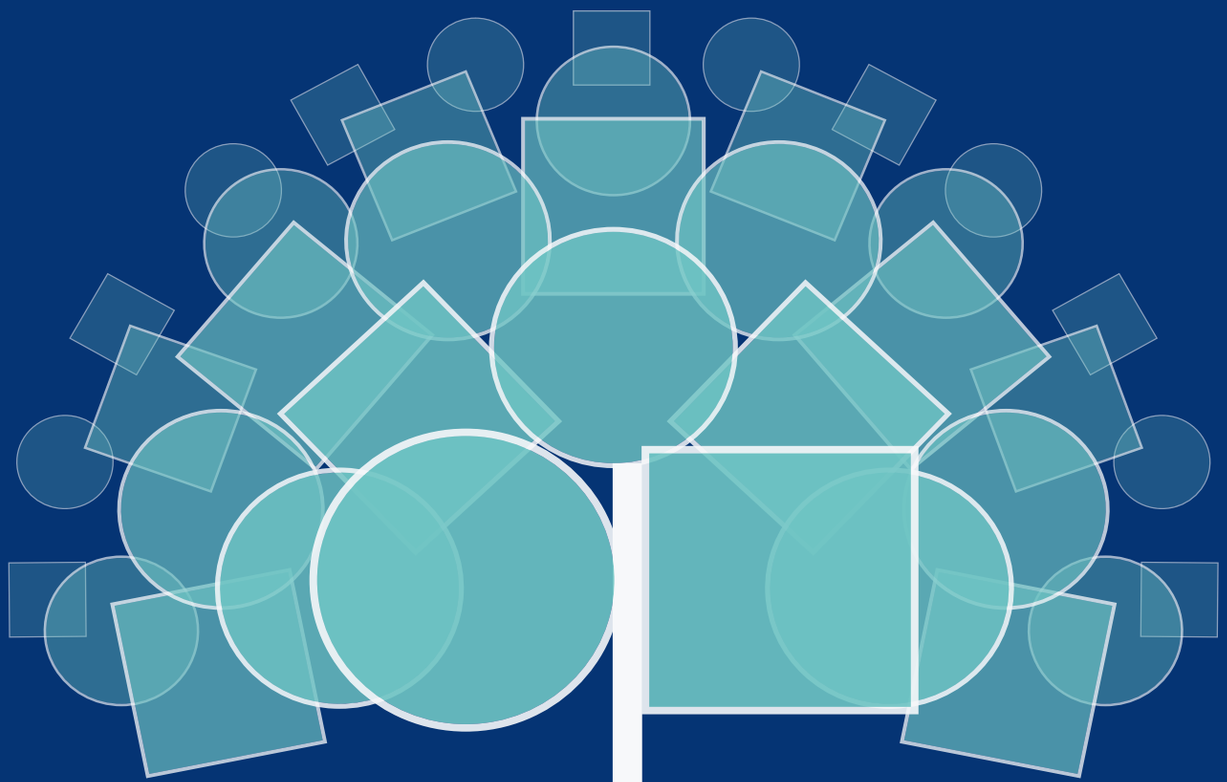


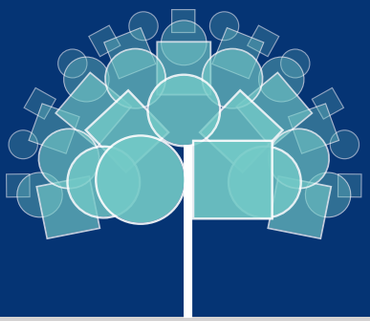
Families SHARE

Sharing Health Assessment and Risk Evaluation

Funded by
National Human Genome Research Institute
National Institutes of Health, Bethesda, Maryland

Table of Contents

What is Families SHARE?		Page 1
How to Read a Family Health History Tree		Page 2
Part 1:	**Example Family Health History Tree**	Page 3
Part 2:	**Your Family Health History Tree**	Page 4
Part 3:	**Disease Risk Worksheets and Recommendations**	Page 5
Colorectal Cancer Risk	Fact Sheet and Worksheet	Pages 6-7
Breast Cancer Risk	Fact Sheet and Worksheet	Pages 8-9
Prostate Cancer Risk	Fact Sheet and Worksheet	Pages 10-11
Diabetes Risk	Fact Sheet and Worksheet	Pages 12-13
Heart Disease Risk	Fact Sheet and Worksheet	Pages 14-15
Healthy Recommendations		Pages 16-17
Current Screening Recommendations		Pages 18-19



Sharing Health Assessment and Risk Evaluation

What is Families SHARE?

Families SHARE helps families learn how their family health history affects their risk for diseases. It is funded by the National Human Genome Research Institute. Your family health history plays a part in your risk for many different diseases. In this workbook, we focus on the following diseases: colorectal cancer, breast cancer, prostate cancer, type 2 diabetes, and heart disease.

How do you get started with my Families SHARE workbook?

We have created a Family Health History Tree for you. This workbook shows you how to read the tree, and learn what it means for you and your family. The workbook has three parts:

Part 1

Example Family Health History Tree

Learn about a Family Health History Tree by looking at an example.

Part 2

Your Family Health History Tree

Look over your own Family Health History Tree. Update information that has changed and add in any new information.

Part 3

Disease Risk Worksheets and Recommendations

Work through the questions to find your risk for each disease.
Learn about tips to lower your risk and protect your family.

Where do you go from here?

This workbook is just a start. Here are some important next steps:

- Share this information with your doctor.
- Share this information with your family. Add new family health history information to the tree.
- Go to the website genome.gov/FamiliesSHARE for worksheets that will help you learn the disease risk for other family members.

Do you have other diseases in your family that are not in this workbook?

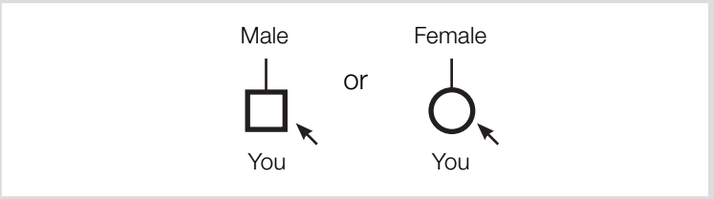
The Surgeon General has an online tool, My Family Health Portrait, to help you keep track of your family health history in more detail. Visit phgkb.cdc.gov/FHH/html/index.html for more information.

How to Read a Family Health History Tree

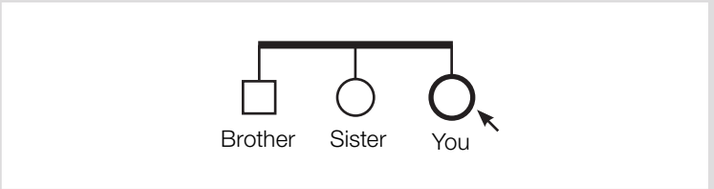
A family health history tree provides information about you and your first-degree and second-degree biological relatives.* It also shows the people in your family who have colon cancer, breast cancer, prostate cancer, diabetes, or heart disease, according to the information that you gave us. For your privacy, we only provide the first names of you and your family members. Follow the instructions below to help you read the diagram and understand what each symbol means.

** First-degree relatives (FDR) are parents, siblings and children.*
Second-degree relatives (SDR) are half-siblings, grandparents, aunts, uncles, nieces, nephews, and grandchildren.

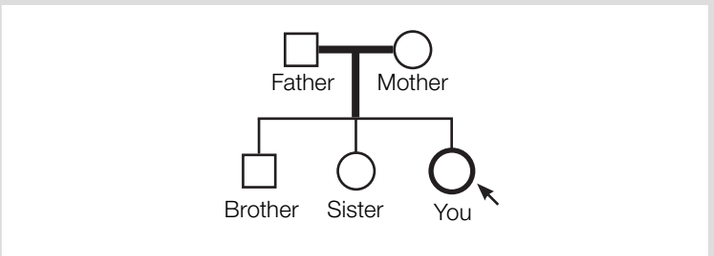
Look for your first name (represented in this example as "You"). If you are male, you will be a square. If you are female, you will be a circle.



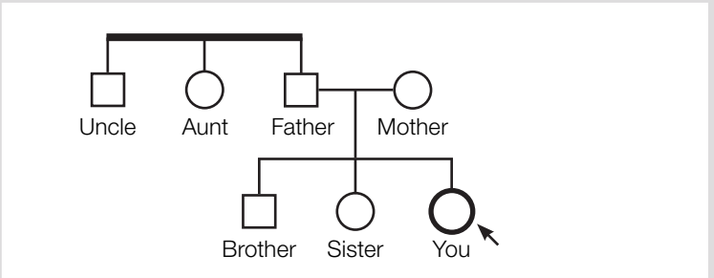
If you have any brothers or sisters, they will be represented as circles and squares connected to you by a horizontal line above your symbol. Their first name will be below their symbols.



The line going straight up from your line connects to a single line across and forms a T shape that leads to your parents. Their first name will be below their symbols.

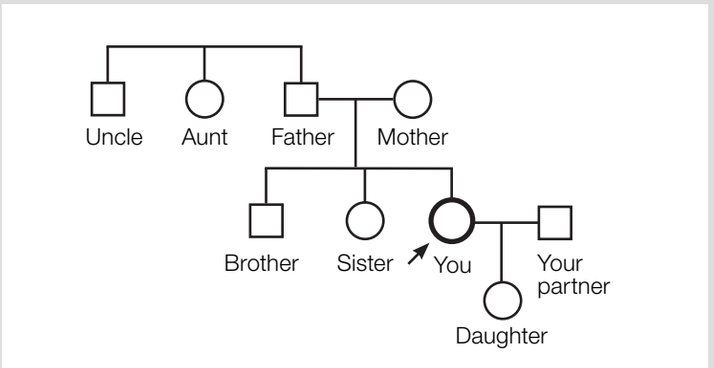


If your parents have brothers or sisters, they will be connected by a horizontal line above them, just like you and your siblings.



Finally, if you have a spouse or partner, that person is connected to you by a horizontal line directly between your symbols. If you have any children with that person, they will be connected to both of you by a vertical line going straight down to their symbol.

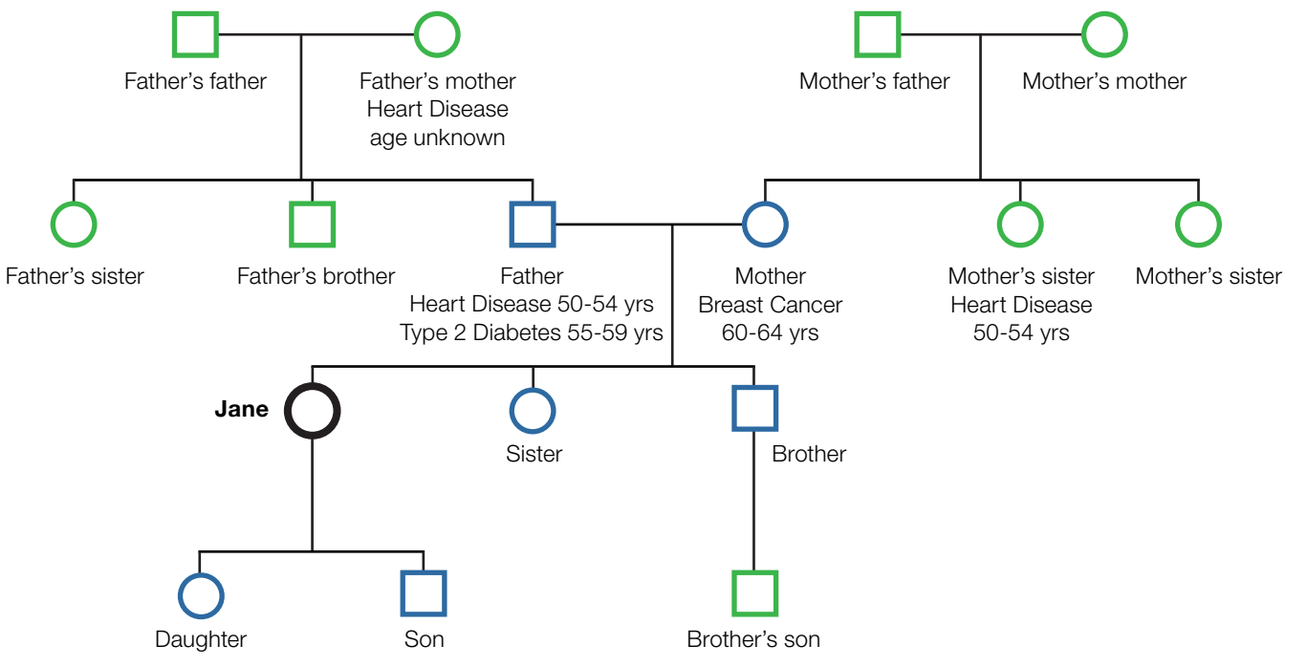
You can follow this same process for another family member by looking for their first name and starting there!



Example Family Health History Tree

The Family Health History Tree below is about a woman named Jane and her family. All of the information is made up. Follow her steps to see how she finds her risk of heart disease.

- The people in blue are Jane's first-degree relatives.
- The people in green are Jane's second-degree relatives.



Having heart disease and type 2 diabetes in her family can affect Jane's risk of heart disease. Let's see how she would use her Family Health History Tree to find her risk.

How many of your <u>first-degree relatives</u> listed to the right have been diagnosed with heart disease OR type 2 diabetes?

Mother
(Father)
Sister(s)
Brother(s)
Daughter(s)
Son(s)

Enter total number: **1**

Is the answer 1 or more? (Circle yes or no) (yes) no

How many of your <u>second-degree relatives</u> listed to the right have been diagnosed with heart disease OR type 2 diabetes?

Half-sister
Half-brother
(Grandmother(s))
Grandfather(s)
(Aunt(s))
Uncle(s)
Niece(s)
Nephew(s)

Enter total number: **2**

Is the answer 2 or more? (Circle yes or no) (yes) no

Since the answer is yes to at least one of these questions, Jane has an increased risk of heart disease.

Part 2

Your Family Health History Tree

In this part, you will use your Family Health History Tree to learn more about you and your family's risk for disease.

Start by reading your Family Health History Tree

- Find your Family Health History Tree in this packet.
- Find the symbol that has your first name below it.
- Use the instructions on page 2 to read your Family Health History Tree.

Update your Family Health History Tree

Add or change your family health history information, as needed.

Learn about your risk of disease

Use your Family Health History Tree to complete the disease risk worksheets for colorectal cancer, breast cancer, prostate cancer, type 2 diabetes, and heart disease in Part 3.

Disease Risk Worksheets and Recommendations

Next you will learn about:

- Colorectal cancer
- Breast cancer
- Prostate cancer
- Type 2 diabetes
- Heart disease

You can use your Family Health History Tree to answer the questions on the disease risk worksheets in this packet. This will help you learn if you are at increased risk for any of these diseases.

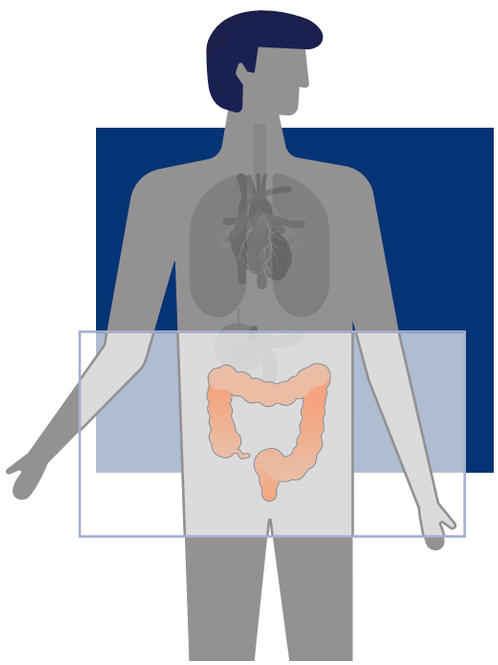
Once you learn about your risk, you can help your family members learn about their risk. Find disease risk worksheets for your family members online at: genome.gov/FamiliesSHARE

Leading a healthy lifestyle and getting regular screening for disease are a couple of ways to stay healthy. You will find other tips that may help you prevent disease in this packet.

Talk to your doctor about your family health history and your risk of disease!

What is Colorectal Cancer?

Colorectal cancer is tumors in the large intestine (colon) or the rectum (end of the colon). Most colorectal cancers begin as growths along the colon or rectum called polyps.



Colorectal cancer is also known as colon cancer or bowel cancer. Colon cancer can often be treated if it is found early.

What are some factors that may increase your risk of colorectal cancer?

- Eating a diet high in fat and/or processed meats
- Eating a diet low in fiber
- Lack of exercise
- Obesity
- Smoking tobacco
- Heavy alcohol use

Some health screenings for colorectal cancer

- Sensitive stool tests
- Colonoscopy

How does family health history affect your risk of colorectal cancer?

Use the worksheet on the next page to find out.

Check out these websites for more information:

MedlinePlus
medlineplus.gov/colorectalcancer.html
Mayo Clinic
mayoclinic.org/diseases-conditions/colon-cancer/symptoms-causes/syc-20353669

What is your risk of Colorectal Cancer?

How many of your first-degree relatives listed to the right have been diagnosed with colorectal cancer?

Mother
Father
Sister(s)
Brother(s)
Daughter(s)
Son(s)

Enter total number

Is the answer 1 or more? (Circle yes or no.)

yes **no**

How many of your second-degree relatives listed to the right have been diagnosed with colorectal cancer?

Half-sister(s)
Half-brother(s)
Grandmother(s)
Grandfather(s)
Aunt(s)
Uncle(s)
Niece(s)
Nephew(s)

Enter total number

Is the answer 2 or more? (Circle yes or no.)

yes **no**

If the answer is **yes** to either of these questions, you have an increased risk of colorectal cancer.

If you have an increased risk, talk to your doctor about what you can do to prevent colorectal cancer.

Important:

Some families may have an inherited cancer syndrome. If you or your relatives have had cancer before the age of 50, multiple cancers, or recurring cancers, share this information with your doctor to see if genetic testing is recommended for your family.

Some tips that may help prevent and detect colorectal cancer:

Eat fruits and vegetables daily for vitamins, minerals, fiber, and antioxidants:

Daily, adults should eat—
- at least 2 cups of vegetables
- at least 1.5 cups of fruit
- and about 30-35 grams of fiber

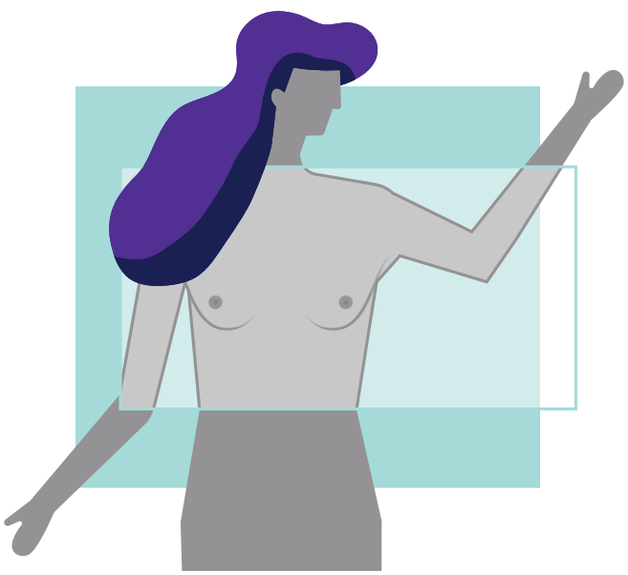
Talk to your doctor about screening:

- Polyps can be removed if found early, before they become cancer.

Turn to page 16 through 19 to see other screening and lifestyle recommendations.

What is Breast Cancer?

Breast cancer is tumors that form in the cells of the breasts.



Screening each year can help find breast cancer early. Treatment may be more successful if cancer is found early.

What are some factors that may increase risk of breast cancer?

- Heavy alcohol use
- Obesity
- Lack of exercise

Some health screenings for breast cancer

- Mammogram
- Clinical breast exam

How does family health history affect your risk of breast cancer?

Use the worksheet on the next page to find out.

Check out these websites for more information:

MedlinePlus
medlineplus.gov/breastcancer.html
Mayo Clinic
mayoclinic.org/diseases-conditions/breast-cancer/symptoms-causes/syc-20352470

What is your risk of Breast Cancer?

How many relatives listed to the right have been diagnosed with breast cancer?

Any male relatives → Enter total number ____ **yes** **no**

Is the answer 1 or more? (Circle yes or no.)

How many of your first-degree relatives listed to the right have been diagnosed with breast cancer?

Mother
Sister(s)
Daughter(s) → Enter total number ____ **yes** **no**

Is the answer 1 or more? (Circle yes or no.)

How many of your second-degree relatives listed to the right have been diagnosed with breast cancer?

Half-sister(s)
Grandmother(s)
Aunt(s)
Niece(s) → Enter total number ____ **yes** **no**

Is the answer 2 or more? (Circle yes or no.)

If the answer is **yes** to any of these questions, you have an increased risk of breast cancer.

If you have an increased risk, talk to your doctor about what you can do to prevent breast cancer.

Important:

Some families may have an inherited cancer syndrome. If you or your relatives have had cancer before the age of 50, multiple cancers, or recurring cancers, share this information with your doctor to see if genetic testing is recommended for your family.

Some tips that may help prevent and detect breast cancer:

If you don't drink alcohol, don't start:

- Limit alcohol to no more than one drink a day for women and two drinks for men.

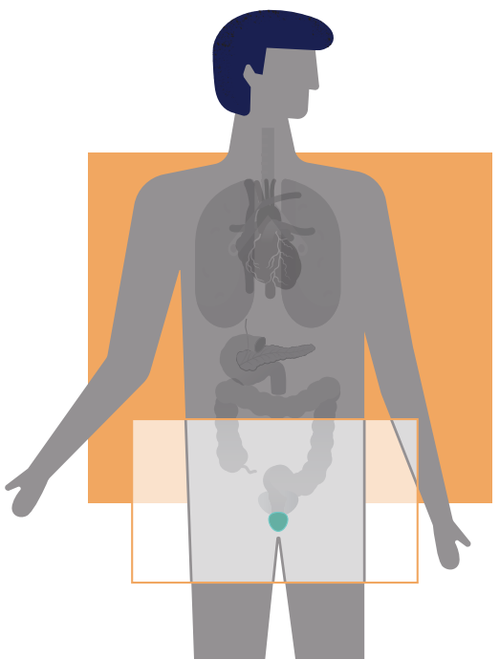
Talk to your doctor about screening:

- Lumps can be removed if found early.
- Cancer found early can be treated with more success.

Turn to page 16 through 19 to see other screening and lifestyle recommendations.

What is Prostate Cancer?

Prostate cancer is tumors that form in the prostate. The prostate is a gland in males that is found below the bladder and in front of the rectum.



Prostate cancer can sometimes spread beyond the prostate gland. Treatment may be more successful if prostate cancer is found early.

What are some factors that may increase risk of prostate cancer?

- Eating a diet high in fat
- Eating a diet with a lot of red meat
- Age

Some health screenings for prostate cancer

- Digital rectal examination
- Prostate-specific antigen blood test

How does family health history affect your risk of prostate cancer?

Use the worksheet on the next page to find out.

Check out these websites for more information:

MedlinePlus
medlineplus.gov/prostatecancer.html
Mayo Clinic
mayoclinic.org/diseases-conditions/prostate-cancer/symptoms-causes/syc-20353087

What is your risk of Prostate Cancer?

How many of your first-degree relatives listed to the right have been diagnosed with prostate cancer?

Father
Brother(s)
Son(s)

Enter total number

Is the answer 1 or more? (Circle yes or no.)

yes **no**

How many of your second-degree relatives listed to the right have been diagnosed with prostate cancer?

Half-brother(s)
Grandfather(s)
Uncle(s)
Nephew(s)

Enter total number

Is the answer 2 or more? (Circle yes or no.)

yes **no**

If the answer is **yes** to either of these questions, you have an increased risk of prostate cancer.

If you have an increased risk, talk to your doctor about what you can do to prevent prostate cancer.

Important:

The risk of prostate cancer increases with age. Additionally, some ethnic groups may be at more risk than others. If you are **African American**, you may have a higher risk for prostate cancer.

Some tips that may help prevent and detect prostate cancer:

Choose a healthy diet:

- Eat a variety of fruits and vegetables every day.
- Avoid high-fat foods like red meat.

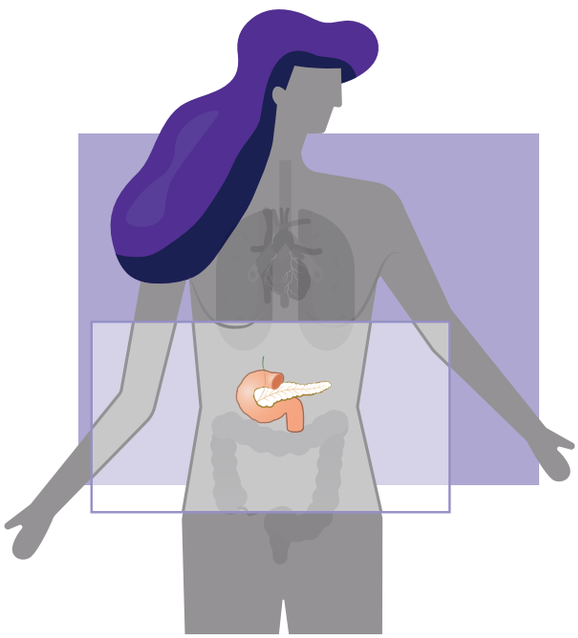
Talk to your doctor about screening:

- Discuss the potential risks and benefits of screening to decide whether screening tests for prostate cancer are right for you.

Turn to page 16 through 19 to see other screening and lifestyle recommendations.

What is Type 2 Diabetes?

Type 2 diabetes is a long-term condition of high levels of sugar in the blood.



Insulin is a hormone that controls sugar levels in the blood. Type 2 diabetes occurs when there is a problem with insulin in the body.

In type 2 diabetes, the body builds up resistance to insulin and more insulin is needed to bring down blood glucose levels. As a result, the pancreas needs to produce more insulin than normal.

What are some factors that may increase risk of type 2 diabetes?

- Lack of exercise
- Obesity
- High blood pressure
- High cholesterol
- Diabetes during pregnancy

Some health screenings for type 2 diabetes

- Blood sugar test
- Blood pressure test
- Cholesterol test

How does family health history affect your risk of type 2 diabetes?

Use the worksheet on the next page to find out.

Check out these websites for more information:

MedlinePlus
medlineplus.gov/diabetes.html
Mayo Clinic
mayoclinic.org/diseases-conditions/diabetes/symptoms-causes/syc-20371444

What is your risk of Type 2 Diabetes?

How many of your first-degree relatives listed to the right have been diagnosed with type 2 diabetes?

- Mother
- Father
- Sister(s)
- Brother(s)
- Daughter(s)
- Son(s)

Enter total number

Is the answer 1 or more? (Circle yes or no.) **yes** **no**

How many of your second-degree relatives listed to the right have been diagnosed with type 2 diabetes?

- Half-sister(s)
- Half-brother(s)
- Grandmother(s)
- Grandfather(s)
- Aunt(s)
- Uncle(s)
- Niece(s)
- Nephew(s)

Enter total number

Is the answer 2 or more? (Circle yes or no.) **yes** **no**

If the answer is **yes** to either of these questions, you have an increased risk of type 2 diabetes.

If you have an increased risk, talk to your doctor about what you can do to prevent type 2 diabetes.

Important:

Some ethnic groups may be more at risk than others. If you are **Hispanic, African American, Chinese, Indian, or Pacific Islander,** you may have a higher risk for type 2 diabetes.

Some tips that may help prevent and detect type 2 diabetes:

Be physically active:

- Try to by active for at least 30 minutes most days of the week
- Take the stairs, walk, swim, garden, etc.

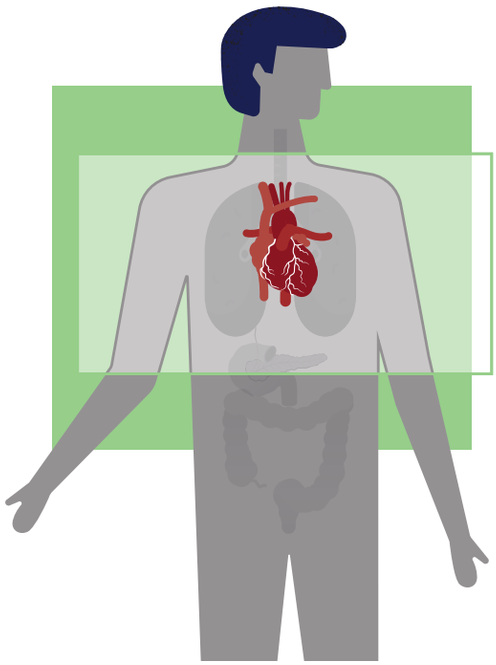
Talk to your doctor about screening:

- Regular testing for blood sugar, blood pressure, and cholesterol can help find a problem before it becomes type 2 diabetes.

Turn to page 16 through 19 to see other screening and lifestyle recommendations.

What is Heart Disease?

Heart disease is when blood vessels that bring blood and oxygen to the heart become more narrow.



Heart disease is also known as coronary heart disease and coronary artery disease. Plaque (made of cholesterol and other substances) can get stuck on the blood vessel walls and reduce blood flow.

What are some factors that may increase risk of heart disease?

- Diabetes
- Smoking
- Lack of exercise
- Obesity
- Stress
- High cholesterol
- High blood pressure
- Drug misuse

Some health screenings for heart disease

- Blood sugar test
- Blood pressure test
- Cholesterol test

How does family health history affect your risk of heart disease?

Use the worksheet on the next page to find out.

Check out these websites for more information:

MedlinePlus
medlineplus.gov/heartdiseases.html
Mayo Clinic
mayoclinic.org/diseases-conditions/heart-disease/symptoms-causes/syc-20353118

What is your risk of Heart Disease?

How many of your first-degree relatives listed to the right have been diagnosed with heart disease or type 2 diabetes?

- Mother
- Father
- Sister(s)
- Brother(s)
- Daughter(s)
- Son(s)

Enter total number

Is the answer 1 or more? (Circle yes or no.)

yes **no**

How many of your second-degree relatives listed to the right have been diagnosed with heart disease or type 2 diabetes?

- Half-sister(s)
- Half-brother(s)
- Grandmother(s)
- Grandfather(s)
- Aunt(s)
- Uncle(s)
- Niece(s)
- Nephew(s)

Enter total number

Is the answer 2 or more? (Circle yes or no.)

yes **no**

If the answer is **yes** to either of these questions, you have an increased risk of heart disease.

If you have an increased risk, talk to your doctor about what you can do to prevent heart disease.

Important:

A family history of type 2 diabetes is a risk factor for heart disease. If one of the relatives listed in the above boxes has been diagnosed with heart disease, type 2 diabetes, or both, that relative counts as one relative toward your risk.

Some tips that may help prevent and detect heart disease:

Quit smoking or don't start:

- Your risk of heart disease drops by 50%, a year after you quit smoking.

Talk to your doctor about screening:

- Regular blood sugar, blood pressure, and cholesterol testing can help find a problem before it becomes heart disease.

Turn to page 16 through 19 to see other screening and lifestyle recommendations.

Healthy Recommendations

Now that you have a better understanding of your family's health history, you can do a few things to reduce your risk. This page offers tips for adding healthy habits to your daily life. Be sure to share what you have learned with your family!

Eat Fruits & Vegetables

Adults should eat at least 2 cups of vegetables and 1.5 cups of fruit every day.

- Try 1 large apple or orange plus 2 medium carrots and 1 cup of peas.
- There are many ways to add fruits and vegetables to your meals, like putting sliced bananas in cereal, adding slices of green and red pepper to cheese pizza, or putting tomatoes on cheese sandwiches.
- Go to myplate.gov/eat-healthy/fruits to learn more about updated recommendations based on your sex, age and activity level.
- By eating plenty of fruits and vegetables you receive important vitamins, minerals, phytochemicals*, fiber, and antioxidants*. Fruits and vegetables are also low in calories. They can replace high-calorie foods that play a role in gaining weight.

Eat Fiber

Adults should consume about 30-35 grams of fiber daily.

- Fiber can be found in plant foods, such as cereals, vegetables, fruit, dried peas, beans, lentils and nuts. Try 1 cup of kidney beans each day. Eating the peel on your fruit and vegetables and choosing whole grain foods are also great sources of fiber!
- Drink plenty of fluids to help process the fiber.
- Fiber helps lower the risk of heart disease by reducing blood cholesterol levels. It is also linked with improved bowel function.

Be Physically Active

Try to get 30 minutes of exercise most days of the week. The more active you are, the more health benefits you will see!

- Exercise can be completed all at one time or broken up throughout the day. It should be of moderate intensity, such as brisk walking, medium- paced swimming, mowing the lawn, or taking the stairs.
- Breaking up or reducing time you sit every day can make you healthier.
- Regular exercise helps you lose weight and reduces your risk for several chronic diseases and conditions. Being active promotes health by strengthening your bones, muscles and heart; reducing blood pressure and improving energy, blood sugar and cholesterol levels.

Limit Alcohol

Experts recommend no more than 1 drink per day for women and 2 drinks per day for men. If you don't drink alcohol, don't start.

- Women who are pregnant or who are trying to get pregnant should not drink any alcohol because drinking alcohol may harm the baby.
- Excessive drinking is linked to many chronic diseases such as liver cirrhosis, pancreatitis, psychological disorders, and various cancers, including breast, liver, and esophagus.
- Drinking too much alcohol can raise the levels of some fats in the blood (triglycerides), and may lead to high blood pressure, heart failure, stroke, cardiac arrhythmia, and sudden cardiac death.

Don't Smoke

Quit smoking or continue to avoid smoking.

- If you smoke, medication and counseling can help you quit. Make a plan and set a quit date. Tell your family, friends, and coworkers you are quitting and ask for their support.
- If you are pregnant and smoke, quitting may prevent health problems for you and your baby.
- Smoking has deadly consequences, including lung and oral cancers. It has also been linked to heart disease.
- Importantly, severe health consequences are also experienced by people exposed to secondhand smoke, including children.

* Phytochemicals are found in dark-green and other vegetables; antioxidants are found in fruits, vegetables and grains. Recommended intake may prevent cancer and disease. More information about daily vegetable intake can be found online at: Choose my plate, choosemyplate.gov/vegetables

Screening Recommendations

Colorectal Cancer

Average Risk	Increased Risk
Sensitive stool tests annually starting at age 45. Colonoscopy every 10 years starting at age 45.	For those with one first-degree relative diagnosed at age 60 or later, colonoscopy every 10 years starting at age 40. For those with two or more first-degree relatives diagnosed at any age or one first-degree relative diagnosed before age 60, colonoscopy every 5 years starting at age 40 or 10 years younger than earliest diagnosis in the family, whichever comes first.

cancer.org
800-227-2345

Breast Cancer

Average Risk	Increased Risk
Yearly mammography starting at age 45 and continuing for as long as a woman is healthy or as recommended by her doctor.	Women who have an increased risk based on family history may be recommended to start screening at a younger age and/or to have yearly MRIs in addition to mammograms, as recommended by their doctor.

cancer.org
800-227-2345

Prostate Cancer

Average Risk	Increased Risk
At age 50, have a discussion and make an informed decision about prostate cancer screening with their doctor. The uncertainties, risks, and potential benefits of prostate cancer screening should be discussed.	African American men and men with a first-degree relative diagnosed before age 65 should have this discussion at age 45. Men with more than one first-degree relative diagnosed before age 65 should have this discussion at age 40.

cancer.org
800-227-2345

Type 2 Diabetes and Heart Disease

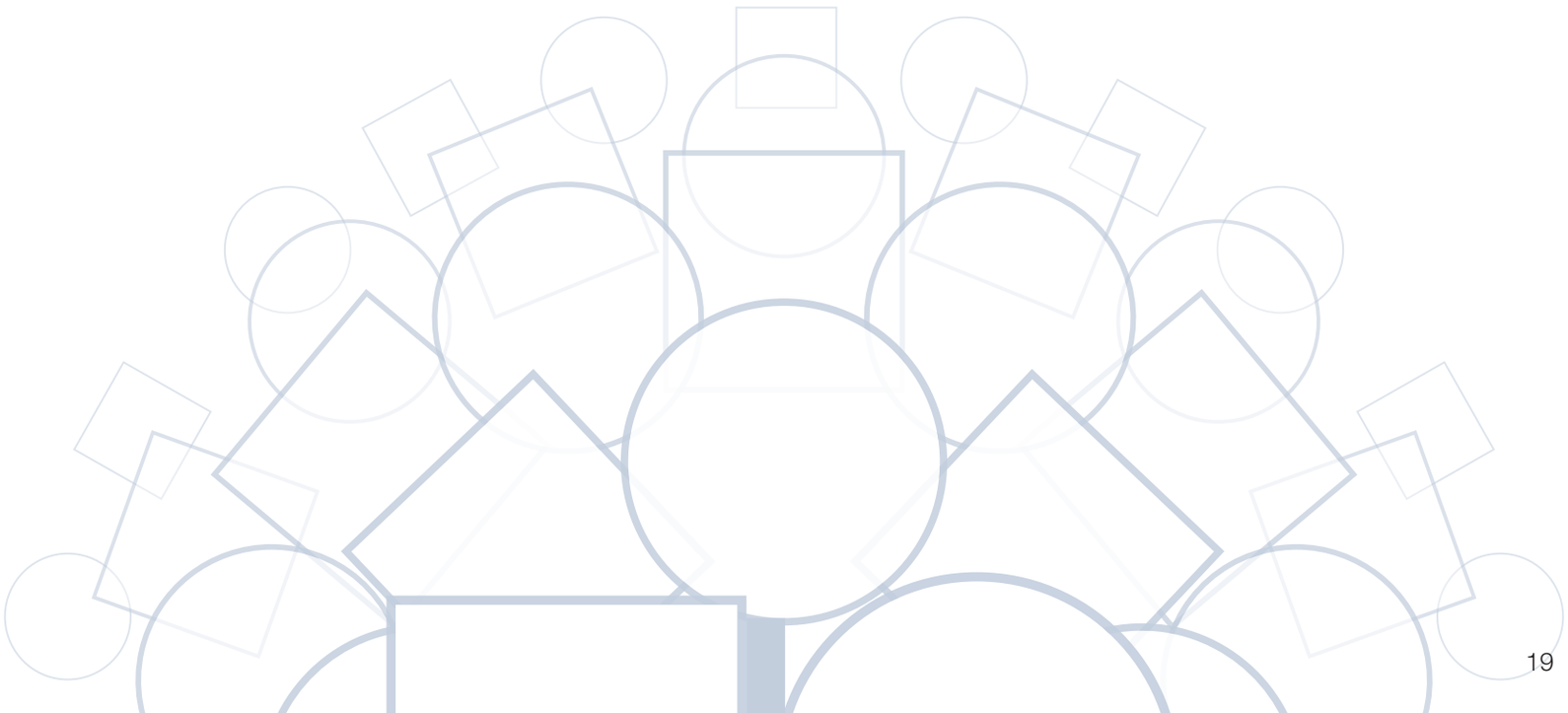
American Diabetes Association®
diabetes.org
800-342-2383

NIH National Heart, Lung, and Blood Institute
nhlbi.nih.gov
301-592-8573

AHRQ Agency for Healthcare Research and Quality
ahrq.gov
301-427-1364

Average Risk	Increased Risk
Blood sugar tests at least every 3 years starting at age 45.	Blood sugar test at least every 3 years starting at age 18 for those with risk factors for type 2 diabetes (overweight or obese, family history, physical inactivity, high-risk race/ethnicity).
Blood cholesterol tests at least every 5 years starting at age 20.	More frequent blood cholesterol tests or screening starting at a younger age may be required for individuals at increased risk (tobacco use, high blood pressure, family history).
Blood pressure tests at least every 2 years starting at age 18.	More frequent blood pressure tests may be required for individuals at increased risk for heart disease (tobacco use, high cholesterol, family history).

Please discuss your family health history with your doctor.



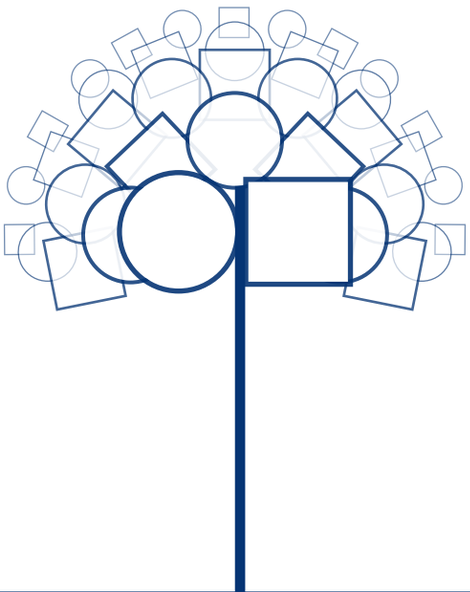
Sharing Your Family Health History

Hopefully, after going through this packet you feel more comfortable reading your family health history tree. This packet is for you to keep. Please feel free to share what you learned with your family and friends. Remember that your family health history changes over time, so be sure to add to this packet as you learn more about your family's health.

We hope that you will talk to your doctor about any questions you have. Your doctor is the best person to look over your family health history and discuss how to improve your health and reduce your risk of disease.

My Family Health Portrait is a website that can help you keep track of your family health history. You can print out your family health history tree and easily share it with your family and doctor.

Visit phgkb.cdc.gov/FHH/html/index.html for more information and to get started!



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