



National Coordinating Center  
for the Regional Genetics Networks

**The National Coordinating Center for the  
Regional Genetics Networks**

**Glossary of  
Cancer Genetics Terms**

**English – Vietnamese**

**2023 Edition**

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In collaboration with:  
**The Cross Cultural Health Care  
Program (CCHCP)**

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## Acknowledgments

### Mission of the NCC

The National Coordinating Center for the Regional Genetics Networks (NCC) has been funded by the Health Resources and Services Administration (HRSA) since 2004. Our mission is to improve access to genetics for underserved populations. This mission is accomplished through different programs, many of which are educational tools and resources for non-genetics professionals. Learn more at <https://nccrcg.org>.

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### Additional Acknowledgments

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Cindy Roat is an international consultant in language access in health care and patient navigation. She provides training and consulting for health care interpreters, providers, administrators, and patient navigators. Cindy compiled and edited this glossary for the NCC.

### The Cross Cultural Health Care Program

The mission of The Cross Cultural Health Care Program (CCHCP) is to serve as a bridge between communities and health care institutions to advance access to quality health care that is culturally and linguistically appropriate. CCHCP provides resources, such as bilingual medical glossaries, as well as medical interpreter, patient navigator, and cultural competence training for individuals and institutions with the goal of systems change. Learn more at: <https://xculture.org>

CCHCP is supporting and coordinating the translation process of this glossary and is providing the glossary free of charge in its online store: <https://xculture.org/store/>

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## Preface

The seven Regional Genetics Networks (RGNs), the National Genetics Education and Family Support Center (Family Center), and the National Coordinating Center for the Regional Genetics Networks (NCC) mission is to improve access to quality genetic services for medically underserved populations. This bilingual glossary of terms related to cancer genetics is provided to help enable access to cancer genetics medical services to limited English proficiency populations.

## How to Use the Glossary

This glossary is organized alphabetically in English. The first column shows the term in English. The second column has the definition of the term in English. The third column has the translation of the term.

At the end of the translations of the cancer genetics terms is a page with Examples of Genes That are Often Checked in Genetic Testing, and a glossary of translations for Family Relationships Terms. It is very important for genetic counselors to know if a relative is a blood relative or a relative by marriage. There is also a page on Common Interpreting Errors, and a page on Analogies. Genetic counselors often use analogies to explain complex ideas in genetics.

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## Glossary of Terms

### English – Vietnamese

(n) – noun      (v) – verb      (adj) – adjective      (adv) – adverb

Term	Definition	Translation
<b>Abnormal (adj)</b>	Different from what is considered normal, average or expected; e.g., a gene sequence that is different than that found in most people.	bất thường
<b>Benign (adj)</b>	Something mild that does not threaten health or life. In cancer genetics, “benign” means “not cancerous.”	lành tính
<b>Blood test (n)</b>	A test in which blood is drawn (usually from the patient’s arm) and sent to a laboratory for analysis. In cancer genetics, blood tests provide cells for genetic sequencing.	thử máu
<b>Breast cancer (n)</b>	Cancer of the breast tissue. This cancer is more common in women, but it can affect men as well.	Ung thư vú
<b>Buccal swab (n)</b>	A way to collect DNA from the cells on the inside of a person's cheek.	lấy mẫu tế bào má
<b>CA-125 blood test (n)</b>	A blood test used to look for early signs of ovarian cancer in women with a high cancer risk.	Xét nghiệm máu CA-125
<b>Carrier (n)</b>	A person who carries a genetic mutation in one of the two copies of a particular gene, regardless of whether they get cancer or not.	người mang yếu tố di truyền biến đổi
<b>Cell (n)</b>	A small (microscopic) structure that forms the basic building block of every known living organism.	tế bào
<b>Chromosome (n)</b>	Thread-like structures located inside the nucleus of cells. In humans, there are 23 pairs of chromosomes, for a total of 46 chromosomes. Each chromosome is made of proteins and a single molecule of DNA, which carries genetic information.	nhiễm sắc thể
<b>Colonoscopy (n)</b>	A diagnostic test in which a flexible tube with a tiny camera on the end is inserted into the colon (large intestine) through the rectum in order to see the condition of the inside of the colon, or to take a small sample of tissue, or to cut out polyps (small growths).	Nội soi đại tràng
<b>Condition (e.g., “genetic condition”) (n)</b>	A chronic (long-term) health issue.	bệnh trạng (thí dụ. “bệnh trạng di truyền”)
<b>Consanguinity (n)</b>	When parents are blood relatives to each other.	quan hệ huyết thống

Term	Definition	Translation
<b>DCIS (ductal carcinoma in situ) (n)</b>	A pre-cancerous growth in the breast, which is still within the milk ducts but has the potential of growing and spreading to other parts of the breast tissue. Sometimes called Stage 0 breast cancer.	DCIS (ung thư biểu mô ống dẫn sữa tại chỗ)
<b>DTC (direct-to-consumer genetic testing) (n)</b>	Genetic testing that is marketed directly to people at home through the internet or the TV etc. instead of through a medical provider.	DTC (xét nghiệm di truyền trực tiếp đến người tiêu dùng trực tiếp người tiêu dùng)
<b>Deleterious mutation/ Disease-causing mutation (n)</b>	A change in a person's DNA that may cause a medical condition. In cancer genetics, having a disease-causing mutation may increase the chance of getting cancer but does not mean that a person will definitely get cancer.	biến dị nguy hiểm/ biến dị gây bệnh
<b>DNA (deoxyribonucleic acid) (n)</b>	The molecule that carries the genetic information of a cell. It provides the instructions used in the development, functioning and reproduction of the organism of which it is a part. The DNA is organized into chromosomes.	DNA (deoxyribonucleic acid)
<b>DNA banking (n)</b>	The secure, long-term storage of a person's genetic material. DNA banking allows families to have access to a deceased family member's DNA. When new genetic testing techniques are developed, doctors can test the banked DNA and use genetic information from the deceased person to tailor medical treatment for living descendants.	Lưu trữ ngân hàng DNA
<b>DNA marker (also called a "genetic marker") (n)</b>	A readily recognizable genetic trait, gene, or DNA segment.	dấu DNA (còn gọi là "dấu di truyền")
<b>DNA mutation (n)</b>	A change in the typical order of the chemicals that make up the DNA.  Mutations or variants are often compared to misspelled words because chemicals that make up the DNA sequence are not in the expected order.	Đột biến DNA
<b>DNA sequence (n)</b>	The exact order of the chemicals that make up a DNA molecule.	Trình tự DNA
<b>DNA sequencing (n)</b>	The laboratory technique used to determine the exact order of the chemicals that make up a DNA molecule. This is one type of genetic testing.	Giải trình tự DNA



Term	Definition	Translation
<b>Dominant (adj)</b>	<p>A genetic trait in which one copy of the gene is sufficient for a trait to be expressed; dominant traits can be inherited from a single parent.</p> <p>In cancer genetics, dominant inheritance refers to conditions in which having only one altered copy of a particular gene pair is sufficient to cause an increased risk for cancer.</p>	trội
<b>Duplication (n)</b>	<p>A duplication occurs when part of a chromosome is copied abnormally, resulting in extra genetic material.</p>	tăng đoạn nhiễm sắc thể
<b>Early age of onset (n)</b>	<p>Cancer diagnosed at an early age, usually before the age of 50.</p>	Tuổi khởi phát sớm
<b>Egg (n)</b>	<p>The reproductive cells of a woman. When fertilized by sperm, the egg will grow into a baby.</p>	trứng
<b>Environmental causes or factors (n)</b>	<p>Causes of illness that come from a person’s surroundings, not from their genetic make-up. Environmental causes of illness include infection, trauma, diet, exposure to toxins, etc. Some environmental causes of illness can be avoided or changed, while genetic causes cannot.</p>	nguyên nhân hoặc yếu tố môi trường
<b>Familial (adj)</b>	<p>Belonging to a family; e.g., a familial trait is a trait that is shared among family members and may be due to genetic or environmental factors or both.</p>	thuộc về gia đình
<b>Family history (n)</b>	<p>The medical history of the members of a family.</p>	lịch sử y tế gia đình
<b>Flip a coin (v)</b>	<p>A random decision-making tool used in the U.S. While a coin is flipped into the air and caught, a person predicts whether it will fall with the “heads” side up or the “tails” side up. If the coin falls as predicted, the person “wins.” This expression is often used as a metaphor for any outcome that is random and has two possible outcomes, and to describe a situation in which each outcome is as likely as the other.</p>	chọn sắp ngửa
<b>Fragment (n)</b>	<p>A small piece; an incomplete part of a whole.</p>	mảnh
<b>Gene (n)</b>	<p>A specific sequence of DNA that determines specific traits in an individual.</p>	gen

Term	Definition	Translation
<p><b>Gene copy (n)</b></p> <p><b>Normal gene copy (n)</b></p> <p><b>Altered gene copy (n)</b></p>	<p>In human cells, DNA is arranged in 23 pairs of chromosomes, for a total of 46 chromosomes. These chromosomes contain all the genes that make up the DNA. One chromosome of each pair is inherited from each parent. As such, individuals have two copies of every gene, one inherited from the mother and one inherited from the father.</p> <p>A normal copy of a gene is one that is found most frequently in the population. Also called the “working copy.”</p> <p>An altered copy of a gene is one that differs from the working copy and is considered to be “abnormal.” Also called the “non-working copy.”</p>	<p>bản sao gen</p> <p>bản sao gen bình thường</p> <p>bản sao gen biến đổi</p>
<p><b>Gene deletion (n)</b></p>	<p>Having a piece of genetic information missing from a gene.</p>	<p>xóa gen</p>
<p><b>General population (n)</b></p>	<p>“Most people.”</p> <p>For example, if you have the same risk of getting cancer as the general population, that means that you have the same chance of getting cancer as everyone else. This is in contrast to a “high risk population” who has a greater chance of getting cancer than everyone else.</p>	<p>thể hệ</p>
<p><b>Generation (n)</b></p>	<p>The people who constitute a single step in a line of descent from an ancestor; a group of people born and living more or less at the same time.</p> <p>Example: You, your brothers and sisters, all your spouses and your cousins are in the same generation. Your parents, your aunts and uncles and all their spouses form a previous generation. Your grandparents, their siblings and spouses form an even earlier generation. Your children and nieces and nephews form a later generation.</p>	<p>Thế hệ</p>
<p><b>Genetic (adj)</b></p>	<p>Having to do with inherited traits.</p>	<p>tư vấn di truyền</p>
<p><b>Genetic counseling (n)</b></p>	<p>A discussion with a genetic counselor about the basic concepts of genetics, genetic conditions, the chances of being affected by a genetic condition or having a child with a genetic condition, and genetic testing and treatment.</p>	<p>sinh viên thực tập tư vấn về di truyền</p>

Term	Definition	Translation
<b>Genetic counseling intern (n)</b>	A genetic counseling student who has not yet completed his/her academic studies and is now practicing under the supervision of a more experienced counselor in preparation for providing genetic counseling services independently after obtaining his/her graduate degree.	cố vấn di truyền
<b>Genetic counselor (n)</b>	A healthcare professional with a specialized graduate degree who works with people undergoing genetic testing. Genetic counselors provide information about genetic conditions, help patients understand their chances of being affected by a genetic condition or having a child with a genetic condition, and help them make informed decisions about testing and treatment. Genetic counselors also provide emotional support to patients and families.	kỳ thị vì lý do di truyền
<b>Genetic discrimination (n)</b>	The act of refusing to provide, or charging more for, insurance or any service based on an individual's genetic make-up.	các yếu tố di truyền
<b>Genetic factors (n)</b>	Specific aspects of a person's genetic make-up that influence that person's health and development.	thông tin di truyền
<b>Genetic information (n)</b>	The information encoded in genes, which tells every cell in a body how to grow, what to do and how to reproduce.	vật liệu di truyền
<b>Genetic material (n)</b>	All the parts of a cell that carry genetic information. Genetic material could include genes, parts of genes, a group of genes, a DNA molecule, a fragment of DNA, a group of DNA molecules, or the entire set of genetic instructions.	bẩm chất di truyền
<b>Genetic predisposition (n)</b>	An increased chance of a person developing a certain trait or disease based on that person's particular genetic makeup.	nét di truyền
<b>Genetic test (n)</b>	A laboratory test designed to determine if a person has a gene mutation or a typical DNA sequence.	nhà di truyền học
<b>Single gene test (n)</b>	Single gene test: analysis of one particular gene.	Xét nghiệm gen đơn lẻ
<b>Gene panel test (n)</b>	Gene panel test: analysis of several genes that have been shown to be associated with a particular condition; Example: breast cancer gene panel.	xét nghiệm bảng gen

Term	Definition	Translation
<b>Genetic trait (n)</b>	A characteristic within a family that is passed down from parent to child genetically.	nét di truyền
<b>Geneticist (n)</b>	A doctor or scientist who studies genetics.	nhà di truyền học
<b>Germline testing (n)</b>	<p>Germline testing refers to the analysis of a person's DNA, which he or she inherited from his or her parents.</p> <p>In biology and genetics, the germline is the group of cells that will pass on the genetic material to children, in other words, the cells from which the eggs and sperm come. After the egg and sperm come together to form a baby, these cells will then divide and multiply and will form the entire body.</p> <p>Germline testing is different from testing the DNA of someone's tumor, which may have a mutation that happened during the person's lifetime and was not inherited from his or her parents.</p>	xét nghiệm dòng mầm
<b>Hereditary (adj)</b>	Passed down from parent to child.	di truyền thừa kế
<b>Hereditary material (n)</b>	Genetic material that is passed down from parent to child.	vật liệu di truyền
<b>Informed consent (n)</b>	The process of agreeing to a procedure or course of treatment after understanding what the procedure/treatment entails, the potential risks and benefits associated with it, and the other options available.	<p>Ứng thuận có hiểu biết</p> <p>chấp thuận có hiểu biết</p> <p>sự đồng ý có xác nhận thông tin</p>
<b>Inheritance pattern (n)</b>	The manner in which a particular genetic trait or disorder is passed from a parent to a child, e.g., autosomal dominant or recessive, X-linked dominant or recessive, or multifactorial.	mẫu hình di truyền thừa kế
<b>Inherited (adj)</b>	Passed down from parent to child.	thừa kế
<b>Lynch syndrome (n)</b>	An inherited genetic disorder that increases a person's risk of getting cancer of the colon, rectum, uterus, ovaries, and other cancers.	hội chứng Lynch

Term	Definition	Translation
<b>Malignant (adj)</b>	In cancer, this term means that the cancer cells or tumor are harmful and have the potential of spreading to other tissues or parts of the body.	Ác tính
<b>Metastasis (n)</b>	The spreading of cancer from one organ to another.	Di căn
<b>Molecule (n)</b>	The smallest unit of a chemical compound that still has the properties of that compound. For example, a molecule of water is made up of two hydrogen atoms and one oxygen atom. Separately, they are just atoms, but when bonded together, they make a water molecule.	phân tử
<b>Multifactorial (adj)</b>	Due to a combination of genetic and non-genetic (environmental, hormonal, etc.) risk factors that act together to determine risk.	đa yếu tố
<b>Mutation (n)</b>	A change in a gene, which can be deleterious (disease causing) or benign (non-disease-causing).  In Spanish, the word is sometimes confused with “mutilation.”	biến dị / đột biến
<b>Oncologist (n)</b>	A physician who specializes in diagnosing and treating cancer.	Bác sĩ chuyên khoa ung bướu
<b>Oophorectomy (n)</b>	The surgical removal of one or both ovaries.	Thủ thuật cắt buồng trứng
<b>Ovarian cancer (n)</b>	Cancer of the ovaries, the organs in a woman that release eggs.	Ung thư buồng trứng
<b>Packets of genetic information (n)</b>	A phrase genetic counselors use to describe genes or chromosomes.	gói thông tin di truyền
<b>Pattern (n)</b>	A repeating arrangement or sequence; for example, the pattern of cancers in a family.	Mẫu
<b>Pedigree (n)</b>	A family tree that can be used to trace the inheritance of specific genetic traits.	phả hệ
<b>Penetrance (n)</b>	The probability that a specific genetic trait will be expressed if a person carries a mutation. “Complete penetrance” means that everyone who carries a particular gene mutation will show the trait related to that altered gene. “Incomplete penetrance” means that only some of the people who have the altered gene will actually show the related trait.	xác suất thâm nhập
<b>Predisposition to cancer</b>	Having a change in one of number of specific genes (a genetic mutation) that creates a higher than normal risk of a person developing cancer.	Dễ có nguy cơ bị ung thư

Term	Definition	Translation
<b>Prognosis (n)</b>	The most likely outcome of a disease process.	tiên lượng
<b>Proliferation (cell proliferation) (n)</b>	The controlled process by which a cell multiplies.  Cancer arises when the process of cell division becomes uncontrolled.	Sinh sôi nảy nở" (sự sinh sôi nảy nở tế bào)
<b>Prophylactic mastectomy (n)</b>	A mastectomy is the surgical removal of the breast. "Prophylactic" means something done to prevent disease. A prophylactic mastectomy is the surgical removal of a healthy breast to prevent breast cancer. Prophylactic mastectomy is an option for individuals with a very high breast cancer risk, for example, women with a BRCA mutation.	Phẫu thuật cắt bỏ vú phòng ngừa
<b>Protein (n)</b>	A molecule made up of chains of amino acids. Proteins do most of the work in cells and are required for the structure, function, and regulation of the body's tissues and organs. Genes determine how specific amino acids are put together to form a specific protein.	chất đạm / protein
<b>Random (adj)</b>	Happening in an unpredictable way.	ngẫu nhiên
<b>Recessive (adj)</b>	A genetic trait in which both copies of a gene are needed for the trait to be expressed; recessive traits are inherited from both parents, each one contributing one copy of the gene in question.  In cancer genetics, recessive inheritance refers to conditions in which both copies of a particular gene pair need to be altered to develop the disease.	lặn
<b>Recurrence (n)</b>	When something happens again.  In cancer, a return of the disease after treatment and after a period of time during which the cancer cannot be detected.	Tái phát
<b>Red flag (n)</b>	A warning sign or a clue.	đấu hiệu cảnh giác

Term	Definition	Translation
<b>Risk (n)</b>  <b>At risk (adj)</b>  <b>At average risk (adj)</b>  <b>At high risk (adj)</b>  <b>At higher risk than “X” (adj)</b>  <b>Risk factor (n)</b>	<p>The chance that something will happen; in the case of cancer genetics, the chance of getting cancer.</p> <p>Has some possibility of getting cancer.</p> <p>Has the same possibility of getting cancer as the general population.</p> <p>Has a greater possibility of having a genetic condition than the general population.</p> <p>Has a greater possibility of getting cancer than the general population. Has a greater possibility of getting cancer than “X.”</p> <p>A circumstance that increases the risk of getting cancer.</p>	<p>rủi ro</p> <p>có rủi ro</p> <p>có rủi ro trung bình</p> <p>có nhiều rủi ro</p> <p>có nhiều rủi ro hơn “X”</p> <p>yếu tố rủi ro</p>
<b>Runs in the family (e.g., cancer runs in the family) (v)</b>	<p>Is passed down from parents to children to grandchildren.</p>	<p>di truyền trong gia đình</p>
<b>Saliva (spit) test (n)</b>	<p>A genetic test done by collecting saliva (spit) instead of blood.</p>	<p>mẫu nước miếng (nước bọt)</p>
<b>Screen (v)</b>	<p>To test a person for a particular common health problem, even though the person has no symptoms to suggest that they have the problem.</p>	<p>sàng lọc / tầm soát</p>
<b>Screening test (n)</b>	<p>A test that looks for a common health problem even though the patient has no symptoms to suggest they have the particular disease.</p>	<p>xét nghiệm sàng lọc</p>
<b>Sperm (n)</b>	<p>The reproductive cells of the man. When sperm fertilize a woman’s egg, a baby develops.</p>	<p>tinh trùng</p>
<b>Sporadic (adj)</b>	<p>Random, once in a while.</p> <p>In genetics, sporadic cancers are those caused by random chance or unknown factors in the environment.</p>	<p>ngẫu nhiên</p>
<b>Statistically significant (adj)</b>	<p>Not caused by chance.</p>	<p>có ý nghĩa về mặt thống kê</p>

Term	Definition	Translation
<b>Syndrome (n)</b>	<p>A group of symptoms or features that consistently occur together or a condition characterized by a set of associated features.</p> <p>For example, a hereditary cancer syndrome refers to risk for a group of cancers all caused by a particular gene mutation. BRCA1 mutations increase risk for breast and ovarian cancers. This is called Hereditary Breast and Ovarian Cancer Syndrome. See also, Lynch Syndrome.</p>	Hội chứng



Term	Definition	Translation
<p><b>Test result (n)</b></p> <p><b>Negative (adj)</b></p> <p><b>True negative (n)</b></p> <p><b>Uninformative negative (n)</b></p> <p><b>Positive (adj)</b></p> <p><b>Variant of uncertain significance (n)</b></p> <p><b>Polymorphism (n)</b></p>	<p>A negative result on a genetic test means that the laboratory did not find the specific genetic change that the test was designed to identify.</p> <p>When a patient is being tested to see if he or she has a specific genetic change that is present in other family members, a negative result can be considered a “true negative.” This means that instead of having an increased risk for cancer like other family members, they have the same risk as everyone else in the general population.</p> <p>Sometimes a family has a strong history of a particular cancer, but no genetic change related to that cancer has been found in that family. An “uninformative negative” result means that a specific test was negative, but is not conclusive because the “family” mutation has not been identified, and/or there may be changes that the test could not detect in the gene being analyzed, or in other genes that were not tested.</p> <p>A positive result on a genetic test means that the laboratory did find a specific genetic change that is associated with a hereditary cancer syndrome (a deleterious mutation). In cancer genetics, that means that the patient has an increased risk of getting the cancer(s) associated with the gene.</p> <p>If the laboratory finds a genetic change for which currently there is not enough information to know if this change is problematic or not, it reports a “variant of uncertain significance.” Basically, this means that the laboratory found a genetic change, but they don’t know what it means. All of these variants will eventually be reclassified as either a “positive” or “negative” result. Most become “negative” and are thought to represent natural variation between individuals.</p> <p>Everyone has some degree of commonly occurring genetic changes that are not associated with cancer. If the test finds this sort of change, it reports a “polymorphism.”</p>	<p>kết quả xét nghiệm</p> <p>âm tính</p> <p>âm tính thật</p> <p>Âm tính không đủ thông tin</p> <p>dương tính</p> <p>biến thể không chắc về tầm quan trọng</p> <p>tính đa hình</p>
<b>Trait (n)</b>	A characteristic.	đặc điểm
<b>Tumor (n)</b>	An abnormal growth of cells; a tumor can be benign (not harmful) or malignant (harmful, cancer).	Khối u

Term	Definition	Translation
<b>Tumor testing (n)</b>	An analysis of the DNA of someone’s tumor. This analysis is meant to identify changes that a person might have acquired in his/her tumor cells that are not present in the rest of his/her body cells and were not inherited from his/her parents. This testing is often done to help make treatment decisions.	Xét nghiệm khối u
<b>Typo (n)</b>	A mistyped word; shortened slang for “typographical error.” In genetic counseling “a typo” is commonly used as an analogy to refer to mutations or variants in a gene.	lỗi sắp chữ / lỗi gen
<b>Ultrasound (n)</b>	An imaging method that uses high frequency sound waves to create a picture of something inside the body.	siêu âm
<b>Variant (n)</b>	A version of something that differs from the norm. So, a genetic variant is a change to the usual genetic sequence.	biến thể

## Examples of Genes That are Often Checked in Genetic Testing

Term	Definition	Translation
<b>BRCA 1</b> <b>BRCA 2</b>	<p>“The Breast Cancer Genes.”</p> <p>The tumor suppressor genes that in mutated form tend to be associated with an increased risk of certain cancers and especially breast and ovarian cancers.</p>	BRCA 1 BRCA 2
<b>MLH1 MSH2 MSH6 PMS2</b>	<p>“The Colon Cancer Genes”</p> <p>These genes are involved in fixing mistakes that occur when DNA replicates. An abnormality in one of these genes can lead to Lynch Syndrome, a condition linked to increased risk of cancer in the colon, rectum, uterus, ovaries, as well as other organs.</p>	MLH1 MSH2 MSH6 PMS2
<b>ATM</b>	<p>The ATM gene helps create a protein located in the cell nucleus that controls the rate at which cells grow and divide. The ATM protein also helps cells recognize damaged DNA strands.</p> <p>A mutation in the ATM gene can lead to increased risks for cancer or a condition called ataxia-telangiectasia a degenerative neurological condition that causes severe disability</p>	ATM
<b>PALB2</b>	<p>Another gene in which mutations can lead to breast cancer and possibly other cancers.</p>	PALB2

## Family Relationships

For genetic counselors, it is very important to know if a relative is a blood relative or a relative by marriage.

Term	Definition	Translation
<b>Parent</b>	Your mother or father.	cha hoặc mẹ
<b>Mother</b>	For genetic purposes, the woman whose egg was fertilized and grew to be you.	mẹ
<b>Mother-in-law</b>	Your husband or wife's mother.	mẹ vợ/mẹ chồng
<b>Stepmother</b>	Your father's wife who is not your biological mother.	mẹ ghẻ (kế mẫu)
<b>Adoptive mother</b>	A woman who is not your biological mother but who accepted legal responsibility for and raised you.	mẹ nuôi
<b>Godmother</b>	A woman chosen by your parents to be your spiritual guide in life, named as such through a ceremony in the Catholic church.	mẹ đỡ đầu
<b>Father</b>	For genetic purposes, the man whose sperm fertilized the egg that grew to be you.	cha
<b>Father-in-law</b>	Your husband or wife's father.	cha vợ/cha chồng
<b>Stepfather</b>	Your mother's husband who is not your biological father.	cha ghẻ (kế phụ)
<b>Adoptive father</b>	A man who is not your biological father but who accepted legal responsibility for and raised you.	cha nuôi
<b>Godfather</b>	A man chosen by your parents to be your spiritual guide in life, named as such through a ceremony in the Catholic church.	cha đỡ đầu
<b>Aunt</b>	Your mother or father's sister or sister-in-law.	dì/cô
<b>Maternal aunt</b>	Your mother's sister or sister-in-law.	dì
<b>Paternal aunt</b>	Your father's sister or sister-in-law.	cô
<b>Uncle</b>	Your mother or father's brother or brother-in-law.	chú/cậu
<b>Maternal uncle</b>	Your mother's brother or brother-in-law.	cậu
<b>Paternal uncle</b>	Your father's brother or brother-in-law.	chú

Term	Definition	Translation
<b>Cousin</b>	Usually understood to be a first cousin.	anh chị em họ
<b>First cousin</b>	Your aunt or uncle's child.	anh chị em con bác/con chú
<b>First cousin once removed</b>	Your aunt or uncle's grandchild or your first cousin's child	cháu nội ngoại của bác/chú
<b>Second cousin</b>	The children of first cousins are second cousins to each other.	anh chị em con chú con bác
<b>Grandparent</b>	Your parent's father or mother.	ông bà nội / ngoại
<b>Grandmother</b>	Your mother or father's mother.	bà nội /ngoại
<b>Maternal grandmother</b>	Your mother's mother.	bà ngoại
<b>Paternal grandmother</b>	Your father's mother.	bà nội
<b>Grandfather</b>	Your mother or father's father.	ông nội / ngoại
<b>Maternal grandfather</b>	Your mother's father.	ông ngoại
<b>Paternal grandfather</b>	Your father's father.	ông nội
<b>Great aunt</b>	Your mother or father's aunt.	bà cô / bà dì
<b>Maternal great aunt</b>	Your mother's aunt.	bà dì
<b>Paternal great aunt</b>	Your father's aunt.	bà cô
<b>Great uncle</b>	Your father or mother's uncle.	ông bác / ông chú
<b>Maternal great uncle</b>	Your mother's uncle.	ông cậu
<b>Paternal great uncle</b>	Your father's uncle.	ông chú
<b>Great grandparents</b>	The parents of any of your grandparents.	ông bà cố nội / ngoại
<b>Great grandmother</b>	The mother of any of your grandparents.	bà cố nội / ngoại
<b>Great grandfather</b>	The father of any of your grandparents.	ông cố nội / ngoại

Term	Definition	Translation
<b>Siblings</b>	The children of your father and mother.	anh chị em
<b>Half siblings</b>	Siblings (brothers and sisters) who have either the same mother and different fathers, or the same father but different mothers. Half siblings share some genetic similarity with you.	anh chị em cùng cha khác mẹ/cùng mẹ khác cha
<b>Stepsiblings</b>	The children of your stepmother but not your father; or the children of your stepfather but not your mother. Stepsiblings do not share any genetic similarity with you.	anh chị em ghẻ
<b>Twins</b>	Two siblings born at the same time.	anh chị em song sinh
<b>Identical twins</b>	Twins who developed from the same egg and sperm, meaning that they are genetically identical. Also called monozygotic twins.	anh chị em song sinh cùng trứng
<b>Fraternal twins</b>	Twins who developed from different eggs and sperm, meaning that they are genetically different and have the same number of shared genes as any other sibling. Also called dizygotic twins.	anh chị em song sinh khác trứng
<b>Triplets</b>	Three siblings born at the same time.	anh chị em sinh ba
<b>Sister</b>	A sibling who is a girl.	chị em gái
<b>Sister-in-law</b>	Your brother's wife or your husband's sister.	chị em dâu
<b>Half sister</b>	A girl who is either the child of your father with a different mother, or the child of your mother with a different father.	chị em cùng cha khác mẹ/cùng mẹ khác cha
<b>Stepsister</b>	The daughter of your stepmother or stepfather and therefore not biologically related to you.	chị em ghẻ
<b>Brother</b>	A sibling who is a boy.	anh em trai
<b>Brother-in-law</b>	Your sister's husband or your wife's brother.	anh em rể
<b>Half brother</b>	A boy who is either the child of your father with a different mother, or the child of your mother with a different father.	anh em cùng cha khác mẹ/cùng mẹ khác cha
<b>Stepbrother</b>	The son of your stepmother or stepfather and therefore not biologically related to you.	anh em ghẻ

Term	Definition	Translation
<b>Niece</b>	Your sibling's daughter.	cháu gái
<b>Nephew</b>	Your sibling's son.	cháu trai
<b>Spouse</b>	Your husband or wife.	người phối ngẫu
<b>Wife</b>	The woman to whom you are married.	vợ
<b>Husband</b>	The man to whom you are married.	chồng
<b>Children</b>	Genetically speaking, the people who are produced from your egg or sperm.	các con
<b>Daughter</b>	Your child who is a girl.	con gái
<b>Daughter-in-law</b>	Your son's wife.	con dâu
<b>Stepdaughter</b>	Your spouse's daughter who is not your biological child.	con gái ghê
<b>Adoptive daughter</b>	A girl for whom you have accepted legal responsibility and raised even though she is not your biological child.	con gái nuôi
<b>Goddaughter</b>	A girl for whom you have accepted spiritual responsibility within a ceremony of the Catholic church; she may or may not be biologically related to you.	con gái đỡ đầu
<b>Son</b>	Your child who is a boy.	con trai
<b>Son-in-law</b>	Your daughter's husband.	con rể
<b>Stepson</b>	Your spouse's son who is not your biological child.	con trai ghê
<b>Adoptive son</b>	A boy for whom you have accepted legal responsibility and raised even though he is not your biological child.	con trai nuôi
<b>Godson</b>	A boy for whom you have accepted spiritual responsibility within a ceremony of the Catholic church. He may or may not be biologically related to you.	con trai đỡ đầu
<b>Ancestor</b>	A person from whom you are descended, usually more remote than a grandparent.	tổ tiên

Term	Definition	Translation
<b>Fiancé(e)</b>	The person whom you have promised to marry.  Man: fiancé  Woman: fiancée	vị hôn phu (vị hôn thê)
<b>Domestic partner</b>	The person with whom you are living and have an intimate relationship, but to whom you are not married.	bạn tình sống chung nhà
<b>Divorced</b>	Having ended a marriage.	ly dị
<b>Engaged</b>	Having promised to marry someone.	đính hôn
<b>Widow</b>	A woman whose husband has died.	quả phụ/góa phụ
<b>Widower</b>	A man whose wife has died.	người góa vợ/quan phu
<b>Relative</b>	A person in your family.	thân nhân
<b>Blood relation</b>	A person who is related to you by blood not marriage, e.g., your sister, but not your sister-in-law; your mother but not your stepmother; your daughter but not your adopted daughter.	liên hệ huyết thống
<b>Next of kin</b>	Your closest living blood relation.	thân nhân ruột thịt gần nhất



### Common Interpreting Errors

Source speech	Interpreted as	More accurate rendition
<b>“Cancer just happens by chance.”</b>	“Cancer happens suddenly.” “Cancer happens because you are unlucky. “	“Sometimes we don’t know what causes cancer.”
<b>Cancer genes</b>	Cancer cells	Genes that may cause cancer when altered (mutated)
<b>“You are at higher risk for developing cancer.”</b>	Getting cancer	There is a greater possibility that you might get cancer
<b>“These genes protect us against cancer.”</b>	“They protect us, like the immune system . . . They kill cancer cells . . .”	“These genes help us to not get cancer.”
<b>Colonoscopy</b>	Scan	Colonoscopy

## Analogies

Genetic counselors often use analogies to explain complex ideas in genetics. An analogy explains a new concept by comparing it to something more common. A clue that an analogy is being used are the words “It’s as if” and “It’s like . . . .”

Examples:

“Genes are **like** an instruction book or an instruction manual. And in a book, there is a certain sequence to a story.”

“**It’s as if** you were reading through a long book and looking for one typo, for a letter that is mistaken.”

“In the DNA there are molecule strings – **like** in this picture, each letter is a different molecule string.”

“So a mutation is **like** a broken gene.”

“So a mutation is **like** an unexpected change in the order of the letters.”

“A gene is **like** a recipe, and mutations are like changes in that recipe.”

“It’s **like** chapters in a book, and like misspellings.”

“Our cells are **like** libraries and our chromosomes are like books.”

“**Like** a flip of a coin.” (to explain that there is a 50% chance that a mutation will be passed on every time the patient has a child).

“Inside every cell are genes, which are **like** instruction books for our bodies; they tell our bodies how to grow and develop.”

“It is kind of **like** if you are reading a book = and you notice that a word is spelled wrong; that is what this genetic test looks for.”

Genetic counselors may mix the analogy in with more literal descriptions:

Example:

“We know that there are two in particular that when they don’t work right, **when there’s a typo in the instruction manual**, they can cause a high risk for breast and ovarian cancer.”

Some analogies may not work with certain patients, due to linguistic or experiential differences.

Analogies that focus on genes as “letters in a book” may make no sense to speakers of character-based written languages such as Chinese, Japanese, and Korean.

“**It’s as if** you were reading through a long book and looking for one typo, for a letter that is mistaken.”

“So a mutation is **like** an unexpected change in the order of the letters.”

“It’s **like** chapters in a book, and like misspellings.”

“It is kind of **like** if you are reading a book and you notice that a word is spelled wrong; that is what this genetic test looks for.”

Analogies that focus on genes as a recipe may not work for patients who do not cook with written recipes.

“A gene is **like** a recipe, and mutations are like changes in that recipe.”

Analogies that discuss random chance in terms of a coin toss may not work for patients from cultures where people don’t flip coins to make decisions.

“**Like** a flip of a coin” (to explain that there is a 50% chance that a mutation will be passed on every time the patient has a child).

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