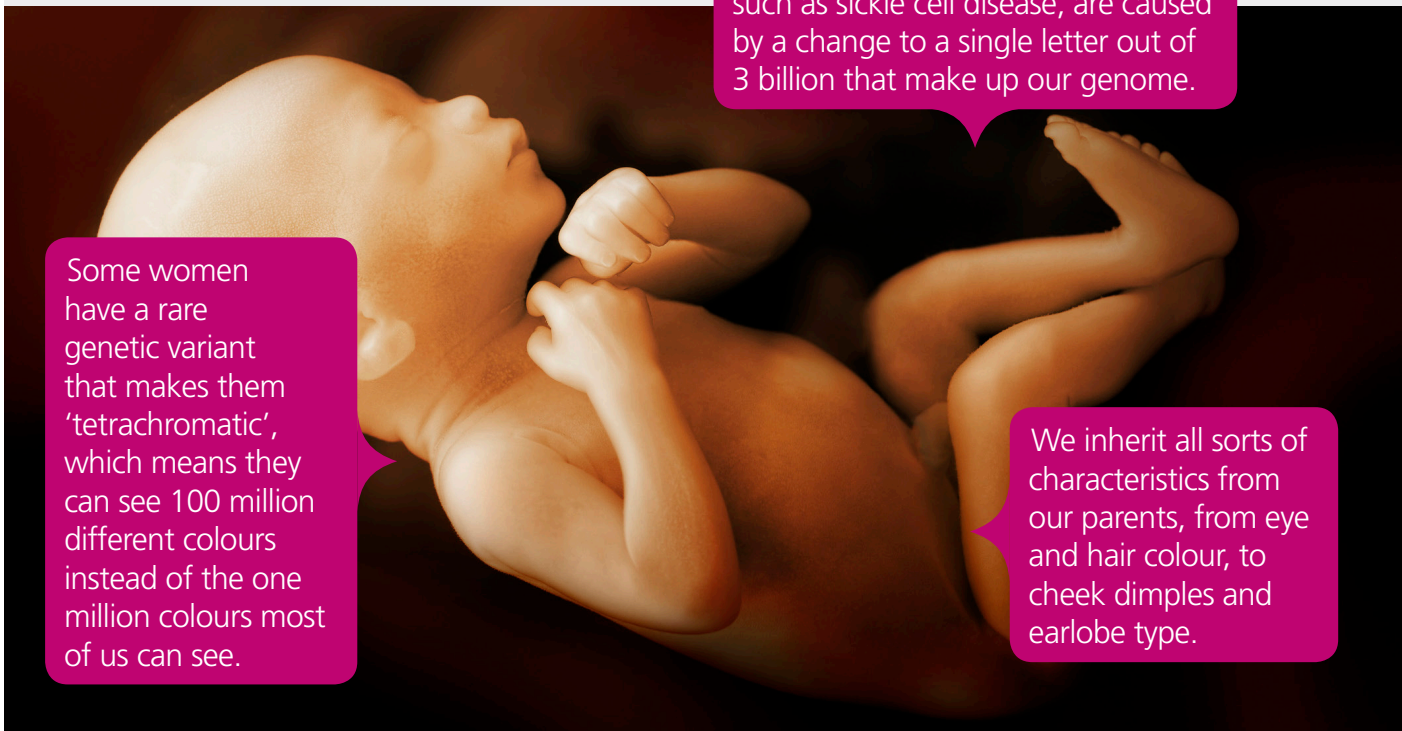


## Inheritance and genetic conditions

### Key facts

- In genomics, inheritance is the passing of genetic information from parents to their children.
- Inheritance is why members of the same family share similar characteristics.
- Individuals inherit their genomes from their parents – 50% from their mother and 50% from their father.
- It will not be the same 50% that is inherited each time, which means siblings from the same parents will be genetically different unless they are identical twins.
- Genetic variants that cause health conditions can be passed on from parents to their children. Understanding this can help with the clinical management of a family.

### Did you know?



Some serious genetic conditions, such as sickle cell disease, are caused by a change to a single letter out of 3 billion that make up our genome.

Some women have a rare genetic variant that makes them 'tetrachromatic', which means they can see 100 million different colours instead of the one million colours most of us can see.

We inherit all sorts of characteristics from our parents, from eye and hair colour, to cheek dimples and earlobe type.

### Find out more

For information about rare inherited conditions, such as cystic fibrosis and familial hypercholesterolaemia, view our factsheets: [www.bit.ly/Genetic-Conditions](http://www.bit.ly/Genetic-Conditions)

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