

# Cancer Risk

genetic test that establishes the risk of hereditary cancer



# CancerRisk

## What is CancerRisk?

**CancerRisk** is a genetic test that provides information on the risk of developing different types of hereditary cancer.

## What does the test include?

CancerRisk utilizes Whole Exome Sequencing to analyze 40 genes related to hereditary cancer. The test detects single nucleotide variants, small insertions/deletions and copy number variants (large deletions/duplications) in specific genes, related to the most frequent hereditary cancers.

## Why prescribe CancerRisk?

**Extended genetic panels can detect close to 50% more patients with cancer risk.** This allows establishing preventive and/or monitoring measures to reduce the risk or allow early diagnosis.

**Pancancer panels detect up to 50% more patients at risk compared to panels targeting a single type of cancer.<sup>(1)</sup>**

The detection of variants in genes related to cancer development is key to implement preventive measures.

## Who is it intended for?

CancerRisk is specially indicated for:

- Patients with cancer diagnosis.
- Individuals who have first grade family members with cancer before the age of 50.
- Individuals with a family history of cancer, suggesting a hereditary component.
- Individuals who want to know their hereditary cancer risk.

## Counseling service for the specialist

If needed, **Veritas provides expert genetic counseling to the physician** for patient results interpretation.

## Which sample type is needed?

**Saliva or blood sample** in a specific kit provided by Veritas.

## CancerRisk advantages

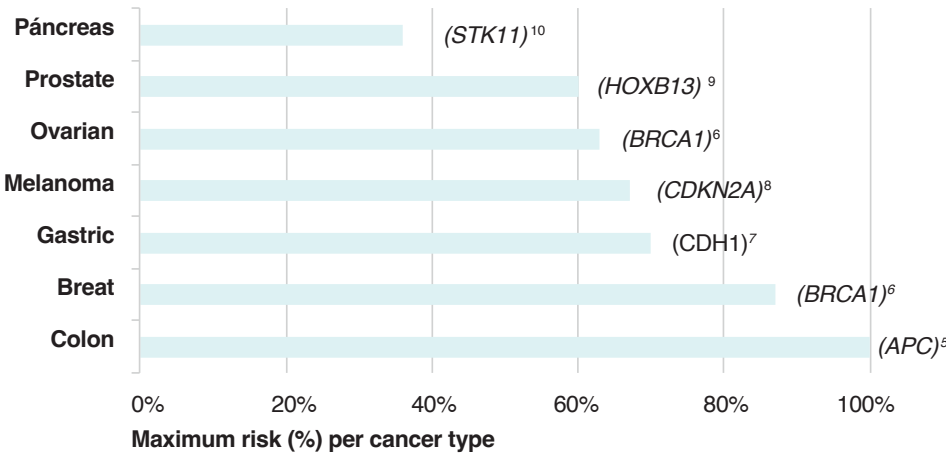
**CancerRisk** can detect a higher number of at risk hereditary cancer patients. The test has a higher sensitivity and a negative predictive value in comparison with other more targeted panels.

- About 50% of individuals with *BRCA1* or *BRCA2* mutations, do not have breast or ovarian cancer family history.<sup>2</sup>
- At least 25% of patients with a mutation in mismatch repair genes (*MLH1*, *MSH2*, *MSH6*, *PMS2* and *EPCAM*) do not meet clinical criteria for Lynch syndrome genetic testing.<sup>3</sup>
- Only about 25% of breast and ovarian hereditary cancer cases are due to mutations in *BRCA1* and *BRCA2* genes<sup>4</sup>, **CancerRisk includes genes with scientific evidence related to breast and ovarian hereditary cancer.**

## Possible outcomes

Pathogenic variants, likely pathogenic variants and Variants of Uncertain Significance (VUS), classified according to the *American College of Medical Genetics and Genomics (ACMG)* (PMID: 25741868) are included in the report.

## Lifetime cancer risk in individuals with mutations in specific genes



## Genes and cancer types included in CancerRisk

	APC*	ATM*	AXIN2	BAP1	BARD1	BMPR1A	BRCA1*	BRCA2*	BRIP1	CDH1	CDK4	CDKN2A	CHEK2*	EPCAM*	FLCN	GREM1*	HOXB13	MITF	MLH1*	MLH3	MSH2*	MSH3	MSH6*	MUTYH	NBN	NF1	NTHL1	PALB2*	PMS2*	POLD1	POLE	POT1	PTCH1	PTEN*	RAD51C	RAD51D	SMAD4	STK11*	SUFU	TP53*
Breast		●			●		●	●	●	●			●						●		●			●	●	●		●						●	●		●		●	
Gynecological					●		●	●	●					●					●	●	●		●	●				●	●				●	●	●		●		●	
Prostate		●					●	●	●				●	●			●		●		●		●		●			●	●							●				
Colorectal	●	●	●	●		●				●			●	●		●			●	●	●	●	●	●	●	●	●	●		●	●	●	●	●			●	●		●
Gastric	●					●				●				●					●		●		●	●		●				●							●	●		●
Pancreatic	●	●				●	●	●				●		●					●	●	●	●	●	●				●	●								●	●		●
Skin				●				●			●	●		●	●	●		●	●	●	●	●	●	●	●				●		●	●	●					●		●

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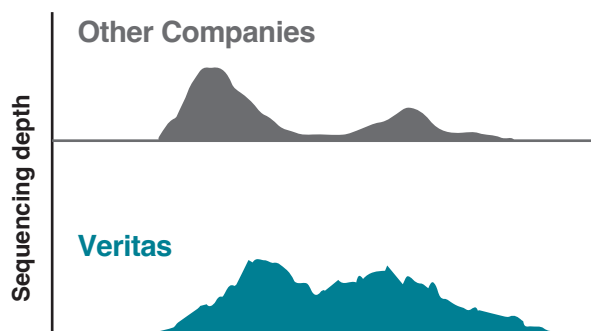
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\* Genes with copy number variants analysis.

## Whole exome technical information

- Whole exome sequencing (WES) with 100x average coverage, sequencing more than 99% of the genes of interest at  $\geq 20\times$ .
- Veritas whole exome sequencing has an optimized design that improves the coverage for a more homogeneous sequencing of the exome.
- Veritas has a team of expert curators who perform the interpretation based on the most up-to-date scientific knowledge, with a specialized software developed for a detailed variant classification.



Example of the different coverage of a specific region in the exome with Veritas WES versus other companies.

## References

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## About Veritas

Veritas Genetics, a *LetsGetChecked* company, is one of the world leaders in advanced genetic sequencing and clinical interpretation of the exome and whole genome, driving the transition to personalized and preventive medicine.

Using state-of-the-art technologies and the highest safety standards, Veritas Genetics helps individuals, healthcare professionals and institutions worldwide to understand and anticipate genetic risks, enabling more informed and proactive health decisions.

With a focus on innovation and accessibility, Veritas Genetics transforms the way we understand and care for health at every stage of life.



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