



Genetic Disease Prevention

Revealing hidden risks, guiding proactive measures

*Understand genetic risk factors.
Plan individual health care.*

Disease

Prevention Panel

Every person is unique - and so is their DNA. Your DNA not only shapes who you are but can also increase your risk for tumors and other diseases. By understanding your genetic makeup, you can make informed decisions that support your long-term well-being.

Our Disease Prevention Panel identifies predispositions to diseases in your DNA, giving you the knowledge to take proactive steps – whether through check-ups, lifestyle adjustments, or personalized care.

We analyze your genetic variants to assess their impact and provide targeted recommendations that help you prevent, delay, or detect conditions early - so you stay one step ahead.

Disease Prevention Panel

Genetic Insights for a Healthier Future

Designed as a comprehensive tool for proactive health management, our Disease Prevention Panel analyzes your DNA to identify genetic variants linked to specific diseases and conditions. A simple blood sample is all it takes. The panel covers twelve distinct health areas in different modules, each focusing on different genetic conditions, such as heart diseases, cancer, or metabolic disorders.

The compilation of genes in each module is based on the recommendations of the American College of Medical Genetics and Genomics (ACMG) - a leading authority for genetic testing and clinical care - and has been supplemented by our specialists with other known risk genes. You can select the areas most relevant to you or choose the whole set for a broader understanding of your genetic health.

Our Disease Prevention Panel combines cutting-edge technology and human expertise, providing an exceptional service on the sensitive topic of personal health: our certified experts in human genetics carry out all testing steps in-house - from counseling to processing the samples and manually creating comprehensive reports. These reports show detected variants that can cause a disease and include personal recommendations. The results of our Disease Prevention Panel support you in living a healthier life, e.g., through customized medical check-ups, drug therapy, or lifestyle changes.

Throughout the entire process, you will receive reliable support and advice from our highly skilled team, ensuring you feel informed and confident every step of the way.



Field Reports

The results of our Disease Prevention Panel provide valuable insights to guide and enhance your health and lifestyle choices. Find out more about how our Disease Prevention Panel has changed lives!



Anna, 32 years

Lifestyle

Anna is living what many would call a healthy life. She has a balanced diet, exercises regularly, and makes sleep a priority. Still, she often wonders if she is doing everything possible for her long-term health.

Testing

As a health-conscious person, she chooses all modules of the Disease Prevention Panel to get a holistic overview of her potential risks.

Result

The results revealed she carried a variant in the **BRCA1 gene**, which significantly increased her risk of developing **breast or ovarian cancer**. The geneticist walked Anna through her options. Together with her doctor, they developed an actionable plan.

Consequence

Anna now ensures that her health is actively monitored with regular check-ups and extended screenings. This proactive approach enables the early detection of a tumor. The earlier a tumor is detected, the easier it can be removed. After sharing the results with her sister, she also got tested and discovered that she carries the *BRCA1* variant and takes preventive measures herself.



Oliver, 45 years

Lifestyle

Oliver has always been on the move. Between his demanding job and frequent business trips, he spends more time in airports than at home. A sports enthusiast in his spare time, he considered himself fit and healthy.

Testing

Due to his active lifestyle and interest in health topics, he took the Disease Prevention Panel, choosing the modules "Thrombosis and Coagulation Disorders" and "Cardiovascular Diseases."

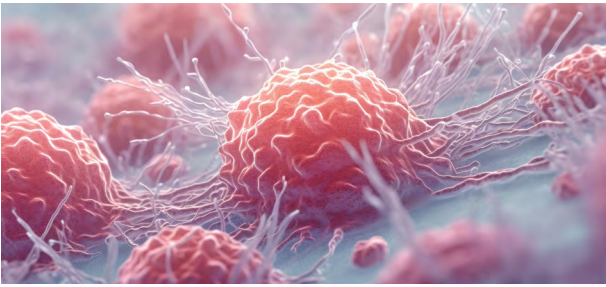
Result

The preventive genetic test revealed a **Factor V Leiden mutation** that increases the risk of thrombosis. His doctor explained the genetic variant to him and what consequences it can have, e.g., a pulmonary embolism or a stroke. Knowing the risk is extremely important for someone like Oliver, who frequently takes long-haul flights.

Consequence

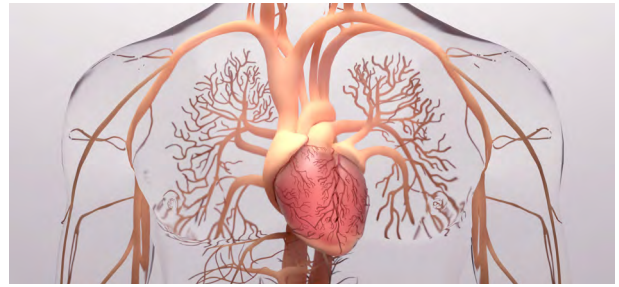
Oliver is aware of thrombosis and takes preventive thrombosis drugs before taking a long-haul flight. He also wears compression socks and stands up more often during flights. Additionally, he has informed himself about the disease and its symptoms so that he can identify a thrombosis early.

Modules



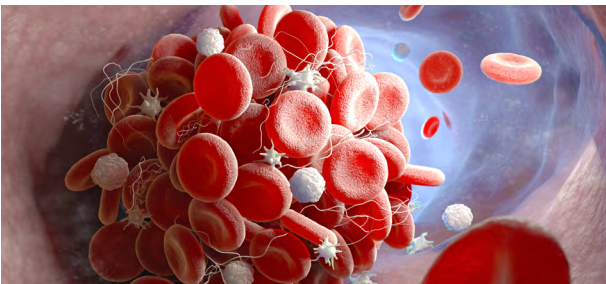
Tumor Diseases

Cancer refers to the uncontrolled proliferation and rampant growth of cells. We analyze genes linked to a higher risk of several cancer types, e.g., tumors of the digestive tract (such as colorectal, stomach, pancreatic), breast, ovaries, skin, thyroid, and endocrine system. Knowing your genetic tumor risk allows for closer monitoring to detect a potential tumor as early as possible to initiate timely treatment.



Cardiovascular Diseases

Cardiovascular diseases describe conditions that impair the function of your heart or blood vessels. This can mean changes in the heart muscle tissue (cardiomyopathy), irregular heartbeat (cardiac arrhythmias), and other modifications that affect blood circulation. Early diagnosis helps to prevent or mitigate the disease through preventive steps like a healthy diet, appropriate physical activity, and closer monitoring by a cardiologist.



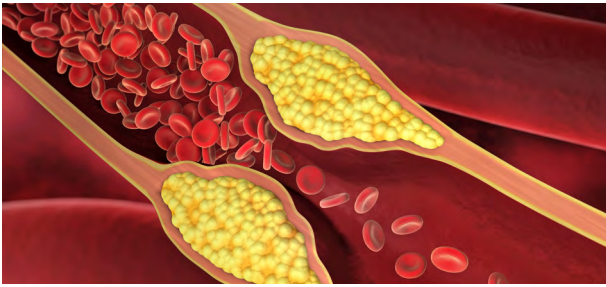
Thrombosis and Coagulation Disorders

Impaired blood coagulation can lead to either excessive clotting (thrombosis) or slowed clotting (bleeding tendency). The former can cause, for example, leg vein thromboses, strokes, pulmonary embolisms, and miscarriages. The latter can lead to increased bleeding during injuries or surgery. Early detection of a predisposition enables preventive measures, such as lifestyle changes, anticoagulant therapy for thrombosis, or specific drug treatments to manage bleeding disorders.



Iron and Copper Storage Disorders

Iron and copper storage disorders disrupt your body's balance of iron and copper, leading to harmful accumulation in your organs and tissues. Examples of this type of disease are hemochromatosis (iron overload) or Wilson's disease (copper overload). By identifying a predisposition, preventive measures like dietary adjustments, regular monitoring, and appropriate treatments help avoid irreversible organ damage.



Hypercholesterolemia

Familial hypercholesterolemia is an inherited disorder of lipid metabolism. It can cause high cholesterol levels in your blood and increases the risk of fatty plaques in blood vessels. This can lead to heart attacks, for example. Early diagnosis enables lowering cholesterol levels through diet, exercise, and medication (e.g., statins), if necessary.



Eye Diseases

Eye diseases like glaucoma or retinitis pigmentosa can lead to vision loss or blindness. Knowledge about your predisposition allows for measures like lowering intraocular pressure in glaucoma or considering gene therapies for retinitis pigmentosa to help preserve vision and prevent disease progression.



Malignant Hyperthermia (Anesthesia Intolerance)

Malignant hyperthermia (MH) is a rare but life-threatening response to anesthesia. It causes severe muscle contractions and a rapid increase in your body temperature and can lead to organ failure. Diagnosing a predisposition before surgery allows physicians to select safe anesthetic agents for you, preventing dangerous complications.



Pharmacogenetics (Drug Metabolization)

Pharmacogenetics studies how genetic variations affect drug absorption, metabolism, and excretion, impacting drug effectiveness and side effects. Variations in specific enzymes can lead to heightened drug levels, causing side effects or reduced drug levels, which can lead to treatment failure. By understanding your genetic profile, physicians can personalize drug therapies to maximize effectiveness and minimize side effects, optimizing current and future treatments.

Modules



Familial Diabetes

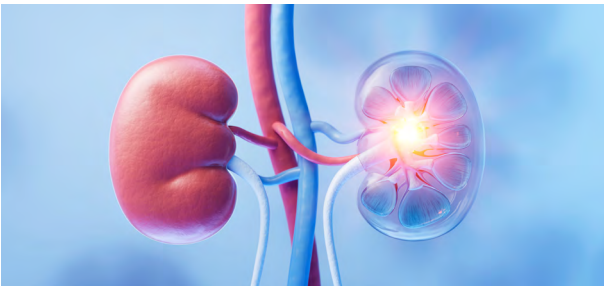
Diabetes mellitus describes a group of diseases associated with elevated blood glucose levels. This module focuses on maturity-onset diabetes of the young (MODY), a hereditary disease that can be diagnosed in adolescence and adulthood and often occurs without concomitant obesity. You should also consider familial genetic diabetes in the context of gestational diabetes.

Early detection enables preventive actions, such as diet adjustments or drug therapy, to reduce complications like kidney, eye, and nerve damage.



Adult-Onset Inborn Errors of Metabolism

Inherited metabolic disorders can affect your carbohydrate, fat, or protein metabolism. It can, e.g., lead to a toxic accumulation of substances in your body. The disease can manifest in your childhood or later in adulthood. Following early detection of risk genes, preventive measures like frequent medical check-ups and targeted drug therapy help to reduce or avoid disease progression.



Kidney Diseases

Polycystic kidney disease causes cysts in the kidney, potentially leading to kidney failure, increased blood pressure, and pain. The disease can also occur in other organs like the liver or pancreas and raise the risk of aneurysms.

Timely interventions like closely monitoring blood pressure or specific drug therapy can help mitigate disease progression and avoid complications.



Actionable Core Gene Set According to ACMG

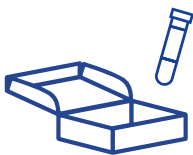
This module is based on the guidelines of the American College of Medical Genetics and Genomics (ACMG). It solely focuses on genes identified by ACMG as clinically significant for preventive care and early intervention. By testing these core genes, you can identify potential health risks early, enabling proactive measures to mitigate these risks effectively.

From Sample To Report



Counseling

Before any genetic analysis, you need to be advised by a genetic counseling specialist. You will receive detailed information about your genetic testing options and further procedures. With your genetic counseling specialist, you can complete the necessary order form and consent to genetic testing with your signature.



Sampling

We only need a 1-2 ml blood sample collected by your local doctor or us in our practice in Tübingen.



Genetic Analysis & Medical Report

We analyze your sample in our in-house laboratory using next-generation sequencing. We then manually prepare a comprehensive and easy-to-understand medical report on the results, including individual recommendations.



Discussion of Findings

You will discuss the findings and recommendations with your physician or one of our specialists. Please find an example of the medical report on our website via www.cegat.com/disease-prevention-panel or by scanning this QR code:



Quality Made in Germany

- ✗ prepared by an interdisciplinary team of scientists and medical doctors specialized in human genetics
- ✗ in-house optimized design based on the latest clinical research
- ✗ excellent price-performance-quality ratio

Frequently Asked Questions

Before Choosing a Test

Why is it important to know your genetic predispositions?

Understanding your genetic predispositions allows for personalized preventive healthcare. With this knowledge, you can:

- ✗ conduct targeted, regular preventive examinations in areas of increased risk to detect potential diseases as early as possible
- ✗ and take steps to prevent diseases from developing altogether.

Does a disease have to be present in my family for this examination to make sense?

No, the analyzed diseases do not need to run in your family. In fact, if there is a family history of a specific disease, a different type of analysis may be more appropriate. We are happy to advise you on the best option for your needs.

Can I order the test without a doctor?

No, genetic counseling with a specialist is mandatory before genetic testing. After the consultation, you can consent to execute genetic testing by signing the order form. We offer genetic counseling sessions via video call or on-site in our practice in Tübingen. If your doctor is qualified in genetic counseling, they can also provide this counseling and order tests directly from us.

What happens during a genetic counseling session?

Genetic counseling is a detailed conversation with a specialist in human genetics. During the session:

- ✗ you will receive general information about genetic testing
- ✗ we will review your family history and create a pedigree chart covering up to three generations and,
- ✗ we will discuss your testing options.

What is the difference between the Disease Prevention Panel and regular blood analyses/biomarker analyses?

Blood tests for biomarkers like cholesterol or tumor markers typically reveal signs of diseases that have already developed.

In contrast, our Disease Prevention Panel takes a preventive approach. We examine healthy individuals to identify potential risks before any symptoms appear. This allows us to provide personalized recommendations for reducing or managing these risks.

Does health insurance cover the test?

Preventive genetic diagnostics is not covered by public health insurance. In the case of private health insurance, coverage depends on your policy. We will provide you with a cost estimate in advance to clarify the cost coverage. If a medical indication for testing is identified during genetic counseling, genetic testing for a specific issue might be covered by your health insurance.

Sample & Analysis

What sample material is required, and how can I provide it?

We require an EDTA blood sample (min. 1-2 ml) for the test. If needed, we can send you a sample collection kit so your local doctor can collect the sample and return it to us. If convenient for you, we can also collect the blood sample at our practice in Tübingen.

Where will my sample be sent, and what is the procedure?

The sample is sent to:

CeGaT GmbH
Paul-Ehrlich-Straße 23
72076 Tübingen
Deutschland

We process the sample in our laboratory. Following the laboratory process, we prepare a medical report including individual recommendations for adapting your health care.

If you are insured in Germany, our partner Zentrum für Humangenetik Tübingen conducts counseling and analysis for the Disease Prevention Panel.

Result & Consultation

Do I need a doctor to explain the results to me?

Yes, preventive genetic diagnostics is always accompanied by genetic counseling with a medical specialist in this field. You will receive guidance throughout the process, including counseling before and after testing. Your results, including recommendations, will be shared with you in such a session.

If your doctor is qualified in genetic counseling, they can provide advice. If not, one of our specialists will be happy to advise you.

What happens if my report indicates an increased risk?

An increased risk in your test results does not indicate an inevitable fate. For the disease risks examined in this panel, preventive measures can be taken to avoid, delay, or detect the disease at an early stage. Early detection of the disease in question can also significantly improve treatment options. If you are found to be at increased risk for a specific illness, an individual prevention plan can be created tailored to your personal needs.

Are all tested diseases treatable?

You can take preventive measures for all diseases included in the panel. These measures may:

- ✗ prevent the disease from arising at all,
- ✗ significantly delay disease onset,
- ✗ or allow early detection, improving disease course and prognosis.

What are the personalized recommendations based on?

Recommendations are based on the current state of scientific research. We carefully analyze the genetic variants found and reference scientific sources, which are cited in your report for transparency.

Storage and Data Protection

What happens with my data and my DNA sample after the analysis?

You can decide if your sample and data should be destroyed after the analysis or if we should keep them, for example, for additional tests for a more extended period (usually ten years). A respective declaration of consent is included in our consent form, which you fill out with a medical specialist before an analysis can take place.

Your Question Was Not Included?

For more information, we invite you to visit our website www.cegat.com/prevention. Additionally, you can reach us via phone at **+49 7071 56544-238** or via email at prevention@cegat.com.



Dr. Dr. Saskia Biskup (M.D.), specialist in Human Genetics

About Us

CeGaT is a global provider of genetic analyses for a wide range of medical, research, and pharmaceutical applications.

Founded in 2009 in Tübingen, Germany, the company combines state-of-the-art sequencing technology with medical expertise – with the aim of identifying the genetic causes of diseases and supporting patient care. For researchers and pharmaceutical companies, CeGaT offers a broad portfolio of sequencing services and tumor analyses. CeGaT generates the data basis for clinical studies and medical innovations and drives science forward with its own insights.

The owner-managed company stands for independence, comprehensive personal customer service, and outstanding quality. CeGaT's laboratory is accredited according to CAP/CLIA, DIN EN ISO 15189, DIN EN ISO/IEC 17025, and thus meets the highest international standards. To obtain first-class results, all processes are carried out in-house under scientific and medical supervision.



Are You Interested?

We Look Forward to Hearing from You.

Contact us via email at prevention@cegat.com or call us at **+49 7071 565 44-238**. We will be glad to send you further information about our preventive care offer.



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Medical Management Prevention



Accredited by DAkks according to
DIN EN ISO 15189:2014



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