SUMMARY
Atazanavir Reyataz, Evotaz, Others	● Use as directed	UGT1A1	Your body processes atazanavir a bit more slowly than normal, but you still have a low chance of developing jaundice (yellowing of skin or eyes). The standard dose is expected to be appropriate. (Summarized from CPIC)
Efavirenz Sustiva	● Use as directed	CYP2B6	Your body processes efavirenz normally. The standard dose is expected to be appropriate for you. (Summarized from CPIC)
Peginterferon Alfa-2A Pegasys	● Use as directed	IFNL3	Your genes make this hepatitis C drug more likely to work. You may be able to take it for a shorter time. (Summarized from CPIC)
Peginterferon Alfa-2B PegIntron	● Use as directed	IFNL3	Your genes make this hepatitis C drug more likely to work. You may be able to take it for a shorter time. (Summarized from CPIC)
Ribavirin Copegus, Rebetol, Virazole	● Use as directed	IFNL3	Your genes make this hepatitis C treatment more likely to work. You may be able to take it for a shorter time. (Summarized from CPIC)

Antifungals 1

MEDICATION	GUIDANCE	GENES	SUMMARY
Voriconazole Vfend	● Use with caution	CYP2C19	Your body breaks down this drug more slowly, so levels can rise and side effects are more likely. (Summarized from FDA)

Anesthetics 8

MEDICATION	GUIDANCE	GENES	SUMMARY
Desflurane	○ Unable to determine	RYR1 CACNA1S	We couldn't check the genes for this anesthesia reaction from your data. This does not mean that a normal response is expected. (Report note)
Enflurane	○ Unable to determine	RYR1 CACNA1S	We couldn't check the genes for this anesthesia reaction from your data. This does not mean that a normal response is expected. (Report note)
Halothane	○ Unable to determine	RYR1 CACNA1S	We couldn't check the genes for this anesthesia reaction from your data. This does not mean that a normal response is expected. (Report note)
Isoflurane	○ Unable to determine	RYR1 CACNA1S	We couldn't check the genes for this anesthesia reaction from your data. This does not mean that a normal response is expected. (Report note)
Methoxyflurane	○ Unable to determine	RYR1 CACNA1S	We couldn't check the genes for this anesthesia reaction from your data. This does not mean that a normal response is expected. (Report note)

MEDICATION	GUIDANCE	GENES	SUMMARY
Mivacurium Mivacron	● Use as directed	BCHE	Your body breaks down this drug normally. Your doctor can use the usual dose. (Summarized from FDA)
Sevoflurane	○ Unable to determine	RYR1 CACNA1S	We couldn't check the genes for this anesthesia reaction from your data. This does not mean that a normal response is expected. (Report note)
Succinylcholine Quelicin, Anectine	○ Unable to determine	RYR1 CACNA1S BCHE	We couldn't check the genes for this anesthesia reaction from your data. This does not mean that a normal response is expected. (Report note)

Weight management 3

MEDICATION	GUIDANCE	GENES	SUMMARY
Retatrutide	● Use with caution	GLP1R GIPR	Your GIPR gene raises your chance of nausea or vomiting on retatrutide: roughly 4.4% of people with your genotype vomit, compared with about 2.5% at the lowest risk. Semaglutide is not affected by this gene. (Summarized from Gene2Rx)
Semaglutide Ozempic, Wegovy	● Use as directed	GLP1R	Your genes point to a typical response to this drug, with average weight loss and side effects. (Summarized from Gene2Rx)
Tirzepatide Mounjaro, Zepbound	● Use with caution	GLP1R GIPR	Your GIPR gene raises your chance of nausea or vomiting on tirzepatide: roughly 4.4% of people with your genotype vomit, compared with about 2.5% at the lowest risk. Semaglutide is not affected by this gene. (Summarized from Gene2Rx)

Antidiabetics 1

MEDICATION	GUIDANCE	GENES	SUMMARY
Nateglinide Starlix	● Use as directed	CYP2C9	Your body breaks down nateglinide slightly slower than normal. The standard dose should work as expected. (Summarized from FDA)

Antihistamines 1

MEDICATION	GUIDANCE	GENES	SUMMARY
Meclizine Antivert	● Use with caution	CYP2D6	Your body breaks down meclizine much more slowly than normal, which may cause the drug to build up to higher levels and increase the risk of side effects. Close monitoring is recommended. (Summarized from FDA)

Drugs used in addictive disorders 1

MEDICATION	GUIDANCE	GENES	SUMMARY
Lofexidine Lucemyra	● Use with caution	CYP2D6	Your body breaks down lofexidine more slowly than normal, causing it to build up in your system. This increases the risk of side effects like low blood pressure and a slow heart rate. (Summarized from FDA)

Female sexual health 1

MEDICATION	GUIDANCE	GENES	SUMMARY
Flibanserin Addyi	● Use as directed	CYP2C19	Your CYP2C19 result means somewhat lower CYP2C19 activity than usual, but the FDA gives no genetic dosing change for flibanserin at this result. (Summarized from FDA)

Gaucher's disease treatments 1

MEDICATION	GUIDANCE	GENES	SUMMARY
Eliglustat Cerdelga	● Use with caution	CYP2D6	Your body breaks down this drug much more slowly, which can raise the risk of heart rhythm problems. Your doctor will set your dose, and some other medicines can't be taken with it. (Summarized from FDA)

Gout 1

MEDICATION	GUIDANCE	GENES	SUMMARY
Allopurinol Zyloprim	● Use as directed	ABCG2	Your ABCG2 genotype does not change how you respond to allopurinol; standard dosing applies. (Summarized from DPWG)

Hair loss 1

MEDICATION	GUIDANCE	GENES	SUMMARY
Topical minoxidil Rogaine	● Use as directed	SULT1A1	Your SULT1A1 result suggests normal enzyme function. This enzyme helps activate topical minoxidil, but hair growth results can vary. Use topical minoxidil as directed and assess hair growth over time with your clinician. (Summarized from Gene2Rx)

Saliva production stimulators 1

MEDICATION	GUIDANCE	GENES	SUMMARY
Cevimeline Evoxac	● Use with caution	CYP2D6	Your body breaks down cevimeline much more slowly than normal, which may increase the risk of side effects. Careful monitoring by your doctor is recommended. (Summarized from FDA)

Urologicals 1

MEDICATION	GUIDANCE	GENES	SUMMARY
Tolterodine Detrol	● Use with caution	CYP2D6	Your body breaks down tolterodine more slowly than normal, causing it to build up in your system. This increases the risk of side effects, including heart rhythm problems. (Summarized from FDA)

Other substances 7

MEDICATION	GUIDANCE	GENES	SUMMARY
Alcohol	● Use as directed	ADH1B ALDH2	Your genes have little effect on how your body handles alcohol. (Summarized from Gene2Rx)
Caffeine Coffee, Tea	● Use with caution	CYP1A2	Caffeine may wear off slightly sooner for you than average. The usual advice on caffeine limits applies. (Summarized from Gene2Rx)
Ketamine Ketalar	● Use as directed	CYP2B6	Your body processes ketamine at the usual rate. (Summarized from Gene2Rx)
LSD Acid	● Use with caution	CYP2D6	You clear this drug slowly, so its effects may be stronger and last longer. Starting with a lower dose may help avoid a bad experience. (Summarized from Gene2Rx)
MDMA Ecstasy	● Use with caution	COMT CYP2D6	You have little or no activity of the main enzyme that clears MDMA. Studies have not shown that this makes MDMA poisoning more likely, and no genotype makes MDMA safe. (Summarized from Gene2Rx)
Nicotine Cigarettes, Zyn	● Use with caution	CHRNA5 COMT CYP2A6	This variant is linked to heavier smoking and finding it harder to quit. Stop-smoking medicines appear to help people with this result as much as or more than others. (Summarized from Gene2Rx)
THC Cannabis, Marijuana	● Use with caution	AKT1 COMT CYP2C9 FAAH	You may be more likely to feel anxious or paranoid on THC. Starting with a lower dose can help. (Summarized from Gene2Rx)

Coverage depends on your data and report tier. A medication missing here may still have pharmacogenetic guidance. Full source text and references are in the detailed report. Questions: contact@gene2rx.com.