

## Homozygous vs. Heterozygous

An individual can be homozygous or heterozygous for a particular gene - it's a description of their genotype. It refers to which alleles they have for that particular gene. Individuals that are homozygous have the same allele. They can be homozygous dominant, with two dominant "A" alleles, or homozygous recessive, with two recessive "a" alleles. They can also be heterozygous, meaning they have two different alleles for that gene. This is typically shown as "Aa."



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### Description of Genotypes

Typed by [Genie-Type](#)

Homozygous and heterozygous are two words used to describe a person's genotype. The combination of alleles for a certain gene determines whether someone is heterozygous or homozygous.

### Homozygous has 2 of the same allele (AA or aa)

[Home-Of-Z-Goat has 2 of same A-Eel](#)

Individuals who are homozygous have 2 of the same allele. That can be either AA or aa, homozygous dominant or homozygous recessive.

### Homozygous dominant is AA

[Home-Of-Z-Goat with Domino is AA](#)

An individual who is homozygous dominant for a particular gene will have two dominant "A" alleles for that gene.

### Homozygous Recessive is aa

[Home-Of-Z-Goat with Recessive Chocolate is aa](#)

An individual who is homozygous recessive will have the "aa" genotype, two recessive "a" alleles.

### Heterozygous has 2 different alleles (Aa)

[Hat-Arrow-Z-Goat has 2 different A-eels](#)

Individuals who are heterozygous have two different alleles for a particular gene. Typically, this is represented as "Aa"