

KNOWING YOUR FAMILY HEALTH HISTORY COULD SAVE YOUR LIFE!

Why is my family health history so important?

Several important reasons to know your family health history

- Because some conditions run in families and by asking about your family health history, you can find out what diseases you and your children may be at **increased risk** for getting.
- Depending upon the disease and your risk level (see below) you may meet criteria for more or different kinds of prevention/screening. MeTree calculates your risk from the information you enter and tells you what options are available to lower your risk.
- How much your risk is increased depends upon the type of risk you have. There are two kinds of **RISK**:
 1. **Familial risk**. This means you have a slightly higher chance (about 2-3 times higher) of getting the disease than most people outside your family.

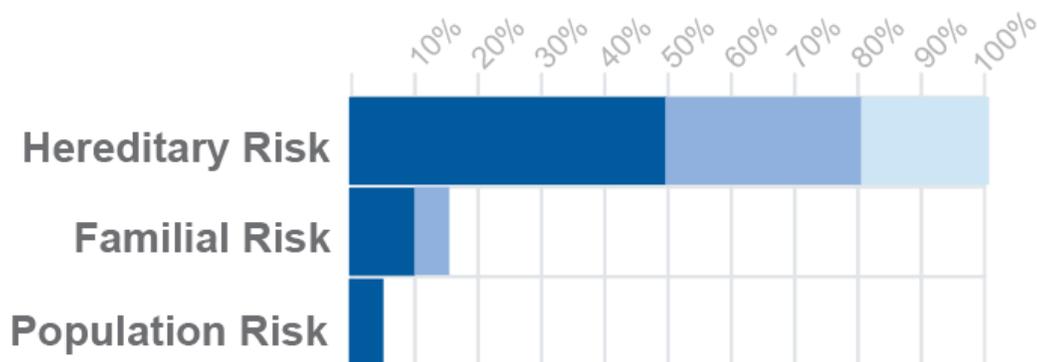
An example of a family history for **familial risk** is a mother with colon cancer after age 50.
 2. **Hereditary risk**. This means you have a much higher chance (**50-100%**) of getting the disease than most people outside your family. These risks are inherited from a parent through DNA segments (genes) and are not common (only about 1 in 500 people have them).

An example of a family history that might indicate risk for **hereditary risk** is a parent with colon cancer at age 40.

What does it mean to have a higher risk for cancer?

Examples of risk, both Familial Risk and Hereditary Risk

- Breast cancer occurs in 1 out of 9 women; this means the average person has an **11%** chance of getting breast cancer in their lifetime (called **population risk**). If you have a **familial risk** for breast cancer then you would have a **22-33%** chance of having breast cancer in your lifetime.
- Hereditary risk (risks inherited from a parent through genes), if you have hereditary breast and ovarian cancer syndrome you have an **80%** chance of getting breast cancer in your lifetime.
- The chart below illustrates the risk differences between population risk, familial risk and hereditary risk:



What exactly is a family health history and what do I ask about?

Family members health and how to collect the information

- A family health history is a record of your blood family members (parents, grandparents, aunts/uncles, brothers/sisters, children, and cousins). Your partner and his/her relatives are not your blood relatives and therefore, their family health history is not helpful in determining your risk
- Record relationship to you (mother, grandmother on mom's side, etc.), any disease they had, the age they developed the disease, and if they have died -what age they died and what the cause of death was.
- A worksheet with a list of all the conditions you should ask family members about is provided at the end of this document.
- As you saw in the description of familial vs. hereditary risk it is very important to know how old someone was when they developed a disease.
- Important distinctions to make when asking about cancers.
 - Most cancers start in one site (site of origin) but often they will spread to other places (metastases). For example lung cancer can frequently spread to the brain.
 - When asking about cancer we only need to know the site of origin. The other sites are not helpful in assessing your risk level.

How do I ask about family health history?

Who to ask and where to start

- Family members are the best source of information.
 - Start with your parents if they are still alive
 - Often there is one family member who is considered the family historian and knows everything about everyone. If there is a person like this in your family you should talk with him/her.
- Family events like birthdays, Christmas, and weddings are an excellent time to ask, because so many relatives are in one place. In fact, Thanksgiving is a national family health history day and would be a great time to bring it up!
- Some relatives are uncomfortable talking about health and/or medical histories. If that happens to you, you can explain how it will help you and your children

Why do I also have to provide information about myself?

Your health information is also important

- To perform a risk assessment for some conditions like hereditary cancer syndromes or hereditary liver diseases you only need family health history to calculate risk; however other diseases need information about yourself and your lifestyle to fully calculate your risk.
- Examples of these include cholesterol and blood pressure for heart disease risk, radiation exposure for breast cancer risk, and diet for diabetes risk.

MeTree asks about the following tests for yourself.

Check to see if you've had any of these tests and what the results were.

- Cholesterol: including total, LDL (bad cholesterol), HDL (good cholesterol), and triglycerides (fat)
- HgbA1c: a marker of your average sugar levels for the last 3 months, used in diabetes screening and management
- High sensitivity CRP (hsCRP): a marker of inflammation used to measure risk of heart disease
- Carotid Artery Intimal Medial Thickness (CA-IMT): an ultrasound measuring the thickness of the carotid arteries (it's not the same as just measuring the blood flow inside the arteries which is called a carotid ultrasound)
- Coronary Calcium CT Score: measures calcium deposits in the heart blood vessels

MeTree asks about the following family health history.

Please talk with family members to see if anyone has been diagnosed with any of these conditions.

Types of Cancer:

- Bone
- Brain
- Breast (both or just one?)
- Colon
- Esophageal
- Kidney (or Renal cell)
- Leukemia
- Liver (or Hepatocellular)
- Lung
- Muscle (or Sarcoma)
- Ovarian
- Pancreatic
- Prostate
- Rectal
- Skin
- Small Bowel
- Stomach
- Thyroid
- Uterine
- Unknown

Hereditary Cancer Syndromes (these are uncommon and require a genetic test):

- Hereditary Breast & Ovarian Cancer Syndrome
- Lynch Syndrome (also called Hereditary Nonpolyposis Colon Cancer)
- Familial Adenomatous Polyposis
- LiFraumeni Syndrome
- Cowden Syndrome

Hereditary Cardiovascular Syndromes (these are uncommon and require a specialist for care):

- Familial hypercholesterolemia
- Hypertrophic Cardiomyopathy
- Dilated Cardiomyopathy
- Left ventricular non-compaction syndrome
- Arrhythmogenic right ventricular dysplasia
- Long QT syndrome
- Brugada syndrome
- Catecholaminergic polymorphic ventricular tachy
- Ehlers Danlos syndrome
- Marfans syndrome

Hereditary Liver Diseases:

- *Hemochromatosis*
- *Wilson's Disease*
- *Alpha 1 Anti-trypsinase Deficiency*
- *Primary Biliary Cirrhosis*
- *Auto-immune hepatitis*
- *Sclerosing Cholangitis*

Hereditary Blood Clotting Diseases:

- *Protein C deficiency*
- *Protein S deficiency*
- *Anti-thrombin 3 deficiency*
- *Prothrombin 2010 mutation*
- *Factor V Leiden*

Other Diseases:

- *Aortic Aneurysm*
- *Asthma*
- *Atrial Fibrillation*
- *Dementia/Alzheimers*
- *Carotid Stenosis*
- *Colon Polyps*
- *Crohn's disease*
- *COPD (chronic bronchitis or Emphysema)*
- *Diabetes (specify type: type 1, type 2, gestational (during pregnancy only))*
- *Heart Attack*
- *High Blood Pressure*
- *High Cholesterol*
- *Lupus*
- *Mental Illness*
- *Multiple Sclerosis*
- *Osteoporosis*
- *Parkinson's Disease*
- *Peripheral Artery Disease*
- *Rheumatoid Arthritis*
- *Sickle Cell Trait/Disease*
- *Sudden cardiac death*
- *Stroke*
- *Thalessemia*
- *Thyroid Disease*
- *Ulcerative Colitis*
- *Addiction (drugs or alcohol)*
- *Kidney Disease (specify type: nephritis, nephrotic, cystic, diabetes, unknown)*

Causes of Death:

- *Accident*
- *Cancer*
- *Diabetes*
- *Heart Disease*
- *Infection*
- *Lung Disease (ex. copd)*
- *Natural Causes*
- *SIDS*
- *Stroke*
- *Unknown*
- *Other*

Family History Worksheet

Your Children	Age now or at death*	Diseases this person has had and age they were diagnosed Example: Breast Cancer (age 40); blood clots (age 20) If the person has died, please write cause of death

Your Brothers and Sisters	Age now or at death*	Diseases this person has had and age they were diagnosed Example: Breast Cancer (age 40); blood clots (age 20) If the person has died, please write cause of death

Your Nieces and Nephews	Age now or at death*	Diseases this person has had and age they were diagnosed Example: Breast Cancer (age 40); blood clots (age 20) If the person has died, please write cause of death

* If you don't know their exact age, put approximate age.

Your Parents	Age now or at death*	Diseases this person has had and age they were diagnosed Example: Breast Cancer (age 40); blood clots (age 20) If the person has died, please write cause of death
Mom		
Dad		

Your aunts and uncles on your <u>Mom's</u> side	Age now or at death*	Diseases this person has had and age* they were diagnosed Example: Breast Cancer (age 40); blood clots (age 20) If the person has died, please write cause of death

Your grandparents on your <u>Mom's</u> side	Age now or at death*	Diseases this person has had and age* they were diagnosed Example: Breast Cancer (age 40); blood clots (age 20) If the person has died, please write cause of death
grandmother		
grandfather		

* If you don't know their exact age, put approximate age.

Your aunts and uncles on your <u>Dad's</u> side	Age now or at death*	Diseases this person has had and age* they were diagnosed Example: Breast Cancer (age 40); blood clots (age 20) If the person has died, please write cause of death

Your grandparents on your <u>Dad's</u> side	Age now or at death*	Diseases this person has had and age* they were diagnosed Example: Breast Cancer (age 40); blood clots (age 20) If the person has died, please write cause of death
grandmother		
grandfather		

* If you don't know their exact age, put approximate age.