



## myGenome Gene-Disease List

The Clinical Section of the myGenome test is designed to examine genes associated with a set of actionable genetic disorders. The list below shows all interpreted genes and their associated conditions/diseases. This test includes interpretation of 59 genes deemed medically actionable by the American College of Medical Genetics and Genomics\*.

If you have any questions, please contact us at 1 (888) 507-6619 or email [clinical@veritasgenetics.com](mailto:clinical@veritasgenetics.com).

Gene	Medically Actionable Disease	Disease Category
<i>BRCA1, BRCA2</i>	Hereditary breast and ovarian cancer syndrome	Cancer susceptibility
<i>TP53</i>	Li-Fraumeni syndrome	Cancer susceptibility
<i>STK11</i>	Peutz-Jeghers syndrome	Cancer susceptibility
<i>MLH1, MSH2, MSH6, PMS2</i>	Lynch syndrome (Hereditary Non-Polyposis Colorectal Cancer syndrome)	Cancer susceptibility
<i>APC</i>	Familial adenomatous polyposis	Cancer susceptibility
<i>MUTYH</i>	MUTYH-associated polyposis	Cancer susceptibility
<i>BMPRIA, SMAD4</i>	Juvenile polyposis	Cancer susceptibility
<i>VHL</i>	Von Hippel-Lindau syndrome	Cancer susceptibility
<i>MEN1</i>	Multiple endocrine neoplasia type 1	Cancer susceptibility
<i>RET</i>	Multiple endocrine neoplasia type 2; Familial medullary thyroid cancer	Cancer susceptibility
<i>PTEN</i>	PTEN hamartoma tumor syndrome	Cancer susceptibility
<i>RB1</i>	Retinoblastoma	Cancer susceptibility
<i>SDHD, SDHAF2, SDHC, SDHB</i>	Hereditary paraganglioma-pheochromocytoma syndrome (PGL1, PGL2, PGL3, PGL4)	Cancer susceptibility
<i>TSC1, TSC2</i>	Tuberous sclerosis complex	Cancer susceptibility
<i>WT1</i>	WT1-related Wilms tumor	Cancer susceptibility
<i>NF2</i>	Neurofibromatosis type 2	Cancer susceptibility
<i>COL3A1</i>	Ehlers-Danlos syndrome, vascular type	Connective Tissue
<i>FBN1</i>	Marfan syndrome	Connective Tissue
<i>TGFBRI, TGFBRII</i>	Loey-Dietz syndrome	Connective Tissue
<i>SMAD3</i>	Loey-Dietz syndrome	Connective Tissue
<i>ACTA2</i>	Familial thoracic aortic aneurysm	Connective Tissue
<i>MYH11</i>	Familial thoracic aortic aneurysm	Connective Tissue
<i>RYR2</i>	Catecholaminergic polymorphic ventricular tachycardia	Cardiovascular
<i>MYBPC3, MYH7, TNNT2, TNNT3, TPM1, MYL3, ACTC1, PRKAG2, GLA, MYL2, LMNA</i>	Hypertrophic cardiomyopathy; Dilated cardiomyopathy	Cardiovascular
<i>PKP2, DSP, DSC2, TMEM43, DSG2</i>	Arrhythmogenic right ventricular tachycardia	Cardiovascular
<i>KCNQ1, KCNH2</i>	Romano-Ward long-QT syndrome types 1, 2, and 3	Cardiovascular
<i>SCN5A</i>	Romano-Ward long-QT syndrome types 1, 2, and 3; Brugada syndrome	Cardiovascular
<i>LDLR, APOB, PCSK9</i>	Familial hypercholesterolemia	Cardiovascular
<i>ATP7B</i>	Wilson disease	Metabolic
<i>OTC</i>	Ornithine transcarbamylase deficiency	Metabolic
<i>RYR1, CACNA1S</i>	Malignant hyperthermia susceptibility	Other Actionable Disease



The Carrier Section of the myGenome test is designed to examine genes associated with common recessive carrier conditions as informed by the American College of Obstetrics and Gynecology\*\*.

The list below shows the 24 interpreted genes and their associated conditions/diseases.

Gene	Autosomal Recessive Disease
<i>ABCC8</i>	Familial hyperinsulinism; Neonatal diabetes mellitus
<i>ACADM</i>	Medium-chain acyl-CoA dehydrogenase (MCAD) deficiency
<i>ASPA</i>	Canavan disease
<i>BCKDHA</i>	Maple syrup urine disease type 1a
<i>BCKDHB</i>	Maple syrup urine disease type 1b
<i>BLM</i>	Bloom syndrome
<i>CFTR</i>	Congenital bilateral absence of vas deferens; Cystic fibrosis
<i>CLRN1</i>	Retinitis pigmentosa; Usher syndrome, type 3A
<i>DHCR7</i>	Smith-Lemli-Opitz syndrome
<i>ELP1</i>	Familial dysautonomia
<i>FANCA</i>	Fanconi anemia, complementation group A
<i>FANCC</i>	Fanconi anemia, complementation group C
<i>FANCG</i>	Fanconi anemia, complementation group G
<i>G6PC</i>	Glycogen storage disease Ia
<i>GALK1</i>	Galactokinase deficiency with cataracts
<i>GALT</i>	Galactosemia
<i>GLB1</i>	GM1-gangliosidosis, type I, type II, type III; Mucopolysaccharidosis type IVB (Morquio)
<i>HBB</i>	Sickle cell anemia; Beta-thalassemia
<i>HEXA</i>	Tay-Sachs disease
<i>MCOLN1</i>	Mucopolipidosis IV
<i>MYO7A</i>	Deafness; Usher syndrome, type 1B
<i>PAH</i>	Phenylketonuria; Hyperphenylalaninemia
<i>SMPD1</i>	Niemann-Pick disease, types A & B
<i>USH2A</i>	Retinitis pigmentosa; Usher syndrome, type 2A

\* Informed by the American College of Medical Genetics and Genomics (PMIDs: 23788249, 28383573)

\*\* Informed by American College of Obstetrics and Gynecology (ACOG) Policies for expanded carrier screening recommendations (genes associated with a carrier frequency of 1 in 100 or greater were selected). Not intended to replace routine carrier screening.

DISCLAIMER: Many genes are associated with additional diseases/conditions, however, myGenome is NOT designed to cover them comprehensively. Additionally, for the carrier conditions listed, not all subtypes may be detectable. Please see the myGenome Technical Limitations for additional test information.