

Patient Information

First name _____ Last name _____
 Gender Male Female Date of birth (mm/dd/yy) _____
 Ancestry Caucasian Eastern European Northern European
 Western European Native American Middle Eastern
 African American Asian Pacific Islander
 Caribbean Central/South American
 Ashkenazi Jewish Hispanic Other: _____

Mailing address _____
 City _____ State _____ Zip code _____
 Home phone _____ Work phone _____
 Email _____ Patient's primary language if not English _____

Sample Information

Medical record # _____ Specimen ID _____ Date sample obtained (mm/dd/yy) _____
 Blood in EDTA (5-6 mL in lavender top tube)
 DNA (>20 ug): Tissue source _____ concentration ____ (ug/ml) Vol ____ (ul)
 Buccal Swab
 Other _____ (call lab)
 Patient has had a blood transfusion Yes No Date of last transfusion ____/____/____
 (2-4 weeks of wait time is required for some testing) Specimens are not accepted for patients who have had allogeneic bone marrow transplants.

Clinical Information

Clinical diagnosis (if any): _____
 ICD-10 codes: _____
IF APPLICABLE, SEND DETAILED MEDICAL RECORDS, CLINICAL SUMMARY, PICTURES AND FAMILY HISTORY WITH REQUISITION FORM AND SAMPLES.

Ordering Account Information

Acct # _____ Account Name _____
 Reporting Preference*: Care Evolve Fax Email
**If unmarked, we will use the account's default preferences or fax to new clients.*

Physician _____ NPI # _____
 Genetic Counselor _____
 Street address 1 _____
 Street address 2 _____
 City _____ State _____ Zip code _____
 Phone _____ Fax (important) _____
 Email _____ Beeper _____

Send Additional Report Copies To:

Physician or GC/Acct # _____ Fax#/Email/CE # _____
 Physician or GC/Acct # _____ Fax#/Email/CE # _____

Test Ordered

J775 XomeDxInsights
 Partner: Not available To be sent later*
 First Name _____ Last Name _____ DOB _____
***PARTNER'S SAMPLE MUST BE RECEIVED WITHIN 3 WEEKS IF CONCURRENT ANALYSIS IS DESIRED.**
 Please submit a separate requisition for partner.

Patient Consent *(sign here or on the consent document)*

I have read the Informed Consent document and I give permission to GeneDx to perform genetic testing as described. I also give permission for my specimen and clinical information to be used in de-identified studies at GeneDx to improve genetic testing and for publication, if appropriate. My name or other personal identifying information will not be used in or linked to the results of any studies and publications. I also give GeneDx permission to inform me or my health care provider in the future about research opportunities, including treatments for the condition in my family.

Check this box if you wish to opt out of being contacted for research studies.
 Check this box if you do not wish to receive information from genes in the CNS Disorder Opt-Out Gene List.
 Check this box if you are a New York state resident, and give permission for GeneDx to retain any remaining sample longer than 60 days after the completion of testing.
 Check this box if you would like to receive more information about the PeopleSeq study.

Patient/Guardian Signature _____ Date _____

Billing Information *(GeneDx does NOT bill insurance for this test)*

Institutional Bill

GeneDx Account # _____
 Hospital/Lab Name _____
 Contact Name _____
 Address _____
 City _____ State _____ Zip Code _____
 Phone _____ Fax _____

Patient Bill/Self-Pay

Payment by check or money order
 Minimum of 75% of the cost of the test is required at the time of sample submission with the remainder of the fee billed at the time of test completion.
 Check or money order enclosed in the amount of \$ _____

Payment by credit card (all major cards accepted)
 MasterCard Visa Discover American Express

Name as it appears on card _____
 Account Number _____ Expiration date _____ CVC _____
 Amount _____ Signature _____ Date _____

For GeneDx Use Only

First Name _____ Last Name _____ Date of Birth (mm/dd/yy) _____

Clinical information can aid in the accurate interpretation of results. Please attach relevant medical records.

Please check all that apply.

Clinical Information:

Does the patient have a known or suspected chronic medical condition? No Yes

If yes, please describe: _____

(Note that XomeDxInsights is for adults who are generally healthy. Individuals seeking a diagnosis for a current medical condition should consider the XomeDx test.)

Prior genetic testing performed on patient: _____

Personal and/or family history of known genetic condition? No Yes

If Yes, please indicate relationship to patient being testing and diagnosis, including gene mutation if known: _____

Pregnancy history (check all that apply):

Is the patient/partner currently pregnant? No Yes (If Yes, EDD: _____)

Infertility No Yes

Recurrent pregnancy loss No Yes

Prior intrauterine fetal demise (IUFD) No Yes

Current and/or prior pregnancy with anomalies: No Yes

If Yes, please describe and/or provide diagnosis: _____

Optional Information:

Is the patient adopted? No Yes

Does the patient consider themselves to work in health care? No Yes

Additional relevant clinical information: _____

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I understand that my health care provider has ordered the following genetic testing for {me/my child}: _____.

General Information About Genetic Testing

What is genetic testing?

DNA provides instructions for our body's growth and development. Genes are distinct sequences of DNA, and are arranged on chromosomes. The DNA in a gene contains instructions for making proteins, which determine things like growth and metabolism as well as traits like eye color and blood type. Genetic disorders are caused by harmful changes in DNA or from changes in the structure or number of chromosomes. Genetic testing is a laboratory test that tries to identify these harmful changes in chromosomes or the DNA. Genetic testing can be a diagnostic test, which is used to identify or rule out a specific genetic condition. Genetic screening tests are used to assess the chance for a person to develop or have a child with a genetic condition. Genetic screening tests are not typically diagnostic and results may require additional diagnostic testing.

The purpose of this test is to see if I, or my child, may have a genetic variant or chromosome rearrangement causing a genetic disorder or to determine the chance that I, or my child, will develop or pass on a genetic disorder in the future. 'My child' can also mean my unborn child, for the purposes of this consent.

Additional information about the specific test being ordered is available from my health care provider or I can go to the GeneDx website, www.genedx.com. This information includes the specific types of genetic disorders that can be identified by the genetic test, the likelihood of a positive result, and the limitations of genetic testing.

If {I/my child} already know the specific gene variant(s) or chromosome rearrangement that causes the genetic disorder in my family, I will inform the laboratory of this information.

What could I learn from this genetic test?

The following describes the possible results from the test:

1) Positive: A positive result indicates that a genetic variant has been identified that explains the cause of {my/my child's} genetic disorder or indicates that {I/my child} am at increased risk to develop the disorder in the future. It is possible to test positive for more than one genetic variant.

2) Negative: A negative result indicates that no disease-causing genetic variant was identified for the test performed. It does not guarantee that {I/my child} will be healthy or free from genetic disorders or medical conditions. If {I/my child} test negative for a variant known to cause the genetic disorder in other members of {my/my child's} family, this result rules out a diagnosis of the same genetic disorder in {me/my child} due to this specific change.

3) Inconclusive/Variant of Uncertain Significance (VUS): A finding of a variant of uncertain significance indicates that a genetic change was detected, but it is currently unknown whether that change is associated with a genetic disorder either now or in the future. A variant of uncertain significance is not the same as a positive result and does not clarify whether {I/my child} is at increased risk to develop a genetic disorder. The change could be a normal genetic variant or it could be disease-causing. Further analysis may be recommended, including testing both parents and other family members. Detailed medical records or information from other family members also may be needed to help clarify results.

4) Unexpected results: In rare instances, this test may reveal an important genetic change that is not directly related to the reason for ordering this test. For example, this test may tell me about the risk for another genetic condition {I/my child} is not aware of or it may indicate differences in the number or rearrangement of sex chromosomes. This information may be disclosed to the ordering health care provider if it likely impacts medical care.

Result interpretation is based on currently available information in the medical literature, research and scientific databases. Because the literature, medical and scientific knowledge are constantly changing, new information that becomes available in the future may replace or add to the information GeneDx used to interpret {my/my child's} results. Providers can contact GeneDx at any time to discuss the classification of an identified variant. In addition, I or {my/my child's} health care providers may monitor publicly available resources used by the medical community, such as ClinVar (www.clinvar.com), to find current information about the clinical interpretation of my/my child's variant(s).

For tests that evaluate data from multiple family members, my spouse, or partner concurrently, results may be included in a single comprehensive report.

What are the risks and limitations of this genetic test?

- Genetic testing is an important part of the diagnostic process. However, genetic tests may not always give a definitive answer. In some cases, testing may not identify a genetic variant even though one exists. This may be due to limitations in current medical knowledge or testing technology.
- Accurate interpretation of test results may require knowing the true biological relationships in a family. Failing to accurately state the biological relationships in {my/my child's} family may result in incorrect interpretation of results, incorrect diagnoses, and/or inconclusive test results. In some cases, genetic testing can reveal that the true biological relationships in a family are not as they were reported. This includes non-paternity (the stated father of an individual is not the biological father) and consanguinity (the parents of an individual are related by blood). It may be necessary to report these findings to the health care provider who ordered the test.
- Genetic testing is highly accurate. Rarely, inaccurate results may occur for various reasons. These reasons include, but are not limited to: mislabeled samples, inaccurate reporting of clinical/medical information, rare technical errors, or unusual circumstances such as bone marrow transplantation, or the presence of change(s) in such a small percentage of cells that the change(s) may not be detectable by the test (mosaicism).
- This test does not have the ability to detect all of the long-term medical risks that {I/my child} might experience. The result of this test does not guarantee my health or the health of my child/fetus. Other diagnostic tests may still need to be done, especially when only a genetic screening test has been performed previously.
- Occasionally, an additional sample may be needed if the initial specimen is not adequate.

Patient Confidentiality and Genetic Counseling

It is recommended that I receive genetic counseling before and after having this genetic test. I can find a genetic counselor in my area here: www.nsgc.org. Further testing or additional consultations with a health care provider may be necessary.

To maintain confidentiality, the test results will only be released to the referring health care provider, to the ordering laboratory, to me, to other health care providers involved in {my/my child's} diagnosis and treatment, or to others as entitled by law. The United States Federal Government has enacted several laws that prohibit discrimination based on genetic test results by health insurance companies and employers. In addition, these laws prohibit unauthorized disclosure of this information. For more information, I understand that I can visit www.genome.gov/10002077.

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International Specimens

If {I/my child} reside outside the United States, I attest that by providing a sample for testing, I am not knowingly violating any export ban or other legal restriction in the country of {my/my child's} residence.

Specimen Retention

After testing is complete, the de-identified submitted specimen may be used for test development and improvement, internal validation, quality assurance, and training purposes. DNA specimens are not returned to individuals or to referring health care providers unless specific prior arrangements have been made.

I understand that samples from residents of New York State will not be included in the de-identified research studies described in this authorization and will not be retained for more than 60 days after test completion, unless specifically authorized by my selection below. The authorization is optional, and testing will be unaffected if I do not check the box for the New York authorization language.

Database Participation

De-identified health history and genetic information can help health care providers and scientists understand how genes affect human health. Though {I/my child} may not personally benefit, sharing this information helps health care providers to provide better care for their patients and researchers to make discoveries. GeneDx shares this type of information with health

care providers, scientists, and health care databases. No personal identifying information will be shared, as it will be replaced with a unique code.

Even though only a code is used for the reporting to the databases, there is a risk that {I/my child} could be identified based on the genetic and health information that is shared. GeneDx believes that this is unlikely, though the risk is greater if I have already shared {my/my child's} genetic or health information with public resources, such as genealogy websites.

Recontact for Research Participation

Separate from the above, GeneDx may collaborate with scientists, researchers and drug developers to advance knowledge of genetic diseases and to develop new treatments. If there are opportunities to participate in research relevant to the disorder in {my/my child's} family, and if I have consented for recontact, GeneDx may allow my health care provider to be recontacted for research purposes, such as the development of new testing, drug development, or other treatment modalities. In some situations, such as if my health care provider is not available, I may be contacted directly.

Any research that results in medical advances, including new products, tests or discoveries, may have potential commercial value and may be developed and owned by GeneDx or the collaborating researchers. If any individuals or corporations benefit financially from these studies, no compensation will be provided to {me/my child} or {my/my child's} heirs.

XomeDxInsights Information and Reporting Options

XomeDxInsights can provide information in three different categories: personal health, reproductive risk, and drug metabolism (also known as pharmacogenomic information). As many different genes and conditions are analyzed, this test may reveal unanticipated findings.

1. Personal Health: Reported personal health information includes variants in genes known to cause childhood and/or adult onset disease. This includes variants that significantly increase the risk for cancer, heart disease, and neurological conditions. **You may choose to opt out of personal health information from genes associated with progressive, central nervous system (CNS) diseases such as Parkinson's disease or dementia, for which there may not be currently available treatments, by checking the box below. Please refer to the latest version of the CNS Disorder Opt-Out Gene List on our website for the complete list of genes and associated genetic disorders. If opting out, a list of the genes not analyzed for personal health risk will also be attached to the report.**
2. Reproductive Risk: Reported reproductive risk information includes carrier status for pathogenic and likely pathogenic variants in known recessive and X-linked disease genes. Variants of uncertain significance are reported only if the person's reproductive partner is known to GeneDx to carry a pathogenic or likely pathogenic variant in the same gene. Variants contributing to infertility or other adverse reproductive outcomes will also be reported.
3. Pharmacogenomic (drug metabolism) Information: The pharmacogenomic portion of the test targets known genetic changes associated with the body's response to certain medications that may be prescribed for a variety of clinical indications.

*Note that the pharmacogenomic information is not available for NY state residents at this time.

Limitations

- Pathogenic variants may be present in a portion of the gene not covered by this test and therefore are not reported. **The absence of a reportable variant for any particular gene does not mean there are no pathogenic variants in or affecting that gene.**
- Only changes at the sequence level will be included in the report. Larger deletions/duplications, abnormal methylation, repeat expansion variants, or other variants not routinely identified by exome sequencing will not be reported.

Patient Consent (sign here or on page 1 of the test requisition form)

I have read the Informed Consent document and I give permission to GeneDx to perform genetic testing as described. I also give permission for my specimen and clinical information to be used in de-identified studies at GeneDx to improve genetic testing and for publication, if appropriate. My name or other personal identifying information will not be used in or linked to the results of any studies and publications. I also give GeneDx permission to inform me or my health care provider in the future about research opportunities, including treatments for the condition in my family.

- Check this box if you wish to opt out of being contacted for research studies.
- Check this box if you do not wish to receive personal health information from genes on the Central Nervous System Disorder Opt-Out Gene List.
- Check this box if you are New York state resident, and give permission for GeneDx to retain any remaining sample longer than 60 days after the completion of testing.

Patient/Guardian Signature _____

Date (mm/dd/yyyy) _____

If I wish to change my decisions or have any questions, I understand that I may contact the laboratory via email at genedx@genedx.com or by phone at +1-301-519-2100, or if I am located in the United States, toll free at +1-888-729-1206.



XomeDxInsights Informed Consent and Authorization Form

Account # _____ Account Name _____

First Name _____ Last Name _____ Date of Birth (mm/dd/yy) _____

The Personal Genome Sequencing Outcomes “PeopleSeq” Study

The Personal Genome Sequencing Outcomes Study (PeopleSeq) is one of the first large-scale studies to examine the experiences, attitudes, and outcomes of healthy adults who have pursued personal genomic sequencing. Our hope is that the knowledge gained through this study will play an integral role in shaping the future of genomic sequencing practice and policy.

Several thousand ostensibly healthy individuals in the U.S. have already had whole exome or whole genome sequencing, and several thousands more are projected to have personal genome sequencing in the next few years. While early adopters who seek personal genome sequencing may not be representative of the general population, they can provide unique insight about the individual and societal impact personal genome sequencing may have once such testing becomes widespread. A number of these projects have been organized into the “PeopleSeq Consortium” and piloted a web-based survey instrument to better understand the medical, behavioral and economic impacts of sequencing ostensibly healthy adults.

Participation is completely optional and will not impact test results of XomeDxInsights. By agreeing to receive more information about this study, a patient agrees to direct contact from PeopleSeq via email.

Yes, you may send me more information about the study.

Patient email (required): _____

No, I do not want information about the study.