

## Inherited Cancer Risk

CANCER	SYNDROME	ASSOCIATED GENE(S)
Leukemias and lymphomas	Ataxia telangiectasia	ATM
Basal cell carcinoma and medulloblastoma	Basal cell nevus syndrome	PTCH1, PTCH2, SUFU
All cancers	Bloom syndrome	BLM
Breast, ovarian, pancreatic, and prostate cancers	Breast-ovarian cancer syndrome	BRCA1, BRCA2
Breast, thyroid, and endometrial cancers	Cowden syndrome	PTEN
Breast and stomach cancers	Diffuse gastric and lobular breast cancer syndrome	CDH1
Colorectal, duodenal, stomach, and thyroid cancers	MYH associated polyposis	MYH
Colorectal cancer, medulloblastoma	Familial adenomatous polyposis	APC
Melanoma and pancreatic cancer	Familial atypical multiple mole-melanoma syndrome	CDKN2A
Glioblastoma and melanoma	Familial glioma-melanoma syndrome	CDKN2A
Retinal cancer, pineoblastoma, and bone and soft tissue sarcomas	Retinoblastoma predisposition syndrome	RB1
Leukemia and myelodysplastic syndrome (MDS)	Inherited bone marrow failure syndromes, such as Fanconi's anemia and telomere syndromes	FANCC, FANCA, FANCB, FANCS, BRCA1, TERT, TERC
Kidney cancer and uterine fibroids	Hereditary leiomyomatosis and renal cell cancer	FH
Pancreatic cancer	Hereditary pancreatitis/familial pancreatitis	PRSS1, SPINK1
Leukemias, breast cancer, glioblastoma, choroid plexus carcinoma, adrenocortical carcinoma, and bone and soft tissue cancers	Li-Fraumeni syndrome	TP53
Low grade gliomas, neurofibromas, neurofibrosarcomas, meningiomas, and ependymomas	Neurofibromatosis type I and neurofibromatosis type II	NF1 and NF2
Glioblastoma, colorectal cancer, and endometrial cancer	Brain tumor polyposis type I	MLH1, PMS2
Medulloblastoma, abdominal desmoid tumors, and colorectal cancer	Brain tumor polyposis type II	APC
Colorectal and endometrial cancers	Lynch syndrome	EPCAM, MLH1, MSH2, MSH6, PMS2
Rhabdoid tumors of brain, kidney and extra-renal sites	Rhabdoid predisposition syndrome	hSNFS, INI1
Subependymal giant cell astrocytoma, renal angioliomas, and cardiac rhabdomyomas	Tuberous sclerosis complex	TSC1 and TSC2
Leukemias, lymphomas, and MDS	Hereditary myeloid malignancy syndromes, such as familial MDS/Acute myeloid leukemias	RUNX1, GATA2, CEBPA, ETV6, DDX41, ANKRD26, ATG2B/GSKIP,
Pineoblastoma, pleuro-pulmonary blastoma, lymphoma and glioblastoma	DICER syndrome	DICER1
Pancreatic cancer, pituitary adenomas, benign skin and fat tumors	Multiple endocrine neoplasia 1	MEN1
Thyroid cancer and pheochromocytoma	Multiple endocrine neoplasia 2	RET, NTRK1
Pancreatic, liver, lung, breast, ovarian, uterine, and testicular cancers	Peutz-Jeghers syndrome	STK11/LKB1
Tumors of the spinal cord, cerebellum, retina, adrenals, and kidneys	von Hippel-Lindau syndrome	VHL
Kidney cancer	Wilms' tumor	WT1
Skin cancer	Xeroderma pigmentosum	XPD, XPB, XPA

This list is not meant to be exhaustive, but contains some of the more commonly occurring cancer syndromes

Source: <http://www.cancer.gov/about-cancer/causes-prevention/genetics/risk-assessment-pdq> and <https://rarediseases.info.nih.gov/diseases/diseases-by-category/1/rare-cancers>