

School children

Research has shown that the average intelligence (sometimes known as IQ) of boys with Klinefelter Syndrome is lower than that of boys with the usual number of chromosomes. In one study, the average IQ score was 98 for boys with Klinefelter compared with a value of 112 in the other boys. However, the range of IQ values in boys with Klinefelter Syndrome was 70 to 130, so it is clearly possible to have above average intelligence with this condition. Boys with Klinefelter Syndrome tend to do less well at school than their brothers and sisters and may feel discouraged by this. It is important to try not to compare children within a family.

Approximately 75% of boys with Klinefelter have difficulty learning to read and will require special help on a one-to-one basis at school. This is possibly related to the particular difficulties that many of them have with short attention span, poor memory and difficulty in keeping things in the right order. These types of problem are not unique to boys with Klinefelter Syndrome, but are found more often in this group of boys than in other children. They can be helped by patience and an appreciation that much repetition may be required in order to retain what has been learnt. In addition, boys with Klinefelter Syndrome may experience problems with the social side of school as they are often quite sensitive and may be moved to tears quite easily.

Growth in Childhood and Adolescence

Boys with Klinefelter Syndrome often grow faster than usual, especially in the length of their legs. On average, a man with Klinefelter Syndrome will be about 186 cm (6 ft 2 in) tall. If it looks as if a boy is going to be exceptionally tall, his growth can be slowed down by a course of injections. Such treatment is usually organised through a growth specialist, and needs to be commenced in plenty of time, before his height has become a problem. Muscle development in Klinefelter Syndrome is

sometimes poor, but this can be improved with exercise. About 75% of affected boys put on extra fat from about 7 years of age, particularly around the waistline, so it is important to be aware of this possibility and try to maintain a healthy diet to prevent this.

Puberty

Puberty usually occurs at the normal time and usually progresses normally. However, in some cases the growth of the penis may slow down towards the end of puberty, and the facial, pubic and underarm hair may be quite sparse. This can be treated with supplements of the male hormone, testosterone, which are often given towards the end of puberty (15 to 16 years).

A mild degree of breast development (gynaecomastia) occurs in about two-thirds of boys with Klinefelter Syndrome. In the majority of boys it resolves without any treatment, but very rarely can persist and cause embarrassment. In such cases, the excess breast tissue can be removed.

Fertility

Men with Klinefelter Syndrome do not usually produce sperm, and so they have always been considered to be infertile, except in very rare cases. Many males with Klinefelter Syndrome are only diagnosed when they are found to be infertile, having been unaware of any problems before. The lack of sperm does not affect the ability to have sexual intercourse and the sex life of men with Klinefelter Syndrome is usually normal. Many men marry and couples are able to have children with the help of donor insemination, which can be arranged through a fertility clinic or assisted conception unit. Recently, new techniques of sperm retrieval and fertilisation have succeeded in finding living sperm in a few men with Klinefelter syndrome and they have been able to become fathers.