

## ***Genetic Testing for Possible Medicine Response***

Pharmacogenomic (PGx) testing is a genetic test that predicts how quickly or slowly your body metabolizes some medications, including antiseizure drugs often used in KCNT1-related epilepsy.

Genes are made up of deoxyribonucleic acid (DNA). Your genes hold instructions that tell your body how to work. They also help your body break down medicines. Genes can cause medicine to break down more quickly or slowly than expected. This is sometimes why a medicine may help you but does not help someone else.

### **Why PGx testing is important for KCNT1-related epilepsy**

PGx testing can help your child's doctor choose the safest and most effective antiseizure medication for individuals with KCNT1-related epilepsy.

How PGx testing can help in KCNT1-related epilepsy:

- May lower the chance of a bad reaction or side effect
- Can help determine what medicine dosage is right for your child
- Can help you find a medicine that will work more quickly for your child
- Results can apply to medicines your child takes in the future

Limits and costs of PGx tests:

- It does not predict all medicine responses
- All the genes that may affect medicines are not known
- Costs for tests vary, depending on the lab used and your child's insurance

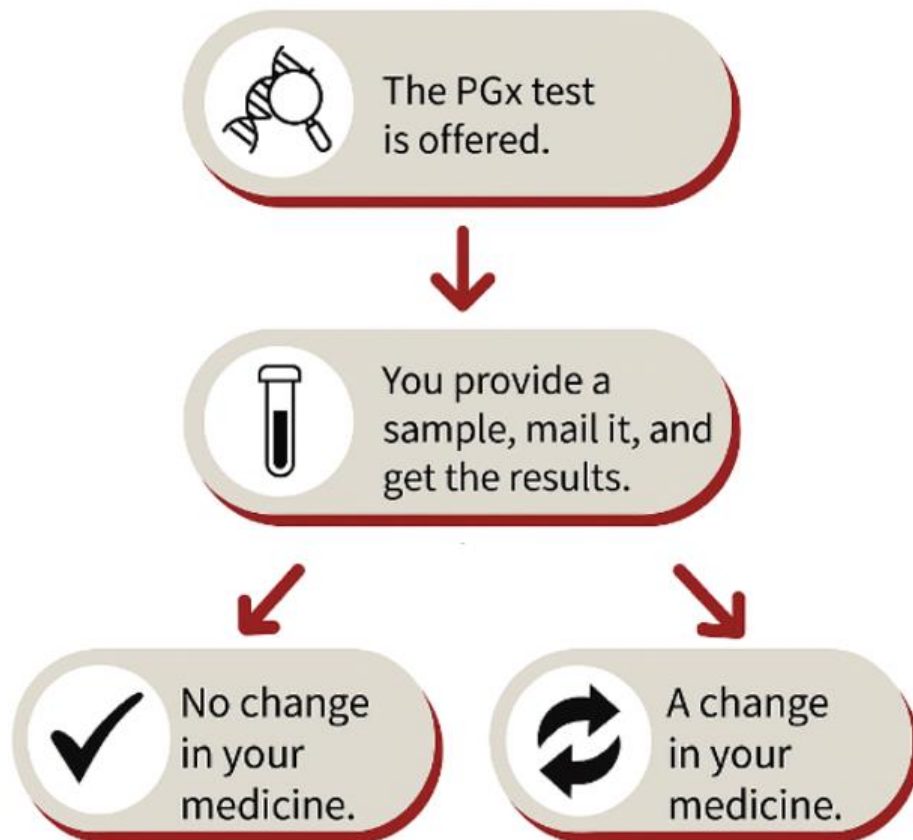
### **What the test tells us**

The test will tell your child's doctor if your child has specific gene/DNA changes known to affect medicine response. For medicines that your child currently take, we may recommend:

- A lower dose
- The same dose
- A higher dose
- A different medicine

## Test process, and results

1. Your child's provider will ask for your consent (agreement) to take the test. The test only looks at genes involved with medicine responses. It does not look at any other genes.
2. Your child's provider gives your child the PGx test. It involves providing a sample that your provider will specify.
3. The sample is mailed to a lab. It can take several weeks or months for your child's care team to get the results.
4. You may have an appointment with a provider to go over the results
5. Depending on the results, your child may have a medicine change, or medicine may stay the same.



## Labs That Offer PGx Testing

Several laboratories offer pharmacogenomic (PGx) testing panels that may include genes relevant to KCNT1-related epilepsy treatment decisions. This is not a comprehensive list, other labs may offer PGx panel tests.

Lab Name	Test Name	Link
GeneSight (Myriad)	GeneSight Psychotropic	<a href="https://genesight.com/genesight-at-home/">https://genesight.com/genesight-at-home/</a>
OneOme	RightMed	<a href="https://oneome.com/request-test/">https://oneome.com/request-test/</a>
Labcor/Invitae	Pharmacogenomics Panel	<a href="https://www.invitae.com/us/providers/test-catalog">https://www.invitae.com/us/providers/test-catalog</a>
Genomind	PGx Professional PGx	<a href="https://genomind.com/solutions/genomind-pgx-test/">https://genomind.com/solutions/genomind-pgx-test/</a>
Admera Health	PGxOne Plus	<a href="https://www.admerahealth.com/">https://www.admerahealth.com/</a>

Note: Availability of pediatric testing and coverage may vary. Please confirm with each lab before ordering.

## More Information

Learn more about PGx testing on the website below.

Fact Sheet: Pharmacogenomics: <https://www.genome.gov/about-genomics/educational-resources/fact-sheets/pharmacogenomics>

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