

Navigenics – Patient FAQs

How do I read my results on the overview page?

For most conditions, the boxes on the overview page show an individual's estimated lifetime risk based on the genetic risk markers they have compared to the average lifetime risk for a person of their gender in the general population. Boxes are grouped in columns with lifetime risk depicted across the horizontal axis. For some conditions, such as hemochromatosis and lactose intolerance, lifetime risk estimates are not available. The right side of the horizontal axis indicates increased risk.

What do the orange boxes mean?

Most conditions are color-coded gray or orange based on a comparison of the individual's estimated lifetime risk and the average lifetime risk. Orange indicates an overall lifetime risk greater than 25 percent (to call attention to conditions with an elevated absolute risk) or risk that is more than 20 percent above average for that particular condition (to call attention to an increased relative risk for less common conditions). For conditions for which lifetime risk estimates are not available, such as hemochromatosis and lactose intolerance, the boxes show whether your genes indicate that you have increased risk.

What are SNPs and how did I get them?

SNPs stand for single nucleotide polymorphisms – these are single letter changes in the DNA code that in this case have been found to be associated with certain health conditions. Navigenics assesses your DNA code to determine at any particular location whether you have a risk marker or a non-risk marker. You inherited your genetic markers from your parents so at any particular location in your DNA code you may have inherited 0, 1, or 2 copies of the risk marker.

What should I do next now that I know my risks?

We encourage individuals to read the information on the website and discuss their concerns and a plan of action with their physicians. Individuals may also wish to consult a Navigenics Genetic Counselor.

If I have a high risk for a specific condition, does it mean that I am sure to develop that condition?

Health Compass is designed to uncover conditions for which you may be at increased risk based on your genetic risk markers, but it is not a diagnostic test. Based on your genetic profile, it may tell you that your chances are higher than the general population, but many factors both genetic and environmental contribute to the development of disease. Knowing your genetic risk to certain medical conditions can lead to early screening, increased awareness, and lifestyle changes that may have a serious impact on your likelihood of getting these conditions in your lifetime.

If I have a low risk for a specific condition (gray box), does it mean that I don't have to worry about developing that condition?

No, since there are many factors (both genetic and environmental) that contribute to disease, a grey box does not mean that you are safe from developing that condition. It means that you have a lower risk based on the genetic risk markers that were assessed, but there may be other genetic factors (known or unknown) and environmental factors that could increase your risk for that condition. It is still important to learn about those conditions and discuss your personal and family history with your physician or genetic counselor.

How important is my family history?

Health Compass informs about risks based on known, common genetic factors, but it does not take into account other key information that should be considered in risk assessment like your personal or family history. Family history should be reviewed with your healthcare provider (physician or genetic counselor) to determine whether there are additional risk factors and to determine whether other genetic testing for rare mutations is indicated.

Are additional genetic tests recommended?

In some cases additional genetic tests may be indicated. Personal and family history assessment may inform whether additional genetic tests either to confirm a diagnosis or to determine the presence of a rare mutation are warranted. For example, a family history of early-onset breast cancer may warrant genetic testing for mutations in BRCA1 and BRCA2.

Is the BRCA1 /2 genetic test included in the assessment for breast cancer risk?

No, Health Compass assesses for common genetic risk markers that are associated with breast cancer. Mutations in BRCA1 or BRCA2 are less common in the population and are only present in ~5 – 10% of families with breast and ovarian cancer.

How does lifestyle impact my risks?

All of the conditions on the Health Compass panel have both a genetic and environmental component. Lifestyle factors may play a significant role in the development of certain conditions, like lung cancer, obesity, diabetes, etc. Individuals may be able to mitigate their risks for conditions by following healthy lifestyle recommendations.

Will my risks change over time? Will I learn about new conditions, SNPs/receive updates?

We expect that your risk numbers will likely change as new SNPs are discovered and incorporated into your Health Compass results. Your membership includes all updates regarding new SNPs, conditions, and all related information for the year. After the year, it is \$250 to re-subscribe for continued updates and access to your information.

What does the information mean for my family?

For any one SNP, relatives may share that SNP in common (50% chance for siblings and children), but that relatives' genetic risk markers cannot be easily ascertained without performing a genomic scan, especially because most conditions have multiple SNPs and there are environmental factors associated with each condition.

Can my children be tested?

Individuals 18 and older can be tested. Navigenics does not offer testing to children under age 18.

What about ethnic variation? I am not Caucasian – will my Navigenics Health Compass results be valid?

Most genome-wide association studies (the science on which Navigenics' product is based) have been performed on people of European ancestry. Other populations carry some of the same genetic risk markers, but the effects may differ. Recent studies suggest that the association is often seen in other populations with different ancestries, although relatively few investigators have specifically studied ethnic groups outside of the Caucasian ethnicity.

Does Navigenics protect my privacy and the security of my results?

Navigenics has built in automated technology as well as operational practices, applying the most current technology to protect your information. We operate consistent with HIPAA practices and build them into our infrastructure. We have multiple levels of security to deter external access to personal information, and our staff comes from leading companies that have set the standards for data security in a number of industries. All customers must provide authenticating information when they call Member Service.

Should I be worried about genetic discrimination?

The new Genetic Non-Discrimination Act (GINA) as well as state laws prohibits health insurance and employers from using your genetic information. Health insurers cannot use your genetic information to deny you health coverage or set the price you pay for health insurance. Insurers also cannot ask you or require you to take a genetic test. GINA also prohibits employers from using your genetic information to make hiring and salary decisions or set other job-related policies. Employers cannot require you to take a genetic test as part of starting or performing a job, except in very limited circumstances to protect worker safety. GINA's protections do not apply to other types of health-related insurance, such as life insurance or long-term care coverage. In addition, GINA only safeguards genetic testing and genetic information. GINA does not apply to a person who has been clinically diagnosed with a genetic disease. Other federal protections, however, may apply in that situation.

Do I have access to genetic specialists to discuss my results?

Navigenics provides you with access to Genetic Counselors who can discuss your results and the conditions we test for. However, your Genetic Counselor will not give you specific medical advice. For medical advice, you should consult your health care provider.