# UNIT 20 ADOLESCENT GYNAECOLOGICAL PROBLEMS

## Structure



## 20.0 OBJECTIVES

After reading this unit, you will be able to:

- describe the physical and endocrinological changes during puberty;
- advise adolescent girls on care during menstruation;
- investigate and manage the common menstrual problems during adolescence;
- diagnose problems other than menstrual disorders and refer to appropriate health facility; and
- understand sexuality in adolescence and counsel the adolescence about their sexual concerns.

## 20.1 INTRODUCTION

In this unit, you will be learning about normal adolescence and associated problems. Adolescence is the period of transition between childhood and adulthood. WHO has proposed the age range 10-19 years for adolescence. During this period, body develops and reaches adult size and strength, acquires reproductive capabilities, mind

becomes capable of abstract thinking, future orientation and ethical conviction. Social relationship move from a family base to a wider horizon where peers and other adults come to play a significant role. While these changes are interrelated, development is usually uneven. The family, the school, the community, the places of recreation and worship, the mass media — all exert an influence during adolescence.

Adolescents contribute to 20% of population in our country There are national programmes for children and adults, but the stage of adolescence has been neglected by both health professionals and health planners. Recently lot of enthusiasm has been generated for dealing with all aspects of adolescence and associated problems since it is being increasingly realised that management of adolescents will be more beneficial for improving quality of life of both individual and family in adulthood.

## 20.2 PHYSICAL AND ENDOCRINOLOGICAL CHANGES DURING PUBERTY

In this section, you will learn about the changes — both physical and endocrinological that occur during adolescence. Puberty is the main event of adolescence. It heralds the onset of reproductive capability. Normal puberty start by 8-12 years in Indian girls and takes 3-4 years for complete development of secondary sex characters. Maximal reproductive capability is usually attained in another 2-3 years when ovulation occurs in most of the menstrual cycles. Physical growth spurt starts at 8-9 years and peaks about one year before menarche. After menarche rapid decline in growth limits the height gain, though a gain of 0.5 to 3.7 cms may occur after the age of 18 years.

### 20.2.1 Physical Changes

As mentioned earlier, during puberty along with acquiring reproductive capability physical changes occur. These are the development of secondary sexual characters, changes in lean body mass including skeletal growth and maturation till the fusion of epiphysis resulting in final adult height.

Breast growth is the first sign of pubertal development. It is seen between the age of 8-13 years. Increase in the height of individual occurs at about the same time. Pubic hair development follows next followed by the appearance of axillary hair. This in turn is followed by first menstrual period i.e. menarche. Variation in the pattern is frequent. The breast growth may be initially unequal, becoming equal in size as growth proceeds. The menarche is influenced by several factors especially nutrition and environment and the age of menarche decreases with socio-economic development.

Estrogens from Graafian follicles is responsible for development of breasts and genital organs — both external and internal. Adrenal androgens are responsible for growth of pubic and axillary hair. The term thelarche is used for breast development, adrenarche for pubic and axillary hair development and menarche for onset of first menstruation.

### 20.2.2 Endocrinological Changes

Hypothalamus matures and with it production of gonadotrophic releasing hormones (GnRH) starts. These releasing hormones pass through the hypothalamo-pituitary portal system and reach the anterior pituitary where gonadotrophins (FSH, LH) are produced. Gonadotrophins stimulate development of many Graafian follicles in the ovary. Only one follicle attains full development in a given cycle. Ovulation occurs in this follicle as a result of pronounced LH (Leutinising Hormone) surge at the right stage in the follicular development. After ovulation, this follicle becomes corpus luteum. Other developing follicles undergo atresia.

Estrogen is produced by developing Graafian follicles. Corpus luteum produces both oestrogen and progesterone.

**Endocrine Regulation**

The awakening of ovarian function at puberty is done by hypothalamus by releasing GnRH. Cyclical production of FSH and LH in adult women is controlled by ovarian cycle. Release of FSH and small amount of LH from pituitary initiated by hypothalamus causes follicls in ovary to ripen and secrete oestrogen. High levels of oestrogen in circulation conditions the pituitary in a way that it responds to GnRH by secreting LH instead of FSH. Small amount of preovulatory progesterone is produced which encourages further secretion of LH. High level of LH alongwith FSH produces ovulation and corpus luteum is formed resulting into progesterone production. Afterwards production of releasing hormones falls and exact mechanism of this is not certain. There is drop in LH following the fall in releasing hormones resulting in degeneration of corpus luteum. Thus oestrogen and progesterone both fall resulting in menstruation and restarting GnRH release from hypothalamus to start the next cycle.

**Check Your Progress 1**

1) Name the physical changes that occur during puberty.

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2) Which hormone is responsible for growth of axillary and pubic hair?

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## 20.3 MANAGEMENT OF MENARCHE/ MENSTRUATION

In our country, many girls are not prepared for puberty. Menarche, conception and childbirth are not discussed in the family openly. Mothers often do not talk to their daughters. In schools, teachers teach about anatomy and physiology of reproduction. Invariably, it is from peers and siblings that they learn about these aspects as secrets. However, in urban areas, there is a slow perceptible change because of educated mothers and girls are not prevented from expressing their doubts and asking questions.

### 20.3.1 Preparing for Menarchae

Adolescent girls must be prepared to expect body changes during puberty and the onset of menarche. The best person to impart this knowledge is the mother and family. She should be advised about menarche and how to take care during menstruation. All her questions should be answered and not swept aside. Her doubts must be cleared and she should be reassured about her apprehensions. The subject should not be a taboo. Without making her scared, she must be told about the sexual changes that can be anticipated and how to discourage the male members such as friends, cousins, uncles etc. from exploiting her.

### 20.3.2 Care During Menstruation

You must learn the various local terms used by women for menstruation. Hygiene must be maintained during menstrual period. Sanitary napkins must be changed 3-4 times daily. External napkin/pads are encouraged during adolescence. Tampoons (inserted internally

into the vagina) are discouraged during adolescence since hymen may not allow easy insertion, vaginal walls may go into spasm and it may not accommodate the regular size tampoon without pain. Forgetting to remove tampoon may cause toxic shock syndrome. The sanitary pads available in the market are costly. Instead of sanitary napkins one may use clean old cotton clothes. It is washed with soap and water and dried and. can be reused again.

Girls are encouraged to treat the days of menstruation as any other day and to go about their usual daily activities like bathing, eating the usual food, playing and other physical activities and going to school. Advice is given that during the initial 2-3 years, the periods may be irregular, heavy or scanty and the girls should not be worried. Only when the flow is heavy or prolonged, medical advice is needed.

### 20.3.3 Socio-cultural Taboos

In some communities during menstrual period for the first three days, girls are not allowed to mix with others, made to stay outdoors (isolated room). They don't bathe, eat food only after elders have eaten food. Certain type of food is forbidden at the time of menses. They are not allowed to take part in religious activities. They are isolated for 3 days and do not perform any physical activity. After a bath on 4th day, they are allowed in the mainstream activities of the family and community. If the menstrual flow is less or if periods are delayed, it is considered that toxins are accumulating in the body and will make them sick.

These taboos must be removed. They must eat normal food, whatever they like, bathe every day, change clothes as they normally do and, carry on their daily activities including play/physical activities. The normal process of menstruation is explained to them and make them feel it is a physiological process like urination, defecation etc. They are encouraged to develop a healthy attitude towards menstruation.

## 20.4 MENSTRUAL PROBLEMS DURING ADOLESCENCE

It is worthwhile to remember that early menstrual cycles are not very regular as in later life. In many girls, the interval between periods, their duration and amount of blood loss are variable for some months to a few years. Before reading any further, refer to Unit 19, Sections 19.3 and 19.4 for the common menstrual problems.

### 20.4.1 Puberty Menorrhagia

Menstrual irregularities are common at this age. In majority of cases, reassurance to the child and mother that such episodes are common and will correct itself over a time is adequate. Keeping menstural diary (record of dates of menstruation) besides being a good habit will also help in reassuring the girl that everything is allright. Iron is prescribed to prevent/correct anaemia. Dietary advice is given.

Occasionally, periods may occur more frequently and menstrual flow may be more heavy. A thorough general physical examination, inspection of vulva and bimanual rectal examination will rule out gross lesions. Blood is tested for anaemia, thrombocytopenia and for abnormal leucocytes. Bleeding time and coagulation time is estimated and Hess test is done for purpuric spots.

In cases with severe menorrhagia, the girl is admitted to the hospital. Heavy bleeding is controlled by administering progestogen (Norethisterone 5-10 mg thrice daily). She is discharged and advised to continue the medicine for 3 weeks and then stop it for withdrawal bleeding. Hence forth you give Norethisterone for 3 more cycles 1 tablet every day for 21 days from 5th to 25th day. Treatment is then stopped to observe if regularity has resumed. Dilatation and curettage is required in very rare protracted cases. Complete coagulation profile and thyroid function may be required rarely as hypothyroidism may also cause menorrhagia. Excessive bleeding is usually self limiting.

## 20.4.2 Dysmenorrhoea

Early menstural cycles are not only irregular but also anovular. Anovulatory cycles are usually painless. When regular ovulation is established, dysmenorrhoea may occur Exercise is encouraged and the girl is counselled not to limit her physical activity during menstruation. Analgesic may help for relief of pain. In more severe cases, prostaglandin synthetase inhibitors may help. Oral contraceptive pills by inhibiting ovulation may also be helpful in relieving dysmenorrhoea and also acting as contraceptive jn girls who have started sexual activity.

## 20.4.3 Amenorrhoea

You have learnt earlier in physiology and endocrinology of menstruation that normal menarche requires a co-oridinated effect of hypothalamus, pituitary; ovary and uterus and a patent outlet for menstrual discharge. Aberration in anyone of these factors will cause failure of sexual maturation and absence of menarche. For normal menstruation, normal thyroid and adrenal function is also required.

**Cryptomenorrhoea** which is caused by obstruction to the flow of menstrual flow has to be excluded. Imperforate hymen, transverse vaginal septum, stenosis/non-development of vagina cause cryptomenorrhoea. In such situations menstrual blood is collected above the obstruction. Besides amenorrhoea, they have cyclical pain in lower abdomen. Sometimes they may complain of mass in abdomen and retention of urine. On examination, you will find that girls' growth is normal, breasts are developed, axillary and pubic hair are present. Imperforate hymen is easily diagnosed on inspection of vulva. Bluish bulge is seen in place of introitus. Obstruction higher up in the vagina can be suspected and confirmed by rectal examination when a bulging mass formed by the haematocolpos can be felt anterior to the rectum. In imperforate hymen bulging membrane can be excised by a cruciate incision and excising the flaps with suturing the margins to achieve haemostasis and to evert margin. The accumulated blood will drain gradually. It is worthwhile to remember not to introduce any instruments or to apply suprapubic pressure as it predisposes to infection.

Obstruction of the vagina will require excision of septum or making a passage and requires good planning. Vaginal mould may have to be inserted to keep tile patency of the new tract. Alternatively, skin graft or amnion graft may have to be used for causing epithelialization of raw area. Such cases are better referred to a secondary or tertiary care hospital.

When cryptomenorrhoea is ruled out, other causes of amenorrhoea have to be investigated. Though a long list of causes can be listed, only those causes which involve genital tract are mentioned here, with associated clinical manifestations.

i) **Mullerian duct agenesis:** Only uterus or uterus alongwith vagina is not developed. In girls with mullerian duct maldevelopment growth is normal, breast development is normal, axillary and pubic hair are present and menstruation is absent. On rectal examination uterus is felt as a nodule. If vagina is present — counselling is to be done that the girl will not mensturate and bear children but coital activity will be possible. Absence of vagina will require vagino plasty, for which you should refer her to secondary/tertiary care hospitals.

ii) **Gonadal dysgenesis:** The cause is in the ovary. Ovary is not normally developed and is known as dysgenetic gonad. Where gonadal dysgenesis is associated with anatomical defects like small stature, short neck, low hair line, wide carrying angle, it is known as Turner's syndrome. Coarctation of aorta may be present. Diagnosis of ovarian dysgenesis is made when there is no breast development and pubic and axillary hair is scanty. Small uterus and vagina are present.

    Chromosome abnormality like XO or mosaicism are seen in Turner's syndrome. In pure gonadal dysgenesis, chromosomal analysis is normal. Hormone replacement therapy is the treatment for development of breasts and to prevent bone loss. Therapy has to be continued till the age of 48-50 years.

iii) **Testicular feminisation syndrome:** This is due to end-organ insensitivity to circulating androgens. Hence in genetic and gonadal male, external genitalia develop

as female. Uterus is absent and vagina ends in a blind pouch. Pubic and axillary hair are absent and breasts are well developed. The testes is present and may be felt in labia majora or inguainal region. Chromosomal analysis shows XY pattern. Treatment is to remove the testes and institute female hormone replacement therapy.

iv) **Delayed puberty:** In delayed puberty, there is no breast development, pubic and axillary hair are absent and external genitalia is infantile. By 12 to 13 years if there is no sign of breast development, investigations are to be carried out for the cause of delayed puberty. Hypogonadotrophic hypogonadism presents as delayed puberty and other features of hypothalamic and pituitary dysfunction may be associated.

v) **Male pseudohermaphroditism:** Occasionally, a male may have been reared as a female due to ambiguous external genitalia at birth (non-fusion of scrotolabial folds). They present during adolescence with amenorrhoea, development of hoarseness of voice, no development of breasts, hirsutism (hair on face, chest, abdomen with male type of pubic hair distribution). Enlargement of clitoris is always noticed. These features help to suspect this entity Chromosome analysis will reveal XY or XX/XY pattern. With plastic surgery, the person may not be able to function adequately as a male. Since the person is reared as a female, in majority of cases they prefer to remain as female. Under such circumstances the testes are removed, penis is amputated and oestrogen replacement therapy is prescribed. When they want to get married, a functioning vagina is created by vaginoplasty

vi) **Amenorrhoea:** It may be present in acute medical illness, endocrinal and psychiatric illness. Amenorrhoea need not be investigated till the medical illness is cured and complete recovery is made.

**Check Your Progress 2**

Mark True (T) or False (F):

1) Majority of cases of puberty menorrhagia responds to reassurances, iron supplements and balanced diet. (T/F)

2) Anovulatory cycles are responsible for dysmenorrhoea. (T/F)

## 20.5 PROBLEMS DURING ADOLESCENCE OTHER THAN MENSTRUAL DYSFUNCTIONS

Besides menstrual dysfunction, teenage pregnancy, breast growth problem, hirsutism and obesity are other concerns of adolescents.

### 20.5.1 Pregnancy in Adolescent Girl

Pregnancy out of wedlock in not so common in India as in Western countries, though the number of such pregnancies are said to be rising. Early age at marriage and consensual union soon after menarche are the problems. Because of tradition, culture and fear of molestation, the children are married early. Since she is not well accepted in the husband's family till she has produced a child, delaying the first birth after marriage is not practiced by majority of young married couples.

**Dangers of Teenage Pregnancy**

Pregnancy in the teenager is dangerous to both mother and child. Maternal mortality is higher at extremes of age and pregnancy less than 18 years age is cause of higher mortality. Several hospital based studies confirm this finding. The risk of mortality is higher for poor and malnourished adolescent girl who has no antenatal check up. Complications that endangers these young mothers are pregnancy induced hypertension (PIH), eclampsia, severe anaemia and cephalopelvic disproportion.

Preterm labour is another complication. The infant of the adolescent mother is likely to be low birth weight and more prone to high infant mortality and morbidity The risks persist throughout early childhood. In growth, cognitive development and school performance, these children lag behind.

## 20.5.2 Problems with Breast Development

Adolescent girls have many apprehensions regarding the breast size. Breasts may be perceived to be perceived to be small, large or unequal in size and for that some seek treatment Hormonal treatment does not help to increase the size when they are normally menstruating as endogenous production of oestrogen which is an essential prerequisite for normal menstruation is already present. Counselling such girls to remove their fears and apprehensions is the answer. Plastic surgery may be considered. Small breast nodules that are sometimes observed in adolescent girls are usually fibroadenoma of the breast. A watchful policy can be adopted during adolescence and when in doubt, FNAC (Fine Needle Aspiration Biopsy) can be done for a definite histopathological diagnosis.

## 20.5.3 Hirsutism

Hirsutism causes anxiety in a woman at any age. It may be very distressing to an adolescent. Hirsutism is defined as growth of coarse terminal hair in the female partly or wholly like that of male hair distribution. It has to be differentiated from virilism in which besides hirsutism, there is amenorrhoea, atrophy of breast, recession of frontal hair; hoarseness of voice and enlargement of clitoris. Virilism should always be investigated thoroughly and treated accordingly as it could be due to a serious underlying disease such as adrenogenital syndrome, cushings syndrome, congenital adrenal hyperplasia and androgen secreting ovarian tumours. All these conditions need a battery of tests including biochemical tests, hormonal levels, ultrasonography computerised axial tomography (CAT) to diagnose the disease and usually require surgical treatment.

Most cases of hirsutism are however mild and do not need extensive investigations or expensive treatment. The common causes are genetic and polycystic ovarian syndrome (PCOD). PCOD is characterised by oligomenorrhoea or secondary amenorrhoea, obesity and hirsutism with polycystic ovaries. Diagnosis is suspected clinically and confirmed by estimation of FSH and LH levels which show rise in LH levels and ultrasonographic picture of polycystic ovaries. In adolescent girls who are obese, reduction in weight (ideal body weight is the aim) may occasionally correct oligomonorrhoea. Combined oral contraceptive pills can be prescribed with good results and regular menstruation. If this fails other medications can be tried. In the counselling, it must be told that the hair that is present cannot disappear but fresh growth of hair may be arrested. It may be stressed that their fertility may be impaired, hence should be married in early twenties and complete their family at the peak period of normal reproduction.

In patients with mild hirsutism, no treatment is required other than reassurance. Cosmetic treatment like bleaching of hair, removal of hair by depilatory wax or hair removing cream may be advocated. Electrolysis though effective, requires to be done repeatedly. Moderate growth may require medical treatment like antiandrogen cyproterene acetate, spironolactone and cimetidine. Such cases may be referred to specialized health facility.

**Check Your Progress 3**

1) Name the maternal complications of teenage pregnancy.

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2) What are the characterstic features of PCOD?

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# 20.6 ADOLESCENT SEXUAL HEALTH

Sexuality is an aspect which need to be understood to tackle the problem of STD and AIDS. Adolescent sexuality is associated with unwanted adolescent pregnancies, besides STD and AIDS. Sexuality is a natural phenomenon. It is much more than the mere sex act. It encompasses intimate feelings and deepest longings to find meaningful relationship. It also touches the softer side of human being such as romance, falling in love, marriage and having a family. Sexuality is also defined as a basic physiological need such as oxygen, food and water, defaecation, rest, activity and shelter. Though sexual activity is not absolutely necessary for individual survival; it is essential if the species is to survive.

WHO has defined sexual health as the integration of somatic, emotional, intellectual and social aspects of sexual being, in ways that are positively enriching and enhance personality, communication and love. Fundamental to this concept are the right to sexual information and the right to consider sexuality for pleasure as well as for procreation. Hence sexuality consists of four components:

1) Somatic: which means of the body or physical;

2) Emotional: meaning the feelings affecting the psychology of the person;

3) Intellectual: implying cognitive understanding; and

4) Social: suggesting interaction with others.

## 20.6.1 Adolescent Sexuality

Adolescence is a time of turmoil. At a time when physical maturation is taking place for reproductive capability, the teenager is expected to develop skill in interaction, intellectual competence and a sense of personal and social responsibility. She is supposed to cope with a variety of issues relating to sexuality such as:

— how to deal with new or more powerful sexual feelings.

— whether to participate in various types of sexual behaviour

— how to recognise love

— how to prevent unwanted pregnancy and sexually transmitted disease and

— how to define age-appropriate sex roles.

In the following subsections, few selected aspects of adolescent sexual behaviour and sexual concern would be highlighted.

**Adolescent Sexual Behaviour:** The sexual behaviour of adolescents in India is the subject of considerable speculation but studies are being conducted by various agencies. The preliminary data of the various studies do point out at the following aspects.

Adolescents are indulging in sex more frequently and at an early age than a decade ago. There is a rising incidence of teenage pregnancies in unmarried girls. There is a rising frequency of sexually transmitted diseases among adolescents. Adolescent abuse of drugs and alcohol has reached astonishing levels. Sex related crimes among adolescents is a new phenomenon.

## 20.6.2 Sexual Concerns in Adolescence

Majority of the adolescent population are concerned about their sexual normality. The common concerns are:

a) **Masturbation:** Adolescents are often concerned about masturbation thinking that it would have adverse physical or emotional effect, it is an abnormal activity and it would impair their subsequent sexual functioning. Myths about masturbation causing acne, insanity or sterility are widespread and have no truth whatsoever. Masturbation is rarely a problematic behaviour in an adolescent except when, it is done in public or when preoccupation with masturbation interferes with other components of life. Guilt

about the morality of masturbation is another frequently encountered problem that must be dealt with on an individual basis, taking into consideration the religious background and belief of the adolescent.

b) **Sexual Fantasies:** The presence, frequency and content of the sexual fantasy or dreams are also a major concern in adolescents. Sexual fantasy is not only a reflection of the normal biologic force; it is also a natural response to tile largely unavoidable erotic contents of the books, movies, advertisements etc.

c) **Homosexuality:** It is common for adolescent to have relatively isolated homosexual experiences which usually do not orient toward adult sexual life. It is normal for boys and girls to form emotional attachment and admiration for other adults of the same sex (e.g. a teacher or a coach). This may also concern an adolescent.

d) **Other Concerns:**

— Concerns over sexual adequacy.

— Confusion about love.

— Ambivalence about participation in intercourse.

The doctor who is well informed on the above aspects could play a vital role in dispelling the fear and concern regarding the sexuality in adolescents.

### 20.6.3 Sex Education

In India, sex education is not only lacking at the primary school and college levels, but is a grossly neglected aspect even in the curriculum of medical institutions. As a result of this, sexual dysfunctions/difficulties are often misinterpreted and the regular treatment of any malfunctioning involves prescribing one of the ever-increasing plethora of drugs, dopes and ayurvedic sex tonics sold over the counter These sex tonics violate the basic principles of the ayurvedic system of medicine and do more harm than good. Regarding the prescription and the subsequent use of these sex tonics, one can rightly state that “it is nothing but the exploitation of the desperate due to ignorance”.

i) **Sex Education in Schools**

Sex education involves the acknowledgement and understanding of the process of sexual development and interaction that starts at conception and affects the individual for the rest of his/her life. It is not merely a discussion on how babies are born but encompasses biological, psychological and sociological aspects of human sexual behaviour that are responsible for the development of a child into a healthy and responsible adult capable of using his/her sex instincts to the maximum without being obsessed by them.

The subject includes education about the anatomy and physiology of the human reproductive system, conception, contraception, psycho-sexuality, gender sexual differences and the constituents of love as they relate to sexual attitudes and behaviour. In other words, sex education enables an individual to recognise and be comfortable with ones sexuality.

Therefore the primary goal of sex education is facing and accepting the facts of life and honestly communicating them to our children and adolescents to help them cultivate a healthy sexual morality, acceptable to both society and themselves without creating any unnecessary conflict between individual expression and social norms.

ii) **Need for Sex Education**

In the past, specially in India, sexual behaviour was engulfed in a set of rigid standards and moral codes. There were a number of restrictions on free communication and interaction with members of opposite sex. However; the impact of these norms was not felt for long because the period of abstinence from the onset of puberty was for a short duration only as the generally acceptable age for marriage was around thirteen years. But today on account of rapid urbanisation, there is a growing need for economic independence and as a

result of career-oriented approaches, the average age of marriage has risen considerably. Also, the average potential sexual career of an individual is extended as a consequence of the early onset of puberty and an increase in the life span because of the availability of better nutritional and health care facilities.

The acceptable codes of adolescent conduct have not changed much in the last decade or two but the period of abstinence has multiplied enormously on account of the extension in the marriageable age and hence post-pubertal sexual activities without the promise and custom of marriage are on a rising wave. Morever, the social environment today, though still orthodox and prudish, provides constant sexual stimulation. The rigidity of social norms, in spite of rapid economic growth and urbanization, creates a lot of mental conflict amongst adolescents. There is always a tremendous discrepancy between sexual drives and acceptable and respectable social norms. One of by-products of the resultant guilt due to various conflicting factors is anxiety alongwith a tremendous amount of sexual frustration. Sooner or later this frustration is often manifested in the form of deviant sexual behaviours, increasing cases of promiscuity, casual sex relationships, unwanted pregnancies, teenage motherhood and an alarming increase in the percentage of sexual crimes and sexually transmitted diseases. The situation is further aggravated by the rampant prevailing myths and misconceptions regarding sex. Comprehensive sex education is therefore the only solution to resolve this social problem.

With the influx of AIDS, the need for sex education has multiplied considerably. As sex is the most common mode of transmission of the AIDS virus, sex education needs to be introduced in the curriculum of educational institutions in India. Sex education is very much a part of AIDS education.

iii) **Sexual Myths and Misconceptions**

Sexual myths and misconceptions leading to anxiety are the most common sexual problems. The common myths relating to various aspects of sex and sexuality are handed down from one generation to another and many people imagine more problems than they actually have. The doctor would encounter the following common sexual problems in males as well as females centred around Penis; Semen; Virginity and Breast.

a) ***Penis Size and Shape***

Concern about penile size is as old as the human race. The width, length and erection of the penis varies from one male to another, as does the length of the nose, the depth and spacing of the eyes and the width of the forehead. The average sexual length of the vagina is about 15 cms and only the outer third (5 cms) has the maximum nerve endings. The inner two-thirds (10 cms) is virtually insensitive. This leads to the conclusion that if a man wants to arouse his female partner he should concentrate on the area of maximum nerve endings i.e. the outer lips (labia majora) and the outer third i.e. the lower 5 cms of the vagina. Therefore, for female sexual gratification, the size of the erect penis could be anything from 5 cms plus. Penile size is not important for female satisfaction and the size of penis seems important only to those women who harbour the myth that ‘a man with a large penis can satisfy his woman better than a man with a smaller one.’

The width of the penis is not important. The vagina is highly elastic. It can expand from the size of a little finger to that of a baby’s head. The vagina distends according to the width and size of the inserted penis. There is no relation between the size of the body and the size of the sex organs. A small penis does not lead to conceptive inadequacy. The penis is usually inclined to the left in a majority of men. This is so perhaps because the left testis is lower than the right. Therefore, while wearing undergarments, most men adjust their penis on the left side as enough space exists on the left side as compared to the right. A slight curvature of the penis either to the left or to the right is common and does not affect penetration at all. It is a myth that an erect penis should always be at right angle. Just as intercourse does not lead to curvature of the penis, so also masturbation does not lead to any curvature.

b) ***Semen***

Semen is being secreted day in and day out by the genital apparatus for procreation and cannot be stored indefinitely even if one wants to do so. Barring conception, semen is not

vital. Morever, sperms constitute less than one per cent of the total seminal fluid and the rest is the secretion of the accessory sexual glands, prostate and seminal vesicles. The notion that one drop of semen is equal to a hundred drops of blood which in turn requires a lot of nourishing food is one of the most common sexual myths prevalent. Conservation of semen does not lead to longevity and athletic excellence. If this had been based on physiological facts, then all bachelors would have become athletes and lived longer

The consistency of semen may vary as it depends upon several factors like the period of abstinence, the intensity of stimulation etc. However; as a man grows older, the consistency of semen does thin out, but this has nothing to do with the individuals sexuality.

The quantity of semen often depends on the age, intensity of stimulation and the period of abstinence. As a man grows older, the colour of semen changes from white to light yellow and the quantity may also decrease. The colour and quantity of semen have nothing to do with the sex a nor does it have any relation to partner satisfaction.

Sometimes men pass a whitish fluid with urine or whilst straining at stools. The belief that this fluid is semen, that is called the ‘dhat’ syndrome. This is not a disease and it would not be inappropriate to say that it exists only in the mind of the beholder

The physiological sphincter at the neck of the urinary bladder always remains closed and opens only when one is passing urine. Thus, it ensures that normally urine and semen do not mix i.e. normally one cannot pass semen and urine together. Sometimes, a physiological alteration in the urine may change its appearance making it whitish which is mistaken to be semen by misinformed individuals.

In reality, the whitish discharge is largely the secretion of the urethral and prostate glands. When a man squats in the toilet and exerts a little pressure, the pressure is relayed from the rectum to the urethra and a few drops of sticky white secretion accumulate, coalesce and trickle down. This misconception is prevalent in our country because of squatting toilet habits, as people tend to look down and see the sticky substance which they presume to be semen.

Many people feel weak after sleep emissions. Post-emission weakness is largely psychological. Right from childhood the idea has been drilled into our minds that the genitals are special and anything coming out of it is equally special. This misconception about the value of semen adds further anxiety in an individual leading to neuroasthenic symptoms. In fact, the calories lost during a sleep emission are equivalent to a glass of lime juice.

c) ***Sexual Abstinence***

A state of sexual abstinence is known as celibacy. Prolonged sexual abstinence may be detrimental to mental and physical health. There are people who are under the impression that sexual abstinence is conducive to human health and happiness. Because of this misguided belief, they make an attempt to conserve their so-called ‘energy’ by sexual abstinence. The moment they are unable to do this, they get a feeling of guilt and anxiety that they have done something detrimental to their health. When this is repeated several times, the roots of the problem get deeper and deeper. Consistent suppression of the sex drive leads to emotional instability and evokes an abundance of sexual imagery This usually leads to inability to concentrate, insomnia, irritability and extreme nervousness. The extent of the disturbance depends on the individual’s own mental state and environment. At times, the consistent suppression and continued inactivity of the sex organs lead to diminished ability to function, One must remember it is the disuse that leads to atrophy and not the use.

d) ***Virginity***

The word ‘virgin’ means one who has not had sexual intercourse, which can be verified by an intact hymen. However; a girl whose hymen is intact may have had intercourse; whereas a girl who has never had intercourse may not have an intact hymen as in the case of girls engaged in sports and other heavy physical activities. The idea of chastity and virginity

needs to be clarified. There are virgin individuals who are not chaste and chaste individuals who are not physiologically virgin.

e) ***Breast***

You have already learnt in sub-section 20.5.2, problems with breast development,

Breast size is not important in sensitivity to stimulation. Large breasts are not more sensitive to than smaller ones. It is not uncommon for women to have little hair around the areola of the breast which does not need any treatment, However if a woman desires, she may get them removed permanently by electrolysis done by a qualified professional.

## 20.6.4 Psychological Reactions During Adolescence

At a stage when growth spurt occurs, most girls of 11-12 years may be taller than their male age peers which may be a source of anxiety for both sexes, The reaction menarche evokes in a girl depend on the upbringing, attitude of the family, friends and culture. For some, menarche is a hall mark of feminity, a relief and a necessary inconvenience. For others it is associated with a sense of contamination, inferiority, dread and a feeling of shame. Social isolation during menstruation may reinforce the latter reactions. Change in body configuration may become a cause of concern and this may lead to a sense of mind going out of control. So the adolescent girl may worry that she is going insane. Adults find difficulty in communicating with adolescents in the pubertal phase especially with those who think concretely. Such adolescents filled with strong feelings have difficulty concertrating on their studies. During this period, they can relate well to a same sex peer who can share and empathise with their emotions. For the first time, they may challenge their parent’s authority over them. This period lasts for 2 years.

The next two years is marked by the beginning of capacity for abstract thinking. They begin to explore various concepts which may appear bizarre to adults. The other major concern relate to idealism. They search for identities and idealistic models with whom they can identify. They start experimenting with value systems. Sexual concerns are also strong during this period. Masturbation is a common activity associated with fantasy and this mentally prepares the youngsters for later heterosexual relationships.

In our cultural settings, the girl is frequently cast into an arranged marriage. This may satisfy the sexual needs but has its own problems. At a time when she is struggling to adjust to her own self, she has to live and adjust to a new family which may be psychologically traumatic. Besides, even before she becomes an adult, she is already a wife and a mother.

The following two to three years is a period for strong emotions with a decisive turn and when possible intense relationship with members of opposite sex. These steady relationships are viewed by adolescents as serious and when they do end, the adolescent suffers. Visibly she tends to become aimless, self depreciatory and depressed. Much of the libido is directed towards ideas such as film stars, TV artists, singers, sport heros. She may move in her fantasy relationship from one ideal to another. During this period, they start demonstrating some practicality in their use of abstract thinking, such as thinking about a profession, marriage and starting their own family. They think abstractly exploring issues of philosophical, social and political importance.

The peer group is important for adolescent growth and change. For the first time, relationship inside the family are formed. The peer group exert great social pressure through acceptance and support. This social pressure is a powerful force that helps in shaping the adolescents character and values. Adolescent peer culture revokes around current styles in dress, music, language behaviour and ideas adopted by adolescents. Deviation from these standards may bring ostracism which is terrible because acceptance by peer group is singularly important to the adolescent and they may do anything to gain this acceptance. Peer pressure can be constructive or destructive and can harm the social skills of tile adolescents.

**Check Your Progress 4**

1) Name the components of sexuality.

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2) Mark True (T) or False (F):

a) Large penis is required for sexual satisfaction of women. (T/F)

b) Conservation of semen lead to longivity and atheletic excellence. (T/F)

c) Breast size is not important in sensitivity to stimulation. (T/F)

3) List the factors that contribute significantly to sexual maturity.

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## 20.7 LET US SUM UP

In this unit, we learnt about normal puberty in girls — the physical changes that are occurring and the endocrinological changes causing these changes. The commonly seen menstrual problems are discussed and also the common gynaecological problems during adolescence for which these girls seek treatment. Teenage pregnancy due to early marriage is a major concern for both mother and child. The legal age at marriage is 18 years for girls and 21 years for boys and epidemiological studies show that age of marriage is increasing hence one need to understand adolescent sexuality, sexual concerns and sexual myths and misconceptions to counsel these adolescents. Common psychological reactions during adolescents need to be understood to differentiate it from pathological problems when help-of a psychiatrist is required. Thus understanding adolescents and their problems is very important in the present day practice.

## 20.8 ANSWERS TO CHECK YOUR PROGRESS

**Check Your Progress 1**

1) The physical changes that occur during puberty are:

a) Development of secondary sexual characteris i.e. breast development, appearance of pubic and axillary hair.

b) Change in lean body mass including skeletal growth and maturation.

2) Adrenal hormones

**Check Your Progress 2**

1) T

2) F

**Check Your Progress 3**

1) Maternal complications of teenage pregnancy are:

   a) PIH and eclampsia

   b) Severe anaemia

   c) Cephalopelvic disproportion

   d) Preterm labour

   e) Maternal death

2) The characteristic features of PCOD are:

   a) Oligomenorrhoea/amenorrhoea

   b) Obesity

   c) Hirsuitism

   d) Polycystic ovaries

**Check Your Progress 4**

1) The components of sexuality are:

   a) Somatic Emotional

   b) Emotional

   c) Intellectual

   d) Social

2) a) F

   b) F

   c) T

3) The factors that contribute significantly to psychological maturation are:

   a) Reactions to changing body

   b) Changing emotional needs

   c) Peer relations

   d) Relationships within the family

## 20.9 FURTHER READINGS

Indian Council of Medical Research, 1996, *Training Module for the Modified District Project*, "Sex Education and Adolescent Sexuality (For Medical Officers)".

Krishna, Usha, Shashank Parulkar and Vinita Salvi, *The Adolescent Girl*, Federation of Obstetric and Gynaecological Societies of India, 1991.

Whitfield, C.R. (ed.), *Text Book of Obstetrics and Gynaecology for Postgraduates*, 4th edition, 1986.