

FOR CLINICIANS

# Picture Wellness Information Sheet

Who is Picture Genetics?

Picture Genetics puts patients first by providing at-home, clinical-grade genetic testing products paired with certified genetic counselor guidance. Our test results are designed to be straightforward and clinically actionable. Analysis for Picture Genetics tests is performed at Fulgent Genetics, a CLIA-certified and CAP-accredited diagnostic laboratory working with physicians from more than 700 institutions around the world.

What is the Picture Wellness test?

Picture Wellness is a physician-backed, patient-oriented, proactive genetic test that assesses an individual’s risk of developing certain hereditary cancers, cardiovascular diseases, and other clinically important genetic conditions. Specifically, Picture Wellness analyzes 78 genes associated with these conditions, which have been deemed medically actionable by the American College of Medical Genetics and Genomics (ACMG; D.T. Miller et al., 2022). Picture Wellness is unique in that it can be easily ordered and completed from home, but still includes physician involvement from an independent physician network (PWNHealth) and genetic counseling support for your patient.

Who should order this test?

Picture Wellness is for healthy adults without a strong personal or family history of cancer, cardiovascular, metabolic, or other genetic disease. This test helps determine risk for those not already aware of it – if an individual has symptoms of a condition or has a strong family history, they should discuss genetic testing options with their doctor or genetic counselor to determine the most appropriate testing.

What are the benefits this test can provide?

Picture Wellness helps define your patient’s genetic risks for certain cancers, cardiovascular conditions, and other clinically important genetic conditions. Knowing one’s genetic risk gives you the power to make more informed decisions for your patient’s long-term health. All cancers and cardiovascular diseases that we test for are conditions that doctors can help manage and can even possibly prevent symptoms. Actionable preventative steps can include diet and lifestyle changes, increased clinical surveillance and monitoring, and pharmacological treatments.

Can insurance help pay for this test?

Picture Genetics currently does not support insurance payments for our tests.

A snapshot of test specifications

**Coverage** ~99% at 20x    **Turnaround Time** 3-5 weeks    **Specimen Type** Saliva  
**Genes Tested** 78 total | Cancer (28), Cardio (37), Other (13)  
**Analysis** Sequencing & Deletion/Duplication

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**Reporting** Only variants classified as “Pathogenic” or “Likely Pathogenic” using the ACMG guidelines for sequence variant interpretation will be reported. We will not report Variants of Uncertain Significance (VUS).

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**Detection rate** A broad range of laboratory and bioinformatic tools are employed to ensure the highest detection rate. Picture Wellness’s analytical detection rate for all genes is >98%.

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**Test methods** **Next generation sequencing and deletion/duplication analysis**  
Sequencing reads the DNA code of the selected genes, one base at a time, to determine an individual’s sequence. The sequence is then compared to a reference DNA sample to detect any variants found within the patient’s DNA. Next generation sequencing (NGS) is used to analyze exons in multiple genes simultaneously. Picture Genetics uses a sophisticated method that detects sequence changes and deletions/duplications (del/dups) via NGS. Pathogenic variants found by this method are confirmed by Sanger sequencing, MLPA, or quantitative PCR (qPCR).

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**Test limitations** All laboratory tests have limitations. A positive result does not imply that there are no other mutations in the patient’s genome, and negative results do not eliminate the risk of developing cancer, cardiovascular disease, or other genetic disorders. Picture Wellness is not designed to detect somatic mutations. Mutations that are not located in the exons of genes may not be detected by this test.

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If you have questions, feel free to call or email us.

PICTURE WELLNESS

# Genes and Conditions Tested

**Gene / Condition Name**

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- ACTA2** - Heritable thoracic aortic disease (HTAD)
- ACTC1** - Familial hypertrophic cardiomyopathy (FHCM)
- ACVRL1** - Hereditary hemorrhagic telangiectasia type 2
- APC** - APC-associated polyposis
- APOB** - Familial Hypercholesterolemia
- ATP7B** - Wilson disease
- BAG3** - Dilated Cardiomyopathy
- BMPR1A** - Juvenile polyposis syndrome
- BRCA1** - Hereditary breast and ovarian cancer syndrome
- BRCA2** - Hereditary breast and ovarian cancer syndrome
- BTD** - Biotinidase deficiency
- CACNA1S** - Malignant hyperthermia
- CASQ2** - Catecholaminergic polymorphic ventricular tachycardia (CPVT)
- COL3A1** - Heritable thoracic aortic disease (HTAD)
- COL3A1** - Ehlers-Danlos syndrome, type 4
- DES** - Dilated Cardiomyopathy
- DSC2** - Familial arrhythmogenic right ventricular cardiomyopathy (ARVC)
- DSG2** - Familial arrhythmogenic right ventricular cardiomyopathy (ARVC)
- DSP** - Familial arrhythmogenic right ventricular cardiomyopathy (ARVC)
- ENG** - Hereditary hemorrhagic telangiectasia type 1
- FBN1** - Heritable thoracic aortic disease (HTAD)
- FBN1** - Marfan syndrome
- FLNC** - Dilated Cardiomyopathy
- GAA** - Pompe disease
- GLA** - Fabry disease
- HFE** - Hereditary hemochromatosis
- HNF1A** - Maturity-Onset Diabetes of the Young (MODY)
- KCNH2** - Long QT syndrome
- KCNQ1** - Long QT syndrome
- LDLR** - Familial Hypercholesterolemia
- LMNA** - Familial dilated cardiomyopathy
- MAX** - Hereditary paraganglioma-pheochromocytoma syndrome
- MEN1** - Multiple endocrine neoplasia
- MLH1** - Lynch syndrome
- MSH2** - Lynch syndrome

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# Genes and Conditions Tested

Gene / Condition Name

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- MSH6** - Lynch syndrome
- MUTYH** - MUTYH-associated polyposis
- MYBPC3** - Familial dilated cardiomyopathy
- MYBPC3** - Familial hypertrophic cardiomyopathy (FHCM)
- MYH11** - Heritable thoracic aortic disease (HTAD)
- MYH7** - Familial hypertrophic cardiomyopathy (FHCM)
- MYL2** - Familial hypertrophic cardiomyopathy (FHCM)
- MYL3** - Familial hypertrophic cardiomyopathy (FHCM)
- NF2** - Neurofibromatosis type 2
- OTC** - Ornithine transcarbamylase deficiency
- PALB2** - Hereditary Breast Cancer
- PCSK9** - Familial Hypercholesterolemia
- PKP2** - Familial arrhythmogenic right ventricular cardiomyopathy (ARVC)
- PMS2** - Lynch syndrome
- PRKAG2** - Familial hypertrophic cardiomyopathy (FHCM)
- PTEN** - PTEN hamartoma tumor syndrome
- RB1** - Retinoblastoma
- RBM20** - Dilated Cardiomyopathy
- RPE65** - Leber Congenital Amaurosis/Early onset severe retinal dystrophy
- RET** - Multiple endocrine neoplasia
- RET** - Familial medullary thyroid carcinoma
- RYR1** - Malignant hyperthermia
- RYR2** - Catecholaminergic polymorphic ventricular tachycardia (CPVT)
- SCN5A** - Brugada syndrome
- SCN5A** - Long QT syndrome
- SDHAF2** - Paragangliomas
- SDHB** - Paragangliomas
- SDHC** - Paragangliomas
- SDHD** - Paragangliomas
- SMAD3** - Heritable thoracic aortic disease (HTAD)
- SMAD3** - Loeys-Dietz syndrome
- SMAD4** - Juvenile polyposis syndrome
- STK11** - Peutz-Jeghers syndrome
- TGFBR1** - Heritable thoracic aortic disease (HTAD)
- TGFBR1** - Loeys-Dietz syndrome

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# Genes and Conditions Tested

**Gene / Condition Name**

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**TGFBR1** - Marfan syndrome

**TGFBR2** - Heritable thoracic aortic disease (HTAD)

**TBFBR2** - Loeys-Dietz syndrome

**TMEM43** - Familial arrhythmogenic right ventricular cardiomyopathy (ARVC)

**TMEM127** - Hereditary paraganglioma-pheochromocytoma syndrome

**TTN** - Dilated Cardiomyopathy

**TNNC1** - Dilated Cardiomyopathy

**TNNI3** - Familial hypertrophic cardiomyopathy (FHCM)

**TNNT2** - Left ventricular noncompaction (LVNC)

**TP53** - Li-Fraumeni syndrome

**TPM1** - Familial hypertrophic cardiomyopathy (FHCM)

**TRDN** - Long QT Syndrome

**TSC1** - Tuberous sclerosis

**TSC2** - Tuberous sclerosis

**TTR** - Hereditary TTR amyloidosis

**VHL** - Von Hippel-Lindau syndrome

**WT1** - Wilms' tumor