

Reciprocal Translocations

An information leaflet for
parents and families

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Author: Gayle Vincent, Genetic Counsellor

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Birmingham Women's NHS Foundation Trust

Edgbaston, Birmingham, B15 2TG

Telephone: 0121 472 1377

Fax: 0121 627 2602

If you need more advice about any aspect of
Reciprocal Translocations please contact:

Clinical Genetics Unit

Birmingham Women's NHS Foundation Trust

Mindelsohn Way

Edgbaston

Birmingham

B15 2TG

Telephone: 0121 627 2630

Fax: 0121 627 2618

Email: Clinicalgenetics@bwhct.nhs.uk

Reciprocal Translocations

Introduction

This leaflet has been produced for families where a condition called a 'balanced translocation' has been found. This leaflet describes what happens when someone has a **Reciprocal** translocation. We hope that you find it useful and will answer some of your questions.

What is a chromosome?

We have a complete set of chromosomes in every cell in our body and they contain the information the body needs to develop and function properly. This information is carried in the genes which are arranged within the chromosomes.

A person usually has 46 chromosomes in each cell. Chromosomes come in pairs and we inherit one of each pair from our father and one of each pair from our mother.

What is a reciprocal translocation?

A translocation is an unusual arrangement of the chromosomes in the cell. A reciprocal translocation is where parts of two chromosomes have broken off and 'swapped' places. Most people with a translocation have the correct amount of genetic material but it is arranged in an unusual pattern.

Further information

Clinical Genetics Unit

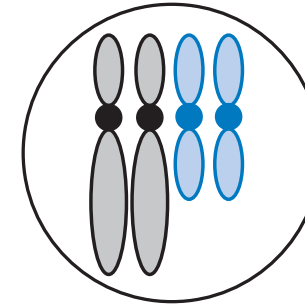
<http://bwhct.nhs.uk/genetics-wmrcgs-home.htm>

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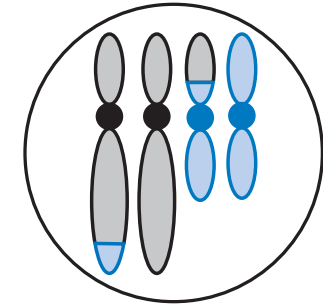
Should I tell other family members?

When someone is found to have a balanced translocation the most likely explanation is that it has come from one of the parents. Because translocations can be inherited it is important that other members of the family are given the opportunity to be tested.

Occasionally a translocation occurs which has not been inherited from either parent. This is a new rearrangement that has occurred in the egg or sperm cell that made that person. This is called a *de novo* translocation.



Usual chromosome pattern



Reciprocal translocation Chromosome pattern

When should I tell my children?

If you are found to be a carrier then there is also a chance that your children are translocation carriers. As being a carrier does not affect your health, we advise that the children are given the opportunity to discuss their risk and have the option of being tested around the age of 16 years.

Balanced Translocations

A balanced translocation is where all the genetic information is present but not quite in the usual pattern.

This has no effect on health but can cause reproductive problems such as recurrent miscarriages or reduced fertility.

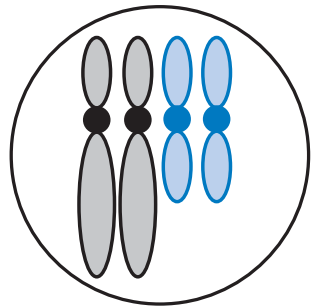
Unbalanced Translocations

An unbalanced translocation is where there is too much or too little genetic material. This can lead to a miscarriage or even the birth of a child with physical and learning difficulties.

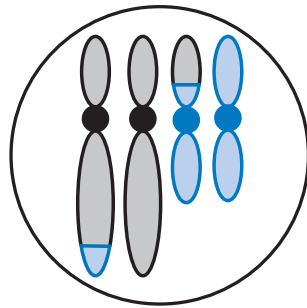
I'm a reciprocal translocation carrier what does that mean for me?

Translocations are common. About 1 in a 500 people are thought to have a reciprocal translocation. Providing there is no loss or gain of chromosome material carrying translocation will not affect your health.

What happens when a reciprocal translocation carrier has children?



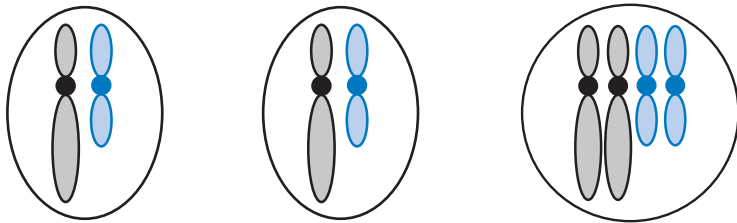
Usual chromosome pattern



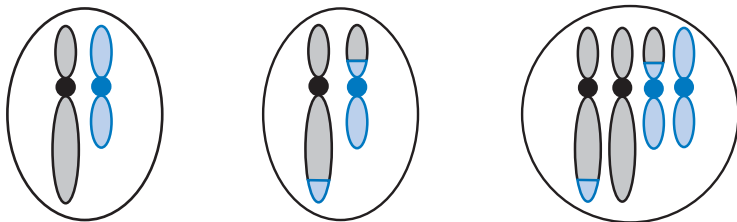
Reciprocal translocation Chromosome pattern

One parent will pass on a usual set of chromosomes and the parent with a translocation can pass on a combination of chromosomes. There are a number of possibilities that can happen.

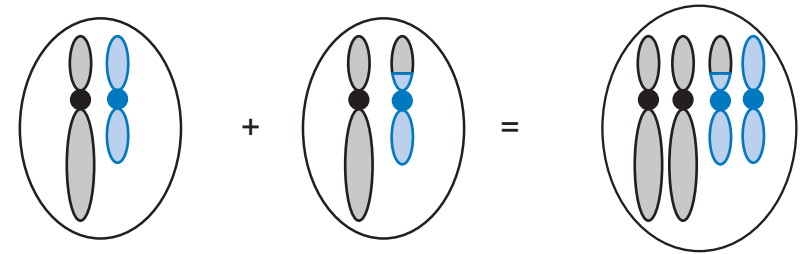
The child may have a usual pattern of chromosomes



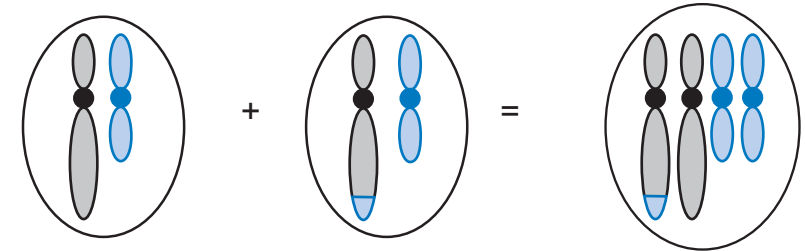
The child may have a balanced translocation – the same as the parent



The child may inherit an unbalanced form whereby there are 3 copies of some genes and only one copy of other genes.



or



An unbalanced translocation may end in miscarriage or even the birth of a child with developmental and physical problems.

What tests are available in a pregnancy?

It is possible to have a test in pregnancy to check the baby's chromosomes. There are two tests available. These are called the CVS (chorionic villus sampling) and amniocentesis.

How do I find out if I have a reciprocal translocation?

A simple blood test can identify whether or not you are a carrier of a reciprocal translocation. This can be arranged via your local Genetics service. Results can take around 6 weeks.