myDNAmap
cardiology

myDNAmap
the power of your genetics

myDNAmap is a medical genome company that was established with the aim of helping the general public to access all of the information included in their DNA, so they can better care for their health and that of their family.

myDNAmap offers a unique and comprehensive service in the field of preventative medicine. We sequence the whole genome containing all of the genes associated with a person's health and wellbeing. We provide pre- and post-sequencing advice, which will answer any questions and explain the results. We have developed **myDNAapp,** a mobile app where you can consult your results, contact health and science professionals and enter information regarding your health, which helps to personalise your genetic report. Furthermore, **myDNAmap** offers annual updates, which include the most recent discoveries in the field of genetics.

We know that every one of us is unique and individual just like our DNA.

Knowing your genetic profile will help you to take care of your health and that of your family. Today, tomorrow and always.

Always check **mydnamap.com** for the latest updates of our services.

myDNAmap cardiology

Knowing the genetic predisposition to cardiovascular diseases allows us to:

- establish preventative treatment strategies.
- modify habits that contribute to the development of symptoms..
- identify the best tools for a personalised treatment.
- detect family history that must be borne in mind and have genetic counselling to make adequate decisions.

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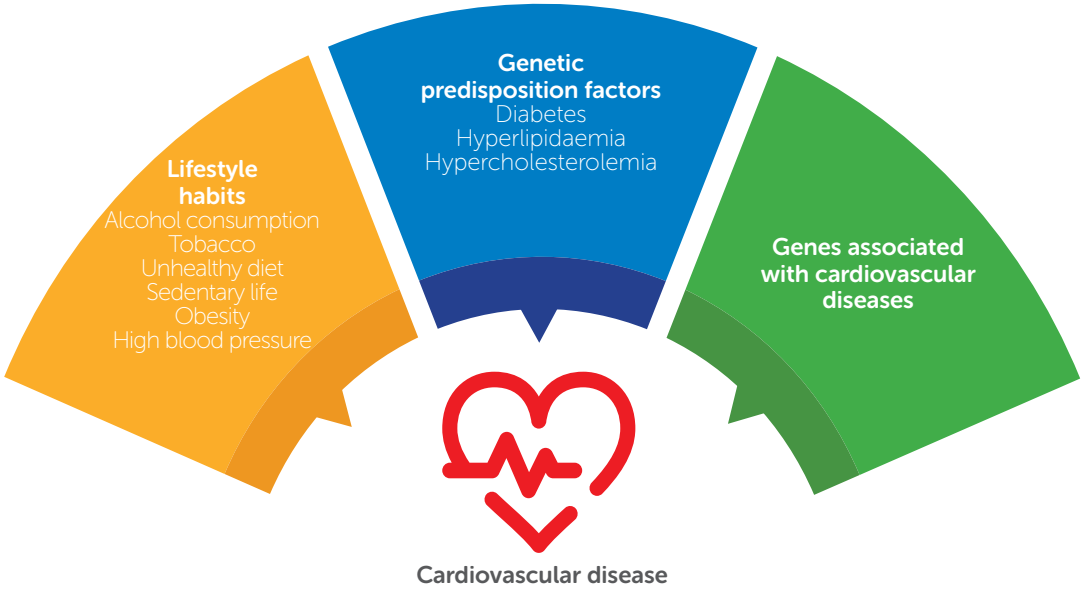
myDNAmap Cardiology Panel

Cardiovascular diseases are the main cause of death worldwide and have complex aetiology, as so many environmental and genetic factors are involved. Thanks to the implementation of commercial mass sequencing platforms, cardiology is a specialism that is benefiting from genomic applications by means of a single test.



myDNAmap cardiology

Hereditary cardiovascular diseases, known as "familial cardiopathies", affect 1 in 250-300 newborns and are passed on by parents to their children. Among them include cardiomyopathies (hypertrophic, dilated, restrictive, dysplasic or arrhythmogenic cardiomyopathy), channelopathies (long QT syndrome, short QT syndrome, Brugada syndrome or polymorphic catecholaminergic ventricular tachycardia) and other syndromes with vascular involvement, like Marfan syndrome or Loeys-Dietz syndrome. These diseases have a substantial genetic component and are predisposed to serious complications such as heart failure or sudden death. In this field, genetic testing can be a **vital tool in identifying presymptomatic patients and to create programmes focused on preventative measures.**

In other more frequent cardiovascular diseases, such as high blood pressure, the hereditary factor does not have an essential role. But there are certain genetic variants which, associated with environmental factors such as smoking, elevated cholesterol and obesity, enable their development. In this context of "genes and environment", it is important to know that there are cases in which genetic and lifestyle factors, can contribute independently to the risk of coronary heart disease. A healthy lifestyle through quitting smoking, maintaining a suitable weight, undertaking regular exercise and following a healthy diet are all associated with a substantially lower risk of coronary events.

For this reason, at **myDNAmap** we include all data regarding your lifestyle habits in our app, by means of a questionnaire created by our health professionals. It includes all relevant information for a sound risk assessment.

Knowing the information our DNA contains regarding our predisposition to developing a cardiovascular disease, allows us to make a series of decisions regarding our lifestyle habits. It also allows us to adapt pharmacological treatments, which will allow us to prevent and even stop these diseases occurring. Furthermore, it allows us to do a follow-up study in our children.

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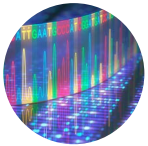
The **myDNAmap Cardiology Panel** includes the analysis of more than **300 genes** associated with hereditary cardiovascular diseases, both rare (for example pulmonary hypertension, Fabry Disease and amyloidosis) and common (like myocardiopathy, arrhythmia and aortic diseases for example). In addition to genes associated with a greater cardiovascular risk like those associated with diabetes and hypercholesteremia. Thus, taking a complete overview of all factors that play a role in the development of this type of diseases.

Tested heart conditions

- Aortic valve disease
- Short QT syndrome
- Long QT syndrome
- Arrhythmogenic right ventricular cardiomyopathy
- Familial aortic aneurysm
- Familial atrial fibrillation
- Hypertrophic cardiomyopathy
- Dilated cardiomyopathy
- Restrictive cardiomyopathy
- Polymorphic catecholaminergic ventricular tachycardia
- Non-compacted cardiomyopathy
- Familial hypercholesterolaemia
- Marfan syndrome
- Loeys-Dietz syndrome
- Noonan syndrome
- Brugada syndrome
- Structural heart disease
- Aortic disease
- Hyperhomocysteinemia
- Coronary heart disease
- Myocardial infarction (early)
- Cardiofaciocutaneous syndrome
- Wolff-Parkinson-White syndrome
- Tetralogy of Fallot
- Fabry disease
- Pulmonary hypertension
- Myocardiopathy
- Sudden death
- Cardiac amyloidosis

Related panels

myDNAmap sports



myDNAmap neurology

myDNAmap pharmacogenetic

myDNAmap nutrition

The **myDNAmap** report given to you by our genetic counselors includes the result of the analysis of 10 genetic panels covering the areas of: sport, nutrition, cardiology, fertility, cancer, genetic compatibility, ancestry, pharmacology, addictions and neurology.

myDNAmap cardiology

Technology used

Whole genome sequencing (WGS) using Illumina HiSeq X10 or NovaSeq 6000 systems. Illumina PE150, QQ30 ≥80%, aligned with the human reference genome GRCh37/hg19. The classification and analysis of variants is carried out based on the recommendations of the American College of Medical Genetics and Genomics (ACMG). The variants reported are mentioned based on the recommendations of the Human Genome Variation Society (HGVS).

Our report: is the scientific-technical communication of the results. It is written in a precise yet simple manner, intended for both our users and health professionals. It is provided within the framework of a consultation with one of our genetic counsellors. This can take place via videoconference. During the consultation the specialised professional will explain the details, answer any user queries and clear up any doubts that may occur.

Note: the detection of genetic variants only provides a predisposition or potential, but never provides a certainty of developing diseases. Under no circumstances is the genetic information provided valid for diagnostic use. It does not imply the potential to determine the age you will be when it starts nor the type or severity of the disease(s); nor does it allow us to rule out the existence of clinical or genetic heterogeneity.

Bibliografía

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