Huntington's disease

the genetics

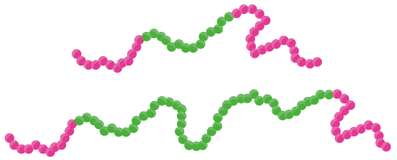
Huntington's Disease Association

Caused by a faulty gene

The gene that causes Huntington's is often called the huntingtin gene (HTT).

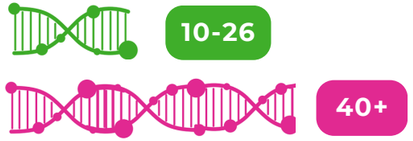
Hereditary

Everyone has two copies of the gene - one inherited from each parent.



Huntingtin gene

The genetic code in the HTT gene is the instruction for making a protein called huntingtin. When three letters of the genetic code repeat themselves too many times the gene makes an altered protein. This altered protein can then cause damage to some cells in the brain.

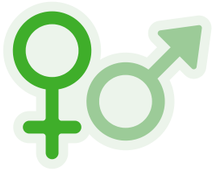


CAG repeats

A normal CAG repeat is between 10 and 26. Usually one of your CAG repeats is in this region. If one of your CAG repeats is 40 or more, this means that you will go on to develop Huntington's disease. There is a 'grey area' called reduced penetrance (36-39) where you still might develop the disease.

50/50 risk

The gene is passed down through the parent's DNA through the egg and sperm. Anyone born to a parent with Huntington's has a 50% chance of inheriting it.



Affects men and women

Both sexes are at risk and can inherit the disease. The CAG repeat size often remains the same, but when there is a further increase, it seems more likely to occur when someone inherits the gene from their father.-

Age 30-50, average onset of symptoms

The symptoms of Huntington's disease affect the person's mind, mood and movement. Although the movement is the most obvious symptom, the mental symptoms can be the most difficult to manage.

Testing for the gene

You can find out if you carry the faulty gene by taking a blood test known as a predictive test. You need to be 18 years old to take the test. Not everyone wishes to find out.

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