Communication aid

Autosomal recessive inheritance: one affected parent

This communication aid has been produced for clinicians to help support and guide conversations about autosomal recessive inheritance with their patients.

What causes autosomal recessive conditions?

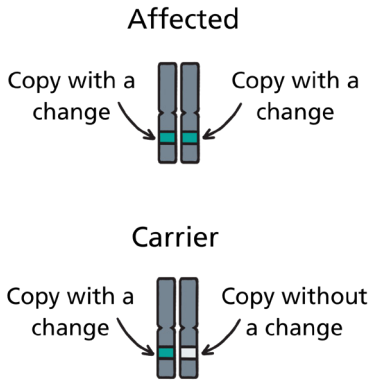
We all have over 20,000 genes, which provide instructions for how our body works.

Our genes are packaged into structures called **chromosomes**.

We all have two copies of each of our **autosomal genes**, one inherited from each of our parents.

Individuals affected by an autosomal recessive condition have a **change** on both copies of the gene.

When someone has a change on just one of the two copies of the gene, they are known as being a 'carrier' and would not usually be expected to develop the condition.



How are changes in autosomal genes passed on to children?

When someone who is affected by an autosomal recessive condition has a child, they will always pass a copy of the gene change to their child.

If their partner is not affected and not a carrier, they will not pass a gene change to the child, as they do not have one.

This means all their children will be carriers, but usually would not be expected to develop the condition.

Key terms

Chromosomes: Packages of DNA which are found in our cells.

Autosomal genes: These genes are located on chromosomes that are not sex chromosomes.

Gene change: Changes in a gene or chromosome used to be referred to as 'mutations'. Now, they are more commonly called changes, alterations or variants.

Want to learn more?

Scan to watch an animation explaining autosomal recessive inheritance

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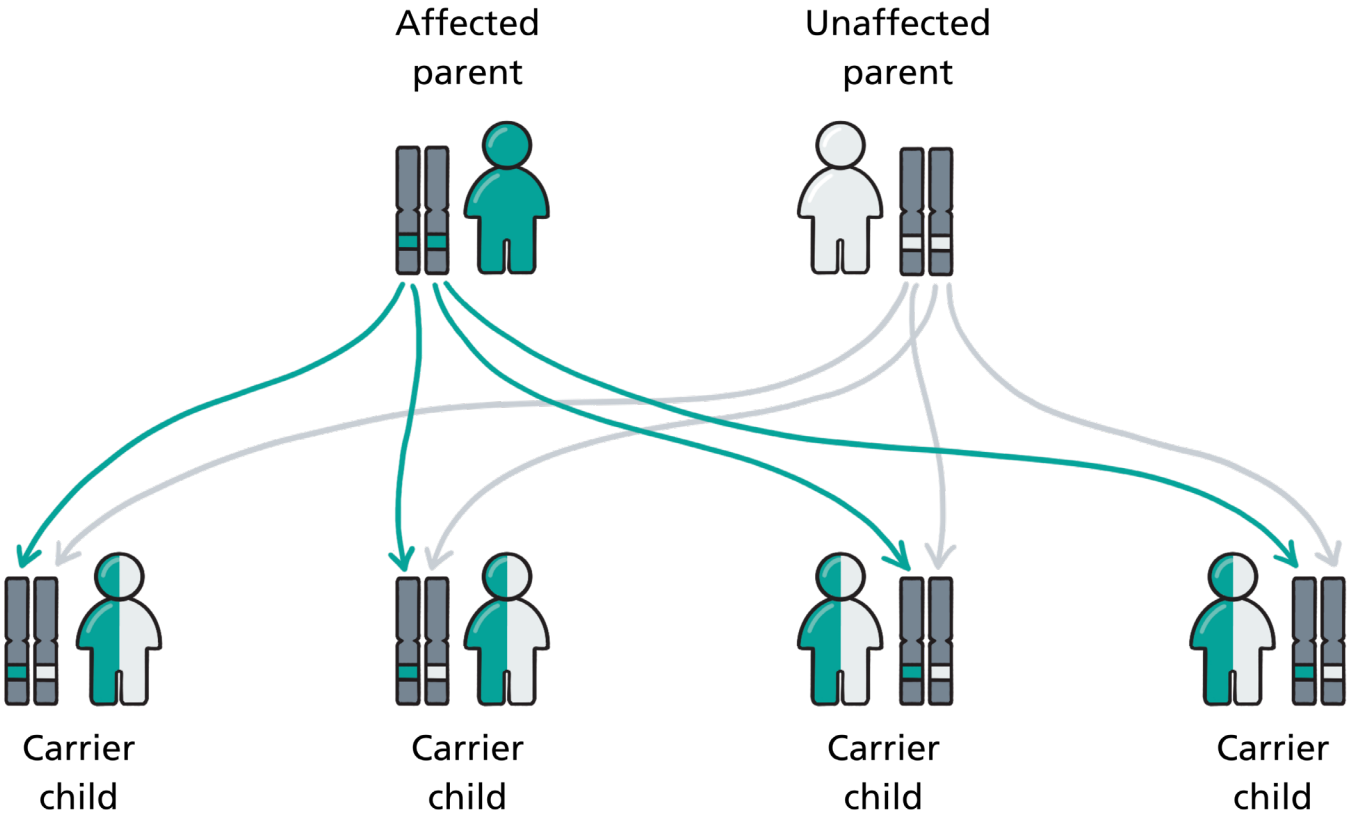

Key

Gene or chromosome without a change

Gene or chromosome with a change

100% chance of having a carrier child

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