

### State of Utah

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Dear Family Reunion Organizer,

As you plan your family reunion, the Utah Department of Health (UDOH) urges you to take time to talk about your family health history.

Family health history (a family's combination of shared genes, environment, and behaviors) has been recognized for years as a risk factor for many health problems including asthma, cancer, diabetes, and heart disease. This is because families share their genetics, environment, and habits. These can be passed down in families and affect your health. But the good news is that, by learning about your past, you can make healthy choices to reduce your chance of getting the problem. Knowing you are at risk enables you to take steps to protect yourself and your family.

Family reunions are the perfect time to learn about and share not only your genealogy but your family health history, too. And, for some families, knowing this information could save their lives.

This packet is designed to help you talk about your health history at your next family reunion. It will help your family learn what information to collect and why it is important to have it. Included in the Family Reunion Packet you will find:

- Fun Ideas to Get Your Family Talking
- Family Health History Toolkit
- Health Family Tree box
- Ten Ouestions to Ask Your Family handout
- Family Traits Trivia game
- Handy Family Tree activity
- Tree of Genetic Traits activity
- Utah Health Story Bank bookmark

If you have questions on how to use this packet, contact the UDOH Chronic Disease Genomics Program by e-mail <a href="mailto:genomics@utah.gov">genomics@utah.gov</a>. Or visit our Web site at <a href="mailto:www.health.utah.gov/genomics">www.health.utah.gov/genomics</a>.

We wish you the best!

UDOH Chronic Disease Genomics Program



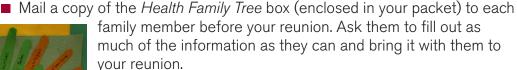
## Fun Ideas To Get Your Family Talking

As the organizer of your family reunion, it's up to you to get your family talking about their health history. Be creative and let your family know how easy, fun, and important this is! Here are some ideas to get you started.

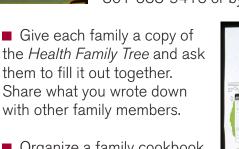
Play Family Traits Trivia (enclosed in your packet). This game will show your family how much you have in common. Afterward, explain that as a family you also share your health history and that healthy lifestyle choices may reduce genetic risk.

Instead of using a tablecloth at meal time, use sheets of butcher paper to cover the table and put out crayons for everyone to color with. Draw a family tree and write down what you know about your ancestors' family health history on the paper.





- Help younger family members make a *Handy Family Tree* (enclosed in your packet) and display them on tables or a wall.
- Use the 10 Questions to Ask Your Family handout (enclosed in your packet) to get a conversation started at your reunion.
- Teach a class on family health history. Use the "Family Health" History: Knowing your past can protect your future" PowerPoint presentation developed by the Utah Department of Health. You can request a free CD-Rom of the presentation by calling 801-538-9416 or by e-mail genomics@utah.gov.
- Give each family a copy of them to fill it out together. Share what you wrote down
- Organize a family cookbook using healthy ingredients. Test out the recipes at the reunion.







## Family Health History Toolkit



MAKE FAMILY HEALTH HISTORY A TRADITION





### **CONTENTS**

### **Family Health History Toolkit**

This toolkit will help you 1) talk about your family health history, 2) write it down, and 3) share it with your doctor and family members.

#### Inserts

- Insert 1: 10 Questions to Ask Your Family
- Insert 2: Questions and Answers
- Insert 3: Genealogy Resources
- Insert 4: When to See a Genetic Counselor
- Insert 5: Fun Ideas
- Insert 6: Turkey Talk Health Discussion

### **CREDITS**

Toolkit created by: Utah Department of Health, Chronic Disease Genomics Program.

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Make Family Health History a Tradition

## Make Family Health History a Family Tradition

Did you know that talking about your family health history could be the most important tradition you make with your family?

Health problems that run in your family can increase your chance of developing the problem. This is because families share their genetics, environment, and habits. These can be passed down in families and affect your health. But by knowing your past you can make choices to protect your future.

The Family Health History Toolkit will help you talk about your family health history, write down what you learn, and then share it with your doctor and family members. Take it to your next family get—together and make family health history a tradition!

### TALK ABOUT IT

Family gatherings are a great time to talk about your family health history. Use the toolkit or your own ideas to learn about your family health history. Start by talking to close family members - like parents, brothers and sisters, and children. Then talk to grandparents, aunts and uncles, cousins, and

Talk to your family

"Knowing your family history can save your life.

The earlier you know which health conditions run in your family, the easier it is to develop prevention plans with your doctor.

Start the conversation with your family on National Family History Day
- celebrated every
Thanksgiving."

Dr. Richard H. Carmona,
 MD, MPH,
 U.S. Surgeon General

nieces and nephews. Sometimes the senior members of your family know the most about your family history and can be a good person to start with. Things to ask about include:

- Health problems they have had
- Age when their problem started or was diagnosed
- Age and cause of death for family members who have died
- Lifestyle habits
- Ethnic background



### ONE-ON-ONE APPROACH

If some of your family members don't want to talk about your family health history, try talking one-on-one with them. Start with those family members who already have a health problem that runs in your family. Help them make the link between their own health and the rest of your family's health, including younger family members who may not have developed the problem yet. Explain that a family history can increase the chance that other family members may get the same problem. But lifestyle and screening choices can keep you as healthy as possible.

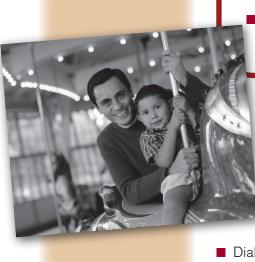
Use the "Talk to your family" box to guide the conversation.

## Talk to your family

- I know that you have (for example, diabetes). I learned that diabetes can run in families and that this can increase my risk of getting diabetes, too. Can I ask you some questions about your diabetes?
- When did your diabetes start?
- Do you know if other family members had diabetes? Did they have other health problems?
- How are you managing or treating your diabetes? (For example, medications, lifestyle choices, regular tests, etc.)
- What other choices have you made to stay healthy?



- Alzheimer's disease or dementia
- Arthritis
- Asthma
- Birth defects
- Cancers (breast, colon, lung, prostate, ovarian, and others)
- Diabetes
- Depression
- Heart disease or sudden heart attack
- High blood pressure and high cholesterol
- Pregnancy losses (stillbirths and miscarriages)
- Stroke or blood clots



### WRITE IT DOWN

Don't forget what your family talked about – write it down! Use the Health Family Tree to record your family health history. The Health Family Tree was used in high schools for 20 years and helped families learn about their family health history. Or come up your own way of keeping track of what you learn.

There is a box like the one below for each of your family members on the Health Family Tree. Start with the number one box labeled "You" and fill out your health history. Then fill out a box for each of your family members. Try to fill out each box as much as you can. If you don't know if a family member had the health problem, mark "Not Sure". Write down the age when their health problem started; even a guess is better than leaving it blank. And write down any other health problems your family members had even if they aren't listed on the box (for example, depression).

## In your toolkit



Or online at health.utah. gov/

YOU
Name
☐ Male Year of birth Age ☐ Female
Has he/she ever been told BY A DOCTOR that he/she suffers from any of the following health problems?
AGE AT NOT FIRST YES NO SURE DIAGNOSIS Condition
Heart Attack (hospitalized) Coronary bypass surgery Rheumatic or other heart disease Stroke Breast cancer Colon cancer Hip fracture Asthma Alzheimer's disease High blood pressure (on medication) High blood cholesterol Diabetes  CIGARETTE SMOKING
Smoker: Has smoked cigarettes regularly for at least 1 year  Ex-smoker: Stopped for at least 1 year after smoking regularly  Non-smoker: Never smoked cigarettes regularly  Not Sure
IF SMOKER OR EX-SMOKER mark average amount smoked  ☐ Less than 1 pack a day ☐ About 1 pack a day ☐ More than 1 pack a day
USUAL WEIGHT  Slender or average   10-49 lbs. overweight   Over 100 lbs. overweight   Not Sure
ALCHOLIC BEVERAGES Regularly Sometimes (beer, wine, liquor)? Never Former Not Sure
Vigorous ROUTINE EXERCISE at least 3 times per week?  ☐ Yes ☐ No ☐ Not Sure



These other web sites can also help you collect a family health history:

- Health Family Tree <a href="www.health.utah.gov/genomics">www.health.utah.gov/genomics</a>
  The online version of the Health Family Tree will give you a report that tells you if you might be at an increased risk for a health problem in your family.
- U.S. Surgeon General Family History Initiative <u>www.hhs.gov/familyhistory</u>
- Centers for Disease Control and Prevention Family History web site <a href="https://www.cdc.gov/genomics/public/famhistMain.htm">www.cdc.gov/genomics/public/famhistMain.htm</a>
- Genetic Alliance <u>www.geneticalliance.org</u>
- National Society of Genetic Counselors <u>www.nsgc.org</u>

### SHARE IT WITH YOUR DOCTOR

Now that you have collected your family health history, it's time to share what you learned with your doctor. Use the "Talk to your doctor" box as a guide for sharing your family health history with your doctor.

## Talk to your doctor

- Based on my family health history, am I at risk for a health problem?
- What lifestyle changes like eating a healthy diet, exercising, or not smoking can I make to lower my risk?
- Are there tests I can take to detect this health problem early?
- Do I need to talk with a genetic counselor or other specialist about my risk or my family members' risk?



You may have an increased risk of getting a health problem if your family has:

- Health problems that occur at an earlier age than expected (10 to 20 years before most people get the problem)
- The same health problem in more than one close family member

- A health problem that does not usually affect a certain gender (For example, breast cancer in a male family member)
- Certain combinations of health problems within a family (For example, breast and ovarian cancer or heart disease and diabetes)

If you are worried about your family health history, talk to your doctor. Your doctor can explain your risk. He or she can also help you make choices about tests to detect problems early. But even for families with an increased risk, steps can be taken to lower the chance of getting the health problem.

## Talk to your family

Share your family health history at:

- Family reunions
- Holidays
- Baby blessings or baptisms
- Birthdays
- Family parties and dinners
- Weddings
- Christenings and baptisms

### SHARE IT WITH YOUR FAMILY MEMBERS

Share what you learned with your family. Call them or send an email or letter. Help them see how your family's past could affect their future health. But remember to be mindful of family members who may not want to know this information.

Pass on your family health history to future generations by keeping it updated and in a safe place.

### LET US KNOW HOW IT WENT

Did your family members enjoy your new tradition? Was this toolkit helpful?

We would love to hear your stories and help other families talk about their family health history.

Send us your family's story by e-mail at <a href="mailto:genomics@utah.gov">genomics@utah.gov</a> or mail it to:

Utah Department of Health Genomics Program PO Box 142106 Salt Lake City, UT 84114-2106



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## 10 Questions to Ask Your Family

### 1 | What traits seem to run in our family?

(You don't have to ask only about health – start with anything from your family's blue eyes or curly hair to your height and personality – just get your family talking.)

- 2 | Did my family members have any health problems?
- 3 | How old were my family members when their health problem started or was diagnosed?
- 4 | How old were my family members when they died?

(If you don't know exact dates, ask about the approximate age at death.)

### 5 | What were the reasons they died?

(Note if the cause of death was unknown.)

- 6 | Were there any pregnancy losses or babies born with birth defects?
- 7 | Where were my family members born?

(Ethnicity can be a risk factor for some health problems.)

- 8 | Did any of my family members smoke? If yes, how much and for how long?
- 9 | What other lifestyle habits did my family members have?

(For example: Did they exercise regularly? Were any overweight or extremely thin? Did any have addictive behaviors?)

10 | What types of allergies did my family members have?

(For example: hay fever, food or medication allergies)

References:

- •Daus, Carol. Past Imperfect: How tracing your family medical history can save your life. California: Santa Monica Press, 1999.
- MayoClinic.com. How to compile your family medical history

Make Family Health History a Tradition



## Questions and Answers

Below are answers to common questions you may have about your family health history.

### WHY IS MY FAMILY HEALTH HISTORY IMPORTANT?

Health problems that run in your family can increase your chance of developing the problem. This is because families share their genetics, environment, lifestyles, and habits. But the good news is by knowing your family health history you can make screening and lifestyle choices to lower your risk.

### WHAT INFORMATION SHOULD I COLLECT?

Collect information on close family members, like parents, brothers and sisters, and children. Then collect information on your grandparents, aunts and uncles, and cousins. Things that are important to collect include:

- Health problems of family members
- Age when the problem started or was diagnosed
- Age and cause of death
- Lifestyle habits (smoker/nonsmoker, diet, weight, and exercise habits)
- Ethnic background

### WHAT HEALTH PROBLEMS RUN IN FAMILIES?

A family health history can help you understand your tendency to get just about any health problem. These health problems can run in families:

- Alzheimer's disease or dementia
- Arthritis
- Asthma
- Birth defects
- Cancer (breast, colon, lung, prostate, ovarian, and other cancers)
- Diabetes
- Depression
- Heart disease or sudden heart attack
- Other heart problems
- High blood pressure and high cholesterol
- Pregnancy losses, stillbirths, and miscarriages
- Stroke or blood clots

### HOW DO I KNOW IF I'M AT RISK FOR A HEALTH PROBLEM?

You may have an increased risk of getting a health problem if your family has:

- Health problems that occur at an earlier age than expected (10 to 20 years before most people get the problem)
- The same health problem in more than one close family member
- A health problem that does not usually affect a certain gender (For example, breast cancer in a male family member)
- Certain combinations of health problems within a family (For example, breast and ovarian cancer or heart disease and diabetes)



Make Family Health History a Tradition

## WHAT IF I DON'T HAVE HEALTH PROBLEMS THAT RUN IN MY FAMILY?

Not having a health problem in your family can be good news. But you could still develop a problem because:

- Your lifestyle, personal health history, and environment affect your risk
- You may be unaware of health problems in family members
- A family member may have died young before even developing a health problem

Make healthy choices no matter what your family health history is.

### WHAT IF I'M ADOPTED?

If you are adopted it can be harder to learn about your family health history. But you should still ask your adoptive and birth family about their lifestyle and the places where they have worked or lived. Even though you don't share the same genes, you share habits and environments with your family members. These can also affect your risk of getting a health problem. You may also find health information from birth parents through the National Adoption Clearinghouse.

## WHAT SHOULD I DO WITH MY FAMILY HEALTH HISTORY AFTER I'VE COLLECTED IT?

Share your family health history with your family. Pass it on to your children and grandchildren. By sharing this, you can work together to make healthy choices that could save your life. And remember to keep your family health history updated and in a safe place.

### COULD MY FAMILY HEALTH HISTORY BE USED TO HARM ME?

Your family health history is treated like any other medical information by your doctor. The HIPAA law protects your private health information, which includes your family health history. In Utah, the Utah Genetic Testing Privacy Act also protects you from discrimination based on your genetics.

Be mindful of other family members' health information and keep it private.



### HOW DO I GET STARTED?

Getting started is easy! Simply talk with your family at reunions, holidays, or other family gatherings. Then write down what you learn and share it with your family members and doctor. Use the Family Health History Toolkit to help you collect a family health history.

#### References

- •CDC Office of Genomics and Disease Prevention <a href="www.cdc.gov/genomics">www.cdc.gov/genomics</a>
- •U.S. Surgeon General Family History Initiative www.hhs.gov/familyhistory
- •National Society of Genetic Counselors www.nsgc.org
- •Daus, Carol. Past Imperfect: How tracing your family medical history can save your life. California: Santa Monica Press, 1999.

## Genealogy Resources

### INTRODUCTION

Many health problems tend to run in families. Knowing your family's health history can be life-saving and fun too. Living relatives are not only the best source of family health history, they are also the ones who will benefit the most from it.

Following are genealogical resources to help you learn what living relatives may not know about your family health history.

### **DEATH RECORDS**

Death records usually mention the cause and date of death, making them second only to living family members for family health information. These records were originally kept for public health purposes—to alert officials of diseases or trends of concern, especially in cities and populated areas.

City or county officials typically record the death information and forward copies to the state. As a result, there are often both a county and a state copy. There may be differences in the two sets, where photocopiers and computers were not used.

#### How to obtain death records

First, search an index, if available. An increasing number of statewide indexes are appearing on the Internet. Search (using <u>Google.com</u>, <u>MSN.com</u>, or other search engine) by the name of the state with keywords such as "death index." Indexes may be available at <u>www.Ancestry.com</u> (free at Family History Library), or links to indexes may be found on Cyndi's List at <u>www.cyndislist.com/usvital.htm#States</u>.

Next obtain a copy of the record. Many will be available at the Family History Library (FHL). Do a Place Search in the FHL Catalog for the state and the county levels. Big cities may also have records.

For records not at the FHL, see:

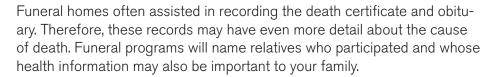
- Find addresses for state vital records offices at <u>www.vitalrec.com</u> and at Cyndi's List, previously cited.
- For records at the county level, use Everton's HandyBook for Genealogists (Logan, UT: Everton Publishers, 1999. FHL book 973 D27

### **FUNERAL HOME RECORDS**

Funeral homes are a wonderful source of family health history. Their records often go back to around 1900, even when ownership has changed. In many states, new owners were required by law to keep the old records.



Health History a Tradition



#### How to obtain funeral home records

Use a directory:

- Online: www.funeralnet.com
- Book: National Yellow Book of Funeral Directors (Youngstown, Ohio: Nomis Publications. FHL book 973 U24y.) This book is arranged by state, then by town. It gives addresses, phone numbers, and other information about the funeral homes. Funeral directors near you should also have it.

Phone them, state what you need, and ask when you can call back. Writing takes more of their time and you have to wait longer. Please treat them like the "golden goose" they are.



### **OBITUARIES**

In the late 1800s, newspapers began to publish obituaries on a regular basis. Even today, it is one of the most popular sections. The cause of death was often included in earlier years, but may be masked or omitted altogether now.

#### How to obtain obituaries

- Many obituaries within the last 10 years or so can be found online. A search for "Obituaries" will find several sites.
- Contact public libraries in the area. If they have copies, they may search for a small fee.
- Most states have made an effort to obtain old newspapers. Try state archives, libraries, or major universities.

### **UNITED STATES CENSUSES**

### Health clues from censuses, 1850-1930

Beginning in 1850, censuses started giving information about every person in each household. Each census has health clues to notice, such as:

- The age of the mother. Children born to older women may have health issues.
- A parent or child may have died. Death was more common than divorce until recently. Young deaths were often due to accidents, health issues, or genetics.
- You may find a single-parent family, one parent with a different spouse, large gaps between children, and nieces, nephews, and grandchildren living with them.
- The occupation could affect health. For example, hatters worked with chemicals that affected the brain, thus the term "mad hatter."

### Health clues from specific censuses

- 1850-1880 Mortality Schedules give the date and cause of death.
- 1850-1880, and 1910 indicate if a person was blind,

deaf, or mute.

■ 1900-1930 censuses on <u>www.Ancestry.com</u> allow you to search by relationships such as "patient" and "inmate" to find residents of hospitals, orphanages, and other institutions.

#### How to obtain census records

■ 1850-1930: Use <u>www.Ancestry.com</u> at the Family History Library or at a Family History Center with an Internet connection. These locations have all census images and every name indexes to most years.

In Utah, most public libraries have a subscription to ProQuest's Heritage-QuestOnline, which has all the census images and head-of-family indexes to several census years.

Microfilms of censuses and head-of-family indexes for many years are available at the Family History Library. 1940–present: These censuses have not been released to the public. Since proof of death is a requirement for obtaining census information on your direct line (parent, grandparent), you will already have more health information than the census will offer.

### **OTHER RESOURCES**

Family items such as journals, religious records—even old prescription bottles—have clues to your family health history. Other records include hospitals, medical professionals, pensions, schools, passports, insurance forms, immigration, old newspaper articles (accidents or local health concerns), military, and occupational records. The list can go on and on. Check at the reference counters for ideas on how to find some of these records.

### **SUMMARY**

Living family members are the best source for collecting your family health history. They are also the ones who will benefit the most from your work. We're already looking at these records for family history. Why not collect your family' health history as well? It may save the life of a child or grandchild. Your family health history is your gift to the future.

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### When to See a Genetic Counselor

You may be worried about your family health history. Most people do not have a high risk for a health problem based on their family health history. But some families may need to talk with a genetic counselor or other trained specialist about their family health history. Genetic tests may also be an option. You should always talk to your doctor before getting any tests.

## WHO SHOULD TALK TO A GENETIC COUNSELOR?

You may need to talk to your doctor or a genetic counselor if your family has:

- Health problems that occur at an earlier age than expected (10 to 20 years before most people get the disease)
- The same health problem in more than one close family member
- A health problem that does not usually affect a certain gender (for example, breast cancer in a male family member)
- Certain combinations of health problems within a family (for example, breast and ovarian cancer or heart disease and diabetes)
- Birth defects, growth or development problems, pregnancy concerns, and other known genetic conditions in the family



## WHAT WILL I LEARN FROM A GENETIC COUNSELOR?

A genetic counselor will help you:

- Assess your risk for a health problem that runs in your family
- Diagnose a health problem and causes of it
- Decide if genetic testing is an option
- Tell you about treatment or management of the problem
- Refer you to support groups and resources

### WHERE CAN I I FARN MORE?

### Huntsman Cancer Institute, www.huntsmancancer.org

- To schedule an appointment with a genetic counselor, call 801-587-9555
- For other questions, call 801-585-0100 or toll-free 866-275-0243

### **Intermountain Health Care, Clinical Genetics Institute**

■ To talk with a genetic specialist, call 801-408-5014

### **University of Utah Hospital**

■ To schedule an appointment with a genetic counselor, call 801-581-7825

March of Dimes, www.marchofdimes.com

Make Family Health History a Tradition

### Fun Ideas

Try these fun ideas to get your family talking about your family health history.

- Bring as much family health history as you can to your next family gathering. This will jump-start a conversation. Then ask other family members to help you find missing pieces of information.
- Write a chapter on your family health history in your personal history.
- Instead of using a tablecloth, use sheets of butcher paper to cover the table and put crayons out for everyone to color with. Write down what you know about your family health history on the paper and then share what you wrote.
- Bring a copy of your family health history to your summer family reunion. Or plan time during your summer reunion to talk about your family health history.
- Take a child or grandchild to your Family History Center to research your family health history. To find a center near you visit, <a href="https://www.familysearch.org">www.familysearch.org</a>.
- Collect your family health history and give it as a Christmas or birthday gift.
- Pick a family member to be your "health buddy." Then work together to learn more about your family health history.
- Add a section on family health history to your family newsletter.
- Add your family health history to your baby's keepsake book. Or if you have a new grandchild, give a copy of your family health history to his or her parents.
- Write a letter or send an e-mail to your family telling them how important you think knowing your family health history is.
- Turn family health history into a youth project for school or church. It may even count toward earning Boy Scout and Girl Scout merit badges and other awards.
- Have a recipe contest to turn family recipes into healthy treats and use this activity to share stories about your family, including your family health history.



Make Family Health History a Tradition

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## Turkey Talk Health Discussion

If you have time – and think your family would be open to a short talk – think about having a "Turkey Talk" health discussion at your next family dinner. The "Turkey Talk" will tell your family why a family health history is important, how to collect one, and what to do with it.

Here's how the "Turkey Talk" works: Use the "Talk to your family" boxes to guide the conversation. Feel free to use your own words so your family feels comfortable. Get everyone to join in but be mindful of family members who may not want to talk about their family health history.

### 1 INTRODUCE THE "TURKEY TALK"

Start by telling your family why you think knowing your family health history is important. Explain that health problems, like cancer, diabetes, and heart disease, can run in families. Having a family history of these may increase your risk of getting them too.

## Talk to your family

- Why should we know our family health history?
- Because having a family history of a health problem is common almost everyone has a family history of something.
- Because it is likely that some of us are at risk. Some of us may know it, and others may not.
- Because collecting a family health history can be fun.
- And because there's good news – knowing your family health history could save your life. Even if a health problem runs in our family, we can make healthy choices to lower our chance of getting it.

## 2 TALK ABOUT RISK FACTORS

Family health history is more than just genetics. Families also share their lifestyles, habits and environment. These are called risk factors because they can affect your risk of having a health problem. Having a family history of something is also a risk factor. What do your family members know about these risk factors?

Give family members a chance to offer ideas You're likely to get a lot of answers. Explain that risk factors like diet, weight, exercise and smoking can affect risk. For example, if you have a family history of diabetes, are overweight, and don't exercise, your risk is even greater than someone who doesn't have these risk factors.



## Talk to your family

- What health problems tend to run in our family?
- What other risk factors do we have that may increase our chance of getting these problems?



- Smoking, eating an unhealthy diet, being overweight, and not getting enough exercise are risk factors of health problems. A family history also increases a person's chance of getting a problem.
- But the good news is, even if we have a family history of something, we can learn from out past and protect our future. Eating a healthy diet, exercising, maintaining a healthy weight, and not smoking are ways that we can each stay healthy.
- We can't change our genes but we can make healthy choices to lower our risk for health problems in our family.

### 3 TALK ABOUT HOW TO COLLECT A FAMILY HEALTH HISTORY

Now that your family knows why you want to learn about your family health history, it's time to collect one. Remind your family that this will be useful for them personally as well as for younger family members.

To get started, ask your family to tell you a story about one of your family members, maybe a grandparent. Ask about where they worked and lived or what they looked like – anything to get your family talking. Then ask if this person had any health problems. Use the "10 Questions to Ask Your Family" to guide your questions.

### 4| TALK ABOUT WHAT TO DO IF YOU ARE WORRIED ABOUT YOUR RISK

A family may have a high risk of developing a health problem because several of their family members had the problem at a young age. These families should talk to their doctor or a genetic counselor to learn what they can do to prevent or delay the problem. Genetic testing may be helpful in some cases. But even for families with an increased risk, steps can be taken to lower the chance of getting the health problem.

Make Family Health History a Tradition

# Talk to your family

- So, what can we do if we are worried about our family health history?
- Talk to our doctor. Our doctor can tell us what our risk may be for a health problem, based on our family health history and other risk factors we talked about. Our doctor can also tell us about lifestyle choices and screening tests that can lower our chances of having a problem.

### 5 ASK FAMILY MEMBERS TO LOOK OUT FOR EACH OTHER

Here are two ideas to follow up with family members who may have a tendency to develop a health problem based on your family health history:

- Give family members a call, e-mail, letter, or visit some time over the next three months to talk to them about your family health history. A friendly reminder gives you and your family a chance to talk about your family health history and ways to stay healthy.
- Have family members pick a "health buddy" they feel comfortable talking to. Ask

health buddies to talk about what they have learned from their family health history. If your family didn't know a lot about your family health history, ask health buddies to find out more. Health buddies can also encourage each other to talk to their doctor about what they can do to stay healthy.

### 6 END THE TURKEY TALK

Thank your family for their help. Remind them again why you feel knowing your family health history is important and ask your family to keep making family heath history a tradition.

Visit <u>www.health.utah.gov/genomics</u> or call the Health Resource Line at 1-888-222-2542 to get free copies of this toolkit for your family members.





### TOOLKIT DEVELOPMENT TEAM

Utah Department of Health
LDS Family History Library
Intermountain Health Care, Clinical Genetics Institute
Salt Lake County Aging Services, Healthy Aging Program
Huntsman Cancer Institute
Utah Genealogical Association
Heirlines Family History and Genealogy
Spencer S. Eccles Health Sciences Library
American Heart Association
Utah's Local Health Departments

Design by: Jerman Design Incorporated

## Family Health History Toolkit

health.utah.gov/ genomics

This toolkit was supported by cooperative agreement U58/CCU822802-03 from the Centers for Disease Control and Prevention. The content is solely the responsibility of the Utah Department of Health and does not necessarily represent the official views of the Centers for Disease Control and Prevention.



Name	AQU
Year of birth	☐ Male Age ☐ Female
Has he/she ever been told BY of the following health proble	A DOCTOR that he/she suffers from any ms?
AGE AT NOT FIRST YES NO SURE DIAGNOSIS	Condition
CIGAR	Heart Attack (hospitalized) Coronary bypass surgery Rheumatic or other heart disease Stroke Breast cancer Colon cancer Hip fracture Asthma Alzheimer's disease High blood pressure (on medication) High blood cholesterol Diabetes  RETTE SMOKING rettes regularly for at least 1 year least 1 year after smoking regularly
<ul><li>☐ Non-smoker: Never smoke</li><li>☐ Not Sure</li></ul>	
IF SMOKER OR EX-SMO Less than 1 pack o About 1 pack a d More than 1 pack	ay
US  ☐ Slender or average ☐ 50-99 lbs. overweight	UAL WEIGHT  10-49 lbs. overweight  Over 100 lbs. overweight  Not Sure
ALCHOLIC BEVERAGES (beer, wine, liquor)?	☐ Regularly ☐ Sometimes ☐ Former ☐ Not Sure
Vigorous ROUTINE EXI ☐ Yes	ERCISE at least 3 times per week?

## **Your Health Family Tree**

You can make copies of this box for each member of your family to keep a record of their health history.



## 10 Questions to Ask Your Family

### 1 | What traits seem to run in our family?

(You don't have to ask only about health – start with anything from your family's blue eyes or curly hair to your height and personality – just get your family talking.)

- 2 | Did my family members have any health problems?
- 3 | How old were my family members when their health problem started or was diagnosed?
- **4** | How old were my family members when they died? (If you don't know exact dates, ask about the approximate age at death.)
- **5 | What were the reasons they died?** (Note if the cause of death was unknown.)
- 6 | Were there any pregnancy losses or babies born with birth defects?
- **7 | Where were my family members born?** (Ethnicity can be a risk factor for some health problems.)
- 8 | Did any of my family members smoke? If yes, how much and for how long?
- **9 | What other lifestyle habits did my family members have?** (For example: Did they exercise regularly? Were any overweight or extremely thin? Did any have addictive behaviors?)
- 10 | What types of allergies did my family members have?

(For example: hay fever, food or medication allergies)



http://learn.genetics.utah.edu

The Basics and Beyond: An Introduction to Heredity

## **Inherited Human Traits: A Quick Reference**

## **A**bstract

Information about genes, traits, and inheritance that supports student activities in this module. Includes a pictorial reference of inherited human traits used in the module's activities, along with inheritance patterns, frequencies, and other interesting facts about each.

## Learning Objectives

Background information for educators.

## $oldsymbol{\mathsf{A}}$ dditional Resources

Visit the Learn.Genetics website to get links to great resources like this one! Just login as a teacher, and click on *The Basics and Beyond: An Introduction to Heredity* to download engaging student activities about inherited human traits.

### Special Features You'll Find Inside

Fun facts and background information about common traits used in this module.

### Module

### The Basics and Beyond: An Introduction to Heredity

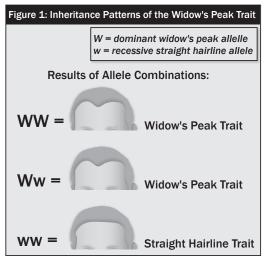


## **Inherited Human Traits: A Quick Reference**

### **Background Information**

Physical traits are observable characteristics determined by specific segments of DNA called genes. Multiple genes are grouped together to form chromosomes, which reside in the nucleus of the cell. Every cell (except eggs and sperm) in an individual's body contains two copies of each gene. This is due to the fact that both mother and father contribute a copy at the time of conception. This original genetic material is copied each time a cell divides so that all cells contain the same DNA. Genes store the information needed for the cell to assemble proteins, which eventually yield specific physical traits.

Most genes have two or more variations, called alleles. For example, the gene for hairline shape has two alleles – widow's peak or straight. An individual may inherit two identical or two different alleles from their parents. When two different alleles are present they interact in specific ways. For the traits included in this activity, the alleles interact in what is called a dominant or a recessive manner. The traits due to dominant alleles are always observed, even when a recessive allele is present. Traits due to recessive alleles are only observed when two recessive alleles are present. For example, the allele for widow's peak is dominant and the allele for straight hairline is recessive.



If an individual inherits:

- Two widow's peak alleles (both dominant), their hairline will have a peak
- One widow's peak allele (dominant) and one straight hairline allele (recessive), they will have a widow's peak
- Two straight hairline alleles (recessive), their hairline will be straight.

A widespread misconception is that traits due to dominant alleles are the most common in the population. While this is sometimes true, it is not always the case. For example, the allele for Huntington's Disease is dominant, while the allele for not developing this disorder is recessive. At most, only 1 in 20,000 people will get Huntington's; most people have two recessive, normal alleles.

While a few traits are due to only one gene (and its alleles), most human genetic traits are the product of interactions between several genes.

The traits listed on the next pages have commonly been presented as being determined by single genes. However, several have been shown to involve more than one gene, and research studies do not agree on the inheritance patterns of others.





## **Inherited Human Traits: A Quick Reference**

### **Earlobe Attachment**





**Attached Earlobes** 

**Detached Earlobes** 

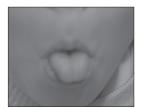
If earlobes hang free, they are detached. If they attach directly to the side of the head, they are attached earlobes.

Some scientists have reported that this trait is due to a single gene for which unattached earlobes is dominant and attached earlobes is recessive. Other scientists have reported that this trait is probably due to several genes.

The size and appearance of the lobes are also inherited traits.

## **Tongue Rolling**





Can Roll Tongue

Can't Roll Tongue

In 1940, the famous geneticist Alfred Sturtevant noted that about 70% of people of European ancestry are able to roll up the lateral edges of the tongue, while the remaining 30% were unable to do so.

Tongue rolling ability may be due to a single gene with the ability to roll the tongue a dominant trait and the lack of tongue rolling ability a recessive trait. However, there is some question about the inheritance of tongue rolling. Recent studies have shown that around 30% of identical twins do not share the trait.

### Cleft Chin

This trait is reportedly due to a single gene with a cleft chin dominant and a smooth chin recessive.

The Basics and Beyond: An Introduction to Heredity

## **Inherited Human Traits: A Quick Reference**

## **Dimples**



**Dimples** 

Dimples are reportedly due to a single gene with dimples dominant (people may exhibit a dimple on only one side of the face) and a lack of dimples recessive.

### **Handedness**

Some scientists have reported that handedness is due to a single gene with right handedness dominant and left handedness recessive. However, other scientists have reported that the interaction of two genes is responsible for this trait.

### **Freckles**

This trait is reportedly due to a single gene; the presence of freckles is dominant, the absence of freckles is recessive<sup>1</sup>.

## **Naturally Curly Hair**

Early geneticists reported that curly hair was dominant and straight hair was recessive. More recent scientists believe that more than one gene may be involved.

## **Allergies**

While allergic reactions are induced by things a person comes in contact with, such as dust, particular foods, and pollen, the tendency to have allergies is inherited. If a parent has allergies, there is a one in four (25%) chance that their child will also have allergy problems. This risk increases if both parents have allergies<sup>2</sup>.

<sup>&</sup>lt;sup>1</sup> Rostand, J and Tétry, A. An Atlas of Human Genetics (1964) Hutchinson Scientific & Technical, London.

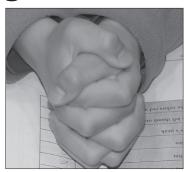
<sup>&</sup>lt;sup>2</sup> "All About Allergies", The Nemours Foundation (http://kidshealth.org/parent/medical/allergies/allergy\_p2.h



## **Inherited Human Traits: A Quick Reference**

## **Hand Clasping**





Cross Left Thumb Over Right

**Cross Right Thumb Over Left** 

Fold your hands together by interlocking your fingers without thinking about it. Which thumb is on top – your left or your right?

One study found that 55% of people place their left thumb on top, 45% place their right thumb on top and 1% have no preference.

A study of identical twins concluded that hand clasping has at least some genetic component. However, other scientists have not found evidence that genetics plays a significant role in determining this trait.

### Colorblindness

Colorblindness is due to a recessive allele located on the X chromosome. Women have two X chromosomes, one of which usually carries the allele for normal color vision. Therefore, few women are colorblind. Men only have one X chromosome, so if they carry the allele for colorblindness, they will exhibit this trait. Thus, colorblindness is seen more frequently in men than in women.

## **Hairline Shape**





Widow's Peak Hairline

Straight Hairline

Hairline shape is reportedly due to a single gene with a widow's peak dominant and a straight hairline recessive.



### The Basics and Beyond: An Introduction to Heredity

### **Inherited Human Traits: A Quick Reference**

## **PTC Tasting**





**Does Not Taste PTC** 

Tastes PTC

For some people the chemical phenylthiocarbamide (PTC) tastes very bitter. For others, it is tasteless.

The ability to taste PTC shows dominant inheritance and is controlled by a gene on chromosomes 7. This gene codes for part of the bitter taste receptor in tongue cells. One of its five alleles (forms) causes a lack of ability to sense bitter tastes; the other four alleles produce intermediate to fully sensitive taste abilities. Approximately 75% of people can taste PTC while the remaining 25% cannot.

PTC-like chemicals are found in the Brassica family of vegetables, such as cabbage, brussels sprouts, and broccoli. People who can taste PTC often do not enjoy eating these vegetables, since they taste bitter to them. Non-tasters tend not to notice bitter tastes and therefore may be more likely to become addicted to nicotine (which is bitter).

PTC-tasting ability has also provided information related to human evolution. Populations in Sub-Sahara Africa, and people who are descended from this area, contain at least five forms of the gene. Some of these forms confer a PTC-tasting ability that is intermediate between taster and non-taster. However, with only a few exceptions, only two forms – taster and non-taster – are found in populations outside of Africa and their descendents. This is consistent with the out-of-Africa hypothesis of modern human origins.

Some scientists think that tasters have fewer cavities, suggesting that there might be a substance in the saliva of tasters that inhibits the bacteria that cause cavities to form. Others think that PTC tasting may be in some way connected with thyroid function.

PTC tasting was a chance discovery in 1931.



The Basics and Beyond: An Introduction to Heredity

## **Inherited Human Traits: A Quick Reference**

## Credits

Unless otherwise noted, all information is from Online Mendelian Inheritance in Man (www.ncbi.nlm.nih.gov/omim/)

### Created by:

Louisa Stark, Genetic Science Learning Center Molly Malone, Genetic Science Learning Center Harmony Starr, Genetic Science Learning Center Harmony Starr, Genetic Science Learning Center (illustrations)

## **F**unding

A Howard Hughes Medical Institute Precollege Science Education Initiative for Biomedical Research Institutions Award (Grant 51000125).

### Funding for significant revisions:

Grant U33MC00157 from the Health Resources and Services Administration, Maternal and Child Health Bureau, Genetic Services Branch. Partners in the Consumer Genetics Education Network (CGEN) include HRSA, March of Dimes, Dominican Women's Development Center, Charles B. Wang Community Health Center, Genetic Science Learning Center at University of Utah, Utah Department of Health and the National Human Genome Center at Howard University.

### **Traits Trivia**

Every person is unique, yet we all have traits we share in common with others. Families share many traits in common because they are related. But unrelated individuals will also have traits in common.

Traits Trivia includes two activities that can be done with any family or group of individuals. Using the *Traits Trivia* game cards, you'll identify traits you have inherited and traits you share in common with others. Then, try to be the last one standing as you discover a combination of traits that is unique to you!

## Did You Know?

Traits can be inherited from a parent, or acquired through learning and experience. Every individual inherits a unique combination of traits.

## Preparation

• Cut out the game cards. You may wish to glue or tape them on heavy paper first.

## nstructions

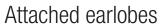
- Invite your group to sit in a circle. Hold up one game card at a time to show a picture of an inherited trait. All who have this trait should stand or raise their hand. Continue with each game card to find similarities and differences among individuals in your group.
  - » Did you share a trait with another family member? An unrelated individual?
  - » Did you find a trait that was unique to you?
  - » Did each person in your group have a different combination of the traits described?

### Once the group is familiar with all of the inherited traits described, try this second activity!

- Shuffle the game cards then draw a card from the top of the deck. Invite your group to stand up and form a circle. Show everyone the picture of the trait.
- Everyone who has this trait should stay standing. Those who do not have the trait should sit down. Once a person sits down, they should not get up again. Continue with each game card until only one person is left standing.
  - » How many cards did it take to find one person with a unique combination of traits?
- Shuffle the cards and play again as many times as you would like.

This project is supported by grant U33MC00157 from the Health Resources and Services Administration, Maternal and Child Health Bureau, Genetic Services Branch and the March of Dimes.







Can roll tongue



Dimples



Right-handed



Freckles



Naturally curly hair



Cleft chin



Allergies



Cross left thumb over right



Can see red & green

## **Handy Family Tree**

A family tree is a picture that shows members of your family. It can include information about each person. Do this activity to create your own family tree. Include fun facts about each family member on their very own handprint!

## Did You Know?

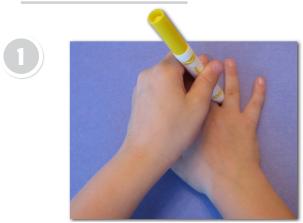
Inherited traits are physical characteristics that can be passed down from parent to child. Learned traits are acquired other traits through interactions with their environment. This activity can help you learn to distinguish between inherited and learned traits.

## Materials needed

- One large piece of paper or poster board
- Colored paper (one for each family member)
- · Scissors
- · Pens or markers
- · Tape or glue



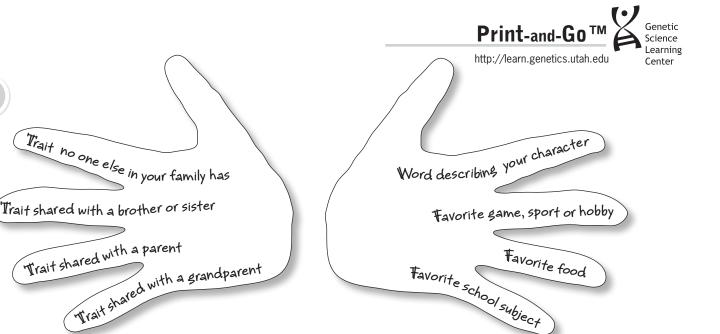
## Instructions



Trace the right and left hand of each family member onto a piece of colored paper



Cut out the handprints



On each finger of your left handprint list a trait (physical characteristic) that you have inherited such as:

On each finger of your right handprint, list a trait that you have acquired or learned. See suggestions above.

- · eye color
- · hair color
- dimples
- freckles
- · chin shape (smooth or cleft)
- · ability to roll the tongue
- · earlobe attachment (attached or free)
- · hairline shape on the forehead (smooth or pointed)
- A Draw a tree trunk onto a large piece of paper or poster board.
- Glue or tape your family's handprints above the trunk to form a tree. Place the oldest person's pair of hands at the bottom. Work upward until you place the youngest person's pair of hands at the top.

## **O**ptional

- Add a small picture of each family member to the palm of one handprint.
   Write their name, date of birth, and place of birth on the palm of the other handprint.
- Include handprint shapes for family members who were not available to draw their hands. See how your parents' or grandparents' favorites compare to yours!



This project is supported by grant U33MC00157 from the Health Resources and Services Administration, Maternal and Child Health Bureau, Genetic Services Branch and the March of Dimes.

## Activity Overview

Participants mark their traits for tongue rolling, PTC tasting (a harmless, bitter chemical), and earlobe attachment on tree leaf cut-outs. They then place their leaves on a large tree whose branches each represent a different combination of traits. When completed, the tree forms a visual representation of the frequency of trait combinations within the group.

## Logistics

### Time Required



30 minutes

### Prep Time:

30 minutes to review activity, make copies of tree leaf cut-outs, and prepare traits tree

### **Materials**

PTC paper, hard candies, leaf cut-outs, tape, scissors, transparencies or large butcher paper

Prior Knowledge Needed

None

## Learning Objectives

- Traits are observable characteristics that are passed down from parent to child.
- An individual will have many traits they share in common with others.
- An individual's overall combination of traits makes them unique.
- Some traits are more common in a population than others.

## **Activity Instructions**

- Copy the Genetic Traits Tree graphic provided on page 4 (or page 6 for Spanish speaking audiences) onto an overhead transparency. Use an overhead projector to project the transparency large onto a blank wall. Alternatively, draw a large tree on butcher paper based on page 4. Post it in an easily accessible and visible area of the room.
- Per Participant
  One leaf cut-out, hard candy
  Per Group of 2
  PTC paper, scissors, tape
- Provide each participant with a leaf and instruct them to cut it out.
- Explain that traits are observable characteristics we inherit from our parents. Demonstrate the tongue rolling and earlobe attachment traits. Have participants mark "yes" or "no" on their leaf for these traits as appropriate.
- Hand out PTC paper. Instruct participants to place a piece of PTC paper on the tip of their tongue to see
  if they can taste anything. The chemical tastes bitter to those who can taste it. For those who cannot
  taste PTC, the paper has no taste.
  - Note: PTC paper is inexpensive and can be purchased from Sargent Welch (www.sargentwelch. com), Carolina Math and Science (www.carolina.com) or Ward's Natural Science (http://www.wardsci.com).
- Instruct participants to check "yes" or "no" on their leaves for PTC tasting. Hand out a hard candy to each participant to neutralize the taste of the PTC.
- Demonstrate how to determine where to place the leaves on the Trait Tree starting at the base of the branches and working your way out toward the tips.
- Call participants up in groups to place their leaves on the appropriate branches. The leaves will be clustered around the branch representing the most common combination of traits in the group. Some branches of the tree will remain relatively sparse.
- Optional: Make leaf cut-outs in two different colors, one for males and one for females, to track combinations of traits within the different genders.
- Optional: Increase your data pool by including additional groups in the exercise, taping all leaves to one tree.

## **C**ommon Misconceptions

A widespread misconception is that all traits exhibit either a dominant or recessive pattern of inheritance. But these terms only apply to single gene traits. The traits included in this activity are part of the small number that may be due to only one or two genes. However, most human genetic traits are influenced by several genes as well as interactions with the environment. The inheritance of complex traits is difficult to predict, and does not follow typical dominant or recessive patterns.



## **D**iscussion Points

- Some traits are more common in a population than others. What is the most common combination of traits in the group? What is the least common combination of traits in the group?
- Every person has a unique combination of traits. If we were to look at more traits than three, we would eventually need a branch on the Trait Tree for each person in the group.

## Credits

Activity created by:
Molly Malone
April Mitchell
Harmony Starr (illustrations)
Genetic Science Learning Center

This activity was adapted from "State Your Traits - Genetic Traits Tree", The GENETICS Project, University of Washington (2001).

### Learn More About Inheritance

Visit the Learn.Genetics website to get links to great resources like these! Just click on The Basics and Beyond to find the resources below.

- Tour of the Basics: An animated tutorial that contains background information on DNA, genes, patterns of inheritance and more!
- Inherited Human Traits: A Quick Reference: A pictorial reference and description of inheritance, and inheritance patterns for several human traits, including those described in this activity.

## **F**unding

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Earlobes Attached	Earlobes Attached
Earlobes Attached	Earlobes Attached
Earlobes Attached	Earlobes Attached
Earlobes Attached	Earlobes Attached

### Health Resources

After collecting your family health history, you may be concerned about a specific health problem that runs in your family. The Utah Department of Health can help you learn more about the health problem in your family and provides reliable information and links to community resources on a variety of health problems.

- <u>Utahhealthnet.org</u> provides access to high quality health information, resources, services and programs in order to increase the quality of life for all Utah residents and visitors. Sponsored by the Spencer S. Eccles Health Sciences Library at the University of Utah.
- <u>Learn.genetics.utah.edu</u> colorful graphics and information on several health problems that run in families; explains what it means to be at genetic risk and how to reduce your risk. Click on the *Using Family History to Improve Your Health* link on the bottom right hand corner.
- Asthma www.health.utah.gov/asthma
- Arthritis www.health.utah.gov/arthritis
- Birth defects <u>www.health.utah.gov/birthdefect</u>
- Cancer (breast, cervical, colon, prostate, skin, other cancers) <a href="www.utahcan-cer.org">www.utahcan-cer.org</a> or <a href="www.utahcan-cer.org">www.utahcan-cer.org</a> or visit the Huntsman Cancer Institute for information on other cancers (brain, lung, pancreas, etc) that can run in families <a href="www.huntsmancancer.org">www.huntsmancancer.org</a>
- **Diabetes** <u>www.health.utah.gov/diabetes</u>
- **Heart disease and stroke** (high blood pressure, high cholesterol, heart attacks, etc) <u>www.hearthighway.org</u>
- **Mental Illness** Utah Department of Human Services <u>www.dsamh.utah.gov</u> or National Alliance on Mental Illness <u>www.namiut.org</u> or Mental Health Association in Utah <a href="http://mhaut.org">http://mhaut.org</a>
- Nutrition and exercise www.checkyourhealth.org
- Obesity <u>www.health.utah.gov/obesity</u>
- Pregnancy and infant care www.babyyourbaby.org
- **Tobacco and quitting smoking** Utah Tobacco Quit Line 1-888-567-TRUTH (1-888-567-8788) or Utah Quitnet, www.utah.guitnet.com
- Violence and Injury Prevention <a href="www.health.utah.gov/vipp">www.health.utah.gov/vipp</a>

If you have been affected by a health problem that runs in your family, we want to hear from you.



Share your health story at

If you have been affected by a health problem that runs in your family, we want to hear from you.









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Share your health story at

### **Family Reunion Packet Survey**

We hope you enjoyed learning about your family health history. Please complete and return this survey by email to <a href="mailto:genomics@utah.gov">genomics@utah.gov</a> or mail to Utah Department of Health Genomics Program, PO Box 142106 Salt Lake City, UT 84114-2106. Your feedback will help us make the Family Reunion Packet more useful for families like yours. Thank you!

1. How many people attended your family reunion?

☐ Of no use

2.	After using the Family Reunion Packet, how important do you think knowing your family health history is?  Not important Somewhat important Extremely important Don't know
3.	How much time did you spend collecting your family health history?  ☐ 1 − 15 minutes ☐ 16 − 30 minutes ☐ 31 minutes − 2 hours ☐ More than 2 hours
4.	In preparing for your family reunion, the Family Reunion Packet was:  Very useful Fairly useful

5. Please circle either Yes or No if you used the Family Reunion Packet materials, if the materials were easy to use and if the instructions were easy to understand.

Name of Material	Material	Material	<b>Instructions were</b>	
	was Used	was Easy	Easy to	
		to Use	Understand	
Fun Ideas to Get Your Family Talking	Yes / No	Yes / No	Yes / No	
Family Health History Toolkit	Yes / No	Yes / No	Yes / No	
Health Family Tree box	Yes / No	Yes / No	Yes / No	
Ten Questions to Ask Your Family	Yes / No	Yes / No	Yes / No	
handout				
Family Traits Trivia game	Yes / No	Yes / No	Yes / No	
Handy Family Tree activity	Yes / No	Yes / No	Yes / No	
Tree of Genetic Traits activity	Yes / No	Yes / No	Yes / No	
Tell Us Your Story! handout	Yes / No	Yes / No	Yes / No	

6. For the materials that you did **NOT** use, please explain why?

7. Please read the following statements and circle the appropriate number, which tells us how engaging the Family Reunion Packet materials were:

As I interacted with my family, I thought	Strongly	Disagree	Agree	Strongly
in general	Disagree			Agree
My family seemed excited to collect their	1	2	3	4
family health history.				
My family seemed engaged in talking about	1	2	3	4
their family health history to each other.				
It was easy to talk to my family about family	1	2	3	4
health history.				
My family members learned why a family	1	2	3	4
health history is important				

8. On a scale of 1 to 4, with 1 being not at all helpful and 4 being very helpful, how helpful were the materials in *collecting* your family health history? Please circle the appropriate number.

Name of Material	Not at all Helpful			Very Helpful
Fun Ideas to Get Your Family Talking	1	2	3	4
Family Health History Toolkit	1	2	3	4
Health Family Tree box	1	2	3	4
Ten Questions to Ask Your Family	1	2	3	4
handout				
Family Traits Trivia game	1	2	3	4
Handy Family Tree activity	1	2	3	4
Tree of Genetic Traits activity	1	2	3	4
Tell Us Your Story! handout	1	2	3	4

9. What will you do with the information you collected? Please check all that apply.

☐ Share it with a doctor or other healthcare professional

☐ Share it with other family members ☐ Nothing ☐ Other (Please specify)
10. What did you like best about the Family Reunion Packet?
11. What would you like changed about the Family Reunion Packet?
<ul><li>12. Will you share the Family Reunion Packet with others planning a family reunion?</li><li>☐ Yes</li><li>☐ No</li></ul>