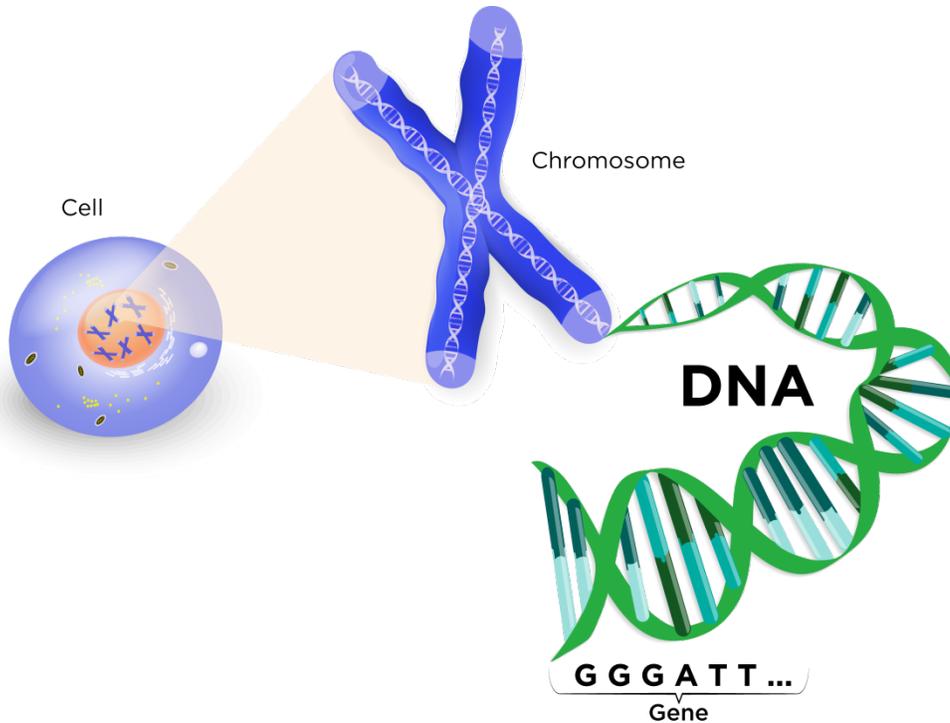


Medical Genetics

What you need to know about genetic testing, inheritance and how genetics can affect your health



What is medical genetics?

Medical genetics is the science of how genetic material (DNA, genes and chromosomes) influences your health.

What are genes, DNA and chromosomes?

DNA

DNA (deoxyribonucleic acid) is your genetic code. It is inside your cells and gives instructions for how your body grows and functions.

Genes

Genes are segments of DNA. Each gene provides the instructions for making a specific protein. Proteins perform specific tasks within your body, such as digesting the food you eat and helping your muscles recover after exercise.

Chromosomes

Chromosomes are packages of DNA. Chromosomes allow your DNA to fit inside your cells.

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To Learn More

- Genetics
206-987-2056
- Ask your child's healthcare provider
- seattlechildrens.org

Free Interpreter Services

- In the hospital, ask your nurse.
- From outside the hospital, call the toll-free Family Interpreting Line, 1-866-583-1527. Tell the interpreter the name or extension you need.

How does my DNA affect my health?

Your genetic information is unique. No two people are exactly alike. Some of the differences in your DNA can have a physical or developmental impact. For example, a difference in a gene which functions in the inner ear can cause hearing loss.

What is genetic testing?

Genetic testing is a medical test for differences (variations) in your genes, chromosomes or proteins. Genetic testing is usually done using a blood sample. The results of a genetic test can:

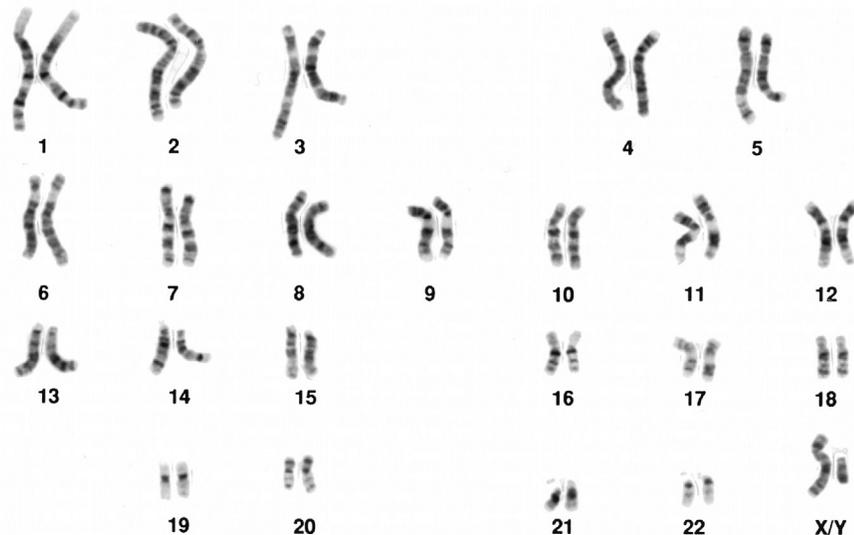
- Help confirm a suspected genetic condition
- Help rule out a suspected genetic condition
- Tell your chances of developing a genetic condition
- Tell your chances of passing on a genetic condition to future children

Genetic testing is different from other lab tests. It can take 2 weeks to 4 months to complete, depending on the specific test performed. Genetic testing is not always needed to confirm or rule-out a genetic diagnosis.

What is inheritance?

Inheritance is how genetic information is passed down from parent to child. You usually have 23 pairs of chromosomes inside every cell in your body. One copy of each chromosome you have is inherited from your mother and one copy of each chromosome is inherited from your father.

Some genetic variations are passed down from parent to child, meaning that they are inherited. This is why children look like a combination of their parents and why some health conditions run in families. Sometimes variations in genetic information are new and are not inherited from a parent.



Seattle Children's offers interpreter services for Deaf, hard of hearing or non-English speaking patients, family members and legal representatives free of charge. Seattle Children's will make this information available in alternate formats upon request. Call the Family Resource Center at 206-987-2201. This handout has been reviewed by clinical staff at Seattle Children's. However, your child's needs are unique. Before you act or rely upon this information, please talk with your child's healthcare provider.

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