



### Reaching the Age of Adolescence

#### Synopsis

- Humans become capable of reproduction after puberty sets in. Between the ages of 11 years and 19 years children are called adolescents.
- The period of time when a person changes from a child into an adult is called puberty.
- A boy reaches puberty when he is 13-14 years old. Girls reach puberty earlier than boys at the age of 11 -12 years.
- During puberty, physical and emotional changes take place. These are called secondary sexual characters. In girls, puberty is marked by the onset of menstruation and the development of secondary sexual characters, namely, enlargement of breasts, widening of pelvic girdle and growth of hair in the armpits and pubic region.
- In boys, puberty begins with the production of sperms and is marked by secondary sexual characters, namely, deepening of the voice, growth of hair on the face, armpits and pubic region and enlargement of the scrotum and penis.
- **Menstruation** is the periodic discharge of blood from the uterus through the vagina. The discharged blood usually contains a dead egg cell and some tissues from the lining of the uterus.
- If the egg cell is fertilized, it will form a zygote which will implant itself on the wall of the uterus. It will eventually develop into an embryo. Menstruation does not take place during pregnancy.
- The onset of puberty and maturity of reproductive parts are controlled by hormones.
- Hormones are secretions of endocrine glands which are poured directly into the blood stream.

- Pituitary gland secretes hormones which include growth hormone and hormones that make other glands such as those of the testes, ovaries, thyroids and adrenals secrete hormones. Pancreas secretes insulin/thyroid produces thyroxine and adrenals produce adrenaline.
- Testosterone is the male hormone and estrogen is the female hormone. The uterine wall in females prepares itself to receive the developing fertilised egg. In case there is no fertilisation, the thickened lining of the uterine wall breaks down and goes out of the body along with blood. This is called menstruation.
- The sex of the unborn child depends on whether the zygote has XX or XY chromosomes.
- It is important to eat balanced food and maintain personal hygiene during adolescence.
- Personal hygiene must be maintained during menstruation to avoid itch, unpleasant odour, bacterial and fungal infection.