Infertility and contraception

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11.1 GENERAL INSTRUCTIONAL OBJECTIVE
The students should understand the physiology of conception and the factors that can prevent pregnancy so that they can initiate management of patients with infertility and advise patients about contraception.

11.2 SPECIFIC BEHAVIOURAL OBJECTIVES
1. Describe the structure and function of the human reproductive organs.
2. Describe the physiology of the menstrual cycle.
3. Describe the actions of the female sex hormones.
4. Outline the factors necessary for fertilization and implantation.
5. Outline the factors that may interfere with fertilization and implantation.
6. Discuss variations in the levels of human fertility and the factors that may influence it.
7. Discuss the investigation of an infertile couple.
8. Discuss those factors identifiable by history taking that are relevant to infertility.
9. Discuss the psychological factors and the emotional sequelae of infertility.
10. Describe the methods of contraception, their modes of action and their efficiency.
11. Discuss the implications of sterilization and its medicolegal aspects.
12. Discuss the complications of and the contra-indications to various methods of fertility control.
13. Discuss counselling of an individual and a couple in the selection of a contraceptive technique.
14. Discuss the problems of counselling a woman with a pregnancy following failure of her method of conception control.
15. Outline the management of common causes of infertility.

11.3 REASONS FOR LEARNING ABOUT INFERTILITY AND CONTRACEPTION

Approximately one couple in every six who wish to have a baby find that they cannot conceive after two years of trying, whilst almost every sexually active woman at some stage wishes to avoid becoming pregnant. It is because of the needs of these two groups of women that doctors must have the knowledge and the counselling skills to advise and manage these women.

11.4 NORMAL MENSTRUATION (FIG. 11.1)

The hormonal control of normal menstruation is fully covered in Chapter 13 but will be summarized here.

The anterior pituitary of a normal young woman will begin to produce follicular-stimulating hormone (FSH) at about the age of 11–12 years. This acts on the maturing ovaries to stimulate the growth of one or more Graafian follicles (Fig. 11.2), which in turn produce oestrogen from granulosa cells and theca interna. The oestrogen has effects on the physical, hormonal and psychological characteristics of maturing women. Breasts, hips, vagina, uterus and supporting pelvic tissue all develop and together give rise to the physical characteristics of young adult females. Concomitant with this physical development are the

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**Fig. 11.1** The endometrial cycle.