

Tests during a pregnancy

It may be possible to have a test during pregnancy to discover if a baby has inherited the DMD gene. If you would like to find out more about these tests, please ask to speak to a genetic counsellor or doctor.

Further information

Muscular Dystrophy Campaign

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With thanks to the Clinical Genetics Unit, Guy's and St. Thomas' Hospital, London.

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Birmingham Women's 
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Duchenne Muscular Dystrophy

An information leaflet for
patients and families

If you need more advice about any aspect
of Duchenne Muscular Dystrophy
please contact:

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What is Duchenne Muscular Dystrophy (DMD)?

DMD is a very serious condition that affects about 1 in every 3500 male births in the UK. DMD affects all the muscles of the body, causing them to become weaker over time.

Boys with DMD usually begin having difficulty in walking by the age of 3 years and are unable to run and jump like their peers. They often struggle to climb stairs and get up from the floor.

Some boys also have mild learning difficulties or behavioural problems.

By the age of 13 years, most boys with DMD will need a wheelchair. By the late teens or early twenties DMD affects the breathing muscles. This is severe enough to shorten life expectancy.

What causes DMD?

DMD is caused by an alteration in an important gene called dystrophin. The dystrophin gene normally makes a protein that is important for keeping muscles strong and healthy. If the dystrophin gene has an alteration in it, the dystrophin protein is not made. This means that the body does not have a way to replace damaged muscle tissue or to grow new muscle cells.

Is there a cure for DMD?

Unfortunately there is no cure yet for DMD, however there are ways to manage the condition which help limit some of

the effects.

Steroid treatment can extend the time before a wheelchair is needed for mobility. Nocturnal ventilation and spinal surgery can also help with breathing and heart problems. Boys who receive all these interventions are likely to have a longer life expectancy. Physiotherapy also plays an important role, as well as occupational therapy which can help with aids and adaptations to the home environment.

Lots of research is underway to find a cure and effective treatments for DMD.

How is DMD passed on in families?

Our bodies are made up of millions of cells. Each cell contains a complete set of genes. We have thousands of genes.

Genes are like a set of instructions, controlling our growth and how our bodies work. All of our genes are arranged into packages called chromosomes. Chromosomes are arranged in 22 pairs, according to size. We also have another pair of chromosomes called the sex chromosomes. Females have two X chromosomes (XX). Males have one X chromosome and one Y chromosome (Y). We normally inherit one of each of the pairs from our mother and one from our father.

Most boys with DMD inherit the gene alteration from their mother. If a mother carries an alteration in the dystrophin gene on one of her X chromosomes, she is known as a carrier of DMD.

In one third of boys, the gene alteration happens in that boy for the first time and is not inherited.

What is the chance that my child will inherit the DMD gene?

If a mother is a carrier for DMD, she has a gene alteration on one of her X chromosomes. When she comes to have her children there is a 50% (1 in 2) chance that she will pass on the X chromosome with the altered copy of the dystrophin gene.

If a daughter inherits the X chromosome with the DMD gene alteration, she will be a carrier like her mother. If a son inherits the X chromosome with the DMD gene alteration he will have DMD.

This means that each of her sons will have a 50% chance of developing DMD and each of her daughters will have a 50% chance of being a carrier for DMD.

