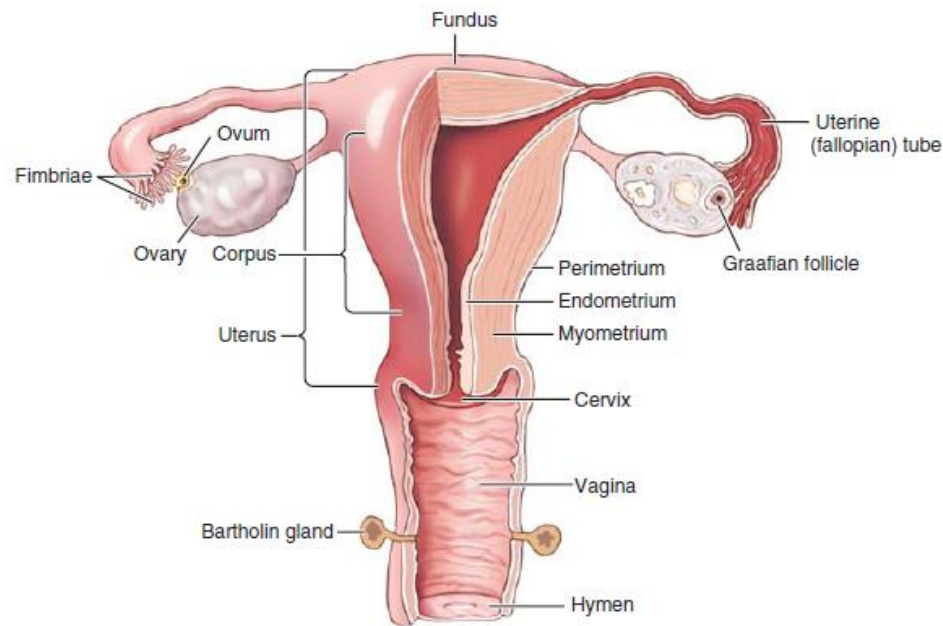


Chapter 8

Female Reproductive System



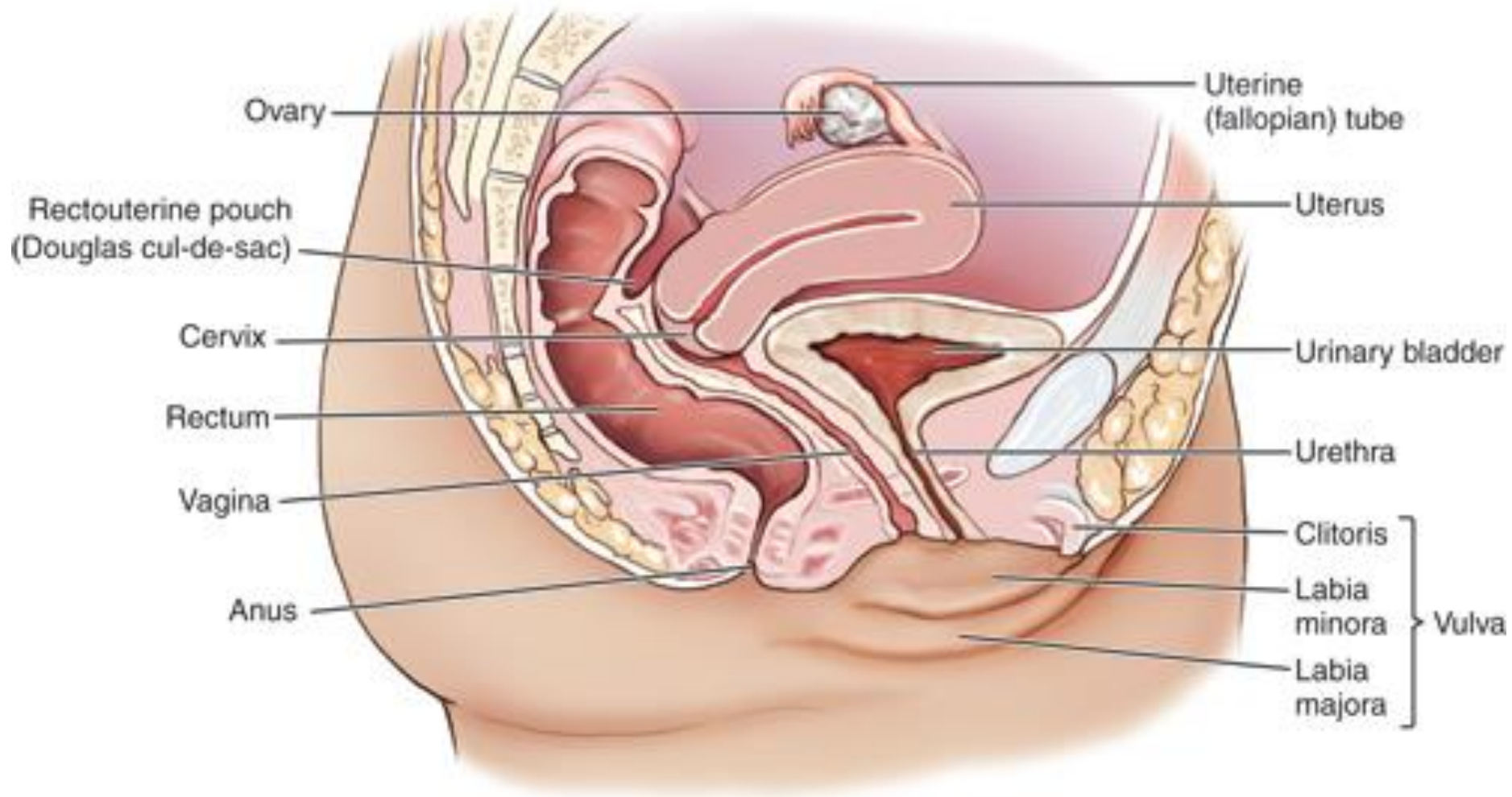
Chapter 8

Objective 1: Pronounce organs and anatomic structures of the female reproductive system.

Female Reproductive System

Externally, the female reproductive system consists of the vulva, clitoris, and mammary glands.

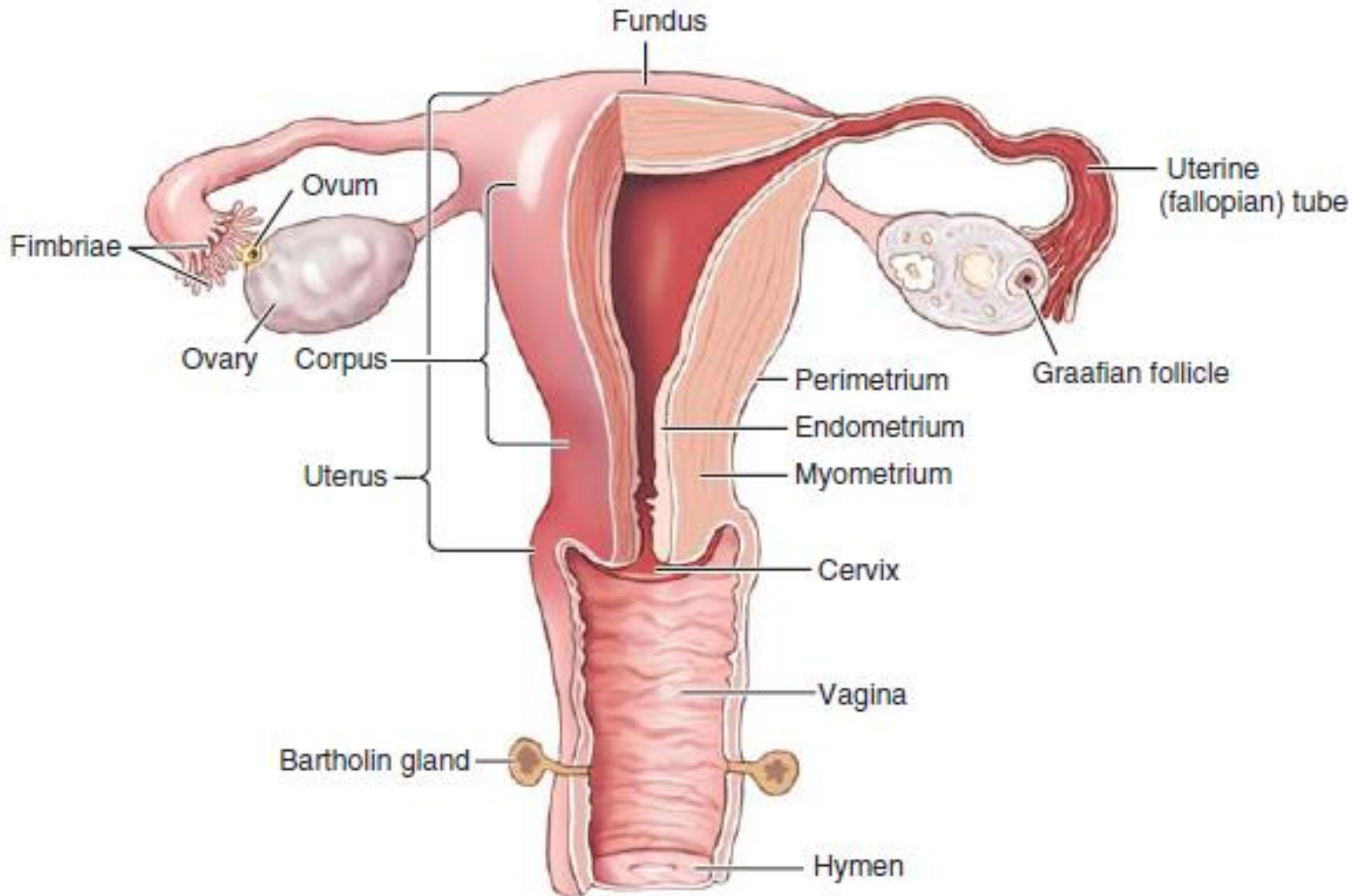
Female Reproductive Organs



Female Reproductive System

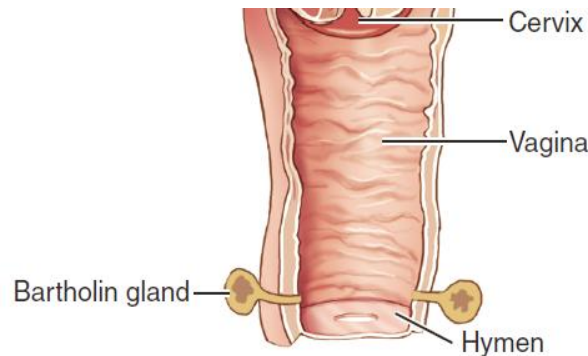
Internally, this system consists of the vagina, uterus, uterine tubes, and ovaries.

Female Reproductive Organs



Glands of the Female Reproductive System (1 of 2)

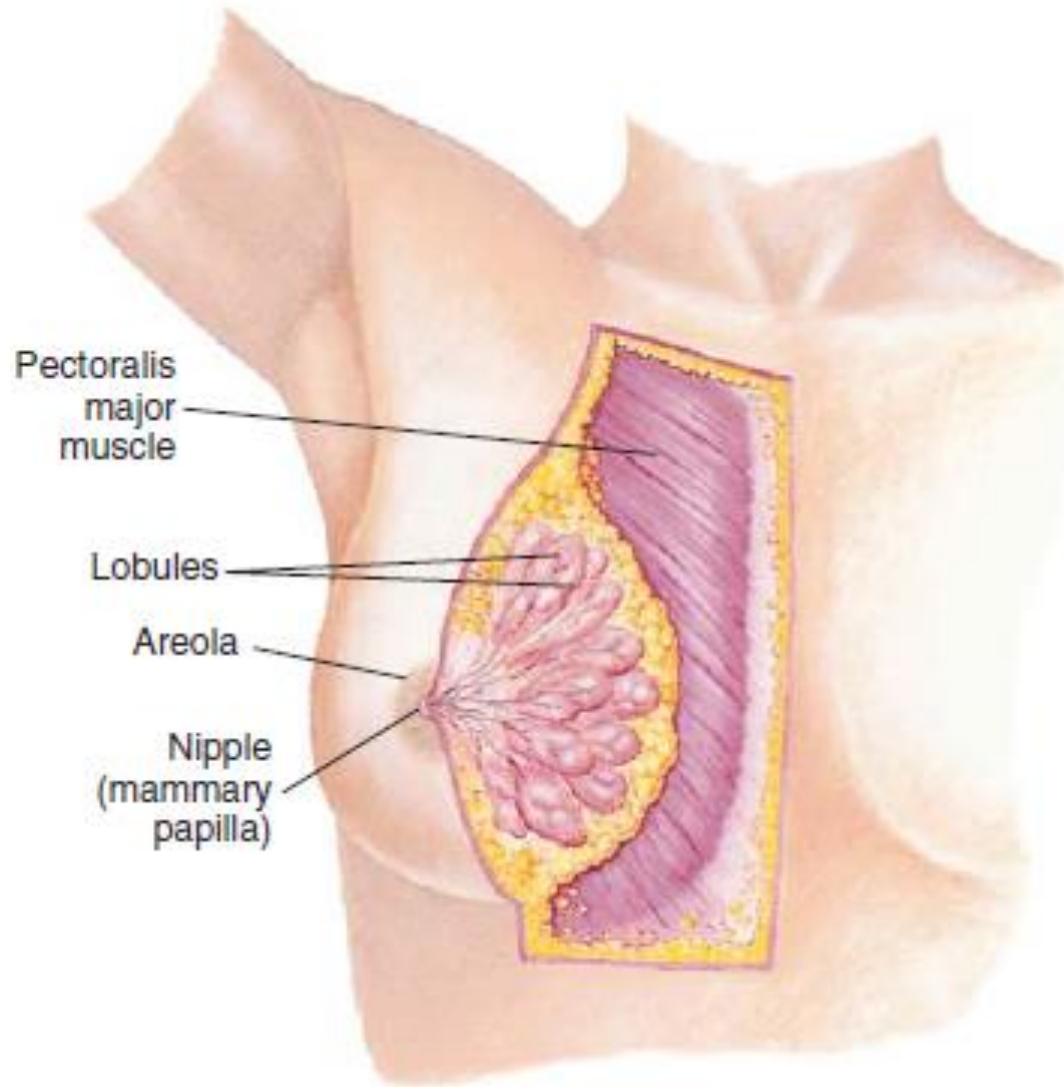
- **Bartholin glands** (BAR-tō-lin) (glans): pair of mucus-producing glands located on each side of the vagina and just above the vaginal opening



Glands of the Female Reproductive System (2 of 2)

- **breasts** (brests): pair of milk-producing glands of the female; each breast consists of 15 to 20 divisions, or lobules (also called **mammary glands**)
 - **mammary papilla** (MAM-a-rē) (pa-PIL-a): breast nipple
 - **areola** (a-RĒ-ō-la): pigmented area around the breast nipple

Female Breast



Chapter 8

Objective 2: Define and spell word parts related to the female reproductive system.

Word Parts

Female Reproductive System

Provide definitions for the following combining forms.

Combining Forms

1. cervic/o, trachel/o
2. colp/o, vagin/o
3. endometri/o
4. gynec/o, gyn/o
5. hyster/o, metr/o
6. mamm/o, mast/o

Definitions

1. cervix
2. vagina
3. endometrium
4. woman
5. uterus
6. breast

men/o = menstruation

An old joke laments about where women's problems begin...

MENarche
MENstruation
MENorrhagia
MENopause
MENTal anxiety

Looking at the terms, it may seem like many of women's problems begin with "men," but men/o originally derived from the Greek meaning "month."

hyster/o = uterus

Another interesting word root:

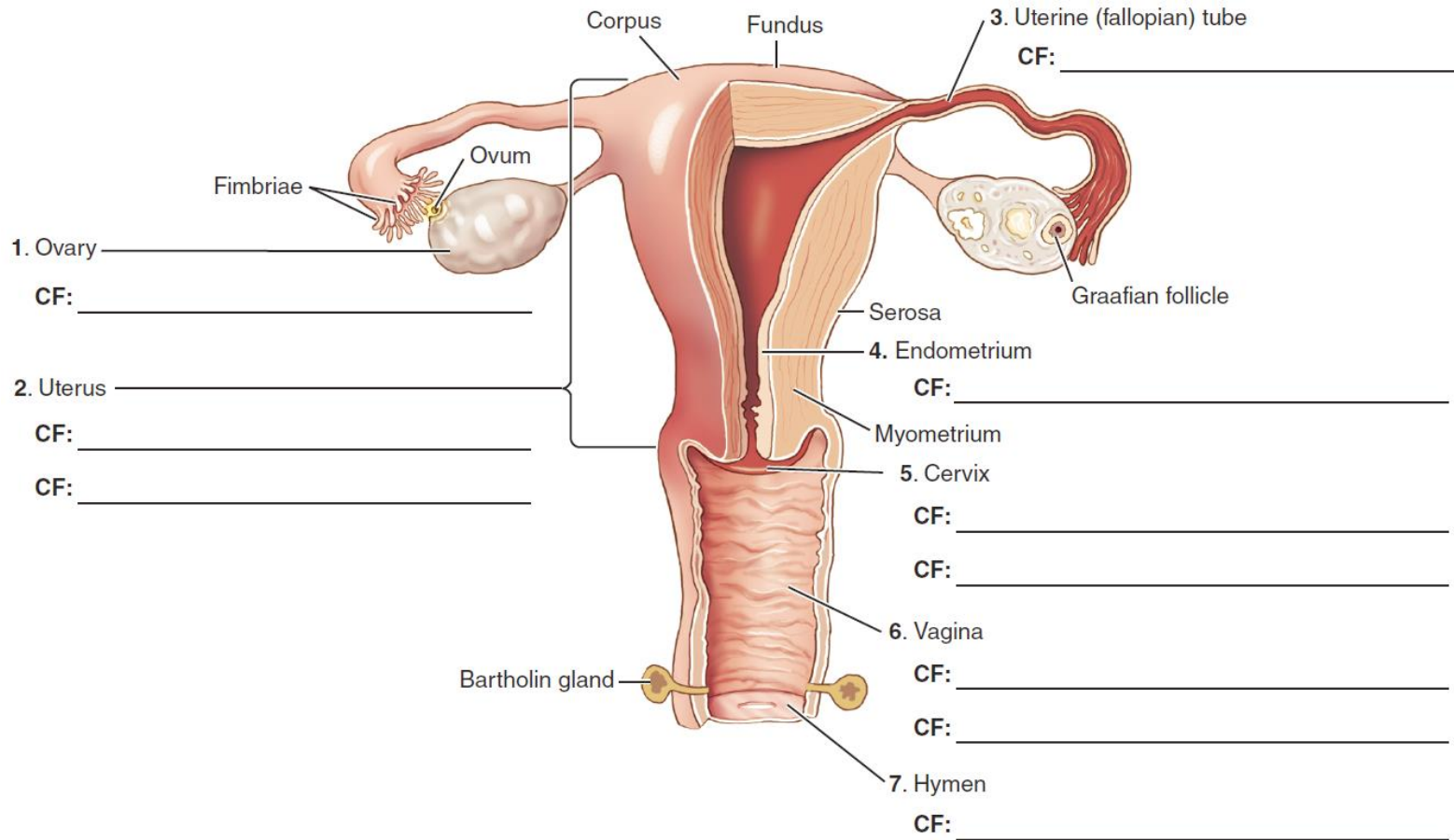
hyster/o

comes from same word root as the word hysterical because of the belief that the womb was the source of mental disturbances in women.

Hysteria actually meant *disease of the womb* in ancient Greece.

The Greek word ***hyster***a means ***womb*** (uterus).

Review Question



Review Question

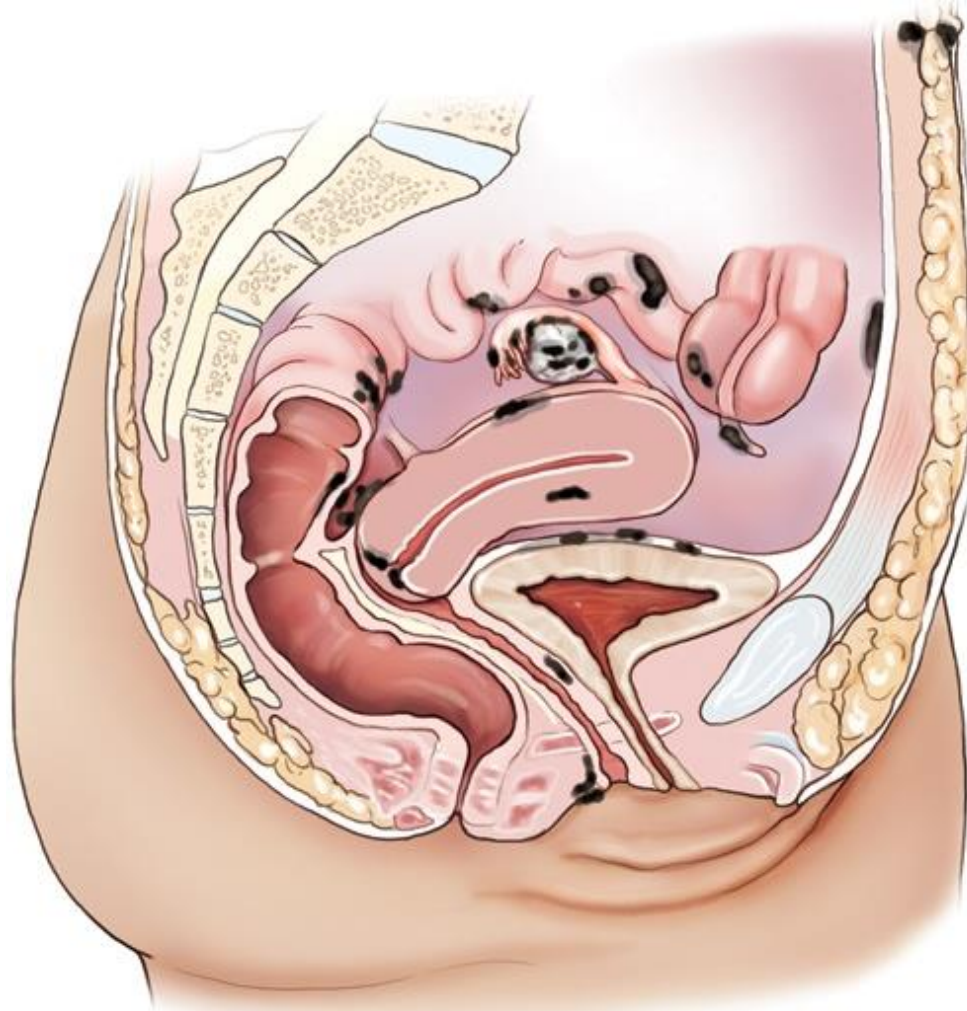
The combining form meaning vagina is:

- a) colp/o
- b) trachel/o
- c) metr/o
- d) mast/o

Chapter 8

Objective 3: Define, pronounce, and spell disease and disorder terms related to the female reproductive system.

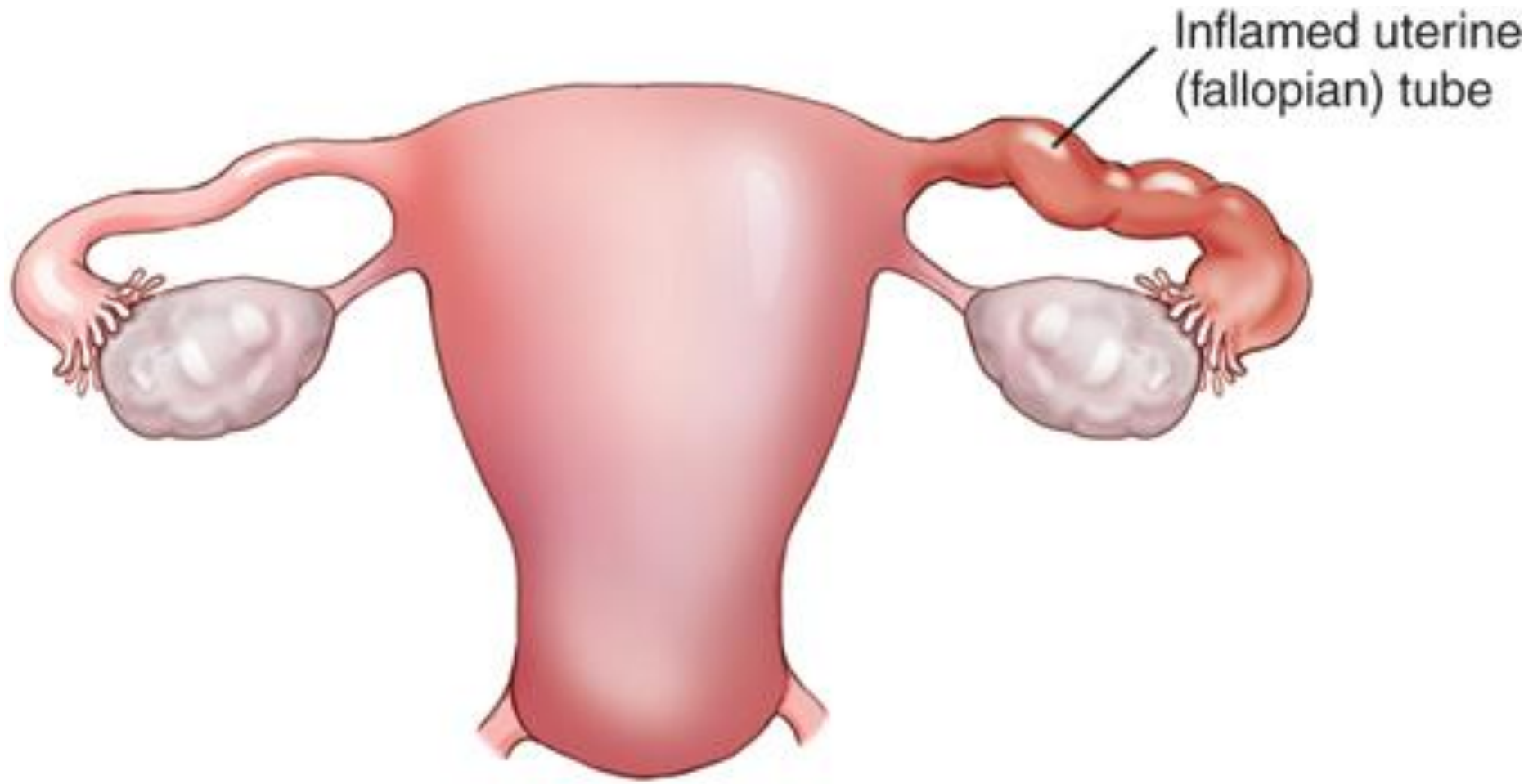
Endometriosis



Period or Exclamation Point: it all starts with “menarche” !

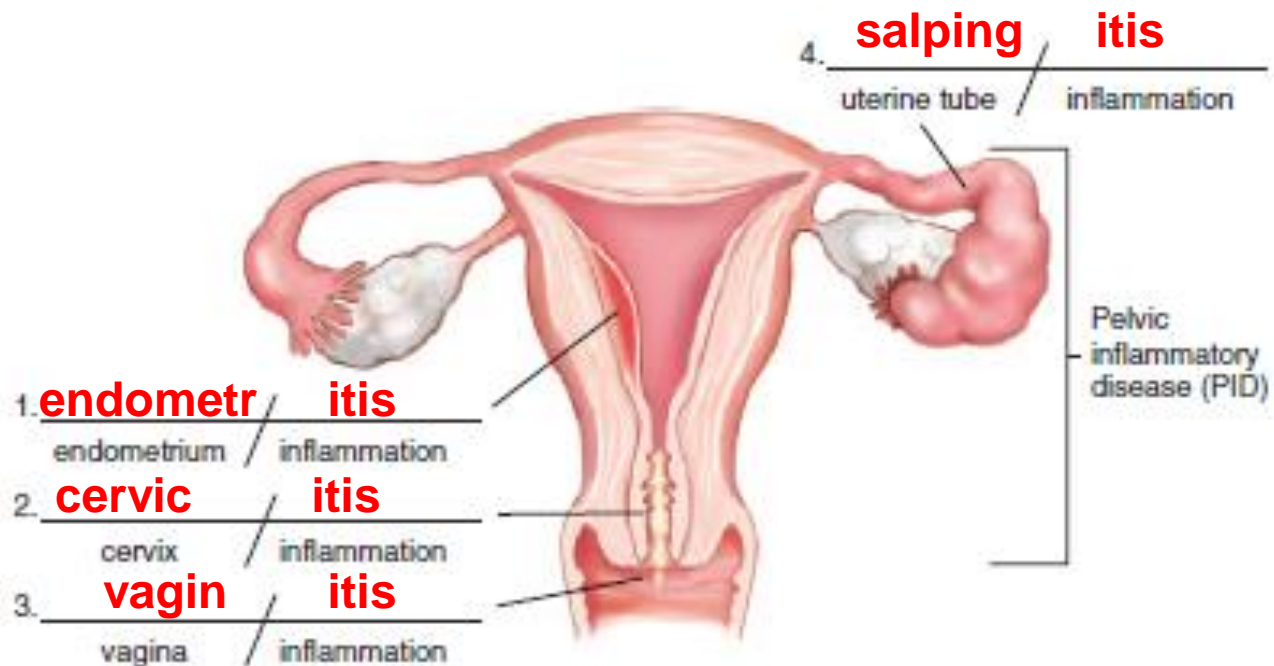
menarche	beginning of menstruation (specifically, first menstrual period; average age is 12.5)
premenstrual syndrome (PMS)	syndrome involving physical and emotional symptoms occurring in the 10 days before menstruation. Symptoms include nervous tension, irritability, mastalgia, edema, and headache.
amenorrhea	absence of menstrual flow
dysmenorrhea	painful menstrual flow
menometrorrhagia	excessive bleeding from the uterus at menstruation (and between menstrual cycles; heavy and irregular bleeding)
menorrhagia	excessive bleeding at menstruation (heavy bleeding in regular, cyclical pattern)
metrorrhagia	excessive bleeding from the uterus (irregular, out-of-cycle bleeding ranging from heavy to light, including spotting)
oligomenorrhea	scanty menstrual flow (infrequent menstrual flow)
menarche	beginning of menstruation
menopause	cessation of menstruation, usually around the ages of 48 to 53 years; may be induced at an earlier age surgically (bilateral oophorectomy) or medically (side effect of chemotherapy treatment)

Salpingitis



Pelvic Inflammatory Disease

Use “-itis” to label the drawing.



Review Question

Which term means excessive bleeding from the uterus at menstruation?

- a) menorrhagia
- b) metrorrhagia
- c) oligomenorrhea
- d) menometrorrhagia

Chapter 8

Objective 4: Define, pronounce, and spell surgical terms related to the female reproductive system.

Types of Hysterectomies

TABLE 8.2 Types of Hysterectomies

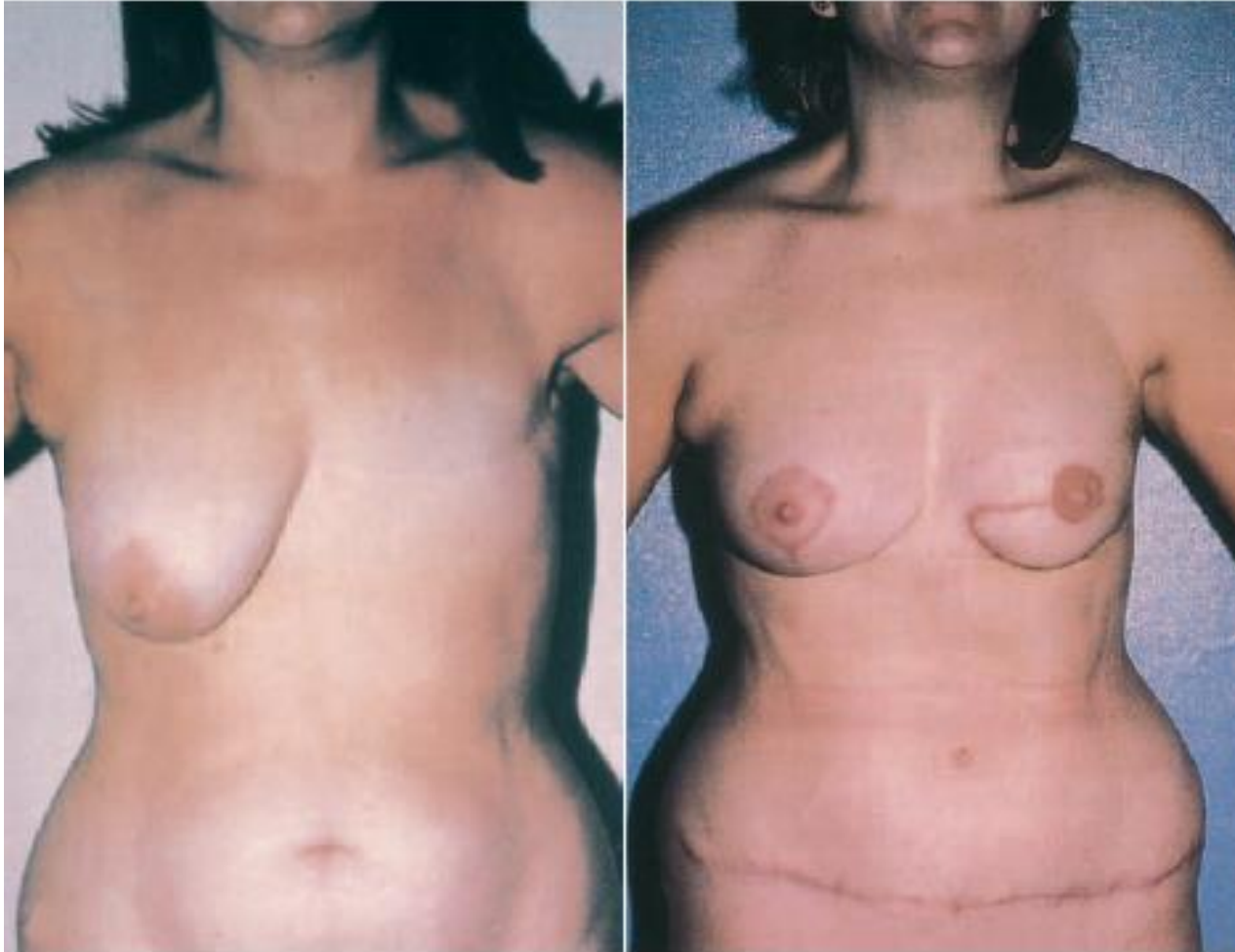
Total hysterectomy	Excision of the entire uterus, including the cervix; can be performed abdominally, vaginally, or laparoscopically
Subtotal hysterectomy	Excision of the upper part of the uterus leaving the cervix in place; can be performed abdominally or laparoscopically (also called supracervical hysterectomy)
Radical hysterectomy	Excision of the entire uterus, upper portion of the vagina, and surrounding tissues performed abdominally

Types of Surgeries Performed to Treat Malignant Breast Tumors

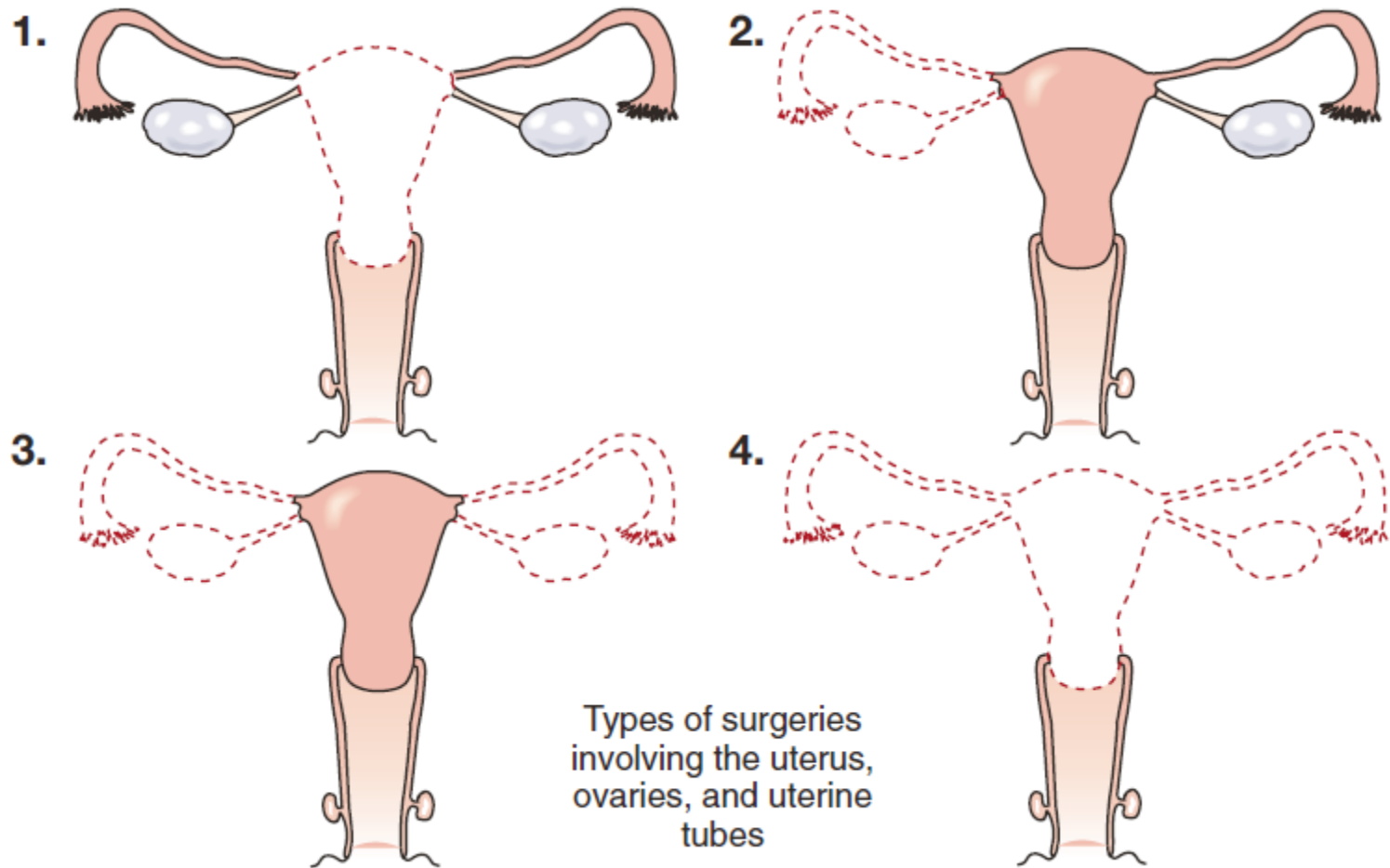
TABLE 8.3 Types of Surgeries Performed to Treat Malignant Breast Tumors

Radical mastectomy	Removal of breast tissue, nipple, lymph nodes, and underlying chest wall muscle; also called Halsted mastectomy (rarely performed)
Modified radical mastectomy	Removal of breast tissue, nipple, and lymph nodes (Fig. 8.9, <i>A</i>)
Simple mastectomy	Removal of breast tissue and nipple (also called total mastectomy)
Subcutaneous mastectomy	Removal of breast tissue only, preserving the overlying skin, nipple and areola (also called nipple-sparing mastectomy)
Segmental mastectomy	Removal of a quadrant, or wedge, of breast tissue (also called quadrantectomy)
Lumpectomy	Removal of the cancerous lesion along with a margin of surrounding healthy breast tissue (also called partial mastectomy or breast-conserving surgery)

Breast Surgery and Reconstruction



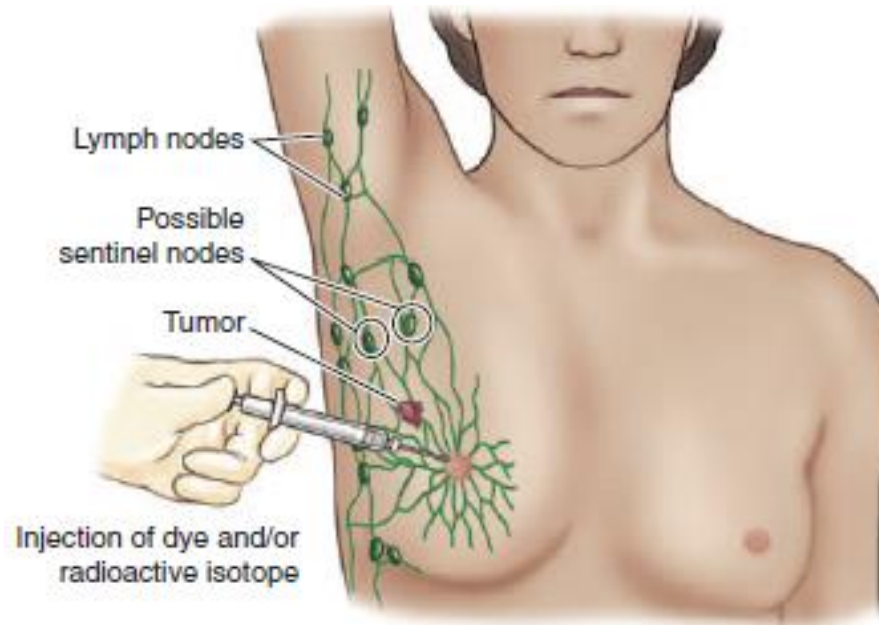
Types of Surgeries Involving the Uterus, Ovaries, and Uterine Tubes



Types of Breast Biopsy

- **Directed breast biopsy** utilizes mammography, sonography, or MRI radiographic images to guide a biopsy needle.
- **Surgical breast biopsy** involves making an incision to remove a palpable breast lesion.
- **Wire localization biopsy** combines both modalities and uses radiographic guidance to place a thin, flexible wire directly into a breast lesion. The lesion is removed surgically with the wire intact.

Sentinel Lymph Node Biopsy



What is Conization?

surgical removal of a cone-shaped area of the cervix; used in the treatment for noninvasive cervical cancer

Types of Conization

- Loop Electrosurgical Excision Procedure (LEEP)
- Cryosurgery (also called cold knife conization)
- Laser ablation

Endometrial Ablation

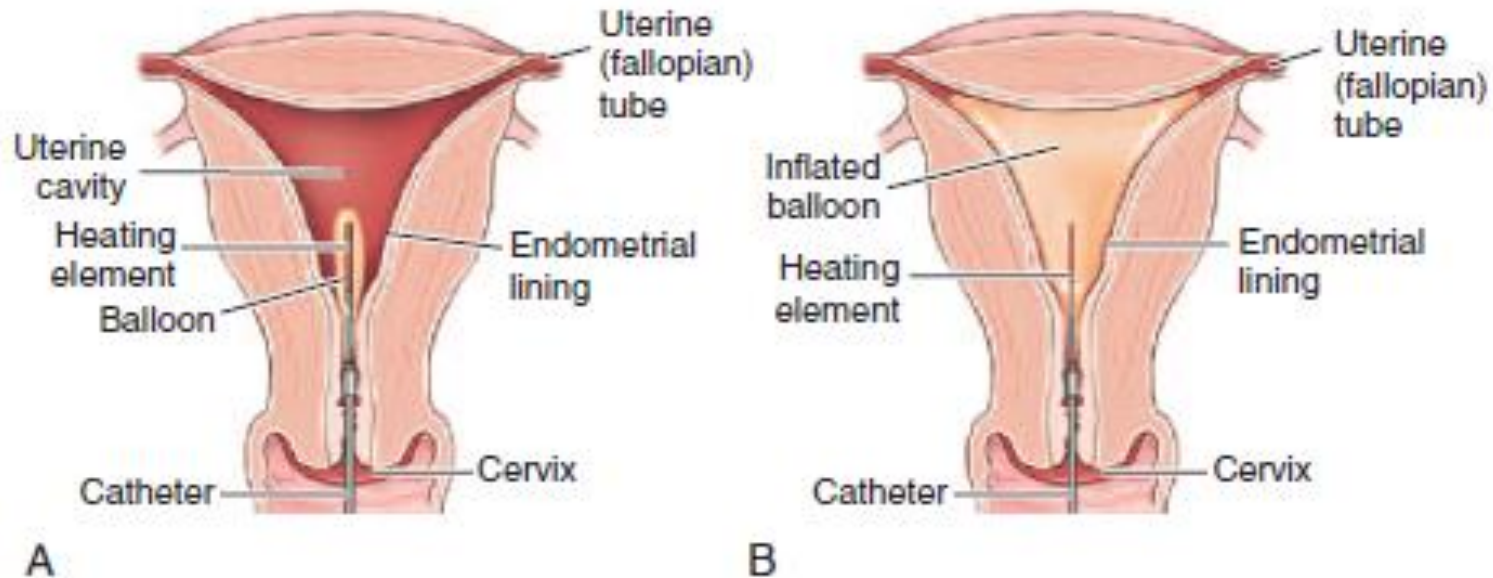
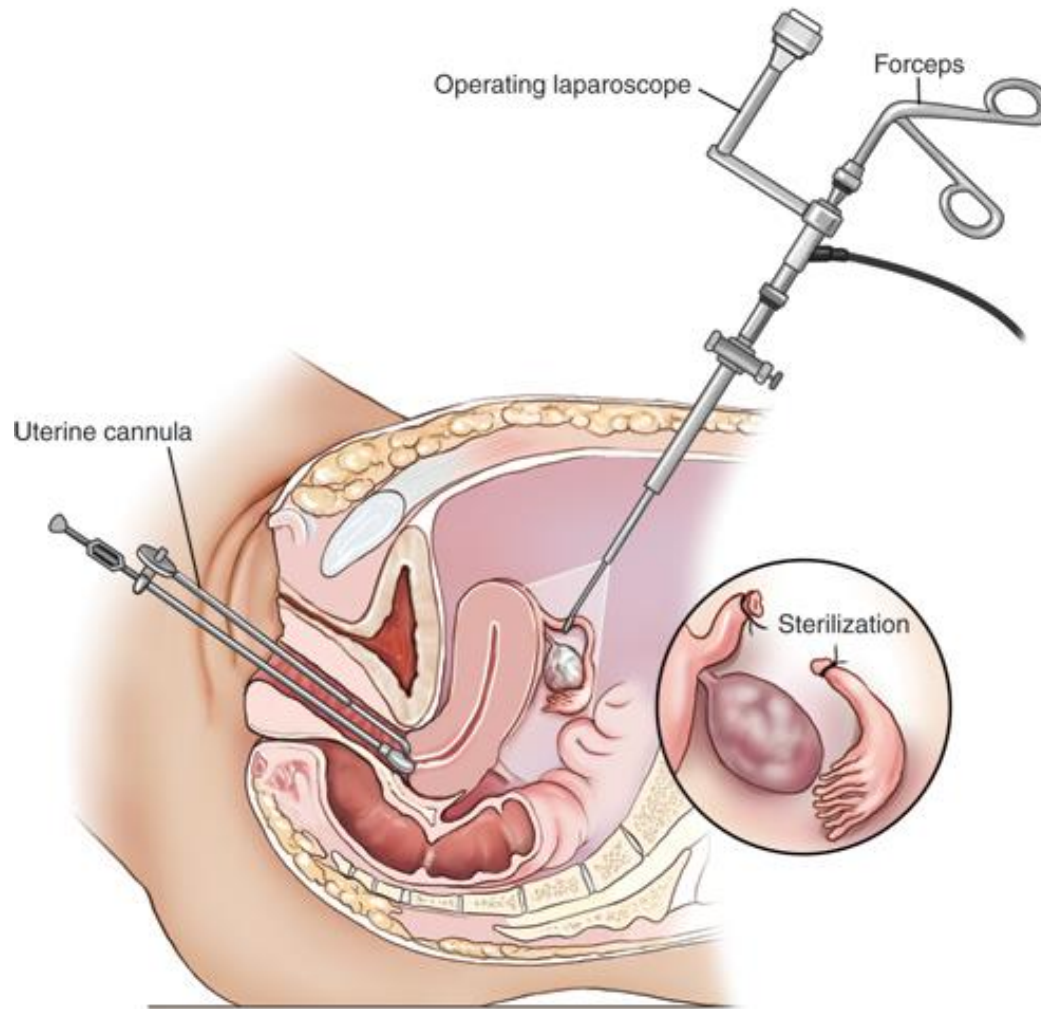


FIG. 8.11 Endometrial ablation using thermal energy.

A, The balloon catheter (deflated) is inserted through the cervix into the uterine cavity. **B,** The balloon is inflated with a solution of 5% dextrose and water and heated to 87°C for 8 minutes, ablating the endometrial lining.

Laparoscopic Tubal Sterilization



Review Question

Which of the following means excision of a uterine fibroid?

- a) mastectomy
- b) myomectomy
- c) oophorectomy

Chapter 8

Objective 5: Define, pronounce, and spell diagnostic terms related to the female reproductive system.

Diagnostic Terms

Built from Word Parts

Diagnostic Imaging

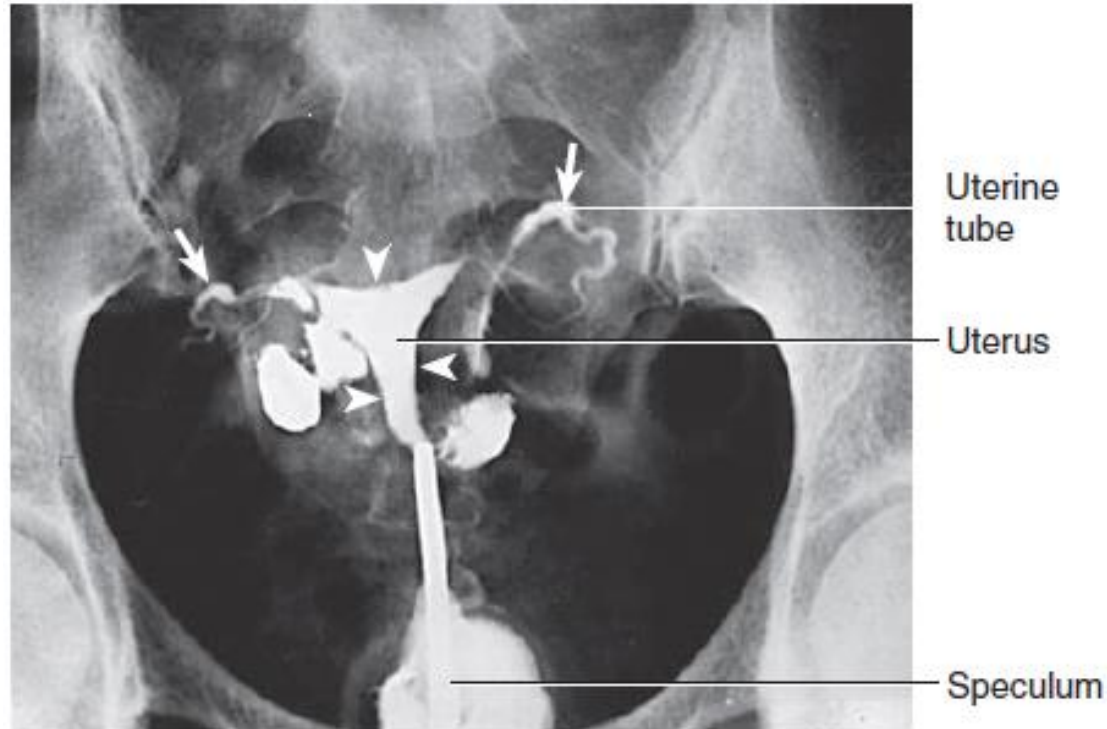
- hysterosalpingogram (HSG)
- mammogram
- mammography
- sonohysterography (SHG)

Endoscopy

- colposcope
- colposcopy
- hysteroscope
- hysteroscopy
- pelviscopic
- pelviscopy

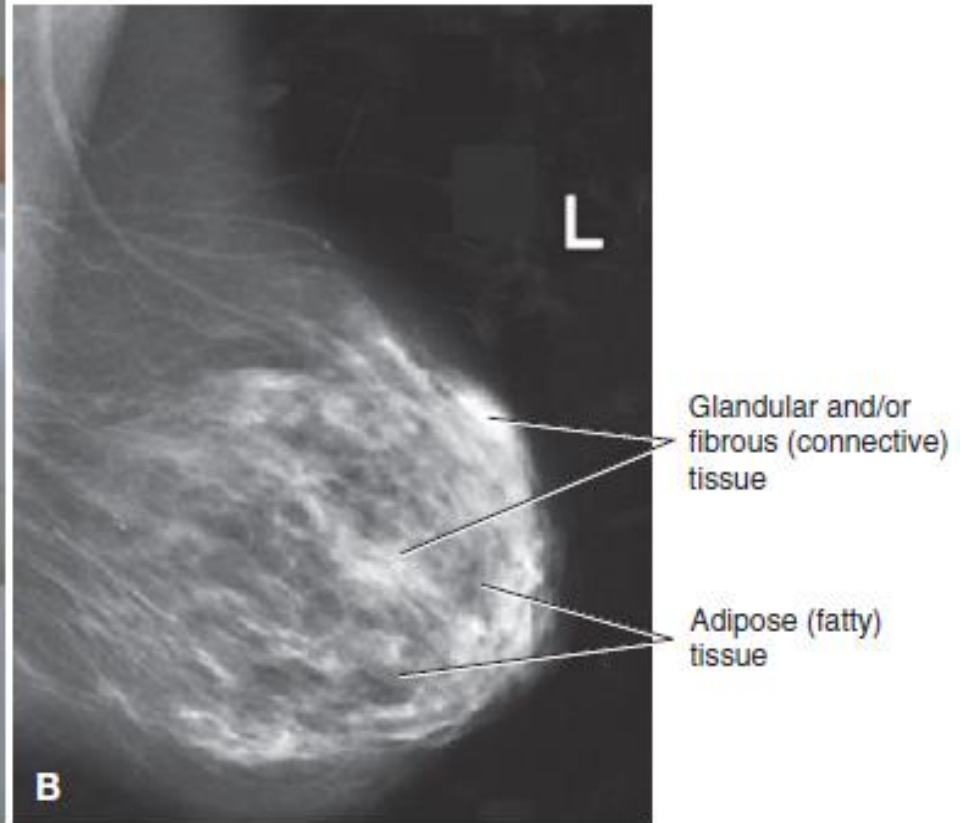
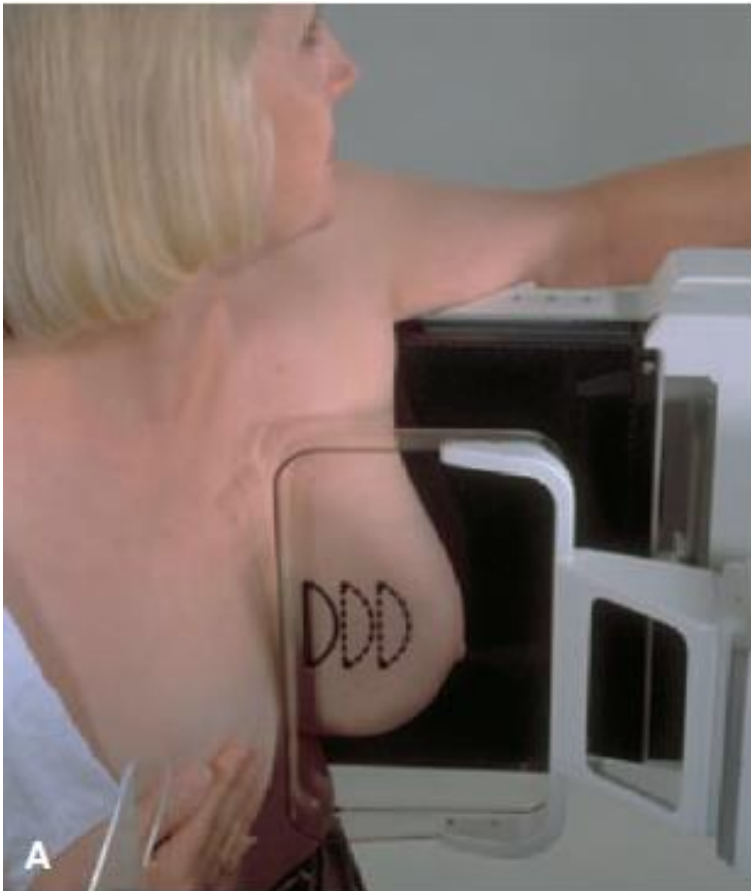
Disease and Disorder Term with Diagnostic Term

Fill in the blanks to complete the labeling of the diagram.



The **hyster** / **o** / **salping** / **o** / **gram**
uterus / cv / uterine tube / cv / radiographic image
reveals bilateral **hydr** / **o** / **salpinx**
water / cv / uterine tube

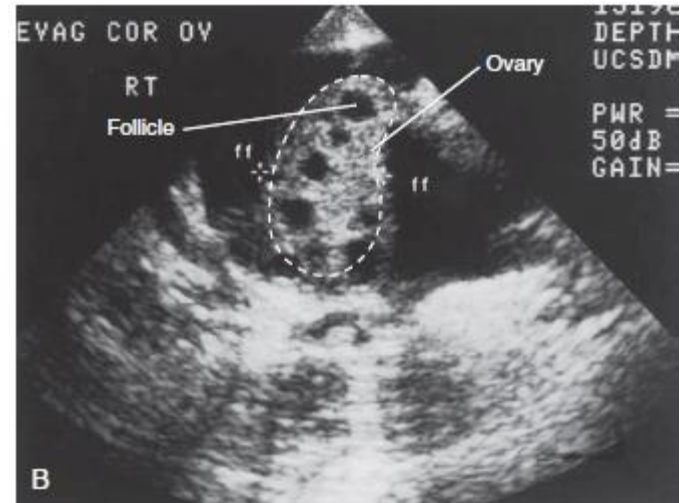
Mammography



Diagnostic Term Not Built from Word Parts

Diagnostic Imaging

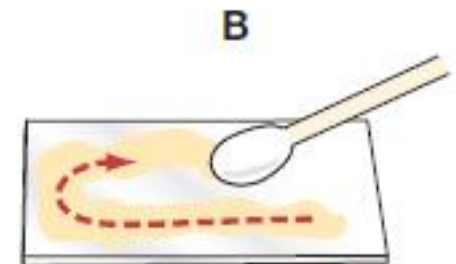
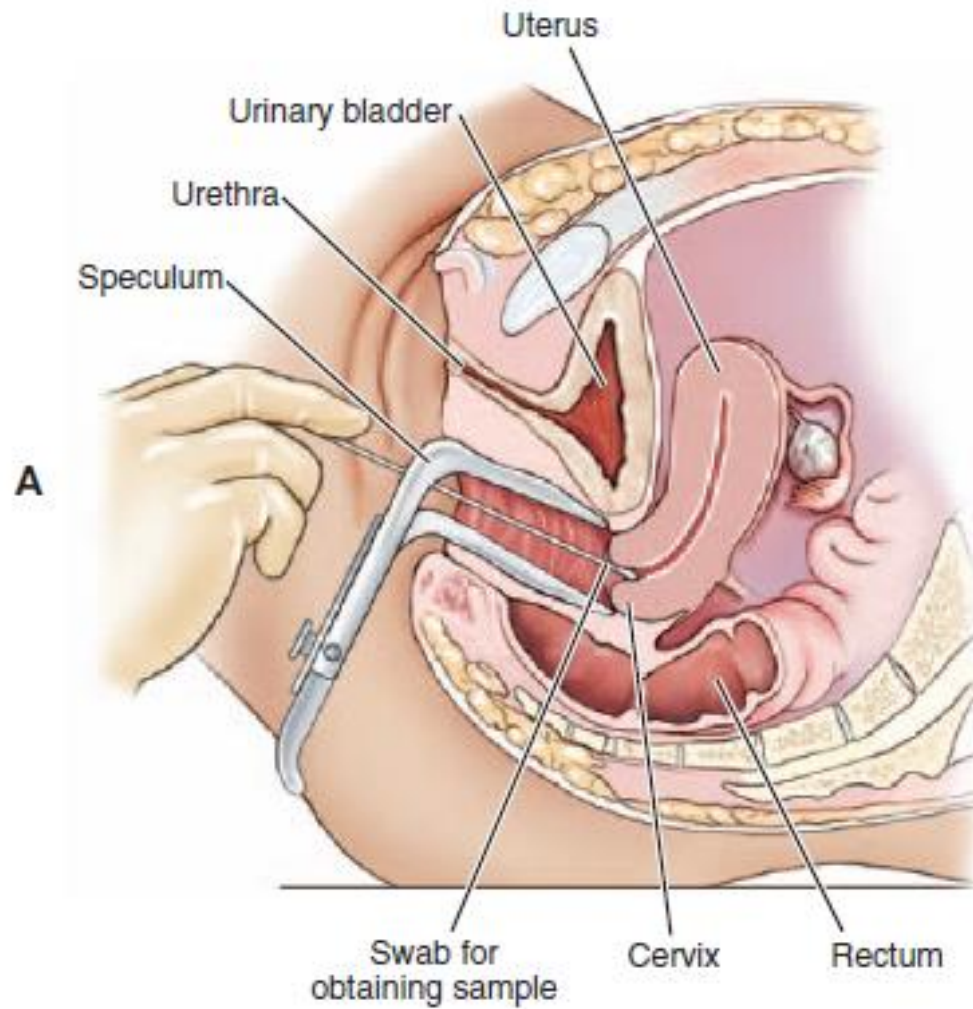
- transvaginal sonography (TVS)



Laboratory

- CA-125 (cancer antigen-125 tumor marker)
- HPV test
- Pap test

Pap Test



Review Question

A mammogram is a radiographic image of the:

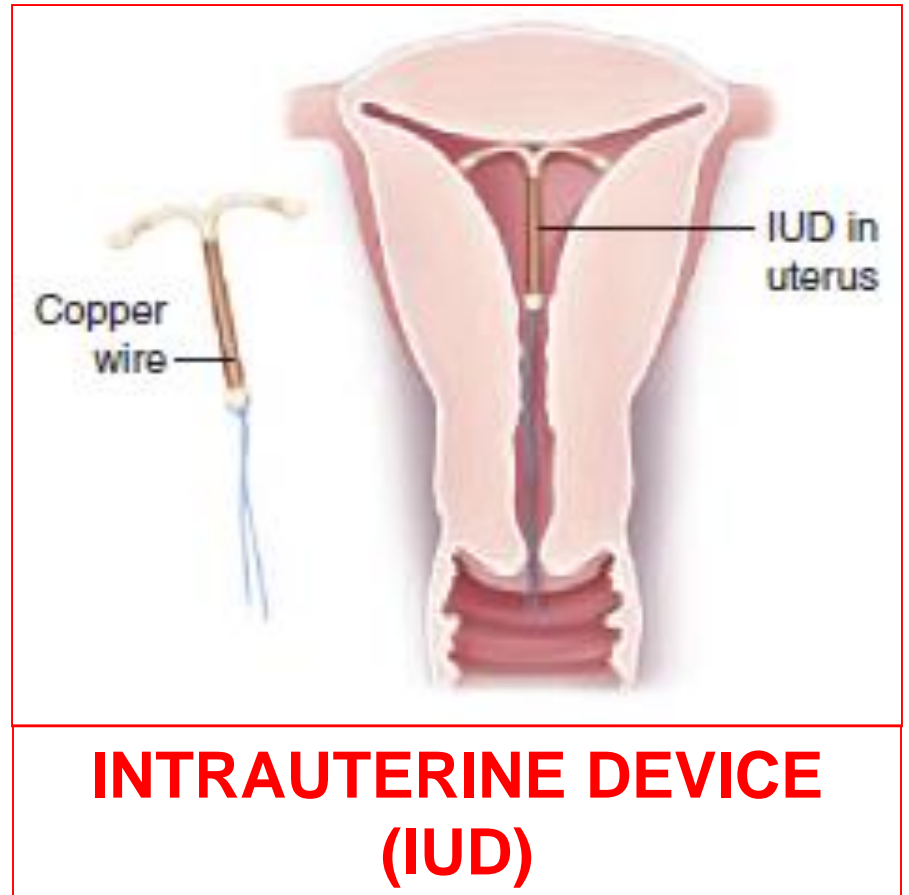
- a) uterus
- b) uterine tubes
- c) vagina
- d) breast

Chapter 8

Objective 6: Define, pronounce, and spell complementary terms related to the female reproductive system.

Complementary Terms Not Built from Word Parts

- anovulation
- **contraception**
- dyspareunia
- fistula
- hormone replacement therapy (HRT)
- menopause
- oligoovulation
- ovulation
- premenstrual syndrome (PMS)
- prolapse
- speculum

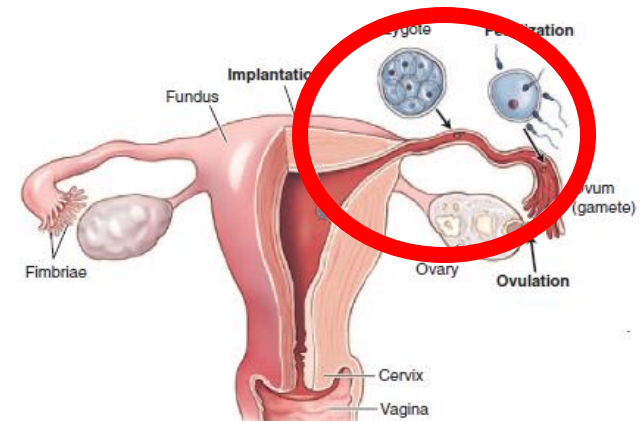
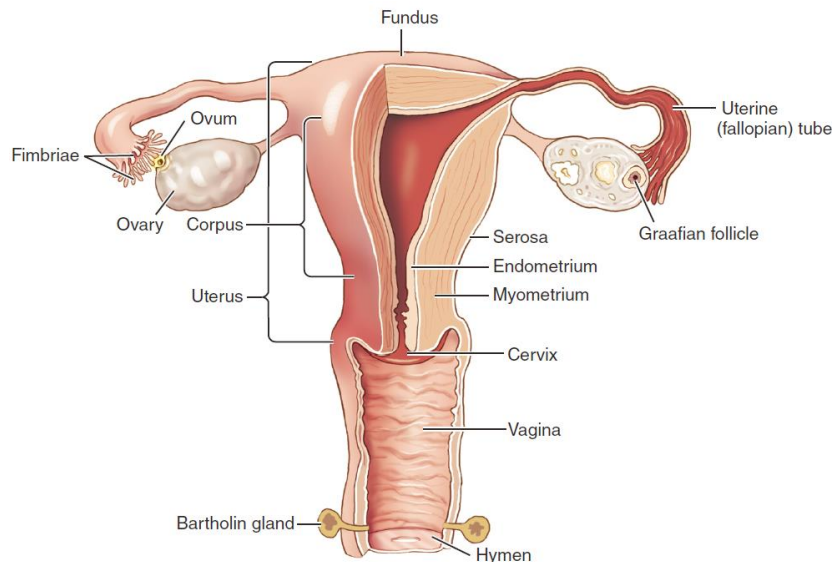


Ovulation

The release of an ovum from a mature graafian follicle. **Verb - ovulate**

anovulation - absence of ovulation
Chapter 5 – a-, an- = absence of, without

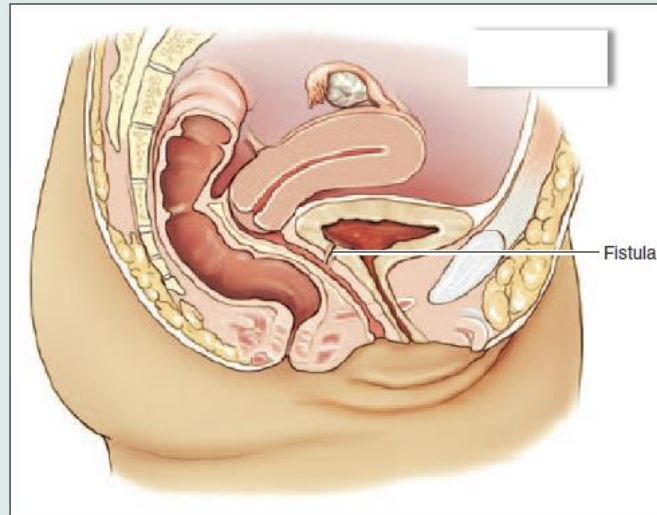
oligoovulation - infrequent ovulation
Chapter 6 – olig/o = scanty, few



Vaginal Fistula

TABLE 8.1 Types of Vaginal Fistulas

TYPES	CAUSES
<ul style="list-style-type: none">• Vesicovaginal Fistula, abnormal opening between the urinary bladder and the vagina• Colovaginal Fistula, abnormal opening between the vagina and colon (large intestine)• Rectovaginal Fistula, abnormal opening between the vagina and rectum	<ul style="list-style-type: none">• Gynecological surgery, including hysterectomy and caesarean section• Inflammatory bowel disease, including Crohn disease and colitis• Diverticulitis• Malignancies in the pelvic region• Radiation therapy for pelvic cancers• Injuries during childbirth



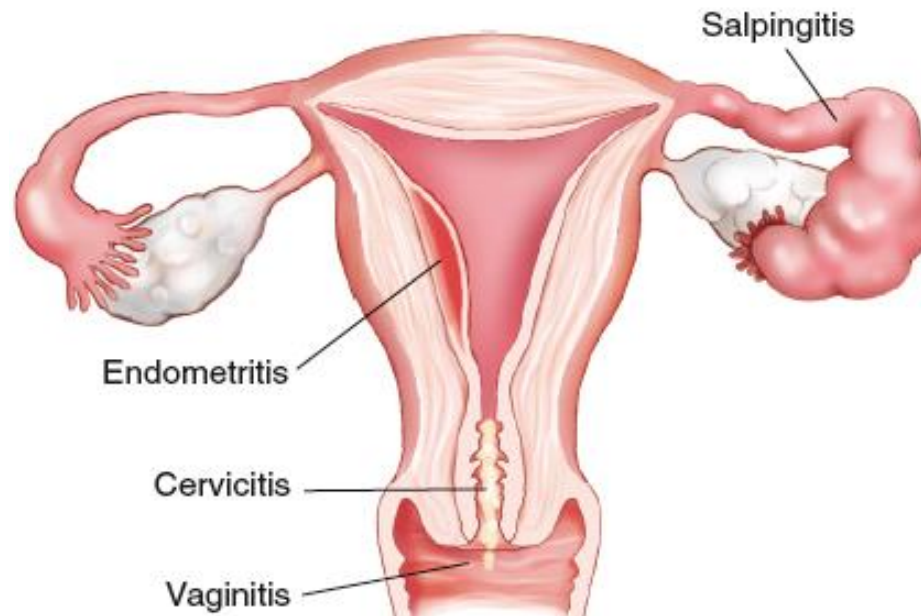
Types of vaginal fistulas; vesicovaginal, colovaginal, and rectovaginal.

Chapter 8

Objective 7: Interpret the meaning of abbreviations related to the female reproductive system.

Review Question

What is the abbreviation for inflammation of some or all of the female pelvic organs?

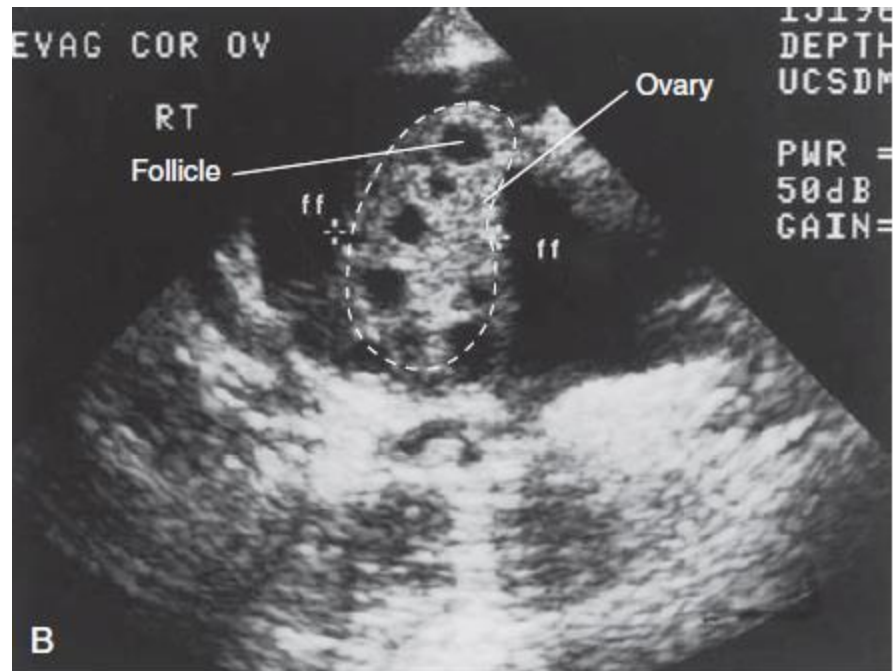


PID

Review Question

What is the abbreviation for the ultrasound procedure that uses a transducer placed in the vagina to obtain images of the ovaries, uterus, cervix, uterine tubes, and surrounding structures?

- a) PMS
- b) TSS
- c) TVS
- d) PID



Chapter 8

Objective 8: Apply medical language in clinical context.

Pronounce Medical Terms in Use

(1 of 2)

CANCERS OF THE FEMALE REPRODUCTIVE SYSTEM

Breast Cancer

The breast is the most common site of cancer in women. More than 80% of **breast cancer** (brest) (KAN-~~cer~~) is infiltrating ductal cancer (IDC), which originates in the mammary ducts. The rate of growth depends on hormonal influences. As long as the cancer remains in the duct, it is considered noninvasive and is called *ductal carcinoma in situ (DCIS)*.

Mammography (ma-MOG-ra-fē) is the most common method used for diagnosing cancer of the breast. Confirmation is done with a biopsy obtained by conventional surgery or guided breast biopsy, such as **stereotactic breast biopsy** (ster-ē-ō-TAK-tik) (brest) (BĪ-op-sē). Treatment may include lumpectomy, **mastectomy** (mas-TEK-to-mē), chemotherapy, radiation therapy, and hormonal therapy.

Cervical Cancer

In many regions of the world **cervical cancer** (SER-vi-kal) (KAN-~~cer~~) is the leading cause of death in women. Cervical cancer resembles and results from a sexually transmitted disease, a feature that distinguishes it from other cancers. Abnormal **vaginal** (VAJ-i-nal) bleeding is the most common symptom. **Pap smear** followed by **colposcopy** (kol-POS-ko-pē) biopsy is used to diagnose this disease. Surgical treatment options are **conization** (kon-i-ZĀ-shun), such as LEEP, and **hysterectomy** (his-te-REK-to-mē). Chemotherapy and radiation therapy may also be used. A vaccine for human papillomavirus is now available and can be used for the prevention of cervical cancer.

Pronounce Medical Terms in Use

(2 of 2)

Endometrial Cancer

Currently 75% of women diagnosed with **endometrial cancer** (en-dō-MĒ-trē-al) (KAN-cer) are postmenopausal. Inappropriate bleeding is the only warning sign; hence early diagnosis is common. Pelvic examination, Pap smear, and endometrial sampling are used to diagnose this disease. Treatment is **hysterosalpingo-oophorectomy** (his-ter-ō-sal-ping-gō-ō-ōfo-REK-to-mē), which may be followed by chemotherapy and radiation therapy. **Laparoscopic** (lap-a-RŌ-skop-ik) -assisted **vaginal hysterectomy** (VAJ-i-nal) (his-te-REK-to-mē) may also be used.

Ovarian Cancer

Ovarian cancer (ō-VAR-ē-an) (KAN-cer) is the ninth most common form of cancer in women, yet it is the most challenging to diagnose and causes more deaths than any other cancer of the female reproductive system. Early symptoms are often absent or associated with other problems; thus early diagnosis is uncommon. Early symptoms include abdominal discomfort and bloating; later stages include abdominal or pelvic pain and urinary or menstrual irregularities. **CA-125** and **transvaginal sonography** (trans-VAJ-i-nal) (so-NOG-ra-fē) are used in diagnosing this disease. Treatment is total abdominal **hysterectomy** (his-te-REK-to-mē) and bilateral **salpingo-oophorectomy** (sal-ping-gō-ō-ōfo-REK-to-mē) and removal of as much additional involved tissue as possible, including lymph nodes in the pelvic area. Chemotherapy is usually prescribed following surgery.

Comprehend Medical Terms in Use

(1 of 2)

Test your comprehension of the terms in the previous box by answering the following.

1. Which of the following diagnostic tests would the physician use to diagnose ovarian cancer?
 - a. colposcopy biopsy
 - b. transvaginal sonography
 - c. Pap smear
 - d. mammography

2. T F Surgery is a treatment option for breast, cervical, endometrial, and ovarian cancer.

Comprehend Medical Terms in Use

(2 of 2)

3. T F Excision of the uterus, uterine tubes, and ovaries is an accepted surgical treatment for both endometrial and ovarian cancer.
4. A vaccine is now available and can be used for prevention of cancer of the:
 - a. ovary
 - b. breast
 - c. uterine tube
 - d. cervix