Saint Mary's Hospital
Manchester Centre for Genomic Medicine

Information for Patients

Dominant Inheritance

What are genes?

Genes are the unique set of instructions inside our bodies which make each of us an individual. There are many thousands of different genes, each carrying a different instruction. If a gene is altered, it can cause a genetic condition or disease. This gene alteration is sometimes known as a mutation.

We have two copies of each gene. One copy is inherited from each of our parents. When we have children, we pass on only one copy of each of our genes.

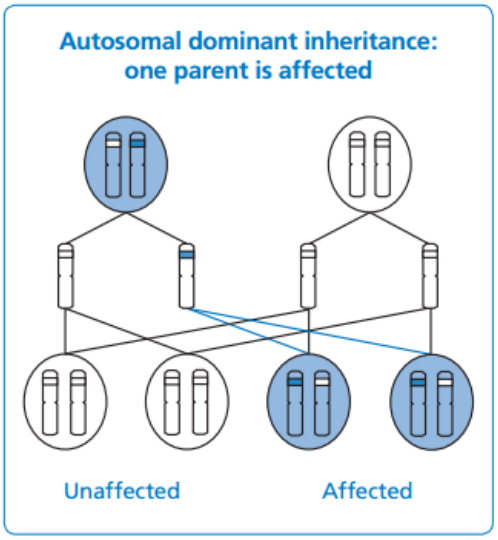
What does dominant inheritance mean?

Some conditions are inherited in a dominant way. In these conditions, people can develop symptoms if they carry one altered copy of a gene. The other copy of the gene is normal.

Having children

If a parent carries an altered gene for a dominant condition, there are two possible outcomes for each pregnancy:

- 50% (or 1 in 2) chance of their child inheriting the altered copy of the gene and being affected by the condition.
- 50% (or 1 in 2) chance of their child inheriting the normal copy of the gene and therefore not at risk of developing the condition.



Other useful information about dominant conditions

- It is possible to inherit an altered copy of a gene without showing any symptoms of the condition whatsoever.
- It is common for people in the same family, with the same gene alteration to experience very different symptoms from one another.
- Some dominant conditions are known as ‘late onset’. In other words, they only affect individuals in adulthood.
- Sometimes, there is not a family history of a dominant condition and it appears as an isolated case. This may be because a gene alteration has occurred in that person for the first time, after conception.

For more information

If you need more advice about any aspect of Dominant Inheritance, you are welcome to contact:

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Please let us know if you would like this leaflet in another format (e.g. large print, Braille, audio).

We would like to acknowledge our Clinical Genetics colleagues at Guy’s and St Thomas’ Hospital NHS Trust who originally designed and wrote this leaflet.

Seen in clinic by (doctor): _____

And (Genetic Counsellor): _____

Telephone number: _____

Family reference number: _____