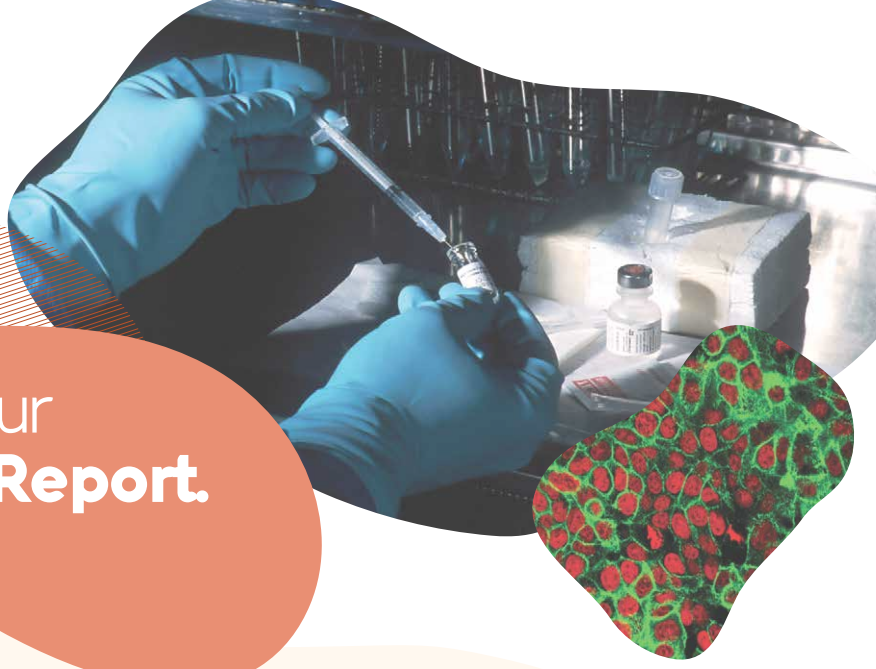
Cancer Risk DNA Report

癌症风险DNA报告

健宁基因

GENOME DNA



Welcome to Your Personal **DNA Report.**

PERSONAL DETAILS

Name : Sample
DOB : 01-Jan-1990
Gender : Female
Report No : 1113-1111-1111
Report Date : 01-May-2023

Laboratory Info

Specimen Type : Saliva
Specimen ID : 1111-1111

Thank you for choosing this DNA screening to understand your genetic profile on cancer risk. Using the saliva sample provided by you, we have analysed nearly 200 genes to provide insights into your predisposed cancer risk.

This report covers aspects on how your genes influence your predisposed risk in 26 types of cancer such as breast, ovarian and colon cancers. Please take note that this screening is not a diagnosis for any cancer or any other conditions. This test is a prediction of personal genetic risk based on genotypic effect on certain types of cancer. Other risk factors were not taken into account.

If you have any questions or concerns regarding any aspects of your report, kindly contact us at info@genomedna.org.

Disclaimer

This screening does not constitute a definitive diagnosis for the selected condition(s) in an individual as cancer is a multifactorial disease that is affected by genetic, environment and other factors such as age, gender, lifestyle, dietary habit, somatic mutations in the genome, viral infection and smoking history. The risk for an individual to develop cancer is dependent upon each of these factors as well as their family history. This screening is not a diagnostic test and should be used in context with other clinical findings by healthcare professionals to produce a diagnosis and treatment plan.

This screening only detects the presence of inherited genetic variations of the selected single nucleotide polymorphisms (SNPs), which were known to have association with development of certain cancer types. Other known variants and genes not listed are not detected and the screening may not detect all known variants that result in cancer. It is possible that untested sites of variation may cause altered biological activity in an individual. The test analyses the following types of variants: nucleotide substitution and small deletions and insertions. This test is not intended to analyse variations such as gene rearrangement, deep intronic variation and gene translocation. The screening is not designed to detect chromosomal abnormalities or complex gene rearrangements. Information regarding genetic variations with no or unknown significant association cancer may become evident (Incidental Findings). Our policy is to not report or comment on any Incidental Findings that may be noted in the course of analysing the data.

The screening does not provide diagnosis, or treatment. The report and comments are for informational purposes only and should not be interpreted as specific professional medical advice. This report is based on tested genes and variants. Untested genes, variants and non-genetic factors and accumulation of somatic mutations also can influence the cancer risk. Please consult your medical doctor or qualified healthcare professional before making decisions about medical conditions, or before starting and stopping any treatment prescribed for you. Ethnicity may affect how relevant this test is for you. This report is based solely on the sample and information provided to our lab and does not take all factors related to client's health into account. Therefore, our company and employees of the company shall have no liability to any person or entity with regards to claims, loss, or damage caused, or alleged to be caused, directly or indirectly, by the use of information contained herein.

Understanding Your Results

Clinical significances of the variants in this report can be classified as:

Pathogenic - A genetic variant that increases an individual's susceptibility or predisposition to a certain disease. When such a variant (or mutation) is inherited, development of symptoms is more likely, but not certain.

Likely pathogenic - There is a high likelihood that this variant is disease-causing. Additional evidence is expected to confirm this assertion of pathogenicity, but there is a small chance that new evidence may demonstrate that this variant does not have clinical significance.

Associated with cancer - This variant is reported to be associated with high risk of getting certain types of cancer in Genome Wide Association Study (GWAS). However, the clinical significance of this variant is still unknown. It may increase the risk or have no effect on the risk of getting cancer.

Variants detected in this report are associated with the risk of developing cancer at different clinical significance. The results of this report do not eliminate your risk of developing cancer. Inherited variants explain some cases of cancer, but most are not inherited and cannot be explained by a single cause. Other factors that can influence cancer risk as well.

Your Summary Results

Disease Name	Variant Detected
Laryngeal Cancer (pg.3)	
Bladder Cancer (pg.4)	
Oral Cancer (pg.5)	
Esophageal Cancer (pg.6)	
Pharyngeal Cancer (pg.7)	
Chronic Lymphocytic Leukemia (pg.8)	
Pancreatic Cancer (pg.9)	
Multiple Myeloma (pg.10)	
Endometrial Cancer (pg.11)	
Cervical Cancer (pg.12)	
Liver Cancer (pg.13)	
Breast Cancer (pg.14-15)	
Colorectal Cancer (pg.16)	
Acute Lymphoblastic Leukemia (pg.17)	

Disease Name	Variant Detected
Chronic Myeloid Leukemia (pg.18)	
Non-Hodgkin's Lymphoma (pg.19)	
Kidney Cancer (pg.20)	
Gallbladder Cancer (pg.21)	
Melanoma (pg.22)	
Meningioma (pg.23)	
Glioma (pg.24)	
Basal Cell Carcinoma (pg.25)	
Hodgkin's Lymphoma (pg.26)	
Thyroid Cancer (pg.27)	
Ovarian Cancer (pg.28-29)	
Lung Cancer (pg.30)	

- Variant(s) not detected
- Variant(s) associated with cancer detected
- Pathogenic or likely pathogenic variant(s) detected

Cancer Risk

Laryngeal Cancer

Laryngeal cancer is cancer of the larynx, or voice box. Laryngeal cancer symptoms include voice changes, such as hoarseness, and a sore throat or cough that does not go away. Treatment may include surgery to remove part or all of the larynx, called a laryngectomy.

Signs and Symptoms

Signs and symptoms may include:

- Sore throat or cough that does not go away
- Voice change
- Pain or other difficulties when swallowing
- Lump in the neck or throat
- Dysphonia, trouble making voice sounds
- Ear pain

Risk Factors

Smoking or using other tobacco products greatly increases the risk of developing laryngeal cancer. Drinking alcohol, especially a lot of it, also raises the risk. Other risk factors for laryngeal cancer include:

-Age: Laryngeal cancer happens more in people age 55 and older

- Gender: Men are more likely to develop this cancer
- History of head and neck cancer

Preventions

The risk for developing cancer, including laryngeal cancer can be lowered by living a healthy lifestyle, such as:

- Quit smoking and avoid tobacco products
- Limit alcohol consumption
- Eat a healthy diet

Number of variant(s) detected: 0

Gene	Variant ID	Clinical Significance	Risk Allele	Your Genotype	Your Results
FADS1	MP01001	Associated with Laryngeal Cancer	A	AG	Not Detected
NCR3	MP01002	Associated with Laryngeal Cancer	A	AG	Not Detected
TBX5	MP01003	Associated with Laryngeal Cancer	A	CC	Not Detected

Cancer Risk

Bladder Cancer

Bladder cancer is a common type of cancer that begins in the cells of the bladder. Bladder cancer most often begins in the cells (urothelial cells) that line the inside of the bladder. Urothelial cells are also found in the kidneys and the tubes (ureters) that connect the kidneys to the bladder. Urothelial cancer can happen in the kidneys and ureters, too, but it is much more common in the bladder.

Signs and Symptoms

Signs and symptoms may include:

- Blood in urine, which may cause urine to appear bright red or cola colored, though sometimes the urine appears normal and blood is detected on a lab test
- Frequent urination
- Painful urination
- Back pain

Risk Factors

Factors that may increase bladder cancer risk include:

- Smoking
- Increasing age
- Being male
- Exposure to certain chemicals
- Previous cancer treatment
- Chronic bladder inflammation
- Personal or family history of cancer

Preventions

Steps to help reduce risk:

- Quit smoking
- Take caution around chemicals
- Choose a variety of fruits and vegetables

Number of variant(s) detected: 0

Gene	Variant ID	Clinical Significance	Risk Allele	Your Genotype	Your Results
HRAS	MP02001	Pathogenic	A	CC	Not Detected
	MP02002	Pathogenic	G	CC	Not Detected
	MP02003	Pathogenic	T	CC	Not Detected
KRAS	MP02004	Pathogenic	A	TT	Not Detected
FGFR3	MP02005	Pathogenic	T	CC	Not Detected
	MP02006	Pathogenic	G	CC	Not Detected
	MP02007	Pathogenic	G	CC	Not Detected
TSC1	MP02008	Pathogenic	A	GG	Not Detected
	MP02009	Pathogenic	A	GG	Not Detected
RB1	MP02010	Pathogenic	A	NA	Not Available
	MP02011	Pathogenic	T	CC	Not Detected
Intergenic	MP02012	Associated with Bladder Cancer	T	CC	Not Detected
	MP02013	Associated with Bladder Cancer	C	TC	Not Detected

Cancer Risk

Oral Cancer

Mouth cancer refers to cancer that develops in any of the parts that make up the mouth (oral cavity). Mouth cancer can occur on the lips, gums, tongue, inner lining of the cheeks, roof of the mouth and floor of the mouth (under the tongue)

Signs and Symptoms

Signs and symptoms of mouth cancer may include:

- A lip or mouth sore that does not heal
- A white or reddish patch on the inside of the mouth
- Loose teeth
- A growth or lump inside the mouth
- Mouth pain
- Ear pain
- Difficult or painful swallowing

Risk Factors

Factors that can increase risk of mouth cancer include:

- Tobacco use of any kind, including cigarettes and cigars
- Heavy alcohol use
- Excessive sun exposure to the lips
- A sexually transmitted virus called human papillomavirus (HPV)
- A weakened immune system

Preventions

There is no proven way to prevent mouth cancer. However, risk of mouth cancer can be reduced if:

- Stop using tobacco or do not start
- Drink alcohol only in moderation
- Avoid excessive sun exposure to lips
- Visit dentist regularly

Number of variant(s) detected: 0

Gene	Variant ID	Clinical Significance	Risk Allele	Your Genotype	Your Results
HRAS	MP03001	Pathogenic	T	CC	Not Detected
	MP03002	Pathogenic	A	CC	Not Detected
	MP03003	Pathogenic	G	CC	Not Detected
TP53	MP03004	Pathogenic	A	GG	Not Detected
	MP03005	Pathogenic/Likely Pathogenic	A	GG	Not Detected
	MP03006	Pathogenic	T	CC	Not Detected
	MP03007	Pathogenic	T	CC	Not Detected
OR52N2-TRIM5	MP03008	Associated with Oral Cancer	G	NA	Not Available
GPN1	MP03009	Associated with Oral Cancer	G	AA	Not Detected

Cancer Risk

Esophageal Cancer

Esophageal cancer is cancer that occurs in the esophagus — a long, hollow tube that runs from the throat to the stomach. The esophagus helps move the food that is swallowed from the back of the throat to the stomach to be digested. Esophageal cancer usually begins in the cells that line the inside of the esophagus. Esophageal cancer can occur anywhere along the esophagus. More men than women get esophageal cancer.

Signs and Symptoms

Signs and symptoms of esophageal cancer include:

- Difficulty swallowing
- Weight loss without trying
- Chest pain, pressure or burning
- Worsening indigestion or heartburn
- Coughing or hoarseness

Risk Factors

Possible risk factors include:

- Having gastroesophageal reflux disease (GERD)
- Smoking
- Having precancerous changes in the cells of the esophagus (Barrett's esophagus)
- Being obese
- Drinking alcohol
- Having bile reflux
- Having difficulty swallowing
- Having a steady habit of drinking very hot liquids
- Not eating enough fruits and vegetables
- Undergoing radiation treatment to the chest or upper abdomen

Preventions

Steps to reduce risk of esophageal cancer:

- Quit smoking
- Drink alcohol in moderation
- Eat more fruits and vegetables
- Maintain a healthy weight

Number of variant(s) detected: 0

Gene	Variant ID	Clinical Significance	Risk Allele	Your Genotype	Your Results
ALDH2	MP04001	Associated with Esophageal Cancer	A	AG	Not Detected
CRTC1	MP04002	Associated with Esophageal Cancer	T	TG	Not Detected
HECTD4	MP04003	Associated with Esophageal Cancer	A	GG	Not Detected
PLCE1	MP04004	Associated with Esophageal Cancer	G	AG	Not Detected
XBP1	MP04005	Associated with Esophageal Cancer	T	TC	Not Detected

Cancer Risk

Pharyngeal Cancer

Pharyngeal cancer is a type of head and neck cancer in which cancer cells are found within an area of the throat called the oropharynx. More than 90% of oropharyngeal cancers are squamous cell carcinomas, which are cancers arising from the flat surface cells lining the mouth and throat.

Signs and Symptoms

Signs and symptoms may include:
The following may be signs of pharyngeal cancer or of other conditions:
- A sore throat that does not go away
- Pain or difficulty with swallowing
- Trouble opening up mouth fully or moving tongue
- Unexplained weight loss
- Voice changes that do not go away
- Ear pain that does not go away
- A lump in the back of the throat or mouth
- A lump in the neck
- Coughing up blood
- White patch on the tongue or lining of the mouth

Risk Factors

Factors that increase the chance of getting pharyngeal cancer include:
- History of smoking
- Heavy alcohol use
- History of head and neck cancer
- History of radiation therapy to the head and neck
- Being infected with human papillomavirus (HPV)

Preventions

Changes in lifestyle that can be made include:
- Do not start smoking
- Do not drink alcohol regularly or heavily
- Avoid human papilloma virus (HPV) infection
- Eat a healthy, well-balanced diet and exercise regularly
- See healthcare provider and dentist on a regular schedule

Number of variant(s) detected: 1

Gene	Variant ID	Clinical Significance	Risk Allele	Your Genotype	Your Results
HRAS	MP05001	Pathogenic	T	CC	Not Detected
	MP05002	Pathogenic	G	CC	Not Detected
TP53	MP05003	Pathogenic	T	CC	Not Detected
	MP05004	Pathogenic	T	CC	Not Detected
	MP05005	Pathogenic/Likely Pathogenic	A	GG	Not Detected
	MP05006	Pathogenic	T	CC	Not Detected
	MP05007	Pathogenic	T	CC	Not Detected
	MP05008	Pathogenic	C	GG	Not Detected
TNFRSF19	MP05009	Associated with Pharyngeal Cancer	G	GG	Detected

Cancer Risk

Chronic Lymphocytic Leukemia

Chronic lymphocytic leukemia (CLL) is a type of cancer of the blood and bone marrow. The term "chronic" in chronic lymphocytic leukemia comes from the fact that it typically progresses more slowly than other types of leukemia. The term "lymphocytic" in chronic lymphocytic leukemia comes from the cells affected by the disease — a group of white blood cells called lymphocytes, which help the body fight infection.

Signs and Symptoms

Many people with chronic lymphocytic leukemia have no early symptoms. Those who do develop signs and symptoms may experience:

- Enlarged, but painless, lymph nodes
- Fatigue
- Fever
- Pain in the upper left portion of the abdomen
- Night sweats
- Weight loss
- Frequent infections

Risk Factors

Factors that may increase the risk of chronic lymphocytic leukemia include:

- Age
- Race
- Family history of blood and bone marrow cancers
- Exposure to chemicals

Preventions

The risk of CLL can be reduced by:

- Limiting contact with herbicides and pesticides
- Maintaining a healthy body weight
- Avoid breathing in benzene

Number of variant(s) detected: 1

Gene	Variant ID	Clinical Significance	Risk Allele	Your Genotype	Your Results
BRAF	MP06001	Pathogenic	T	CC	Not Detected
HRAS	MP06002	Pathogenic	A	CC	Not Detected
TP53	MP06003	Pathogenic	T	CC	Not Detected
NRAS	MP06004	Pathogenic	C	NA	Not Available
PTPN11	MP06005	Pathogenic/Likely Pathogenic	A	GG	Not Detected
FAS	MP06006	Associated with Chronic Lymphocytic Leukemia	G	GG	Detected
CAMK2D	MP06007	Associated with Chronic Lymphocytic Leukemia	C	GG	Not Detected
FARP2	MP06008	Associated with Chronic Lymphocytic Leukemia	T	CC	Not Detected
ACOXL	MP0609	Associated with Chronic Lymphocytic Leukemia	G	AA	Not Detected
GRAMD1B	MP06010	Associated with Chronic Lymphocytic Leukemia	A	GG	Not Detected
SP110	MP06011	Associated with Chronic Lymphocytic Leukemia	G	TT	Not Detected
LEF1	MP06012	Associated with Chronic Lymphocytic Leukemia	A	AC	Not Detected

Cancer Risk

Pancreatic Cancer

Pancreatic cancer begins in the tissues of the pancreas — an organ in the abdomen that lies behind the lower part of the stomach. Several types of growths can occur in the pancreas, including cancerous and noncancerous tumors. The most common type of cancer that forms in the pancreas begins in the cells that line the ducts that carry digestive enzymes out of the pancreas (pancreatic ductal adenocarcinoma). Pancreatic cancer is seldom detected at its early stages when it ismost curable. This is because it often does not cause symptoms until after it has spread to other organs.

Signs and Symptoms

Signs and symptoms of pancreatic cancer often don't occur until the disease is advanced. They may include:

- Abdominal pain that radiates to the back
- Loss of appetite or unintended weight loss
- Jaundice
- Light-colored stools
- Dark-colored urine
- Itchy skin
- New diagnosis of diabetes or existing diabetes
- Blood clots
- Fatigue

Risk Factors

Factors that may increase the risk of pancreatic cancer include:

- Smoking
- Diabetes
- Chronic inflammation of the pancreas
- Family history of pancreatic cancer
- Obesity
- Older age

Preventions

Reduce the risk of pancreatic cancer by:

- Stop smoking
- Maintain a healthy weight
- Choose a healthy diet

Number of variant(s) detected: 2

Gene	Variant ID	Clinical Significance	Risk Allele	Your Genotype	Your Results
PALB2	MP07001	Pathogenic	T	GG	Not Detected
	MP07002	Pathogenic	A	NA	Not Available
	MP07003	Pathogenic	D	II	Not Detected
BACH1	MP07004	Associated with Pancreatic Cancer	T	TT	Detected
	MP07005	Associated with Pancreatic Cancer	A	GG	Not Detected
CLPTM1L	MP07006	Associated with Pancreatic Cancer	T	CC	Not Detected
FAM19A5	MP07008	Associated with Pancreatic Cancer	G	AA	Not Detected
PDX1-AS1	MP07009	Associated with Pancreatic Cancer	A	AA	Detected

Cancer Risk

Multiple Myeloma

Multiple myeloma is a cancer that forms in a type of white blood cell called a plasma cell. Healthy plasma cells help fight infections by making antibodies that recognize and attack germs. In multiple myeloma, cancerous plasma cells accumulate in the bone marrow and crowd out healthy blood cells. Rather than produce helpful antibodies, the cancer cells produce abnormal proteins that can cause complications.

Signs and Symptoms

Signs and symptoms may include:

- Bone pain, especially in spine or chest
- Nausea
- Constipation
- Loss of appetite
- Mental fogginess or confusion
- Fatigue
- Frequent infections
- Weight loss
- Weakness or numbness in the legs
- Excessive thirst

Risk Factors

Factors that may increase risk of multiple myeloma include:

- Increasing age
- Male gender
- Black race
- Family history of multiple myeloma

Preventions

Although multiple myeloma cannot be prevented, the risk factors associated with the disease can be avoided. Steps to help reduce risk:

- Avoid smoking and alcohol consumption
- Avoid exposure to the chemicals that increase the risk of developing the condition
- Eat a healthy balanced diet
- Limit the intake of excessive salts, processed and refined foods

Number of variant(s) detected: 1

Gene	Variant ID	Clinical Significance	Risk Allele	Your Genotype	Your Results
NRAS	MP08001	Pathogenic/Likely Pathogenic	T	CC	Not Detected
	MP08002	Pathogenic	A	CC	Not Detected
	MP08003	Pathogenic	T	CC	Not Detected
CDK4	MP08004	Pathogenic	A	GG	Not Detected
IDH2	MP08005	Pathogenic/Likely Pathogenic	T	CC	Not Detected
TP53	MP08006	Pathogenic/Likely Pathogenic	T	CC	Not Detected
CCND1	MP08007	Associated with Multiple Myeloma	A	AA	Detected
CBX7	MP08008	Associated with Multiple Myeloma	A	GG	Not Detected
CCHCR1	MP08009	Associated with Multiple Myeloma	T	CC	Not Detected
DTNB	MP08010	Associated with Multiple Myeloma	A	AC	Not Detected
PSORSIC2	MP08011	Associated with Multiple Myeloma	T	CC	Not Detected
TNFRSF13B	MP08012	Associated with Multiple Myeloma	G	AA	Not Detected

Cancer Risk

Endometrial Cancer

Endometrial cancer is a type of cancer that begins in the uterus. The uterus is the hollow, pear-shaped pelvic organ where fetal development occurs. Endometrial cancer begins in the layer of cells that form the lining (endometrium) of the uterus. Endometrial cancer is sometimes called uterine cancer.

Signs and Symptoms

Signs and symptoms of endometrial cancer may include:

- Vaginal bleeding after menopause
- Bleeding between periods
- Pelvic pain

Risk Factors

Factors that increase the risk of endometrial cancer include:

- Changes in the balance of female hormones
- More years of menstruation
- Never having been pregnant
- Older age
- Obesity
- Hormone therapy for breast cancer

Preventions

To reduce the risk of endometrial cancer, try:

- Talk to doctor about the risks of hormone therapy after menopause
- Maintain a healthy weight

Number of variant(s) detected: 0

Gene	Variant ID	Clinical Significance	Risk Allele	Your Genotype	Your Results
MUTYH	MP09001	Pathogenic/Likely Pathogenic	T	CC	Not Detected

Cancer Risk

Cervical Cancer

Cervical cancer is a type of cancer that occurs in the cells of the cervix — the lower part of the uterus that connects to the vagina. Various strains of the human papillomavirus (HPV), a sexually transmitted infection, play a role in causing most cervical cancer. When exposed to HPV, the body's immune system typically prevents the virus from doing harm. In a small percentage of people, however, the virus survives for years, contributing to the process that causes some cervical cells to become cancer cells.

Signs and Symptoms

Early-stage cervical cancer generally produces no signs or symptoms. Signs and symptoms of more-advanced cervical cancer include:

- Vaginal bleeding after intercourse, between periods or after menopause
- Watery, bloody vaginal discharge that may be heavy and have a foul odor
- Pelvic pain or pain during intercourse

Risk Factors

Risk factors for cervical cancer include:

- Many sexual partners
- Early sexual activity
- Other sexually transmitted infections (STIs)
- A weakened immune system
- Smoking
- Exposure to miscarriage prevention drug

Preventions

To reduce the risk of cervical cancer:

- HPV vaccine
- Have routine Pap tests
- Practice safe sex
- Do not smoke

Number of variant(s) detected: 0

Gene	Variant ID	Clinical Significance	Risk Allele	Your Genotype	Your Results
PTEN	MP10001	Pathogenic	A	GG	Not Detected
PIK3CA	MP10002	Pathogenic/Likely Pathogenic	A	NA	Not Available
	MP10003	Pathogenic	A	NA	Not Available
SMAD4	MP10004	Pathogenic	A	NA	Not Available
	MP10005	Pathogenic	T	CC	Not Detected
TP53	MP10006	Pathogenic	G	NA	Not Available

Cancer Risk

Liver Cancer

Liver cancer is cancer that begins in the cells of the liver. The liver is a football-sized organ that sits in the upper right portion of the abdomen, beneath the diaphragm and above the stomach. Several types of cancer can form in the liver. The most common type of liver cancer is hepatocellular carcinoma, which begins in the main type of liver cell (hepatocyte). Other types of liver cancer, such as intrahepatic cholangiocarcinoma and hepatoblastoma, are much less common.

Signs and Symptoms

Most people do not have signs and symptoms in the early stages of primary liver cancer. When signs and symptoms do appear, they may include:

- Losing weight without trying
- Loss of appetite
- Upper abdominal pain
- Nausea and vomiting
- General weakness and fatigue
- Abdominal swelling
- Yellow discoloration of the skin and the whites of the eyes (jaundice)
- White, chalky stools

Risk Factors

Factors that increase the risk of primary liver cancer include:

- Chronic infection with HBV or HCV
- Cirrhosis
- Certain inherited liver diseases
- Diabetes
- Nonalcoholic fatty liver disease
- Exposure to aflatoxins
- Excessive alcohol consumption

Preventions

There are a few ways to reduce the risk of liver cancer:

- Reduce the risk of cirrhosis
- Drink alcohol in moderation
- Maintain a healthy weight
- Get vaccinated against hepatitis B
- Take measures to prevent hepatitis C
- Know the health status of any sexual partner

Number of variant(s) detected: 0

Gene	Variant ID	Clinical Significance	Risk Allele	Your Genotype	Your Results
APC	MP11001	Pathogenic	T	CC	Not Detected
	MP11002	Pathogenic	T	CC	Not Detected
TP53	MP11003	Pathogenic	T	CC	Not Detected
	MP11004	Pathogenic	T	CC	Not Detected
MICA	MP11005	Associated with Liver Cancer	T	CC	Not Detected
HLA-DQA1	MP11006	Associated with Liver Cancer	A	AG	Not Detected
GRIK1	MP11007	Associated with Liver Cancer	C	AC	Not Detected

Cancer Risk

Breast Cancer

Breast cancer is cancer that forms in the cells of the breasts. Breast cancer can occur in both men and women, but it is far more common in women.

Signs and Symptoms

Signs and symptoms of breast cancer may include:
- A breast lump or thickening that feels different from the surrounding tissue
- Change in the size, shape or appearance of a breast
- Changes to the skin over the breast
- A newly inverted nipple
- Peeling, scaling, crusting or flaking of the pigmented area of skin surrounding the nipple or breast skin
- Redness or pitting of the skin over the breast, like the skin of an orange

Risk Factors

Factors that are associated with an increased risk of breast cancer include:
- Being female
- Increasing age
- A personal history of breast conditions
- A personal and family history of breast cancer
- Inherited genes that increase cancer risk
- Radiation exposure
- Obesity
- Beginning period at a younger age
- Beginning menopause at an older age
- Having first child at an older age
- Having never been pregnant
- Postmenopausal hormone therapy
- Drinking alcohol

Preventions

Changes in daily life may help reduce the risk of breast cancer, for example:
- Breast cancer screening.
- Become familiar with the breasts through breast self-exam for breast awareness.
- Drink alcohol in moderation
- Exercise
- Limit postmenopausal hormone therapy
- Maintain a healthy weight
- Choose a healthy diet

Number of variant(s) detected: 2

Gene	Variant ID	Clinical Significance	Risk Allele	Your Genotype	Your Results
BARD1	MP12001	Pathogenic	A	GG	Not Detected
ATM	MP12002	Pathogenic	A	GG	Not Detected
	MP12003	Pathogenic	D	II	Not Detected
PALB2	MP12004	Pathogenic	C	GG	Not Detected
CASC16	MP12005	Associated with Breast Cancer	A	AA	Detected
FGFR2	MP12006	Associated with Breast Cancer	G	AG	Not Detected
	MP12007	Associated with Breast Cancer	C	CC	Detected
ITPR1	MP12008	Associated with Breast Cancer	G	AA	Not Detected

Cancer Risk

Breast Cancer

Gene	Variant ID	Clinical Significance	Risk Allele	Your Genotype	Your Results
BRCA1	MP12009	Associated with Breast Cancer	G	AA	Not Detected
	MP12010	Pathogenic	T	CC	Not Detected
	MP12011	Pathogenic	I	DD	Not Detected
	MP12012	Pathogenic	A	GG	Not Detected
	MP12013	Pathogenic	T	CC	Not Detected
	MP12014	Pathogenic	T	CC	Not Detected
	MP12015	Pathogenic	T	CC	Not Detected
	MP12016	Pathogenic	A	GG	Not Detected
	MP12017	Pathogenic	A	CC	Not Detected
	MP12018	Pathogenic	T	GG	Not Detected
	MP12019	Pathogenic	D	II	Not Detected
	MP12020	Pathogenic	I	DD	Not Detected
BRCA2	MP12021	Pathogenic	T	GG	Not Detected
	MP12022	Pathogenic	T	CC	Not Detected
	MP12023	Pathogenic	T	NA	Not Available
	MP12024	Pathogenic	T	GG	Not Detected
	MP12025	Pathogenic	T	CC	Not Detected
	MP12026	Pathogenic	T	AA	Not Detected
	MP12027	Pathogenic	D	II	Not Detected

Cancer Risk

Colorectal Cancer

Colorectal cancer, also known as bowel cancer, colon cancer, or rectal cancer, is any cancer that affects the colon and the rectum. It is the second leading cause of cancer death in women, and the third for men. However, due to advances in screening techniques and improvements in treatments, the death rate from colorectal cancer has been falling. Colorectal cancer may be benign, or non-cancerous, or malignant. A malignant cancer can spread to other parts of the body and damage them.

Signs and Symptoms

Symptoms of colorectal cancer include:

- Changes in bowel habits
- Diarrhea or constipation
- A feeling that the bowel does not empty properly after a bowel movement
- Blood in feces that makes stools look black
- Bright red blood coming from the rectum
- Pain and bloating in the abdomen
- A feeling of fullness in the abdomen, even after not eating for a while
- Fatigue or tiredness
- Unexplained weight loss
- Unexplained iron deficiency in men, or in women after menopause

Risk Factors

Possible risk factors include:

- Older age
- Diet that is high in animal protein, saturated fats, and calories
- Diet that is low in fiber
- High alcohol consumption
- Having had breast, ovary, or uterine cancer
- A family history of colorectal cancer
- Overweight and obesity
- Smoking
- Lack of physical activity
- Presence of polyps in the colon or rectum

Preventions

A number of lifestyle measures may reduce the risk of developing colorectal cancer:

- Regular screenings
- Nutrition
- Exercise
- Bodyweight

Number of variant(s) detected: 0

Gene	Variant ID	Clinical Significance	Risk Allele	Your Genotype	Your Results
MSH6	MP13001	Pathogenic	G	CC	Not Detected
	MP13002	Pathogenic	T	CC	Not Detected
	MP13003	Pathogenic	D	II	Not Detected
	MP13004	Pathogenic	T	CC	Not Detected
PMS2	MP13005	Pathogenic	A	CC	Not Available
	MP13006	Pathogenic	I	DD	Not Detected
APC	MP13007	Pathogenic	T	NA	Not Available
	MP13008	Pathogenic	T	CC	Not Detected
POLD1	MP13009	Pathogenic/Likely Pathogenic	C	NA	Not Available
CASC8	MP13010	Associated with Colorectal Cancer	A	GG	Not Detected

Cancer Risk

Acute Lymphoblastic Leukemia

Acute lymphocytic leukemia (ALL) is a type of cancer of the blood and bone marrow. The word "acute" comes from the fact that the disease progresses rapidly and creates immature blood cells, rather than mature ones. The word "lymphocytic" refers to the white blood cells called lymphocytes, which ALL affects. Acute lymphocytic leukemia is the most common type of cancer in children, and treatments result in a good chance for a cure. Acute lymphocytic leukemia can also occur in adults, though the chance of a cure is greatly reduced.

Signs and Symptoms

Signs and symptoms of acute lymphocytic leukemia may include:

- Bleeding from the gums
- Bone pain
- Fever
- Frequent infections
- Frequent or severe nosebleeds
- Lumps caused by swollen lymph nodes in and around the neck, armpits, abdomen or groin
- Pale skin
- Shortness of breath
- Weakness, fatigue or a general decrease in energy

Risk Factors

Possible risk factors include:

- Previous cancer treatment
- Exposure to radiation
- Genetic disorders

Preventions

Possible methods of prevention:

- Not smoking
- Not drinking alcohol, or limit amount consumed
- Not taking drugs
- For pregnant mothers, make sure to take adequate folic acid and iron supplements

Number of variant(s) detected: 0

Gene	Variant ID	Clinical Significance	Risk Allele	Your Genotype	Your Results
PTPN11	MP14001	Pathogenic	C	TT	Not Detected
CEBPE	MP14002	Associated with Acute Lymphoblastic Leukemia	G	AA	Not Detected
GSDMB	MP14003	Associated with Acute Lymphoblastic Leukemia	T	CC	Not Detected

Cancer Risk

Chronic Myeloid Leukemia

Chronic myelogenous leukemia (CML) is an uncommon type of cancer of the bone marrow. CML causes an increased number of white blood cells in the blood. The term "chronic" indicates that this cancer tends to progress more slowly than acute forms of leukemia. The term "myelogenous" in refers to the type of cells affected by this cancer. Chronic myelogenous leukemia can also be called chronic myeloid leukemia and chronic granulocytic leukemia. It typically affects older adults and rarely occurs in children, though it can occur at any age.

Signs and Symptoms

Chronic myelogenous leukemia often does not cause signs and symptoms. It might be detected during a blood test. When they occur, signs and symptoms may include:

- Bone pain
- Easy bleeding
- Feeling full after eating a small amount of food
- Feeling run-down or tired
- Fever
- Weight loss without trying
- Loss of appetite
- Pain or fullness below the ribs on the left side
- Night sweats

Risk Factors

Factors that increase the risk of chronic myelogenous leukemia:

- Older age
- Being male
- Radiation exposure, such as radiation therapy for certain types of cancer

Preventions

There is no known way to prevent most cases of chronic myeloid leukemia (CML). Some kinds of cancer can be prevented by making lifestyle changes and avoiding certain risk factors, but this is not true for most cases of CML. The only potentially avoidable risk factor for CML is exposure to high doses of radiation, which applies to very few people.

Number of variant(s) detected: 1

Gene	Variant ID	Clinical Significance	Risk Allele	Your Genotype	Your Results
GSTP1	MP15001	Associated with Chronic Myeloid Leukemia	G	AA	Not Detected
AC129926.2	MP15002	Associated with Chronic Myeloid Leukemia	C	CC	Detected

Cancer Risk

Non-Hodgkin's Lymphoma

Non-Hodgkin's lymphoma is cancer that originates in the lymphatic system, the disease-fighting network spread throughout the body. In non-Hodgkin's lymphoma, tumors develop from a type of white blood cell. Many different subtypes of non-Hodgkin's lymphoma exist. Diffuse large B-cell lymphoma and follicular lymphoma are among the most common subtypes.

Signs and Symptoms

Signs and symptoms of non-Hodgkin's lymphoma may include:

- Painless, swollen lymph nodes in the neck, armpits or groin
- Abdominal pain or swelling
- Chest pain, coughing or trouble breathing
- Persistent fatigue
- Fever
- Night sweats
- Unexplained weight loss

Risk Factors

Some factors that may increase the risk of non-Hodgkin's lymphoma include:

- Medications that suppress the immune system
- Infection with certain viruses and bacteria
- Chemicals
- Older age

Prevention

There is no sure way to prevent non-Hodgkin lymphoma (NHL). Most people with NHL have no risk factors that can be changed, so there is no way to protect against these lymphomas. But there are some things that can be done that might lower the risk for NHL, such as limiting the risk of certain infections and maintain a healthy immune system by keeping physically active and maintaining a healthy diet.

Number of variant(s) detected: 0

Gene	Variant ID	Clinical Significance	Risk Allele	Your Genotype	Your Results
NRAS	MP16001	Pathogenic	T	CC	Not Detected
TP53	MP16002	Pathogenic	G	CC	Not Detected
OR52N2-TRIM5	MP16003	Pathogenic	A	GG	Not Detected
AP001122.1	MP16004	Associated with Non-Hodgkin's Lymphoma	T	TC	Not Detected
LPP	MP16005	Associated with Non-Hodgkin's Lymphoma	G	AA	Not Detected
PVT1	MP16006	Associated with Non-Hodgkin's Lymphoma	T	CC	Not Detected

Cancer Risk

Kidney Cancer

Kidney cancer is cancer that begins in the kidneys. In adults, renal cell carcinoma is the most common type of kidney cancer. Other less common types of kidney cancer can occur. Young children are more likely to develop a kind of kidney cancer called Wilms' tumor. The incidence of kidney cancer seems to be increasing. One reason for this may be the fact that imaging techniques such as computerized tomography (CT) scans are being used more often. These tests may lead to the accidental discovery of more kidney cancers. Kidney cancer is often discovered at an early stage, when the cancer is small and confined to the kidney.

Signs and Symptoms

Kidney cancer usually does not have signs or symptoms in its early stages. In time, signs and symptoms may develop, including:

- Blood in the urine, which may appear pink, red or cola colored
- Pain in the back or side that does not go away
- Loss of appetite
- Unexplained weight loss
- Tiredness
- Fever

Risk Factors

Factors that can increase the risk of kidney cancer include:

- Older age
- Smoking
- Obesity
- High blood pressure
- Treatment for kidney failure
- Certain inherited syndromes
- Family history of kidney cancer

Preventions

Taking steps to improve health may help reduce risk of kidney cancer, for example:

- Quit smoking
- Maintain a healthy weight
- Control high blood pressure

Number of variant(s) detected: 0

Gene	Variant ID	Clinical Significance	Risk Allele	Your Genotype	Your Results
PTEN	MP17001	Pathogenic	C	GG	Not Detected
MET	MP17002	Pathogenic	A	GG	Not Detected
	MP17003	Pathogenic	G	AA	Not Detected
C1orf185	MP17004	Associated with Kidney Cancer	C	TT	Not Detected
DPF3	MP17005	Associated with Kidney Cancer	T	TC	Not Detected
Intergenic	MP17006	Associated with Kidney Cancer	A	AG	Not Detected
RHOBTB2	MP17007	Associated with Kidney Cancer	T	TC	Not Detected

Cancer Risk

Gallbladder Cancer

Gallbladder cancer is an abnormal growth of cells that begins in the gallbladder. Gallbladder cancer is uncommon. When gallbladder cancer is discovered at its earliest stages, the chance for a cure is very good. But most gallbladder cancers are discovered at a late stage, when the prognosis is often very poor. Gallbladder cancer may not be discovered until it is advanced because it often causes no specific signs or symptoms. Also, the relatively hidden nature of the gallbladder makes it easier for gallbladder cancer to grow without being detected.

Signs and Symptoms

Gallbladder cancer signs and symptoms may include:

- Abdominal pain, particularly in the upper right portion of the abdomen
- Abdominal bloating
- Losing weight without trying
- Jaundice

Risk Factors

Factors that can increase the risk of gallbladder cancer include:

- Sex
- Age
- A history of gallstones
- Other gallbladder diseases and conditions
- Inflammation of the bile ducts

Preventions

Because most of the risk factors, such as age and ethnicity, cannot be changed, gallbladder cancer cannot be prevented. However, having a healthy lifestyle may help lower the risk. Some tips for a healthy lifestyle may include:

- Maintaining a healthy weight
- Eating a healthy diet
- Exercising

Number of variant(s) detected: 0

Gene	Variant ID	Clinical Significance	Risk Allele	Your Genotype	Your Results
SMAD4	MP18001	Pathogenic	T	CC	Not Detected
ABCB4	MP18002	Associated with Gallbladder Cancer	T	TC	Not Detected
DCC	MP18003	Associated with Gallbladder Cancer	T	CC	Not Detected

Cancer Risk

Melanoma

Melanoma, the most serious type of skin cancer, develops in the cells (melanocytes) that produce melanin — the pigment that gives skin its color. Melanoma can also form in the eyes and, rarely, inside the body, such as in the nose or throat. The risk of melanoma seems to be increasing in people under 40, especially women. Knowing the warning signs of skin cancer can help ensure that cancerous changes are detected and treated before the cancer has spread. Melanoma can be treated successfully if it is detected early.

Signs and Symptoms

The first melanoma signs and symptoms often are:

- A change in an existing mole
- The development of a new pigmented or unusual-looking growth on the skin

Risk Factors

Factors that may increase the risk of melanoma include:

- Fair skin
- A history of sunburn
- Excessive ultraviolet (UV) light exposure
- Living closer to the equator or at a higher elevation
- Having many moles or unusual moles
- A family history of melanoma
- Weakened immune system

Preventions

Risk of melanoma and other types of skin cancer can be reduced by:

- Avoid the sun during the middle of the day
- Wear sunscreen year-round
- Wear protective clothing
- Avoid tanning lamps and beds
- Become familiar with own skin to notice changes

Number of variant(s) detected: 0

Gene	Variant ID	Clinical Significance	Risk Allele	Your Genotype	Your Results
MITF	MP19001	Pathogenic	A	GG	Not Detected
PIK3CA	MP19002	Pathogenic	A	GG	Not Detected
BRAF	MP19003	Pathogenic	C	AA	Not Detected
	MP19004	Pathogenic	G	NA	Not Available
CDKN2A	MP19005	Pathogenic/Likely Pathogenic	I	NA	Not Available
	MP19006	Pathogenic/Likely Pathogenic	C	AA	Not Detected
	MP19007	Pathogenic	G	NA	Not Available
AFG3L1P	MP19008	Associated with Melanoma	A	AC	Not Detected
ALS2CR12	MP19009	Associated with Melanoma	A	GG	Not Detected
MCIR	MP19010	Associated with Melanoma	T	CC	Not Detected
SPATA33	MP19011	Associated with Melanoma	A	AG	Not Detected
TYR	MP19012	Associated with Melanoma	A	GG	Not Detected

Cancer Risk

Meningioma

A meningioma is a tumor that arises from the meninges — the membranes that surround the brain and spinal cord. Although not technically a brain tumor, it is included in this category because it may compress or squeeze the adjacent brain, nerves and vessels. Meningioma is the most common type of tumor that forms in the head. Most meningiomas grow very slowly, often over many years without causing symptoms. But sometimes, their effects on nearby brain tissue, nerves or vessels may cause serious disability.

Signs and Symptoms

Signs and symptoms may include:

- Changes in vision, such as seeing double or blurriness
- Headaches, especially those that are worse in the morning
- Hearing loss or ringing in the ears
- Memory loss
- Loss of smell
- Seizures
- Weakness in the arms or legs
- Language difficulty

Risk Factors

Risk factors for a meningioma include:

- Radiation treatment
- Female hormones
- An inherited nervous system disorder
- Obesity

Preventions

The risk of meningioma can be reduced by:

- Maintaining a normal body weight
- Avoiding unnecessary dental x-rays

Number of variant(s) detected: 0

Gene	Variant ID	Clinical Significance	Risk Allele	Your Genotype	Your Results
PTEN	MP20001	Pathogenic	G	TT	Not Detected
SMARCE1	MP20002	Associated with Meningioma	D	II	Not Detected
MTRR	MP20003	Associated with Meningioma	G	AA	Not Detected

Cancer Risk

Glioma

A glioma is a type of tumor that starts in the glial cells of the brain or the spine. Gliomas comprise about 30 percent of all brain tumors and central nervous system tumours, and 80 percent of all malignant brain tumours.

Signs and Symptoms

Common signs and symptoms of gliomas include:

· Headache
· Nausea or vomiting
· Confusion or a decline in brain function
· Memory loss
· Personality changes or irritability
· Difficulty with balance
· Urinary incontinence
· Vision problems
· Speech difficulties
· Seizures

Risk Factors

The exact cause of gliomas is not known. But there are some factors that may increase your risk of a brain tumor. Risk factors include:

· Age: gliomas are most common in adults between ages 45 and 65 years old
· Exposure to radiation
· Family historycer

Preventions

It is not possible to prevent glioma. However, early diagnosis and treatment of glioma can be beneficial in preventing long-term effects.

Number of variant(s) detected: 1

Gene	Variant ID	Clinical Significance	Risk Allele	Your Genotype	Your Results
TERT	MP21001	Associated with Glioma	C	CC	Detected
CCDC26	MP21002	Associated with Glioma	G	TT	Not Detected
CDKN2B-AS1	MP21003	Associated with Glioma	G	AA	Not Detected
PHLDB1	MP21004	Associated with Glioma	A	GG	Not Detected

Cancer Risk

Basal Cell Carcinoma

Basal cell carcinoma is a type of skin cancer. Basal cell carcinoma begins in the basal cells — a type of cell within the skin that produces new skin cells as old ones die off. Basal cell carcinoma often appears as a slightly transparent bump on the skin, though it can take other forms. Basal cell carcinoma occurs most often on areas of the skin that are exposed to the sun, such as the head and neck. Most basal cell carcinomas are thought to be caused by long-term exposure to ultraviolet (UV) radiation from sunlight.

Signs and Symptoms

Basal cell carcinoma appears as a change in the skin, these changes in the skin usually have one of the following characteristics:

- A pearly white, skin-colored or pink bump that is translucent
- A brown, black or blue lesion
- A flat, scaly, reddish patch with a raised edge
- A white, waxy, scar-like lesion

Risk Factors

Factors that increase the risk of basal cell carcinoma include:

- Chronic sun exposure
- Radiation therapy
- Fair skin
- Increasing age
- A personal or family history of skin cancer
- Immune-suppressing drugs
- Exposure to arsenic
- Inherited syndromes that cause skin cancer

Preventions

The risk of basal cell carcinoma can be reduced by:

- Avoid the sun during the middle of the day
- Wear sunscreen year-round
- Wear protective clothing
- Avoid tanning beds

Number of variant(s) detected: 0

Gene	Variant ID	Clinical Significance	Risk Allele	Your Genotype	Your Results
ALS2CR12	MP22001	Associated with Basal Cell Carcinoma	C	GC	Not Detected
CDKN2B-AS1	MP22002	Associated with Basal Cell Carcinoma	G	AA	Not Detected
KRT5	MP22003	Associated with Basal Cell Carcinoma	T	CC	Not Detected
LINC-PINT	MP22004	Associated with Basal Cell Carcinoma	T	GG	Not Detected
TGM3	MP22005	Associated with Basal Cell Carcinoma	T	AA	Not Detected

Cancer Risk

Hodgkin's Lymphoma

Hodgkin's lymphoma is a cancer of the lymphatic system, which is part of the immune system. It may affect people of any age, but is most common in people between 20 and 40 years old and those over 55. In Hodgkin's lymphoma, cells in the lymphatic system grow abnormally and may spread beyond it. Advances in diagnosis and treatment of Hodgkin's lymphoma have helped give people with this disease the chance for a full recovery. The prognosis continues to improve for people with Hodgkin's lymphoma.

Signs and Symptoms

Signs and symptoms of Hodgkin's lymphoma may include:

- Painless swelling of lymph nodes in your neck, armpits or groin
- Persistent fatigue
- Fever
- Night sweats
- Unexplained weight loss
- Severe itching
- Increased sensitivity to the effects of alcohol or pain in your lymph nodes after drinking alcohol

Risk Factors

Factors that can increase the risk of Hodgkin's lymphoma include:

- Age
- A family history of lymphoma
- Being male
- Past Epstein-Barr infection

Preventions

Because lymphoma starts in the lymph system, factors that weaken the immune system can play a role in the development of lymphoma. To keep a strong immune system:

- Quit smoking
- Manage exposures to chemicals

Number of variant(s) detected: 0

Gene	Variant ID	Clinical Significance	Risk Allele	Your Genotype	Your Results
GATA3	MP23001	Associated with Hodgkin's Lymphoma	G	TT	Not Detected
HCG24	MP23002	Associated with Hodgkin's Lymphoma	C	TC	Not Detected
LY6G6C	MP23003	Associated with Hodgkin's Lymphoma	A	GG	Not Detected
PVT1	MP23004	Associated with Hodgkin's Lymphoma	C	TT	Not Detected
VWA7	MP23005	Associated with Hodgkin's Lymphoma	A	GG	Not Detected

Cancer Risk

Thyroid Cancer

Thyroid cancer occurs in the cells of the thyroid that produces hormones that regulate the heart rate, blood pressure, body temperature and weight. Thyroid cancer might not cause any symptoms at first. But as it grows, it can cause pain and swelling in the neck. Several types of thyroid cancer exist. Some grow very slowly and others can be very aggressive. Most cases of thyroid cancer can be cured with treatment.

Signs and Symptoms

As thyroid cancer grows, it may cause:

- A lump (nodule) that can be felt through the skin on the neck
- Changes to voice, including increasing hoarseness
- Difficulty swallowing
- Pain in the neck and throat
- Swollen lymph nodes in the neck

Risk Factors

Factors that may increase the risk of thyroid cancer include:

- Female sex
- Exposure to high levels of radiation
- Certain inherited genetic syndromes

Preventions

Prevention for people with a high risk:

Adults and children with an inherited gene mutation that increases the risk of medullary thyroid cancer may consider thyroid surgery to prevent cancer (prophylactic thyroidectomy).

Number of variant(s) detected: 0

Gene	Variant ID	Clinical Significance	Risk Allele	Your Genotype	Your Results
DIRC3	MP24001	Associated with Thyroid Cancer	A	GG	Not Detected
NRG1	MP24002	Associated with Thyroid Cancer	G	AA	Not Detected

Cancer Risk

Ovarian Cancer

Ovarian cancer is a type of cancer that begins in the ovaries. Ovarian cancer often goes undetected until it has spread within the pelvis and abdomen. At this late stage, ovarian cancer is more difficult to treat. Early-stage ovarian cancer, in which the disease is confined to the ovary, is more likely to be treated successfully.

Signs and Symptoms

Signs and symptoms of ovarian cancer may include:

- Abdominal bloating or swelling
- Quickly feeling full when eating
- Weight loss
- Discomfort in the pelvis area
- Changes in bowel habits, such as constipation
- A frequent need to urinate

Risk Factors

Factors that can increase risk of ovarian cancer include:

- Older age
- Inherited gene mutations
- Family history of ovarian cancer
- Estrogen hormone replacement therapy
- Age when menstruation started and ended

Preventions

The risk for developing cancer, including laryngeal There is no sure way to prevent ovarian cancer. But there may be ways to reduce the risk:

- Discuss risk factors with a doctor, especially if there is a family history of breast and ovarian cancers

Number of variant(s) detected: 2

Gene	Variant ID	Clinical Significance	Risk Allele	Your Genotype	Your Results
BRCA1	MP25001	Associated with Ovarian Cancer	G	AG	Detected
	MP25002	Pathogenic	T	CC	Not Detected
	MP25003	Pathogenic	I	DD	Not Detected
	MP25004	Pathogenic	A	GG	Not Detected
	MP25005	Pathogenic	T	CC	Not Detected
	MP25006	Pathogenic	T	CC	Not Detected
	MP25007	Pathogenic	T	CC	Not Detected
	MP25008	Pathogenic	A	GG	Not Detected
	MP25009	Pathogenic	A	CC	Not Detected
	MP25010	Pathogenic	T	GG	Not Detected

Cancer Risk

Ovarian Cancer

Gene	Variant ID	Clinical Significance	Risk Allele	Your Genotype	Your Results
BRCA2	MP25011	Pathogenic	T	GG	Not Detected
	MP25012	Pathogenic	T	CC	Not Detected
	MP25013	Pathogenic	T	NA	Not Available
	MP25014	Pathogenic	T	GG	Not Detected
BABAM1	MP25015	Associated with Ovarian Cancer	A	GG	Not Detected
CHMP4C	MP25016	Associated with Ovarian Cancer	G	AA	Not Detected
TIPARP	MP25017	Associated with Ovarian Cancer	C	TC	Detected

Cancer Risk

Lung Cancer

Lung cancer is a type of cancer that begins in the lungs. Lung cancer is the leading cause of cancer deaths worldwide. People who smoke have the greatest risk of lung cancer, though lung cancer can also occur in people who have never smoked.

Signs and Symptoms

Signs and symptoms of lung cancer may include:
- A new cough that does not go away
- Coughing up blood
- Shortness of breath
- Chest pain
- Hoarseness
- Losing weight without trying
- Bone pain
- Headache

Risk Factors

Factors that may increase the risk of lung cancer include:
- Smoking
- Exposure to secondhand smoke
- Exposure to other carcinogens
- Famly history of lung cancer

Preventions

The risk of lung cancer can be reduced by:
- Stop smoking
- Avoid secondhand smoke
- Avoid carcinogens at work
- Eat a diet full of fruits and vegetables
- Exercise

Number of variant(s) detected: 1

Gene	Variant ID	Clinical Significance	Risk Allele	Your Genotype	Your Results
TP53	MP26001	Pathogenic	A	CC	Not Detected
KRAS	MP26002	Pathogenic	A	NA	Not Available
TERT	MP26003	Associated with Lung Cancer	C	CC	Detected

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