

On average, every person has three to four million variants in their DNA. These genetic changes are what make us unique: from visible, physical traits like eye color and height to more hidden ones such as our risk for developing diseases like cancer, diabetes, and cardiovascular disease. GenomicMD's **Lifetime Genomics Risk Assessment (LGRA)** is a unique screening test that uses a saliva or blood sample to analyze millions of common genetic variants to predict an individual's risk for developing different health conditions. This resulting estimate is called a "polygenic risk score" – frequently abbreviated as "PRS".

Why Consider the LGRA?



Embrace Proactive Wellness

Gain insight to make preventative lifestyle changes that can minimize the odds of disease development.



Unlock Personalized Healthcare

Empower healthcare teams to guide better lifestyle, screening, intervention, and therapeutic decisions.



Supplement Other Screening Methods

Add genetic context to supplement knowledge gained from other screenings (e.g., cholesterol measurements, rare gene screening).



Support More Informed Decisions on Further Testing

Use genetic risk insights to guide discussions on the need for additional screenings or diagnostics.

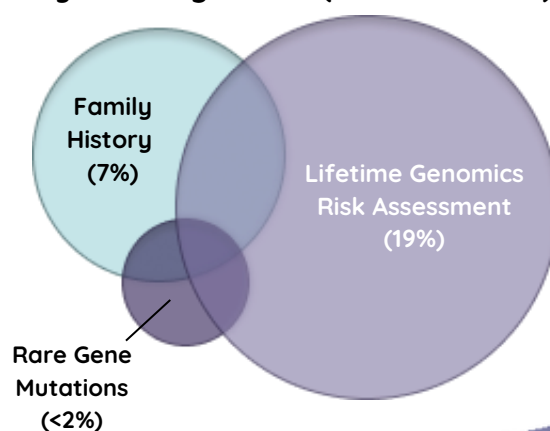
What exactly is an LGRA and how does it fit into my clinical care?

The LGRA is a screening test that analyzes nearly 1.8 million genetic variants to predict an individual's risk of developing common diseases. While traditional screening usually begins with discussing a patient's personal and family history (a record of a person's diseases and health conditions and those of their direct blood relatives), this approach can be incomplete or inaccurate because not everyone has a well-documented family history.

Some healthcare teams also utilize genetic screening tests that look for "rare pathogenic mutations" (RPMs), or variants that very few individuals have but are associated with severe effects on disease risk. More well-known examples include certain mutations in the BRCA1/BRCA2 and APOE genes, which can increase the risk for breast cancer and Alzheimer's, respectively. Meanwhile, the LGRA assesses millions of more common variants that occur in a large portion of the population but have less severe effects on disease risk. The test then compiles the effects of all variants found into an easy-to-understand "increased" or "average" risk categorization. This makes the LGRA an intuitive screening tool that can expand risk assessment to a broader population than family history or monogenic screening alone.

To put this information into context, let's use prostate cancer as an example. The image to the right represents information found in the study cited below*, which reviews different methods for estimating prostate cancer risk. This study states RPMs related to prostate cancer are estimated to occur in approximately 2% of the population, and that only around 7% of men have a known family history of the condition. Meanwhile, a PRS for prostate cancer can identify about 19% of men as being at increased risk. This demonstrates that the LGRA can identify more at-risk patients than family history assessment or screening for RPMs alone – but also highlights that, ideally, it can (and should) be used alongside these other risk prediction methods as part of a more comprehensive and accurate screening plan.

**% of Individuals Estimated At-Risk
by Screening Method (Prostate Cancer)**



*Source: Xu, J., Labbate, C.V., Isaacs, W.B. et al. Inherited risk assessment of prostate cancer: it takes three to do it right. Prostate Cancer Prostatic Dis 23, 59–61 (2020). <https://doi.org/10.1038/s41391-019-0165-y>

How does the testing process work?

Currently, our test is not covered by insurance, so after your healthcare provider has placed the order, you will receive an email from support@genomicmd.com with a link to pay for the test directly. If your sample is being collected at home, you will be asked to provide your shipping address during the payment process. The collection kit will include instructions on providing a saliva sample and returning it via our prepaid shipping envelope. After we receive your sample, we will process the LGRA report and then send it to your ordering provider, who will release it to you. This entire process usually takes about 3-4 weeks.

What sort of results can I expect?

The LGRA is a screening test and should not be used for diagnostic purposes. It uses an advanced algorithm to analyze a person's genome, predict their risk of developing a given disease or condition, and then compares it to the average population risk. It cannot be used to confirm or deny the existence of a given disease or to declare with absolute certainty that someone will or will not develop it.

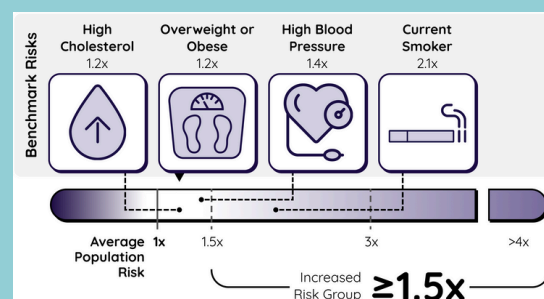
So, what DOES an LGRA report tell you, then? Firstly, it will list either an "increased" or "average" genetic risk for each disease assessed. Then, when an increased risk is found, it will include a summary page with additional information to help contextualize the results, such as comparing them to other well-understood clinical risk factors (as seen in the images to the right). This enables your healthcare team to recommend more personalized preventative measures (such as additional screening*, lifestyle changes, medications or therapies) that can help you lead a longer, healthier life.

As with all genomic testing, it is important to note that this is just a single piece of the puzzle when determining a patient's total risk – which can be influenced by many factors including genomics, family history, environment, and/or lifestyle. **This means an "average risk" result does not imply that a patient has NO risk of developing the disease, only that their DNA does not indicate an increased polygenic risk.**

Sample Result for Coronary Artery Disease (CAD)

Assessed Conditions	Genetic Risk
Coronary Artery Disease (CAD)	Increased

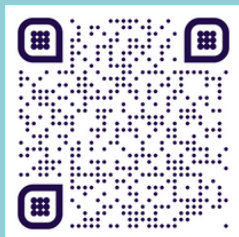
(Image from summary page of the report)



(Image from CAD's increased risk page)

Visit our website to learn more

Visit our educational resources page at bit.ly/gmdinfo or scan the QR code to the right with your smartphone's camera to learn more about GenomicMD, the Lifetime Genomics Risk Assessment, and the science behind our screening test!



What LGRA panels are available for my healthcare provider to order?

Currently, we offer the following LGRA panels:

- Cardiovascular
- Cardiometabolic / Diabetes
- Urology
- Common Cancers
- Blood Clotting (Venous Thromboembolism)

We actively monitor and review the latest scientific findings to develop additional assessments for various diseases and incorporate the most relevant evidence into our testing methods, so stay tuned for additional panels!