



#hERHealth a social awareness initiative of NOGS & team23-24

Early and Late Puberty



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What is puberty?

Puberty is that time of life when a child experiences physical and hormonal changes that mark a transition into adulthood. During this period the child develops secondary sexual characteristics and attains the capability of sexual reproduction.

When does puberty normally start?

The average age for girls to start puberty is around 10-11 years while for boys its around 11-12 years.

What are the signs of puberty?

Girls: Development of breasts, hair growth in armpits and pubic area, increase in height and onset of menses

Boys: Development and growth of genitalia, deeper voice and more muscular appearance.

Are there any factors controlling the onset?

Important factors controlling the age of onset of puberty

- Genetic (most important)
- Nutrition
- Body weight (BMI)
- Psychological state
- Social and cultural background

When should puberty cause concern?

Normally there is no need to worry if puberty does not start around the average age but its important to consult your doctor if it starts before 8 years or has not started by around 14 years.

What are the concerns in puberty?

Early/precocious puberty is when:

- Girls have signs of puberty before 8 years of age or menstruate before age of 10 years.
- Boys have signs of puberty before 9 years of age.

Early puberty mostly affects girls and often has no obvious cause. Its less common in boys and may be more likely to be associated with underlying problem.

Causes:

- Constitutional(commonest) runs in families.
- Obesity.
- A problem in brain- brain tumour, damage to brain as result of infection, surgery, radiotherapy.
- Problems with ovaries or thyroid gland
- Genetic disorders

How is early puberty diagnosed?

Physical examination by gynaecologist\urologist

- X ray hand and wrist (non dominant) for bone age
- CT scan/MRI to exclude brain disorders
- Ultrasonography for ovarian disorders
- Hormonal tests like FSH, LH, thyroid function, testosterone.

How to deal with early puberty?

Not all children with early puberty need medical treatment especially if any one of the signs occurs early. Eating nutritious foods and weight loss can be beneficial for most children. If there is underlying cause, it should be corrected accordingly. Medical treatment (like GnRH agonists) is advised to reduce hormone levels and pause sexual development for few years.

Delayed puberty is when:

- Boys have no signs of testicular development by 14 years of age.
- Girls have not started development of breasts by 13 years or have developed breasts but their periods have not started by 15 years.

Causes:

- Constitutional (commonest)

- Malnourishment
- Long term illness like diabetes/kidney disease/chronic infection.
- Disorders of ovaries, testes, thyroid gland.
- Developmental defects and genetic conditions.

Diagnosis of late puberty is also based on similar tests like early puberty.

How to deal with late puberty?

Improving the general health and nutrition of the child. Treating the underlying cause and using medication to increase hormone levels like estrogen, progesterone and testosterone and trigger start of puberty.

Pubertal changes can impact child's psychological and physical development so should be dealt with judiciously.