



Reciprocal chromosome translocations

This communication aid has been produced for clinicians to help support and guide conversations about reciprocal chromosome translocations with their patients.

What is a reciprocal chromosome translocation?

We all have over 20,000 genes, which provide instructions for how our body works. Genes are made of DNA. Our genes are packaged into structures called **chromosomes** (see right).

Individuals usually have 46 chromosomes in each cell in their body. These are arranged into 23 pairs.

Sometimes, when cells divide to form eggs or sperm, or during early development of a baby, chromosomes may break and repair themselves incorrectly.

In some cases, segments of two chromosomes may break off and swap places. This means there is still the correct amount of genetic information, just in a slightly different arrangement.

This is known as a balanced reciprocal translocation (shown on page 2).

Generally, **balanced reciprocal translocations** do not affect an individual's health as no genes have been lost or gained.

If either parent of a pregnancy carries a balanced reciprocal translocation, this can affect the outcome of the pregnancy. Please see another communication aid in this series 'Reciprocal chromosome translocations: pregnancy outcomes' for more information.



Key terms

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

Balanced translocation: The term used when two or more chromosomes have been rearranged, but no DNA is lost or gained.



Want to learn more?

Scan to read or download a guide from Unique on balanced translocations

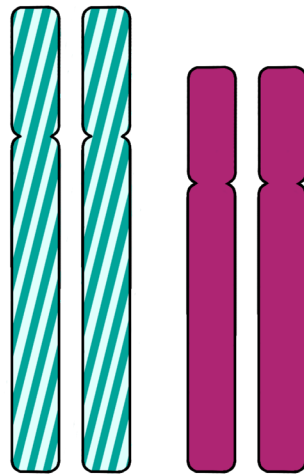




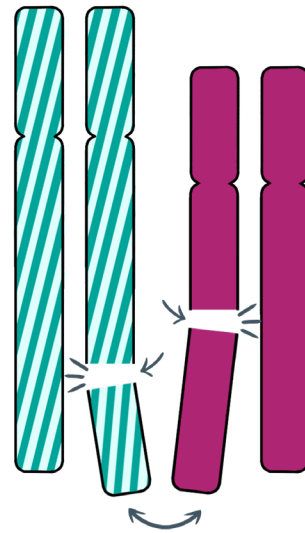
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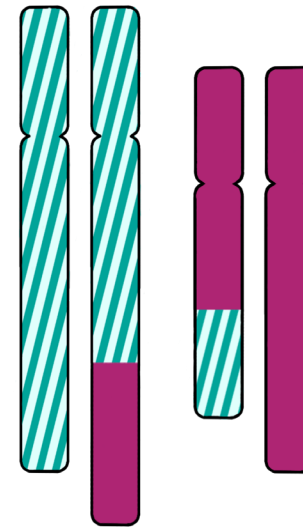
Two pairs of chromosomes



A segment from one chromosome in each pair breaks off.



The two segments swap places and re-attach.



This is known as a **balanced reciprocal translocation**.

