

Autosomal Recessive Inheritance

Information for patients



leeds children's
hospital

caring about children

Our DNA and genetic disorders

Genetic conditions occur due to variants or spelling mistakes in our DNA. Every one of us will have spelling mistakes and sometimes these run in families. For most of us these cause no problems. It is when the spelling mistake is in an important gene which has an important job in the body that it can result in problems or disease.

Autosomal Recessive Conditions

In autosomal recessive conditions, two copies of the genetic variants are needed to cause the condition. We all have two copies of every gene, one from our mother and one from our father. In some cases parents both carry one copy of the gene with a genetic variant. In other cases the spelling mistake/variants occurs for the 1st time in the child.

Where parents are carriers of the genetic variant each future pregnancy will have a 25% chance of having the condition, a 25% chance of not having the condition and a 50% chance of carrying the genetic variant. Often carriers have no symptoms but in some conditions may have milder symptoms.

This image on the next page shows the inheritance of genes from parents to their children and the resulting combination of genes the child will have. Red represents the genetic variant; blue represents the normal copy of the gene.

The line from each parent shows which gene they pass on to their child. The colours of the individuals tell the effect of the genes they have, red means they will be at risk of being affected, blue means they will not be at risk of being affected, and yellow means they carry the gene variant.

Autosomal recessive inheritance

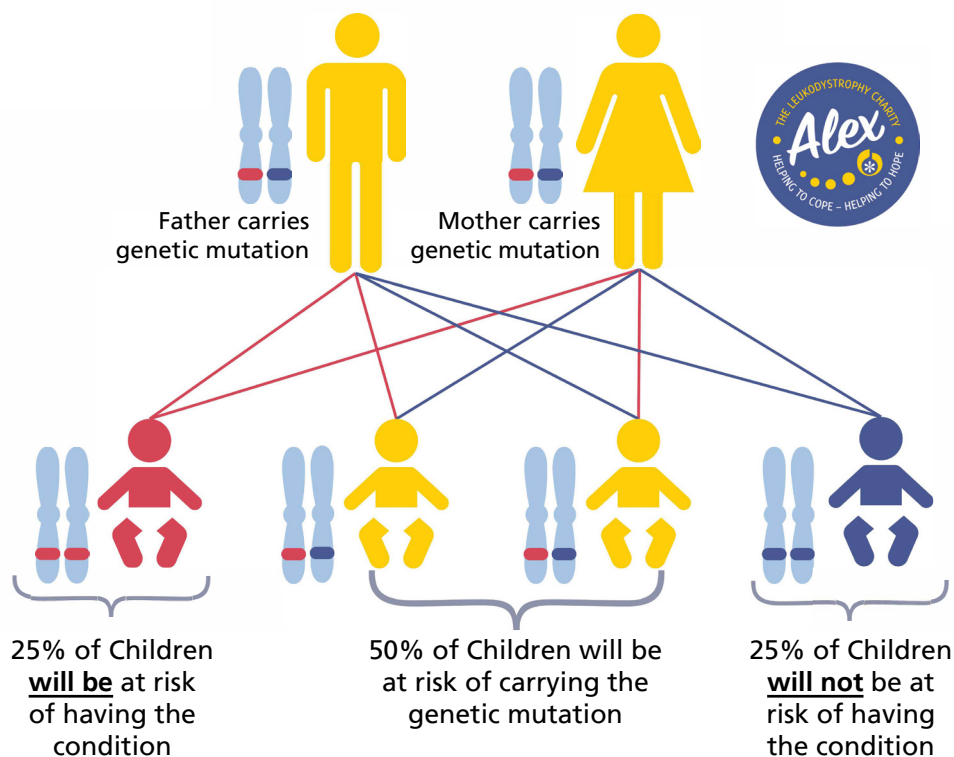
 Affected

 Unaffected

 Carrier

 Chromosome with normal copy of gene

 Chromosome with genetic mutation



Alex, The Leukodystrophy Charity (Alex TLC)

A charity that provides invaluable support and information to people affected by leukodystrophy. Established in 2004 we are an internationally recognised centre of excellence and the only UK charity providing support and information to people affected by any of the leukodystrophy conditions worldwide.

We are here to support you and your family throughout your leukodystrophy journey. We provide a range of support services, this includes one to one support, counselling, our peer support and grant programmes.

To get in touch please contact Alex,
The Leukodystrophy Charity (Alex TLC) on
020 7701 4388 or email **info@alextlc.org**.
Or visit our website at **www.alextlc.org**.



Contact Details

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