MYCODE[®] Results reported

Geisinger

5,365 patient-participants have received results* from the Genomic Screening and Counseling Program

April 1, 2025

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For the latest results, see geisinger.org/MyCode-results.						April 1, 2025		
350,000+ participants hav	350,000+ participants have made the success of MyCode possible							
Risk Condition		Patients per condition	Z	Gene		Patients per gene		
			A					
CDC tier 1 conditions (click link)								
Familial hypercholesterolemia (early heart attacks and strokes)		661		APOB LDLR		229 432		
Hereditary breast and ovarian cancer (early breast, ovarian, prostate, pancreatic and other cancers)		1,018	ě	BRCA1 BRCA2	8	352 666		
Lynch syndrome		550		MLH1 MSH2	Ö	52 30		
(early colon, uterine and other cancers)		550		MSH6 PMS2		237 231		
С	arc	liovascular risk	(
Hereditary transthyretin amyloidosis (buildup of amyloid in the body, can lead to heart and nervous system disease)		215		TTR	Š	215		
Heritable thoracic aortic disease (genetic predisposition to weakening of the wall of the aorta, leading to swelling and sometimes rupture)		46		ACTA2		46		
Inherited arrhythmias (irregular heartbeat with risk for cardiac arrest)		383		KCNH2 KCNQ1 SCN5A		44 205 134		
Inherited cardiomyopathies		1055		BAG3 DSC2 DSG2 DSP FLNC		2 46 79 84 44		
(diseases of the heart muscle with dangerous complications)	1,055	1,055		LMNA MYBPC3 MYH7		25 207 79		
				MYL2 MYL3 PKP2		8 8 81		

MyCode® results reported (continued)

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Risk Condition		Patients per condition		Gene		Patients per gene
Card	liov	ascular risk (contil	nued)		
(continued from page 1) Inherited cardiomyopathies (diseases of the heart muscle with dangerous complications)				PRKAG2 RBM20 TNNI3 TNNT2 TPM1 TTN		3 1 26 10 5 347
		Cancer risk				
Familial adenomatous polyposis (intestinal polyps and early colon cancer)		63		APC		63
Hereditary pheochromocytomas and paragangliomas (tumors that can release extra hormones and, rarely, become cancer)		114		SDHAF2 SDHB SDHC SDHD TMEM127		8 48 22 11 25
Li-Fraumeni syndrome (early breast, soft tissue, brain, adrenal and other cancers)		27	8	TP53		27
Multiple endocrine neoplasia type 1 (tumors that can release extra hormones and, rarely, become cancer)		19		MEN1		19
Multiple endocrine neoplasia type 2 (early thyroid cancer)	ğ	114	ğ	RET	ğ	114
MUTYH-associated polyposis (intestinal polyps and early colon cancer)		4	A	MUTYH		4
Neurofibromatosis, type 2 (noncancerous tumors in nervous system)		1		NF2		1
PALB2-related cancer risk (early onset breast, pancreatic, and ovarian cancers)		143		PALB2		143
Peutz-Jeghers syndrome (early breast, colon, pancreatic and other cancers)		2	9	STK11		2
Retinoblastoma (early eye cancer)		7		RB1		7
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$\pmb{MyCode} @ results \ reported \ {\it (continued)}$

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Risk Condition		Patients per condition		Gene		Patients per gene
	Can	cer risk (continued)				
Von Hippel-Lindau syndrome (early kidney cancer and benign tumors of the brain, eye, pancreas and adrenal gland)		4		VHL		4
Wilms tumor (malignant kidney tumor)	Ď	2	A	WT1	Š	2
Misc	ella	neous phenoty	pes	S		
Biotinindase deficiency (buildup of a B vitamin in the body, can cause issues with the nervous system)		3		BTD		3
Fabry disease (enzyme defect leading to damage of blood vessels in the skin and cells in the kidneys, heart, and nervous system)		10		GLA		10
Hereditary hemochromatosis (too much iron in blood, can lead to liver and heart problems)		559		HFE		559
Hereditary hemorrhagic telangiectasia (abnormal blood vessel formation in skin, mucous membranes, lungs, liver and brain)		46		ACVRL1 ENG		13 33
Juvenile polyposis (intestinal polyps, cancer of the intestine, including colon)		3		BMPR1A		3
Juvenile polyposis / hereditary hemorrhagic telangiecstasia (intestinal polyps, cancer of the intestine, including colon/abnormal blood vessel formation in skin, mucous membranes, lungs, liver & brain)		4		SMAD4		4
Loeys-Dietz syndrome (weakening of the wall of the aorta, leading to swelling and sometimes rupture)		10		SMAD3 TGFBR1 TGFBR2		5 2 3
Malignant hyperthermia (life-threatening condition usually triggered by exposure to certain drugs used for general anesthesia)		233		RYR1		233
Marfan syndrome (connective tissue disease that can cause heart, eye, and skeletal problems)		29		FBN1		29
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MyCode® results reported (continued)

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Risk Condition		Patients per condition		Gene		Patients per gene		
Miscella	Miscellaneous phenotypes (continued)							
Maturity-onset diabetes of the young (MODY) (Diabetes in the teens or early adulthood)		13		HNF1A		13		
Ornithine transcarbamylase deficiency (buildup of ammonia in the blood, can cause altered mental status and seizures)		4		ОТС		4		
Pompe disease (buildup of glycogen which could cause muscle probelms throughout the body)		13		GAA		13		
PTEN hamartoma tumor syndrome (early breast, thyroid, uterine and other cancers, with intellectual disability in some cases)		21		PTEN		21		
Retinopathy (gradual vision loss, can lead to blindness)		1		RPE65		1		
Tuberous sclerosis (multiple types of benign tumors)		25	8	TSC1 TSC2		7 18		
Vascular Ehlers-Danlos syndrome (disease of the connective tissues, including arteries and muscles, that can increase the risk for health complications, such as rupture of arteries)		14		COL3A1		14		
Wilson disease (too much copper in the body, can cause liver disease and nervous system issues)		9		АТР7В		9		

Totals^{†,‡}

5,433









5,433



^{*}Number of patient-participants with reported results and the number per gene variant/condition may not be equal due to the possibility of a participant having more than one result.

[†]Includes some patients (~12%) already aware of their genomic result from clinical genetic testing.

The process of clinical confirmation and disclosure may be modified for these patients

[‡]The gene list designated for return has shifted over time (PMID: 33576083). Totals include fewer than 10 results in genes no longer on the return list.