

Understanding Puberty

Question: What is puberty, and at what age it usually begins

Ans: Reproduction is a necessary process for survival of the species including human species. At birth although the sexual organs are present, they are not fully functional and mature for the process of reproduction. Puberty is a natural stage of growth, during which a child's body begins to change into an adult body to be capable of reproduction. These changes are driven by hormones. The major changes at the puberty can be categorized into physical, emotional & psychological, and sexual development (maturation of internal sex organs and development of secondary sexual characteristics). Puberty does not start at the same age for everyone. The usual age range for girls is between 8 and 13 years, while for boys it is between 9 and 14 years.

In some cases it can start before the age of 8 years for girls and 9 years for the boys, then it is

called precocious puberty. While the 'delayed or late puberty' is when there are no signs by the age of 13 for a girl or 14 in case of boys. Both the conditions can cause emotional burden on the child.

- There can be a feeling of being different from the peers

- The child might get bullied/ teased for the same reasons

- It can affect self esteem, leads to stress-anxiety-depressive symptoms.

- It might affect the adult height (especially for the precocious puberty)

Some of the cases of precocious or late puberty can be the result of some underlying medical condition. Therefore it is advised to seek medical consultation to rule out the underlying causes and seek the appropriate treatments.

Question: What are the common physical changes observed during puberty

Ans: Puberty is the stage when a child goes through physical - psychological - emotional/sexual changes. Let's first look at the physical changes

Physical changes in girls are

- Breast development (often the first visible sign)

- Growth of pubic and underarm hair

- Growth spurt occurs; there is increase in height and weight, widening of hips

- Onset of menstruation (periods) — usually 1-2 years after breast development begins

- Skin changes such as oiliness and acne can also develop

- Vaginal discharge, which is normal and helps keep the vagina healthy. Physical changes in boys are

- Increase in testicular and penile size



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(often the first sign)

- Growth of pubic, facial and underarm hair

- Growth spurt: height and muscle growth increase rapidly, shoulders broaden and the body starts looking more adult-like.

- Deepening of voice

- Skin gets more oily and acne can develop

- Development of reproductive ability, including sperm production, Nocturnal emissions (nightfall)

Physical changes of puberty are normal, expected and healthy. Boys and girls need reassurance, correct information and practical guidance. They need to be told that these changes are normal, but occur at a different pace with each individual. They should be guided

on taking care of their body and maintaining hygiene. This is also a period of increased growth, thereby balanced diet, enough sleep and proper exercise is very important.

Question: What changes are related to sexual development, and how should adolescents understand them in a healthy way?

Ans: The sexual changes associated with puberty can be further classified under physical development of sexual organs, emotional changes associated with sexual development and the associated behaviors. Development of sexual organs can be explained in simple terms as follow

- In boys, hormonal production at puberty stimulates enlargement of the testes and penis. The testes (male gonads) would start sperm production. The internal sex organs (tubes and glands) start producing secretion/ fluids

Question: Is sex education helpful during puberty? Does sex education promote wrong behavior?

Ans: Sex education at puberty focuses on helping the adolescents to understand their changing body, stay safe and develop healthy attitudes. Parents, trusted adults, teachers, doctors, and other health professionals working with children and adolescents all can play a role in this. The sex education can involve.

- Understanding the body changes, puberty timing and normal variations

- Importance of and practical tips in maintaining hygiene- Understanding emotional and psychological developments

- Understanding sexual development, feelings and behaviors

- Communication about consent, boundaries,

good touch versus bad touch, protection from abuse

- Communication about friendships, healthy vs unhealthy relationships, online relationships and potential dangers

- Basic knowledge of reproduction, pregnancy awareness (age appropriate), sexually transmitted diseases.

- Communication about values, responsibility

Sex education helps in providing correct information, helps to build values and skills to make more thoughtful decisions. Sex education does not promote risky behaviors, but misconceptions and lack of information do.

to carry the sperms. The sperm and fluids together form semen. Boys can have penile erections and sometimes night time emissions of semen (nightfall)

- In girls, hormonal production stimulates maturation of internal sex organs. Every month, the ovaries (female gonads) start maturing and release eggs. The released egg (s) is carried by the fallopian tubes to the uterus. The uterus grows and prepares to support the future pregnancy. Since pregnancy does not happen every month, uterine inner linings are shed in the form of menstrual bleeding. Also there is some discharge from vagina, to keep the area clean and healthy. Development of breast is also normal part of puberty

- A simple explanation can also be provided about how the eggs get fertilized resulting in

pregnancy, the appropriate age for pregnancy. Information about the infections affecting sexual organs. Emotional and psychological changes associated with sexual development.

- At puberty, children become more aware of their own body. They get attracted to other individuals, start thinking about relationships

- romance and can be more curious about sexual activity.

- Sexual thoughts can lead to sexual arousal (penile reactions for boys, vaginal discharge or arousal feelings in genital organs for girls)

- There can be feelings of shame/ secrecy/ embarrassment / confusion

- Some children can have feeling discomfort around their own gender, question themselves or their identity. Behavioural changes associated with sexual development are

- Masturbation or exploration of own's body

- Interest in relationships

- Desire for privacy- Consumption of

pornography which can be occasional, but has potential to be consumed excessively

The sex education explaining above mentioned changes plays a very important role at this stage. The correct information from trusted adults, teachers, doctors or age appropriate learning materials is very valuable. In absence of authentic information children will often rely on pornography/ social media/ rumors which can form many misconceptions, and can affect their mental and sexual health.

Question: what is the role of nutrition, sleep, exercise and hygiene during puberty

Ans: Puberty is the stage of growth spurt and the importance of nutrition cannot be undermined. Puberty involves rapid growth of bones, muscles and body organs. It is important that the diet should provide enough energy and nutrients including but not limited to proteins, calcium, iron, vitamins etc. Proper nutrition will help in supporting growth - development and maintaining emotional well being. Enough sleep is essential as well. Teenagers usually need 8-9 hours of sleep. Sleep provides enough rest to the growing body. Many of the hormonal secretions are also sleep dependent.

Adequate sleep helps to improve mood. Lack of sleep on the other hand can affect mood negatively, cause increased irritability, affects focus and memory. Excessive use of Screen has negative impact on the sleep and should be avoided. Regular exercise plays an important role in puberty. It supports physical growth, helps in maintaining emotional well being, maintains healthy weight, and improves sleep quality. It also helps in developing social skills, teamwork, discipline, and confidence.

Hygiene needs to be emphasized at this age. Hormonal changes increase sweating and body odour; regular baths, keeping body clean - fresh is important. Washing your face regularly helps to deal with oily skin and reduce acne. Genital hygiene is necessary to prevent infections and discomfort. It is important to remember that genital areas can be kept clean with use of plain water, and use of strong chemical/ soaps should be avoided.

Questions: Why do emotions and moods change so much during puberty?

Ans: It is a common observation that children get 'moody' when they enter puberty. This is because puberty is associated with emotional and psychological changes. The children do develop mood swings, can be very sensitive, get easily irritable, become more self-conscious, and would desire for privacy. On the other hand part of emotional changes also involve development of sexual feelings. These emotional and psychological changes can be a result of combination of various factors

- Hormonal changes : during this period, the hormones such as oestrogen,

progesterone, testosterone increase rapidly.

These hormones often influence the brain areas involved in regulating emotions

- The emotional part of the brain develops faster than the part that is responsible for controlling the impulses; making the emotions stronger and difficult to control

- Physical changes in the body increases the self awareness, and can potentially lead to concerns for appearance or looks, and comparisons

- In the current area of technology, children often get exposed to social media around this age; which further fuels the comparisons. Peer pressure, need for peer acceptance plays the part as well

- Need for privacy and autonomy can trigger the conflicts with parents or authority figure

- This is also the age for increase in academic pressures and expectation, which can increase the stress

- Sexual feelings, relationships, desire for intimacy brings in their own positive feelings or experience, but also can add onto the stresses. Thus emotional and psychological changes are as a result of a combination of hormonal, developmental changes and life situations. This definitely warrants understanding, support, open communications, education making this phase more bearable.

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