

girls tends to be lower than that of their brothers and sisters. It is important to remember, however, that IQ tests were designed to predict school success and give no information about many important aspects of character, like determination, honesty and reliability, which are of major importance in finding and keeping a job.

### Growth in childhood and during adolescence

There is a tendency for some Triple X girls to grow more rapidly between 4 and 9 years, particularly in their legs, and this contributes to their attractive appearance. In rare instances this may be excessive and in such cases medical advice should be sought. Development of the breasts starts around age 11 and periods between ages 13 and 15 years.

### Further education and employment

Many girls with Triple X go on to further education after leaving school. In the past the majority of Triple X girls have gone into jobs of a practical nature, such as catering, caring for

children and older people, hairdressing, or working in shops. There is not an increased risk of unemployment among Triple X women.

### Parenthood and fertility

The majority of Triple X women will have no problems in becoming pregnant and can expect to produce healthy children. Occasionally, Triple X women have an early menopause.

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Birmingham Women's   
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# Triple X Syndrome

An information leaflet for  
parents and families

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of Triple X Syndrome please contact:

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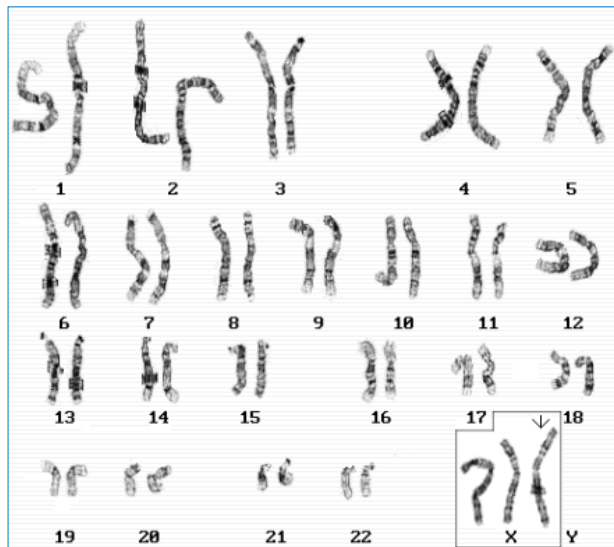
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## Introduction

Humans are usually born with 46 chromosomes, which are arranged in 23 pairs. One of these pairs determines whether a baby is male or female, and these are known as the sex chromosomes. Boys are born with one X and one Y chromosome (XY), and girls are born with two X chromosomes (XX).

Occasionally, however, a girl is born with an extra X chromosome and this is known as **Triple X**. The picture below shows the chromosomes from someone who has an extra X chromosome. About 1 in 1,000 girls have an extra X chromosome, but often they are unaware of it. In Britain, it is estimated that there are about 25,000 girls and women who have Triple X. Even though these girls have an extra sex chromosome, they are 100 percent female in every way.



## What causes Triple X?

This is not known, but in a minority of cases there is some connection with the age of the mother. The extra X chromosome may come from either the mother or the father, though the former is more frequent.

## How does it affect the person?

The majority of Triple X girls and women lead normal lives. They go to ordinary schools, get jobs, marry and have children, and live until old age. However, there are some differences between girls with Triple X and girls who have the usual pattern of two X chromosomes. Some of these are described below.

### Babies:

Most Triple X babies are perfectly formed but are a little smaller at birth in weight, length and head circumference. The tone of the muscles may be slightly less than usual, so the baby may be a little slow to hold her head steady and to sit without support.

### Toddlers:

Girls with Triple X may have slight delay with their walking and talking. Some may require speech therapy. Many girls with Triple X take longer than average to be toilet trained and to come out of nappies. Girls with Triple X may also be a little slower than average at learning to play cooperatively with other children of the same age.

## School days:

When Triple X girls go to school, many will experience some difficulty with reading, writing and arithmetic. Early recognition of this helps the child to not become overwhelmed or disheartened. Extra teaching on a one-to-one basis will gradually overcome the problem. Research has shown that Triple X girls often have difficulty remembering what they have learnt recently and that they need the information repeated more times in order to be able to fix it in their memory. If the teacher or a parent reacts impatiently to this genuine difficulty for the Triple X girl, this is likely to generate anxiety and confusion in the child which will be counterproductive. For some Triple X girls, but certainly not all, making friends at school can be a problem. This may result from lack of self confidence if they have found that they fail at many things in which others of the same age appear to succeed quite effortlessly. An accepting attitude of the parents to the child's worth as a person rather than an expectation of high achievements is helpful in building self confidence.

## Intelligence:

When intelligence tests have been carried out on girls with Triple X, it has been found that their average score was about 20 points lower than the national average. Within families, the intelligence level (sometimes called IQ) of Triple X