

Why Family History is Important for Your Health



Office of Genomics and Disease Prevention
Centers for Disease Control and Prevention



Family History and Health



Both of Shirley's parents had developed Type 2 diabetes by the time they were 60.

Should she be concerned about her family history of diabetes?

Shirley is overweight. She is 5 feet 4 inches tall and weighs 160 pounds.

Should her family history of diabetes combined with her weight concern her?



What determines your risk for disease?



Risk Factors

A risk factor increases your risk of developing a disease or health problem

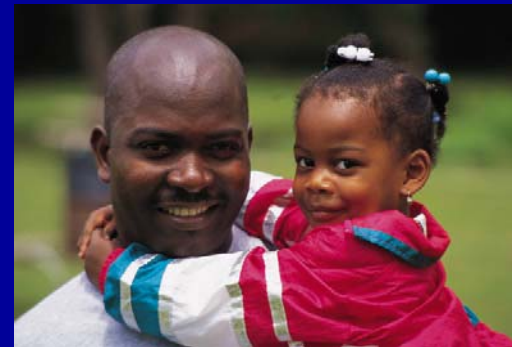
environment



behaviors and lifestyle



*inherited characteristics



*inherited – passed down from parents to children



Risk Factors for Disease

Environment

Environmental risk factors include exposures to harmful agents in food, water and air



Risk Factors for Disease

Lack of Exercise

Only 26% of adults engage in physical activity as recommended

30 minutes of moderate activity
at least 5 days a week

OR

20 minutes of vigorous activity
at least 3 days a week



[Source: Behavioral Risk Factor Surveillance System](#)



Risk Factors for Disease

Poor Diet

Less than 25% of people eat recommended servings of fruits and vegetables

5-9 servings each day



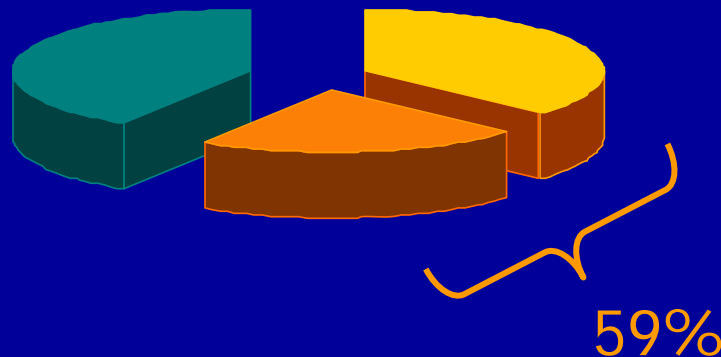
[Source: Behavioral Risk Factor Surveillance System](#)



Risk Factors for Disease

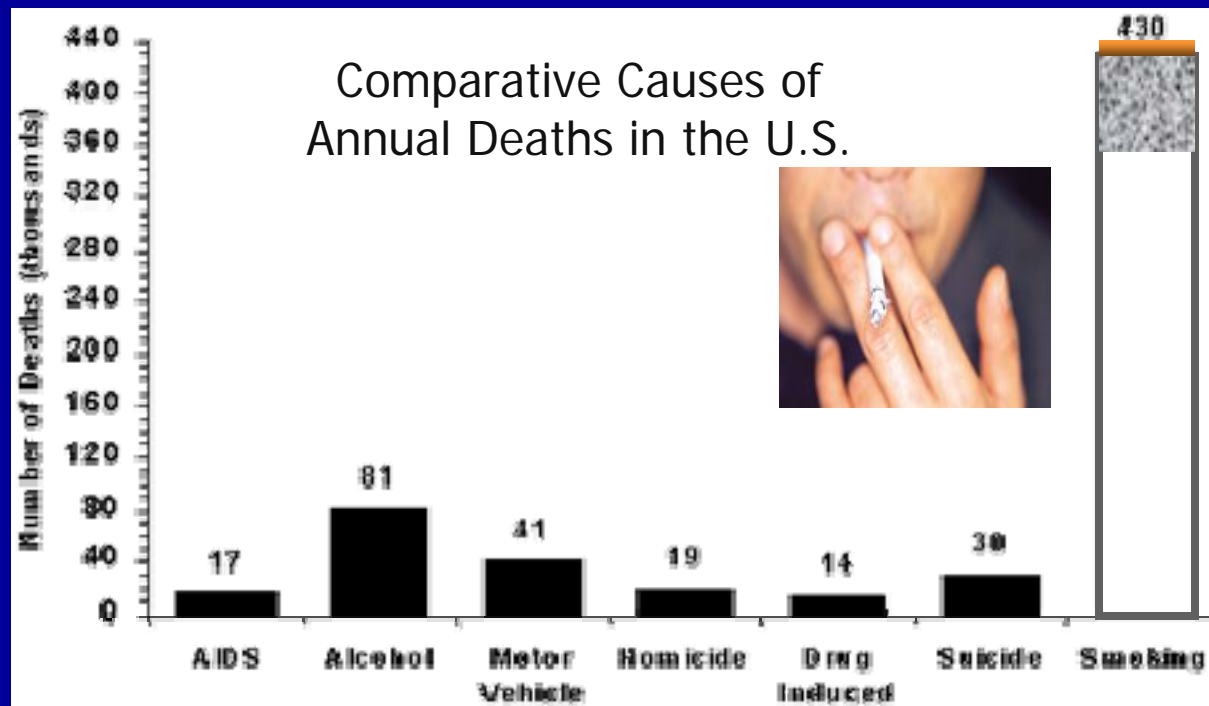
Obesity

Among U.S. adults:
59% are overweight
22% are obese



Risk Factors for Disease

Smoking

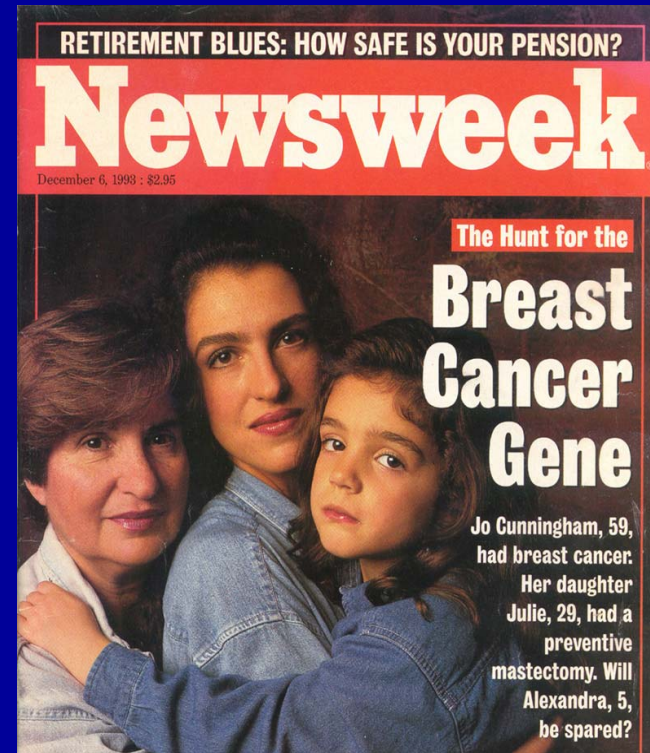
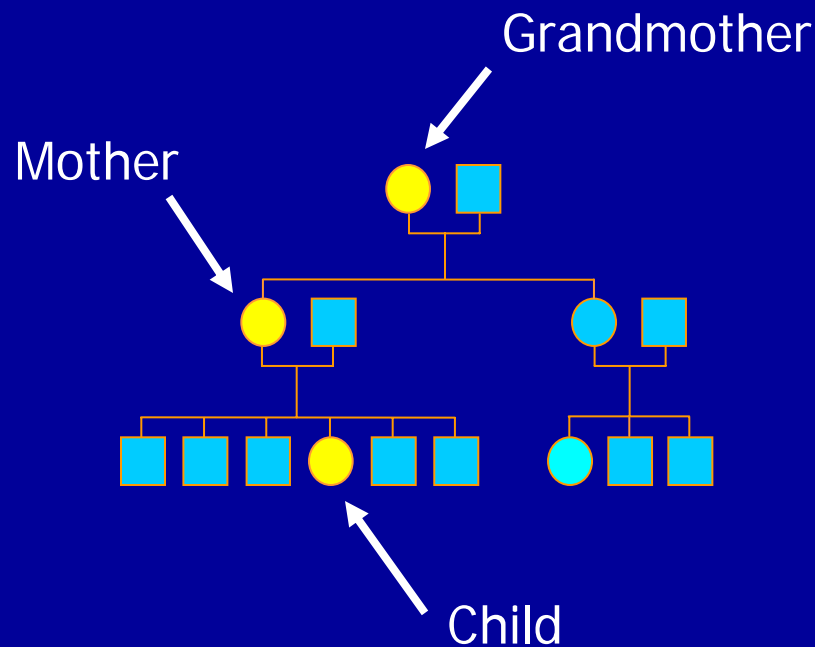


Source: (AIDS) HIV/AIDS Surveillance Report, 1998; (Alcohol) McGinnis MJ, Foege WH. Review: Actual Causes of Death in the United States. JAMA 1993;270:2207-12; (Motor vehicle) National Highway Transportation Safety Administration, 1998; (Homicide, Suicide) NCHS, vital statistics, 1997; (Drug Induced) NCHS, vital statistics, 1996; (Smoking) SAMMEC, 1995



Risk Factors for Disease

Genes

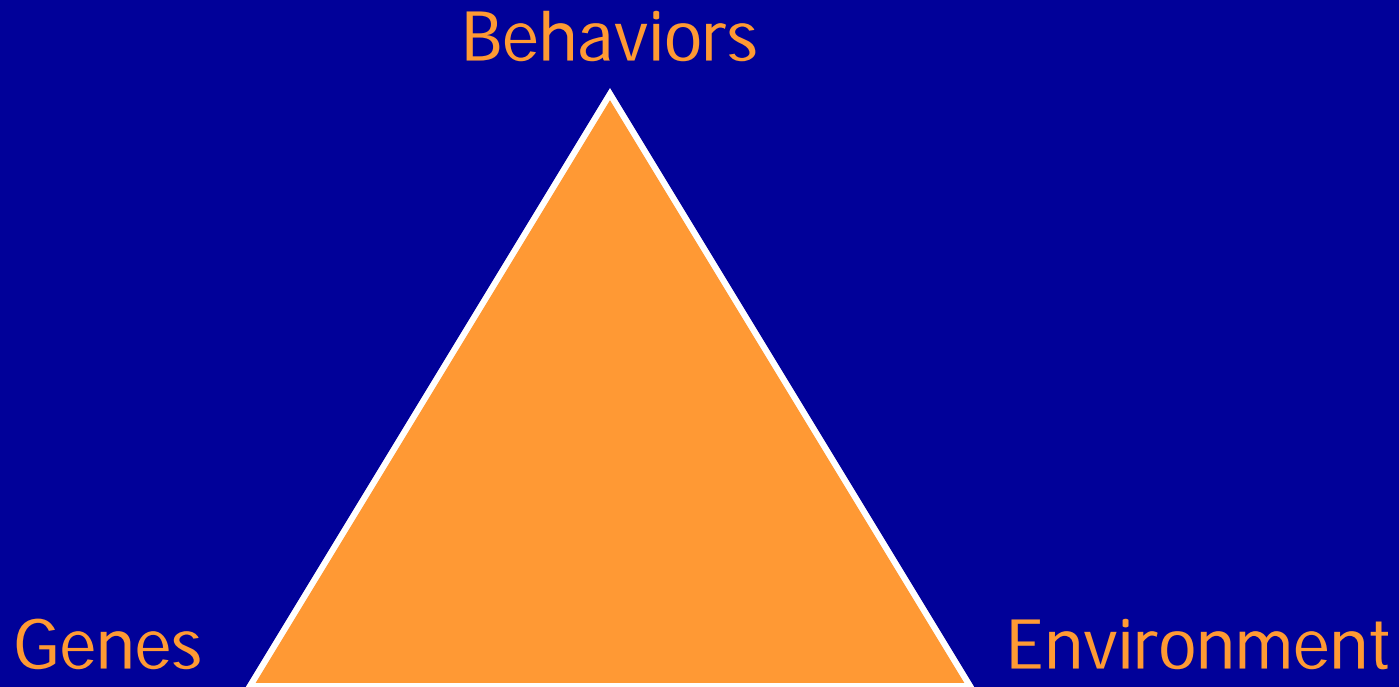


Genes provide the directions for building all of the proteins that make our bodies function. Because genes are passed down by parents, family members share many genes.



Risk Factors for Disease

Genes, environment, and behaviors interact with each other to cause disease.



Risk Factors for Disease

Family history helps capture the effects of these interactions on disease risk.

Behaviors

Family History

Genes

Environment



What is family history?

A family's
combination of
shared genes,
environment,
behavior, and
culture



Family history is a risk factor for diseases throughout all stages of life

birth defects
blood disorders



infants

children

diabetes
depression



adolescents

adults

Alzheimer's disease
osteoporosis



older adults



asthma
autism



cancer
heart disease



You can protect your health.

Health = Genes + Environment + Behaviors

can't be
changed

These can be changed!



Family history can help you...



- Learn about diseases that run in your family
- Take advantage of screening tests (i.e. blood pressure, mammography) that may help to detect problems early
- Change unhealthy behaviors such as smoking, inactivity and poor eating habits



We all have a family history of something!

depression

asthma

heart disease

leanness

high cholesterol

cancer

kidney disease

Alzheimer's

diabetes

obesity

allergies

stroke

blue eyes

curly hair

high blood pressure

arthritis

emphysema

osteoporosis

acne

athleticism



How can you collect your family history?

- Ask questions
- Talk at family gatherings
- Draw a family tree
- Write down the information
- Look at death certificates, family medical records, etc.



What information do you need?

- Major medical conditions and causes of death
- Age family member developed disease and age at death
- Ethnic background
- General lifestyle factors like heavy drinking and smoking

Example:

Uncle Bill – smoked cigarettes since he was a teenager,
had a heart attack at age 52



Who are the most important relatives to include?

- you
- children
- siblings
- parents
- grandparents
- aunts and uncles
- nieces and nephews

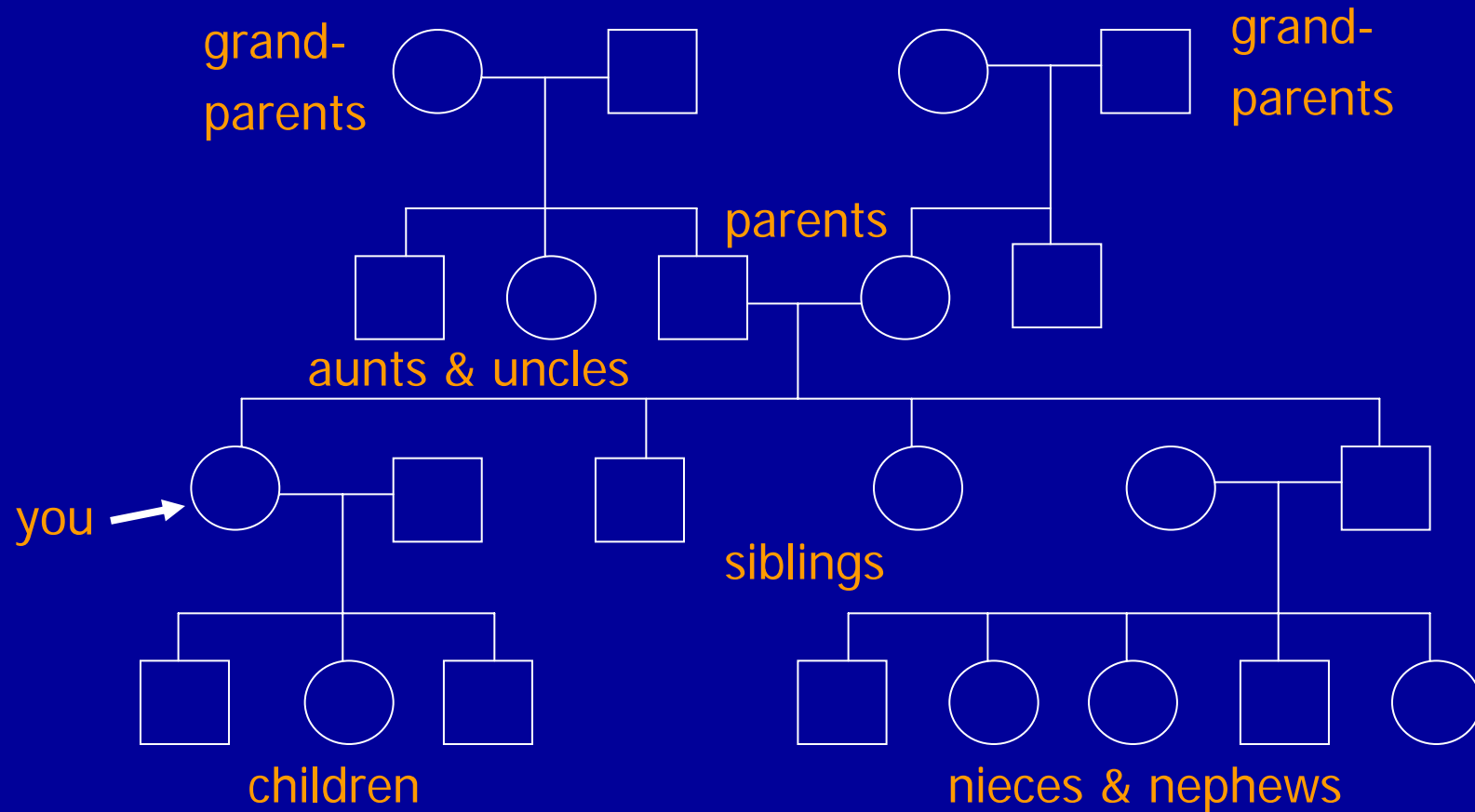


What should you do with the information?

- Organize the information
- Share it with your doctor
- Keep it updated
- Pass it on to your children



How doctors organize family history: pedigrees



To learn to draw a pedigree like this,
go to <http://www.nsgc.org/consumer/>



What will your doctor do with the information?



- Determine your risk for disease based on:
 - Number of family members with the disease
 - The age when they were diagnosed
 - How relatives with disease are related to one another and to you
- Consider other disease risk factors
- Recommend screening tests and lifestyle changes



Shirley's Family History



Shirley has heard that diabetes can run in the family, so she asked her doctor to assess her family history risk.

Family history

Diabetes:

mother, 43 yrs

father, 59 yrs

uncle, 50 yrs (*father's side*)

aunt, 59 yrs (*father's side*)

Strong Risk

Shirley's doctor recommends:

- losing weight, eating a healthy diet and increasing physical activity
- blood sugar screening
- possibly refer to a specialist

Heart Disease:

mother, 66 yrs

uncle, 68 yrs (*mother's side*)

Moderate Risk

- losing weight, eating a healthy diet and increasing physical activity
- regular cholesterol screening
- regular blood pressure screening
- possibly take aspirin regularly



How did Shirley's family history help her?



She learned that she had increased risk for diabetes and heart disease. Her family history was a risk factor, in addition to her weight.

Shirley started getting more regular screenings for

- blood sugar
- blood pressure and
- cholesterol.

She talked to her doctor about losing weight through healthy eating and physical activity programs that were right for her.



Prevention is Primary... Create Your Family's Future!



www.cdc.gov

