

ovarian function in dysmenorrhea, endometriosis, and uterine bleeding. These uses of progestins are extensions of the physiologic actions of progesterone on the neuroendocrine control of ovarian function and on the endometrium. For approximately 20 to 25 years, progestins were used in combination with estrogen for long-term HRT in postmenopausal women with intact uteri. With HRT, the purpose of a progestin is to prevent endometrial cancer, which can occur with unopposed estrogenic stimulation. Currently, however, the combination is not recommended for long-term use because a research study indicated that the adverse effects outweigh the beneficial effects (see Box 28–2).

Hormonal Contraceptives

The primary clinical indication for the use of hormonal contraceptives is to control fertility and prevent pregnancy. Some products are used for contraception after unprotected sexual intercourse. These preparations also are used to treat menstrual disorders (eg, amenorrhea, dysmenorrhea).

Contraindications to Use

Because of their widespread effects on body tissues and reported adverse reactions, estrogens, progestins, and hormonal contraceptives are contraindicated in:

- Known or suspected pregnancy, because damage to the fetus may result
- Thromboembolic disorders, such as thrombophlebitis, deep vein thrombosis, or pulmonary embolism

- Known or suspected cancers of breast or genital tissues, because the drugs may stimulate tumor growth. An exception is the use of estrogens for treatment of metastatic breast cancer in women at least 5 years postmenopause.
- Undiagnosed vaginal or uterine bleeding
- Fibroid tumors of the uterus
- Active liver disease or impaired liver function
- History of cerebrovascular disease, coronary artery disease, thrombophlebitis, hypertension, or conditions predisposing to these disease processes
- Women older than 35 years of age who smoke cigarettes. These women have a greater risk of thromboembolic disorders if they take hormonal contraceptives, possibly because of increased platelet aggregation with estrogen ingestion and cigarette smoking. In addition, estrogen increases hepatic production of blood clotting factors.
- Family history of breast or reproductive system cancer

INDIVIDUAL ESTROGENS, PROGESTINS, AND COMBINATION PRODUCTS

Clinical indications, routes of administration, and dosages are discussed in the estrogens and progestins Drugs at a Glance tables. Combination noncontraceptive products are listed in Drugs at a Glance: Noncontraceptive Estrogen-Progestin Combinations, and hormonal contraceptive agents are listed in Table 28–1.

(text continues on page 417)

Drugs at a Glance: Estrogens

Generic/Trade Name	Routes and Dosage Ranges for Various Indications			
	Menopausal Symptoms	Female Hypogonadism	Prevention of Osteoporosis	Other
Conjugated estrogens (synthetic) (Cenestin)	PO 0.625–1.25 mg daily			
Conjugated estrogens (Premarin)	PO 0.3–1.25 mg daily for 21 d followed by 7 d without the drug	PO 2.5–7.5 mg daily in divided doses, cyclically, 20 d on, 10 d off the drug	PO 0.625 mg daily for 21 d, then 7 d without the drug	Dysfunctional uterine bleeding: IM or intravenous for emergency use, 25 mg, repeated in 6–12 h if necessary Atrophic vaginitis: topically, 2.4 g of vaginal cream inserted daily Atrophic or senile vaginitis: topically, vaginal cream applied two or three times daily for approximately 2 wk, then reduced to 3 times weekly
Dienestrol (DV)				
Esterified estrogens (Estratab)	PO 0.3–1.25 mg daily for 21 d, then 7 d without the drug	PO 2.5–7.5 mg daily in divided doses, for 21 d, then 7 d without the drug		

(continued)