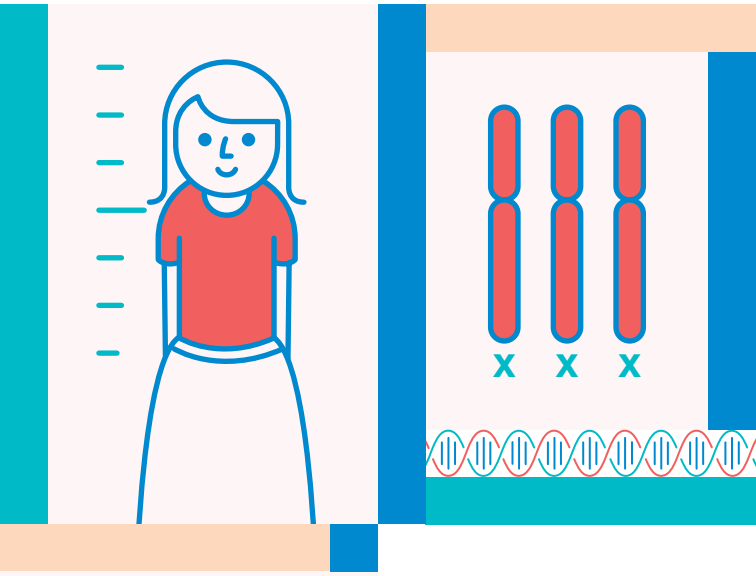
SingHealth DukeNUS
ACADEMIC MEDICAL CENTRE

Genomic
Medicine Centre

Triple X Syndrome

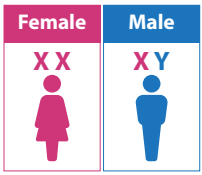


SingHealth

What is triple X syndrome?

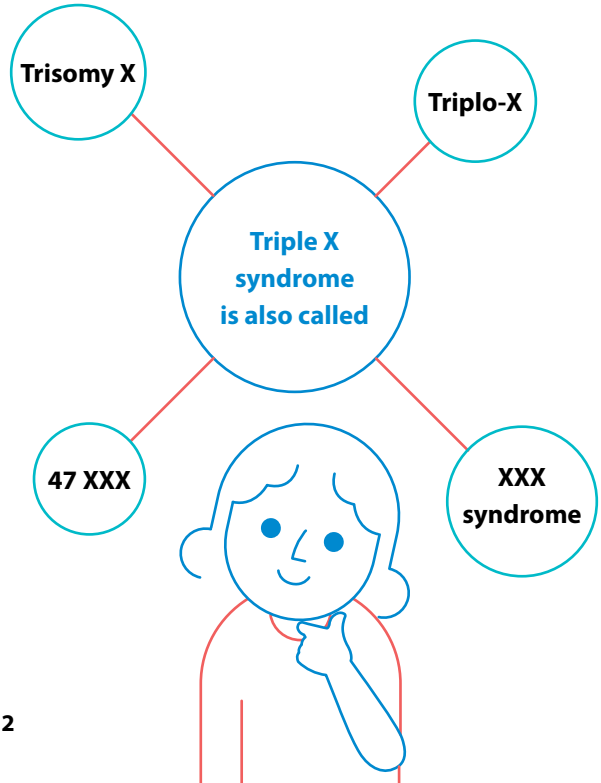
Triple X syndrome is a chromosomal condition caused by the presence of an additional X chromosome in females. The symptoms vary, although many girls and women do not show any symptoms or experience mild symptoms.

Typically, both males and females have 46 chromosomes. In females, this includes two X chromosomes, while males have one X and one Y chromosome.



How common is triple X syndrome?

It is estimated that triple X syndrome occurs in approximately **one in 1,000 live female births**.



What are the features of triple X syndrome?

Only one X chromosome is active at any time in each female cell, thus triple X syndrome often does not cause medical issues or unusual physical features.

The features of triple X syndrome can vary widely and it is important to note that not all the features described will be seen in your child.

Some girls and women with triple X syndrome have minimal or no symptoms.

Growth. Slightly taller stature.

Physical features. Slightly smaller head, epicanthal folds (vertical folds of skin that comes across the inner angle of the eye) and clinodactyly (abnormally curved little finger).

Learning. The majority of people with triple X syndrome have intelligence within the normal range. Some may have developmental issues such as delayed language or motor skills.

Some may also experience behavioural and emotional difficulties.

Other medical problems may include:

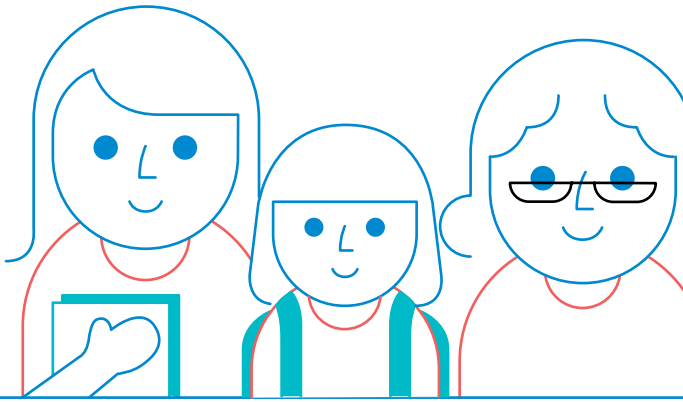
Cardiovascular (heart and blood vessels). Congenital heart disease (occurs in 0.8% – similar to population prevalence numbers).

Endocrine. Delayed or early puberty. However, most girls and women with triple X syndrome have normal pubertal development and can conceive children.

Kidney. Structural abnormalities of the kidney can occur, although it is rare.

It is important to note that although there may be certain differences between girls with triple X syndrome and girls with two X chromosomes, most of these differences are what is often found as normal variation among individuals.

Most girls and women with triple X syndrome lead normal lives. They go to mainstream schools, have jobs and children and live to an old age.



Can triple X syndrome be cured?

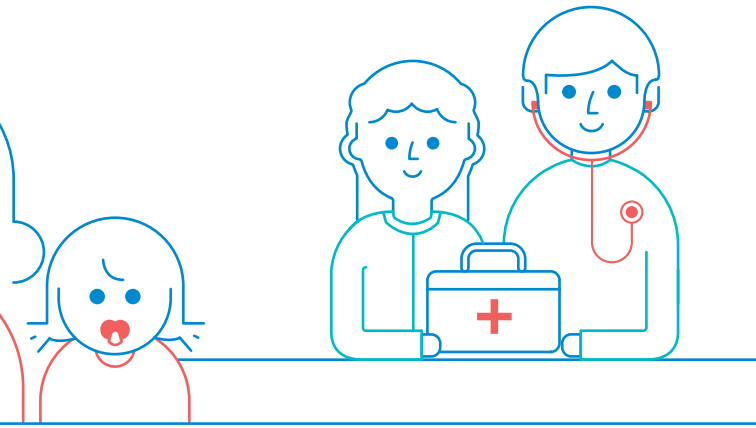
While it is not possible to cure triple X syndrome, much can be done to make sure your child has the best possible outcome.

How is triple X syndrome managed?

The medical team looking after your child will be able to address specific medical concerns and routine triple X syndrome-related healthcare issues.

Ongoing evaluation for growth and development is recommended, with early intervention therapies initiated in a timely manner.

The social and psychological impact of triple X syndrome cannot be underestimated and should be a priority in the care of any girl or woman with the condition. It can be highly beneficial for them to connect with others who share similar experiences and concerns.



What causes triple X syndrome?

Triple X syndrome occurs when an additional X chromosome is present before or soon after the time of conception.

It is not connected to or passed on from either parent, and there is nothing a person can do to increase or decrease the likelihood of their child having triple X syndrome.

How is triple X syndrome diagnosed?

The diagnosis of triple X syndrome is made by looking at the complete set of chromosomes of the individual. This is called a karyotype. A karyotype shows the number and visual appearance of the chromosomes found in the cells of a person.

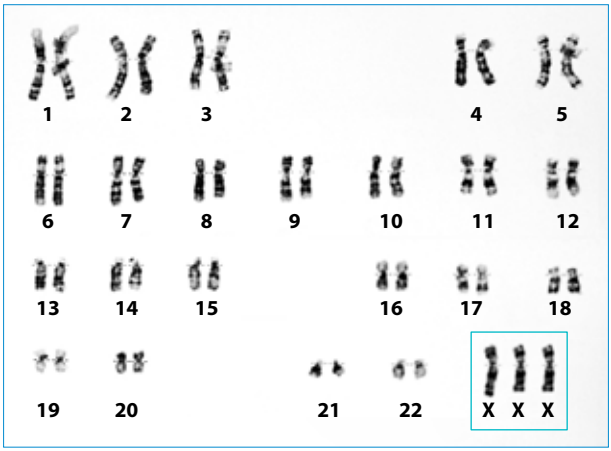
Before birth

The diagnosis can be made by taking a sample of amniotic fluid, or other foetal tissue, to look at the foetal karyotype.

After birth

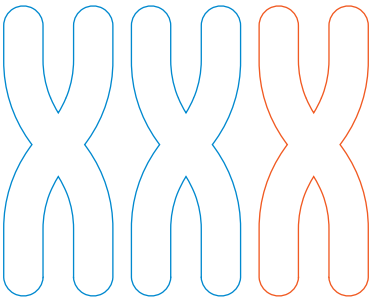
The diagnosis is confirmed by taking a sample of blood or other tissue to obtain a karyotype.

Karyotype showing triple X syndrome



How likely will I have another child with triple X syndrome?

The risk of having another child with triple X syndrome is low.



Triple X syndrome is a lifelong condition. Should you require financial assistance or emotional support, please approach your doctor for referral to a medical social worker.

Acknowledgements

Genetics Service, KK Women's and Children's Hospital

Information contributed by:

SingHealth DukeNUS ACADEMIC MEDICAL CENTRE

Genomic Medicine Centre

KK Women's and Children's Hospital
6294 4050
www.kkh.com.sg

Singapore General Hospital
6321 4377
www.sgh.com.sg

Changi General Hospital
6850 3333
www.cgh.com.sg

Sengkang General Hospital
6930 6000
www.skh.com.sg

National Cancer Centre Singapore
6436 8088
www.nccs.com.sg

National Heart Centre Singapore
6704 2000
www.nhcs.com.sg

National Neuroscience Institute
6321 4377 (SGH Campus)
6330 6363 (TTSH Campus)
www.nni.com.sg

Singapore National Eye Centre
6227 7266
www.snec.com.sg

Find out more about the Centre at:
www.singhealth.com.sg/genomic-medicine-centre

SingHealth
www.singhealth.com.sg

SingHealth Hospitals

Singapore General Hospital | Changi General Hospital | Sengkang General Hospital | KK Women's and Children's Hospital

National Specialty Centres

National Cancer Centre Singapore | National Dental Centre Singapore | National Heart Centre Singapore | National Neuroscience Institute | Singapore National Eye Centre

SingHealth Community and Primary Care

Polyclinics SingHealth | SingHealth Community Hospitals

Reg. No.: 200002698Z
Information correct as at February 2023

Disclaimer: *The information provided does not replace information from your healthcare professional. Please consult your healthcare professional for more information.*

Scan for a digital copy