



FREQUENTLY ASKED QUESTIONS

HLIQ Whole Genome report is currently available only to specific business partners of HLI. To provide you more information on the HLIQ Whole Genome test below are answers to a number of frequently asked questions.

Q: WHAT IS MY WHOLE GENOME?

A: We are all made up of trillions of cells. Tightly coiled within the nucleus of each cell is the DNA required to create each of us. You not only inherit physical traits from your parents, but also an operating system that could put you at a higher risk for certain diseases.

To get a sense of the size, think of your genome as an encyclopedia made up of many volumes. Each person has a set of 46 volumes and each of these books represents an individual chromosome. Each page would be a different gene and the words your DNA.

Q: WHAT IS WHOLE GENOME SEQUENCING?

A: Human Longevity, Inc.—your health intelligence partner—has assembled one of the world’s largest sequencing centers at our La Jolla, California headquarters. Onsite we use the latest technology to examine all of your DNA in a process known as Whole Genome Sequencing.

Part of what makes you unique are the genes that make up your genome. Using whole genome sequencing, we’re able to read through your DNA and the coding it provides for your genes. We’re also able to identify changes or errors in the genetic



code, which are referred to as variants, which are also unique identifiers in your genome.

Through our proprietary analysis from our team of expert scientists and computing specialists, you will learn about variants you have that make you different from other populations. Sometimes variants can lead to a higher risk of certain diseases or protect you from others. We learn more about your individual genome by studying it against the tens of thousands of genomes in our database. HLI has leveraged cutting-edge technology to truly understand you and make your healthcare more personal, predictive and preventative.

Q: WHAT CAN I LEARN THROUGH WHOLE GENOME SEQUENCING?

A: By having your genome sequenced, you can better understand your genetic make-up to identify health risk. With the help of your physician, you can develop a plan to address these areas with early screening and prevention.

With one physician ordered test, you can not only learn interesting facts about yourself including your ancestry, but you can also gain insights about your inherited risk for cancers, cardiovascular and neurological diseases, and a wide range of conditions. If you are considering starting a family, this test can determine if you are a carrier for different genetic disorders.

HLIQ Whole Genome analysis report provides physicians and individuals with the most detailed exploration of the individual genome in the context of the tens of thousands of genomes in the HLI database, where more can be learned about one genome through its comparison with many.

Q: WHAT IS CONTAINED IN THE HLIQ WHOLE GENOME?

A: The HLIQ Whole Genome report includes both clinical, or medically actionable results, as well as other non-clinical information such as traits and ancestry. Briefly these categories include:

HLIQ WHOLE GENOME

Analyzes

- CLINICAL**
ACMG 59
Carrier Status
Pharmacogenomics
- HEALTH INSIGHTS**
Cancer
Cardiovascular
Neurological
Respiratory
Metabolic and More
- PERSONAL INSIGHTS**
Ancestry
Allergy
Food Intolerances
- TRAITS**
Eye Color
Skin Color
Height



The ACMG 59 genes were identified by the American College of Medical Genetics as being not only highly penetrant (meaning that those individuals with these disease-causing mutations or variants will exhibit clinical symptoms of the disease), but also clinically actionable (a change in treatment, management, or surveillance may significantly improve outcome). Identifying variants in these genes may warrant surveillance or treatment, and confirmatory or family testing may be important to consider. Most of these genes are associated with cancer or cardiac risks.

Q: ARE THERE ANY AGE RESTRICTIONS FOR THE HLIQ WHOLE GENOME?

A: In the U.S., only adults 18 years and older may receive results from this whole genome sequencing report. If you have a child that you would like to undergo genetic testing, please discuss this with their pediatrician, or a genetic counselor.

Q: CAN I ORDER FROM ANY STATE IN THE UNITED STATES?

A: The HLI is a CLIA-certified laboratory. HLIQ Whole Genome test is classified as Laboratory Developed Test (LDT) and validated according to CLIA regulation. Currently, HLI can offer this test in all states, except New York state.

Q: HOW DO I OBTAIN AN HLIQ WHOLE GENOME TEST?

A: HLIQ Whole Genome is currently available only to specific business partners of HLI.

Q: HOW WILL I RECEIVE MY RESULTS?

A: HLI will notify you and your physician when your HLIQ results are available. HLI will provide you with an electronic HLIQ Whole Genome report, which will include the results from this test and the analysis done by our bioinformatics scientists to better understand your genome in the context of the tens of thousands of genomes in our database.

You will review your results with your physician or a genetic counselor. This will help you better understand your results. Your results will only be shared with you and your physician.

Q: HOW WILL MY PHYSICIAN KNOW HOW TO UNDERSTAND WHAT THE HLIQ WHOLE GENOME REPORT INCLUDES?

A: HLI values our partnerships with physicians and wants your physician to feel empowered to understand and implement the insight compiled in the HLIQ Whole Genome report. Physician materials—including the frequently asked questions we've heard from physicians—can be found on our website.

Q: HOW DO MY RESULTS AFFECT MY FAMILY MEMBERS?

A: As is the case with any genetic testing, if you are at risk for a disease, your family members may also have this genetic risk. This could potentially impact parents, siblings, children and other more distant family members. Some family members may not want to know their genetic risk. If you are at increased genetic risk, and wish to share this information with family members, we can discuss how to have this conversation with your relatives.

Q: HOW IS MY PRIVACY AND DATA PROTECTED?

A: HLI is committed to protecting the privacy of its clients and to safeguarding identifiable health information.

HLI will only provide the results of your test to you and your physician, unless you request us to provide it to another healthcare provider. HLI will not provide the information to your employer, any insurance providers, nor to any other healthcare provider without your explicit request.

HLIQ WHOLE GENOME



HLI has also adopted a Privacy and Security Compliance Program to assure its compliance with Federal regulations and state law governing patient privacy and health information security. Below are examples, not a complete list, of measures in place:

- Data confidentiality is protected by limiting the security access to only those company users authorized to view and/or work the data.
- All HLI workforce members are trained to protect the privacy and security of protected health information or PHI and to follow the Program policies and procedures whenever they use, disclose, maintain, transmit, or access PHI.
- HLI promotes a culture of privacy and security awareness and ensures that clients are afforded specific rights and protections related to their medical information.
- HLI regularly schedules risk assessments of the vulnerabilities

and threats to client information and implements reasonable and appropriate safeguards to mitigate such risks.

- HLI evaluates the effectiveness of the Program on an ongoing basis leveraging security best practice frameworks and works to modify policies and procedures from time to time, in light of technological, environmental, operational, and regulatory changes.

Q: CAN THE RESULTS OF THIS TEST IMPACT MY EMPLOYMENT OR ABILITY TO OBTAIN HEALTH INSURANCE?

A: In the U.S., there is an act that protects you from genetic discrimination. The Genetic Information Nondiscrimination Act or GINA, is a federal law that protects you from genetic discrimination. GINA prohibits health insurance companies and employers from using your genetic information to make decisions regarding your insurance



coverage and employment. For example, if you were determined to have an increased risk of developing dementia later in life, your employer and health insurance provider cannot terminate employment or deny you coverage based on this information.

However, there are a few caveats. The law does not apply for small employers of 15 or less people and some federal services. GINA also does not apply to life insurance, disability insurance, and long-term care insurance coverage.

Q: HOW DOES HLIQ WHOLE GENOME DIFFER FROM OTHER GENETIC/GENOME TESTING PRODUCTS I'VE SEEN?

A: The only way to identify all of the genomic variations in an individual's genome, including the common, rare and individually

unique variations, is to use DNA sequencing to determine the exact sequencing of bases in the individual's genome.

HLIQ Whole Genome looks at all of your DNA sequence. Other technologies only look at a limited set of known genes and variants. These genotyping panels use pre-specified and a limited set of known genes and variants. With these tests, you can only get information on a small targeted set of DNA changes, or variants.

HLIQ Whole Genome is an unbiased analysis of an individual's DNA sequence without regard to any pre-specified limits. With this test, you can get information on a broad set variants across all your DNA and their associations with any known traits and disease risks.