

## Genotype vs. Phenotype

Genotype and phenotype are two concepts used frequently in genetics. Genotype refers to an organism's genetic makeup, or genes. It is coded in DNA, and is often represented by two alleles (two letters, like AA or Aa). The combination of alleles (whether two dominant, two recessive, or one of each) is the genotype of an individual in reference to a particular characteristic. That genotype provides the code for phenotype, which is the actual physical appearance of an organism. So a genotype might be "AA", and the phenotype might be "brown hair."



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### Genotype is the genetic makeup

[Genie-Type coming from DNA of Baby](#)

Genotype is the genetic makeup of an organism. It is often used to refer to a person's genes for any specific trait.

### Genotype is coded in DNA

[Genie-Type Typing on DNA-Paper](#)

Genotype is coded in DNA and expressed, meaning that it is inherited from parents.

### Genotype is shown as 2 letters that represent 2 alleles

[Genie-type with 2 letters on 2 A-Eels](#)

Genotype is typically represented by 2 alleles, indicated by the presence of two letters. A capital letter, "A" indicates a dominant allele, while a lowercase letter, "a", indicates a recessive allele.

### Genotype is the code for phenotype

[Genie-Type Providing Code for Phoenix-Type](#)

Genotype provides the code for phenotype through alleles. Each allele codes for a different characteristic, whether dominant or recessive. The combination of alleles a person has determines their overall characteristics.

### Phenotype is physical appearance of organism

[Phoenix-Type Typing out Physical Appearance](#)

The phenotype is the physical appearance of an organism. It is the endproduct of the genetic system. Genotype may have the alleles "AA", but phenotype will refer to the actual characteristic, like brown hair.