



chapter  
8

# Cancers of the Female Reproductive Tract

## Key TERMS

cervical cancer  
cervical dysplasia  
colposcopy  
cone biopsy  
cryotherapy  
endometrial cancer  
human papillomavirus  
ovarian cancer  
Papanicolaou (Pap) test  
vaginal cancer  
vulvar cancer

## Learning OBJECTIVES

*After studying the chapter content, the student should be able to accomplish the following:*

1. Define the key terms.
2. Identify the major modifiable risk factors for reproductive tract cancers.
3. Discuss the risk factors, screening methods, and treatment modalities for cancers of the reproductive tract.
4. Outline the nursing management needed for the most common malignant reproductive disorders in women.
5. Describe lifestyle changes and health screenings needed to reduce risk or prevent reproductive tract cancers.
6. List community resources available for the women undergoing surgery for a malignant reproductive condition.



Cancer is the second leading cause of death for women in the United States, surpassed only by cardiovascular disease (Youngkin & Davis, 2004). Obviously, cardiovascular disease is and must continue to be a major focus of our efforts in women's health. However, we must not lose sight of the fact that a large number of women between the ages of 35 and 74 are developing and dying of cancer (NCI, 2004). Women have a one in three lifetime risk of developing cancer, and one out of every four deaths is from cancer (Alexander et al., 2004). African-American women have the highest death rates from both heart disease and cancer (Breslin & Lucas, 2003).

It has been estimated that in the United States half of all premature deaths, one third of acute disabilities, and one half of chronic disabilities are preventable (NCI, 2004). Nurses need to put their energies into screening, education, and early detection to reduce these statistics. Because cancer risk is strongly associated with lifestyle and behavior, screening programs are of particular importance for early detection. There is evidence that prevention and early detection have reduced both cancer mortality rates and prevented reproductive cancers (Smith et al., 2004).

This chapter will cover selected cancers of the reproductive system and will identify the appropriate screenings needed. The reproductive cancers to be discussed are cervical, endometrial, ovarian, vaginal, and vulvar.

## Cervical Cancer

**Cervical cancer** is cancer of the uterine cervix. The American Cancer Society (ACS) estimates that over 10,000 cases of invasive cervical cancer will be diagnosed in the United States in 2005. Of that number, approximately 4,000 women will die. Some researchers estimate that noninvasive cervical cancer (carcinoma in situ) is about four times more common than invasive cervical cancer. The 5-year survival rate for all stages of cervical cancer is 73% (ACS, 2005). The median age at diagnosis for cervical cancer is 47 years, and nearly half of all cases are diagnosed before the age of 35 (Waggoner, 2003).

Cervical cancer incidence and mortality rates have decreased noticeably in the past several decades, with most of the reduction attributed to the **Papanicolaou (Pap) test**, which detects cervical cancer and precancerous lesions. Cervical cancer is one of the most treatable cancers when detected at an early stage (ACS, 2005). *Healthy People 2010* (USDHHS, 2000) identifies two goals that address cervical cancer (Healthy People 2010).

## HEALTHY PEOPLE 2010

### National Health Goals Related to Cervical Cancer

Objective	Significance
Goal 3-4—Reduce the death rate from cancer of the uterine cervix from 3 per 100,000 females (1998) to 2 per 100,000 females in 2010.	This will help improve mortality rates and quality of life for women, and reduce healthcare costs related to treatment of malignancies.
Goal 3-11—Increase the proportion of women who received a Pap smear within the preceding 3 years from 79% to 90% by 2010.	This will help to promote screening and early detection. The National Institutes of Health (NIH) reported that half of women diagnosed with invasive cervical cancer have never had a Pap smear and 10% have not had Pap smears during the past 5 years (NIH, 2005).

## Pathophysiology

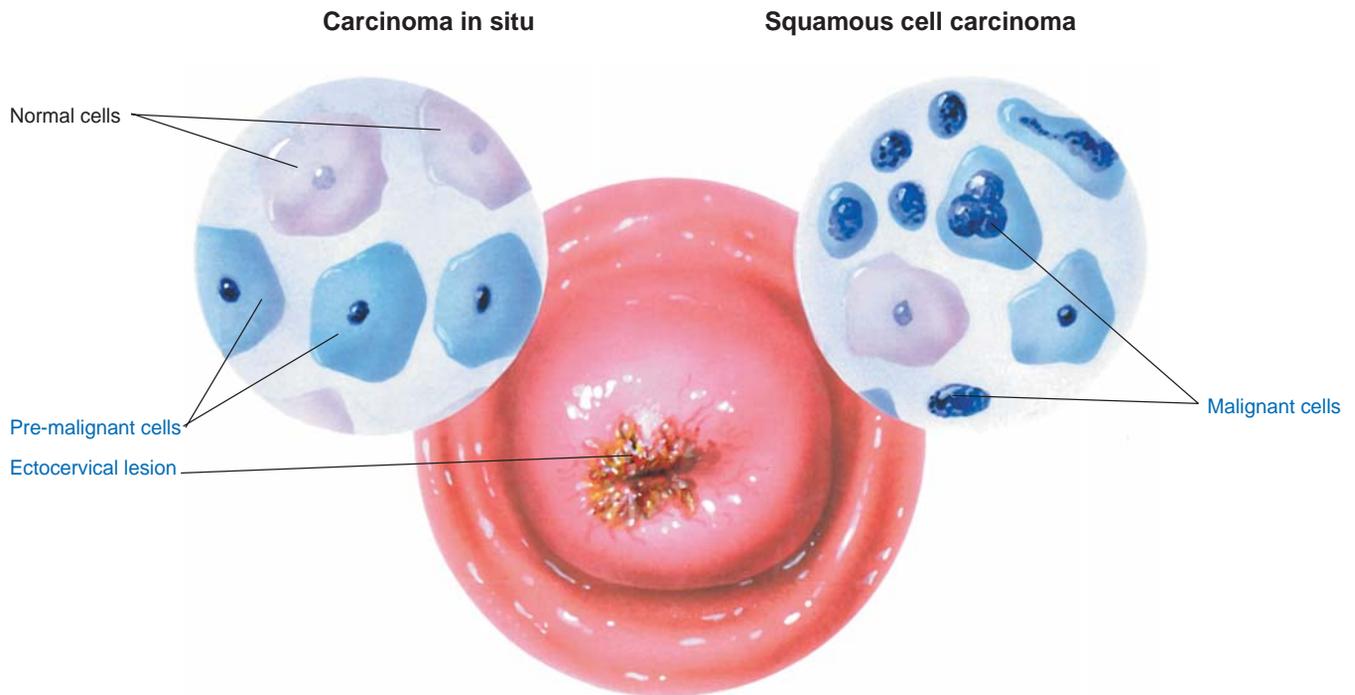
Cervical cancer starts with abnormal changes in the cellular lining or surface of the cervix. Typically these changes occur in the squamous-columnar junction of the cervix. Here, cylindrically shaped secretory epithelial cells (columnar) meet the protective flat epithelial cells (squamous) from the outer cervix and vagina in what is termed the transformation zone. The continuous replacement of columnar epithelial cells by squamous epithelial cells in this area makes these cells vulnerable to take up foreign or abnormal genetic material (Adams, 2002). Figure 8-1 shows the pathophysiology of cervical cancer.

## Etiology and Risk Factors

The primary factor in the development of cervical cancer is **human papillomavirus (HPV)**, which is acquired through sexual activity (Roye et al., 2003). More than 90% of squamous cervical cancers contain HPV DNA, and the virus is now accepted as a major causative factor in the development of cervical cancer and its precursor, **cervical dysplasia** (disordered growth of abnormal cells).

Risk factors associated with cervical cancer include:

- Early age at first intercourse (within 1 year of menarche)
- Lower socioeconomic status
- Promiscuous male partners
- Unprotected sexual intercourse



● **Figure 8-1** Cervical cancer. (The Anatomical Chart Company. [2002]. *Atlas of pathophysiology*. Springhouse, PA: Springhouse.)

- Family history of cervical cancer (mother or sisters)
- Sexual intercourse with uncircumcised men
- Female offspring of mothers who took diethylstilbestrol (DES)
- Infections with genital herpes or chronic chlamydia
- History of multiple sex partners
- Cigarette smoking
- Immunocompromised state
- HIV infection
- Oral contraceptive use
- Moderate dysplasia on Pap smear within past 5 years
- HPV infection (Grund, 2005)

### Clinical Manifestations

Clinically, the first symptom is abnormal vaginal bleeding, usually after sexual intercourse. Vaginal discomfort, malodorous discharge, and dysuria are common manifestations also. Some women with cervical cancer have no symptoms. Frequently it is detected at an annual gynecologic examination and Pap test. Advanced symptoms of cervical cancer may include pelvic, back, or leg pain, weight loss, anorexia, weakness and fatigue, and bone fractures.

### Diagnosis

Screening for cervical cancer is very effective because the presence of a precursor lesion, cervical intraepithelial neoplasia (CIN), helps determine whether further tests are needed. Lesions start as dysplasia and progress in a predictable fashion over a long period, allowing ample oppor-

tunity for intervention at a precancerous stage. Progression from low-grade to high-grade dysplasia takes an average of 9 years, and progression from high-grade dysplasia to invasive cancer takes up to 2 years (Jemal et al., 2005).

Widespread use of the Pap test (also known as a Pap smear), a procedure used to obtain cells from the cervix for cytology screening, is credited with saving tens of thousands of women's lives and decreasing deaths from cervical cancer by more than 70% (ACS, 2005) (Nursing Procedure 8-1: Assisting with Collection of a Pap Smear). Despite its outstanding record of success as a screening tool for cervical cancer (it detects approximately 90% of early cancer changes), the conventional Pap smear has a 20% false-negative rate. High-grade abnormalities missed by human screening are frequently detected by computerized instruments (Garcia & Bi, 2004). Thus, many new technologies are being studied and introduced clinically, including:

- *Automated slide thin-layer preparation (Thin-Prep)*: In this liquid-based cervical cytology technique, the cervical specimen is placed into a vial of fixative solution rather than on the glass slide.
- *Computer-assisted automated Pap test rescreening (Autopap)*: An algorithm-based decision-making technology that identifies slides that should be rescreened by cytopathologists by selecting samples that exceed a certain threshold for the likelihood of abnormal cells
- *HPV-DNA typing (Hybrid Capture)*: This system uses the association between certain types of HPV (16, 18, 31, 33,

## Nursing Procedure 8-1

### Assisting With Collection of a Pap Smear

#### Purpose: To Obtain Cells From the Cervix for Cervical Cytology Screening

1. Explain procedure to the client (Fig. A).
2. Instruct client to empty her bladder.
3. Wash hands thoroughly.
4. Assemble equipment, maintaining sterility of equipment (Fig. B)
5. Position client on stirrups or foot pedals so that her knees fall outward.
6. Drape client with a sheet for privacy, covering the abdomen but leaving the perineal area exposed.
7. Open packages as needed.
8. Encourage client to relax.
9. Provide support to client as the practitioner obtains a sample by spreading the labia; inserting the speculum; inserting the cytobrush and swabbing the endocervix; and inserting the plastic spatula and swabbing the cervix (Fig. C–H).
10. Transfer specimen to container (Fig. I) or slide. If a slide is used, spray the fixative on the slide.
11. Place sterile lubricant on the practitioner's fingertip when indicated for the bimanual examination.
12. Wash hands thoroughly.
13. Label specimen according to facility policy.
14. Rinse reusable instruments and dispose of waste appropriately (Fig. J).
15. Wash hands thoroughly.



A



B



C



D



E



F

## Nursing Procedure 8-1

### Assisting With Collection of a Pap Smear (Continued)



G



H



I



J

Used with permission from Klossner, N. J. (2006). *Introductory maternity nursing*. Philadelphia: Lippincott Williams & Wilkins.

35, 45, 51, 52, and 56) and the development of cervical cancer. This system can identify high-risk HPV types and improves detection and management.

- *Computer-assisted technology (Cytoc CDS-1000, AutoCyte, AcCell)*: These computerized instruments can detect abnormal cells that are sometimes missed by technologists (Anderson & Runowicz, 2002).

Other factors contributing to the high rate of false-negative results include errors in sampling the cervix, in preparing the slide, and in patient preparation. To optimize conditions for Pap smear collection, nurses can offer the instructions provided in Teaching Guidelines 8-1.

Although many professional medical organizations disagree as to the frequency of screening for cervical cancer, the ACS 2003 guidelines suggest that women should begin annual screening for cervical cancer via a Pap test after they initiate sexual activity or at 21 years of age, whichever comes first. If three consecutive Pap smears are negative, a trained healthcare provider may suggest that screening can be performed less frequently. Women ages 65 to 70 with no abnormal tests in the previous 10 years may choose to stop screenings (ACS, 2003).



### TEACHING GUIDELINES 8-1

#### Strategies to Optimize Pap Smear Results

- Schedule your Pap smear appointment about 2 weeks (10 to 18 days) after the first day of your last menses to increase the chance of getting the best sample of cervical cells without menses.
- Refrain from intercourse for 48 hours before the test because additional matter such as sperm can obscure the specimen.
- Do not douche within 48 hours before the test to prevent washing away cervical cells that might be abnormal.
- Do not use tampons, birth control foams, jellies, vaginal creams, or vaginal medications for 72 hours before the test, as they could cover up or obscure the cervical cell sample.
- Cancel your Pap appointment if vaginal bleeding occurs, because the presence of blood cells interferes with visual evaluation of the sample (Ross, 2003).

For high-risk women, annual Pap smears should continue annually throughout their life (Table 8-1).

Pap smear results are classified using the Bethesda System (Box 8-1), which provides a uniform diagnostic terminology that allows clear communication between the laboratory and the healthcare provider. The healthcare provider receives the laboratory information divided into three categories: specimen adequacy, general categorization of cytologic findings, and interpretation/result (ACS, 2005).

## Treatment

Using the 2001 Bethesda system, the following management guidelines were developed by the National Cancer Institute (NCI) to provide direction to healthcare providers and their patients to deal with abnormal Pap smear results:

- ASC-US: Repeat the Pap smear in 4 to 6 months or refer for colposcopy.
- ASC-H: Refer for colposcopy without HPV testing.
- Atypical glandular cells (AGC) and adenocarcinoma in situ (AIS): Immediate colposcopy; follow-up is based on the results of findings.

**Colposcopy** is a microscopic examination of the lower genital tract using a magnifying instrument called a colposcope. Specific patterns of cells that correlate well with certain histologic findings can be visualized. With the woman in lithotomy position, the cervix is cleansed with acetic acid solution. Acetic acid makes abnormal cells appear white, which is referred to as acetowhite. These white areas are then biopsied and sent to the pathologist for tissue assessment. The examination is not painful, it has no side effects, and it can be performed safely in the healthcare provider's office.

Treatment options available for abnormal Pap smears depend on the severity of the results and the health history

**Table 8-1** Pap Smear Guidelines

First Pap	Age 21 or within 3 years of first sexual intercourse
Until age 30	Yearly—using glass slide method Every 2 years—using liquid-based method
Age 30–70	Every 2–3 years if last 3 Paps were normal
After age 70	May discontinue if: - Past 3 Paps were normal and - No Paps in the past 10 years were abnormal

American Cancer Society (ACS). (2005). *How Pap test results are reported*. American Cancer Society, Inc. (Online) Available at: [http://www.cancer.org/docroot/PED/content/PED\\_2\\_3X\\_Pap\\_Test.asp](http://www.cancer.org/docroot/PED/content/PED_2_3X_Pap_Test.asp).

### BOX 8-1

#### THE 2001 BETHESDA SYSTEM FOR CLASSIFYING PAP SMEARS

**Specimen Type:** Conventional Pap smear vs. liquid-based

**Specimen Adequacy:** Satisfactory or unsatisfactory for evaluation

**General Categorization:** (optional)

- Negative for intraepithelial lesion or malignancy
- Epithelial cell abnormality. See interpretation/result

**Automated Review:** If case was examined by automated device or not

**Ancillary Testing:** Provides a brief description of the test methods and report results so healthcare provider understands

**Interpretation/Result:**

- Negative for intraepithelial lesion or malignancy
- Organisms: *Trichomonas vaginalis*; fungus; bacterial vaginosis; herpes simplex
- Other non-neoplastic findings: Reactive cellular changes associated with inflammation, radiation, IUDs, atrophy
- Other: Endometrial cells in a woman >40 years of age
- Epithelial cell abnormalities:
  - Squamous cell
    - Atypical squamous cells
      - Of undetermined significance (ASC-US)
      - Cannot exclude HSIL (ASC-H)
    - Low-grade squamous intraepithelial lesion (LSIL)
      - Encompassing HPV/mild dysplasia/CIN-1
    - High-grade squamous intraepithelial lesion (HSIL)
      - Encompassing moderate and severe dysplasia CIS/CIN-2 and CIN-3
        - With features suspicious for invasion
      - Squamous cell carcinoma
  - Glandular Cell: Atypical
    - Endocervical, endometrial, or glandular cells
    - Endocervical cells—favor neoplastic
    - Glandular cells—favor neoplastic
    - Endocervical adenocarcinoma in situ
    - Adenocarcinoma
      - Endocervical, endometrial, extrauterine
  - Other malignant neoplasms (specify)

**Educational Notes and Suggestions:** (optional)

Sources: NIH, 2002; Apgar & Wright, 2003; ACS, 2005

of the woman. Therapeutic choices all involve destruction of as many affected cells as possible. Box 8-2 describes treatment options.

## Nursing Management

The nurse's role involves primary prevention through education of women regarding risk factors and preventive techniques to avoid cervical dysplasia. Secondary prevention focuses on reducing or limiting the area of cervical

## BOX 8-2

## TREATMENT OPTIONS FOR CERVICAL CANCER

- **Cryotherapy**—destroys abnormal cervical tissue by freezing with liquid nitrogen, Freon, or nitrous oxide. Studies show a 90% cure rate (Youngkin & Davis, 2004). Healing takes up to 6 weeks, and the client may experience a profuse, watery vaginal discharge for 3 to 4 weeks.
- **Cone Biopsy or conization**—removes a cone-shaped section of cervical tissue. The base of the cone is formed by the ectocervix (outer part of the cervix) and the point or apex of the cone is from the endocervical canal. The transformation zone is contained within the cone sample. The cone biopsy is also a treatment and can be used to completely remove any precancers and very early cancers. There are two methods commonly used for cone biopsies:
  - **LEEP** (loop electrosurgical excision procedure) or **LLETZ** (large loop excision of the transformation zone)—the abnormal cervical tissue is removed with a wire that is heated by an electrical current. For this procedure, a local anesthetic is used. It is performed in the healthcare provider's office in approximately 10 minutes. Mild cramping and bleeding may persist for several weeks after the procedure.
  - **Cold knife cone biopsy**—a surgical scalpel or a laser is used instead of a heated wire to remove tissue. This procedure requires general anesthesia and is done in a hospital setting. After the procedure, cramping and bleeding may persist for a few weeks.
- **Laser therapy**—destroys diseased cervical tissue by using a focused beam of high-energy light to vaporize it (burn it off). After the procedure, the woman may experience a watery brown discharge for a few weeks. Very effective in destroying precancers and preventing them from developing into cancers.
- **Hysterectomy**—removes the uterus and cervix surgically
- **Radiation therapy**—delivered by internal radium applications to the cervix or external radiation therapy that includes lymphatics of the pelvis
- **Chemoradiation**—weekly cisplatin therapy concurrent with radiation. Investigation of this therapy is ongoing (ACS, 2005).

dysplasia. Tertiary prevention focuses on minimizing disability or spread of cervical cancer. Specific areas of education include:

- Encourage prevention of STIs to reduce risk factors (see Chapter 5: Sexually Transmitted Infections).
- Counsel teenagers to avoid early sexual activity.
- Encourage pelvic rest for a month after any cervical treatment.
- Screen for cervical cancer by annual Pap smears.
- Identify high-risk behavior and how to reduce it.

- Make sure the Pap smear is sent to an accredited laboratory for interpretation.
- Encourage the faithful use of barrier methods of contraception.
- Encourage cessation of smoking and drinking.
- Reinforce guidelines for Pap smears and sample preparation.
- Remind all women about follow-up procedures and times.
- Explain in detail all procedures that might be needed.
- Outline proper preparation before having a Pap smear.
- Provide emotional support throughout the decision-making process.
- Inform all women of community resources available to them.

Nursing Care Plan 8-1: Overview of a Woman With Cervical Cancer highlights specific nursing interventions.

## Endometrial Cancer

**Endometrial cancer** (also known as uterine cancer) is malignant neoplastic growth of the uterine lining. It is the most common gynecologic malignancy and accounts for 6% of all cancers in women in the United States. The NCI estimates that there will be over 40,000 new cases in 2005, of which approximately 7,000 women will die (NCI, 2005). It is uncommon before the age of 40, but as women age their risk of endometrial cancer increases. Approximately 95% of these malignancies are carcinomas of the endometrium. The most common symptom in up to 90% of women is postmenopausal bleeding. Most women recognize the need for prompt evaluation, so the majority of women are diagnosed in an early stage of the disease (Winter & Gosewehr, 2004).

### Pathophysiology

Endometrial cancer may originate in a polyp or in a diffuse multifocal pattern. The pattern of spread partially depends on the degree of cellular differentiation. Well-differentiated tumors tend to limit their spread to the surface of the endometrium. Metastatic spread occurs in a characteristic pattern and most commonly involves the lungs, inguinal and supraclavicular nodes, liver, bones, brain, and vagina (NCI, 2005). Early tumor growth is characterized by friable and spontaneous bleeding. Later tumor growth is characterized by myometrial invasion and growth toward the cervix (Fig. 8-2). Adenocarcinoma of the endometrium is typically preceded by hyperplasia. Carcinoma in situ is found only on the endometrial surface. In stage I, it has spread to the muscle wall of the uterus. In stage II, it has spread to the cervix. In stage III, it has spread to the bowel or vagina, with metastases to pelvic lymph nodes. In stage IV, it has invaded the bladder mucosa, with distant metastases to the lungs, liver, and bone (Brose, 2004).

## Nursing Care Plan 8-1

### Overview of a Woman With Cervical Cancer

Molly, a 28-year-old, thin Native American woman, comes to the free health clinic complaining of a thin, watery vaginal discharge and spotting after sex. She reports being homeless and living “on the streets” for years. Molly admits to having multiple sex partners to pay for her food and cigarettes. She had an abnormal Pap smear a while back but didn’t return to the clinic for any follow-up. She hopes nothing “bad” is wrong with her because she just found a job to get off the streets. Cervical cancer is suspected.



### Nursing Diagnosis: Anxiety related to diagnosis and uncertainty of outcome

#### Outcome Identification and evaluation

Client will demonstrate measures to cope with anxiety as evidenced by statements acknowledging anxiety, use of positive coping strategies, and verbalization that anxiety level has decreased.

#### Interventions with rationales

- Encourage client to express her feelings and concerns to reduce her anxiety and to determine appropriate interventions.
- Assess the meaning of the diagnosis to the client, clarify misconceptions, and provide reliable, realistic information to enhance her understanding of her condition, subsequently reducing her anxiety level.
- Assess client’s psychological status to determine degree of emotional distress related to diagnosis and treatment options.
- Identify and address verbalized concerns, providing information about what to expect to decrease level of uncertainty about the unknown.
- Assess the client’s use of coping mechanisms in the past and their effectiveness to foster use of positive strategies.
- Teach client about early signs of anxiety and help her recognize them (for example, fast heartbeat, sweating, or feeling flushed) to minimize escalation of anxiety.
- Provide positive reinforcement that the client’s condition can be managed to relieve her anxiety.

### Nursing Diagnosis: Deficient knowledge related to diagnosis, prevention strategies, and treatment

Client will demonstrate understanding of diagnosis, as evidenced by making health-promoting lifestyle choices, verbalizing appropriate health-care practices, and adhering to measures to comply with therapy.

- Assess client’s current knowledge about her diagnosis and proposed therapeutic regimen to establish a baseline from which to develop a teaching plan.

## Overview of a Woman With Cervical Cancer (continued)

### Outcome Identification and evaluation

### Interventions with rationales

- Review contributing factors associated with development of cervical cancer, including possible associated lifestyle behaviors, *to foster an understanding of the the etiology of cervical cancer.*
- Review information provided about possible treatments and procedures and recommendations for healthy lifestyle, obtaining feedback frequently *to validate adequate understanding of instructions.*
- Discuss strategies, including using condoms and limiting the number of sexual partners, *to reduce the risk of transmission of STIs, specifically human papillomavirus (HPV), which is associated with causing cervical cancer.*
- Encourage client to obtain prompt treatment of any vaginal or cervical infections *to minimize the risk for cervical cancer.*
- Urge the client to have an annual Pap smear *to provide for screening and early detection.*
- Provide written material with pictures *to allow for client review and help her visualize what is occurring in her body.*
- Inform client about available community resources and make appropriate referrals as needed *to provide additional education and support.*
- Document details of teaching and learning *to allow for continuity of care and further education, if needed.*

## Etiology and Risk Factors

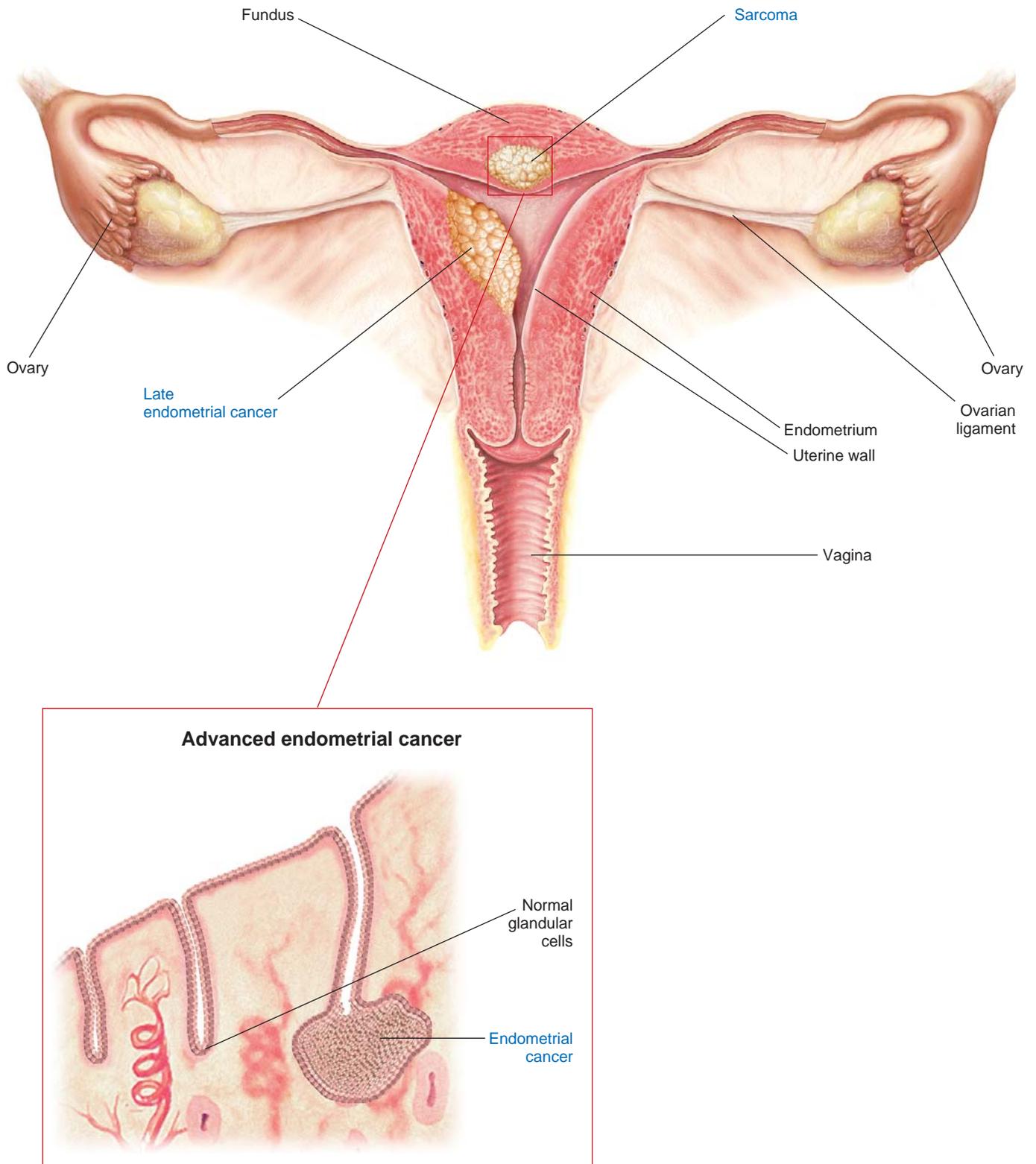
Unopposed endogenous and exogenous estrogens are the major etiologic risk factors associated with the development of this cancer. Other risk factors for endometrial cancer include:

- Nulliparity
- Obesity (>50 pounds overweight)
- Liver disease
- Infertility
- Diabetes mellitus
- Hypertension
- History of pelvic radiation
- Polycystic ovarian syndrome
- Infertility
- Early menarche (<12 years old)
- High-fat diet
- Use of prolonged exogenous unopposed estrogen with an intact uterus
- Endometrial hyperplasia
- Family history of endometrial cancer
- Personal history of hereditary nonpolyposis colon cancer
- Personal history of breast or ovarian cancer
- Late onset of menopause
- Tamoxifen use
- Anovulation (Smith et al., 2004)

## Clinical Manifestations and Diagnosis

The major initial symptom of endometrial cancer is abnormal and painless vaginal bleeding. Any episode of bright-red bleeding that occurs after menopause should be investigated. Abnormal uterine bleeding is rarely the result of uterine malignancy in a young woman. In the postmenopausal woman, however, it should be regarded with suspicion. Additional clinical manifestations of advanced disease may include dyspareunia, low back pain, purulent genital discharge, dysuria, pelvic pain, weight loss, and a change in bladder and bowel habits.

Screening for endometrial cancer is not routinely done because it is not practical or cost-effective. The ACS recommends that women should be informed about the risks and symptoms of endometrial cancer at the onset of menopause and strongly encouraged to report any un-



● Figure 8-2 Progression of endometrial cancer. (The Anatomical Chart Company. [2002]. *Atlas of pathophysiology*. Springhouse, PA: Springhouse.)

expected bleeding or spotting to their healthcare provider (ACS, 2005). A pelvic examination is frequently normal in the early stages of the disease. Changes in the size, shape, or consistency of the uterus or its surrounding supporting structures may exist when the disease is more advanced.

An endometrial biopsy is the procedure of choice to make the diagnosis. It can be done in the healthcare provider's office without anesthesia. A slender suction catheter is used to obtain a small sample of tissue for pathology. It can detect up to 90% of cases of endometrial cancer in the woman with postmenopausal bleeding, depending on the technique and experience of the healthcare provider (Burke, 2005). The woman may experience mild cramping and bleeding after the procedure for about 24 hours, but typically mild pain medication will reduce this discomfort.

Transvaginal ultrasound can be used to evaluate the endometrial cavity and measure the thickness of the endometrial lining. It can be used to detect endometrial hyperplasia. If the endometrium measures less than 4 mm, then the client is at low risk for malignancy (Burke, 2005).

Because endometrial cancer is usually diagnosed in the early stages, it has a better prognosis than cervical or ovarian cancer (Brose, 2004).

## Treatment

Treatment of endometrial cancer depends on the stage of the disease and usually involves surgery with adjunct therapy based on pathologic findings. Surgery most often involves removal of the uterus (hysterectomy) and the fallopian tubes and ovaries (salpingo-oophorectomy). Removal of the tubes and ovaries is recommended because tumor cells spread early to the ovaries, and any dormant cancer cells could be stimulated to grow by ovarian estrogen. In more advanced cancers, radiation and chemotherapy are used as adjunct therapies to surgery. Routine surveillance intervals for follow-up care are typically every 3 to 4 months for the first 2 years, since 85% of recurrences occur in the first 2 years after diagnosis (Winter & Gosewehr, 2004).

## Nursing Management

The nurse should make sure the woman understands all the options available for treatment; listen to any sexual concerns the woman expresses; ensure that follow-up care appointments are scheduled appropriately; refer the patient to a support group; and offer the family explanations and emotional support throughout. The nurse's role is also to educate the patient about preventive measures or follow-up care if she has been treated for cancer (Teaching Guidelines 8-2).

## Ovarian Cancer

**Ovarian cancer** is malignant neoplastic growth of the ovary (Fig. 8-3). It is the seventh most common cancer among women and the fourth most common cause of can-



## TEACHING GUIDELINES 8 - 2

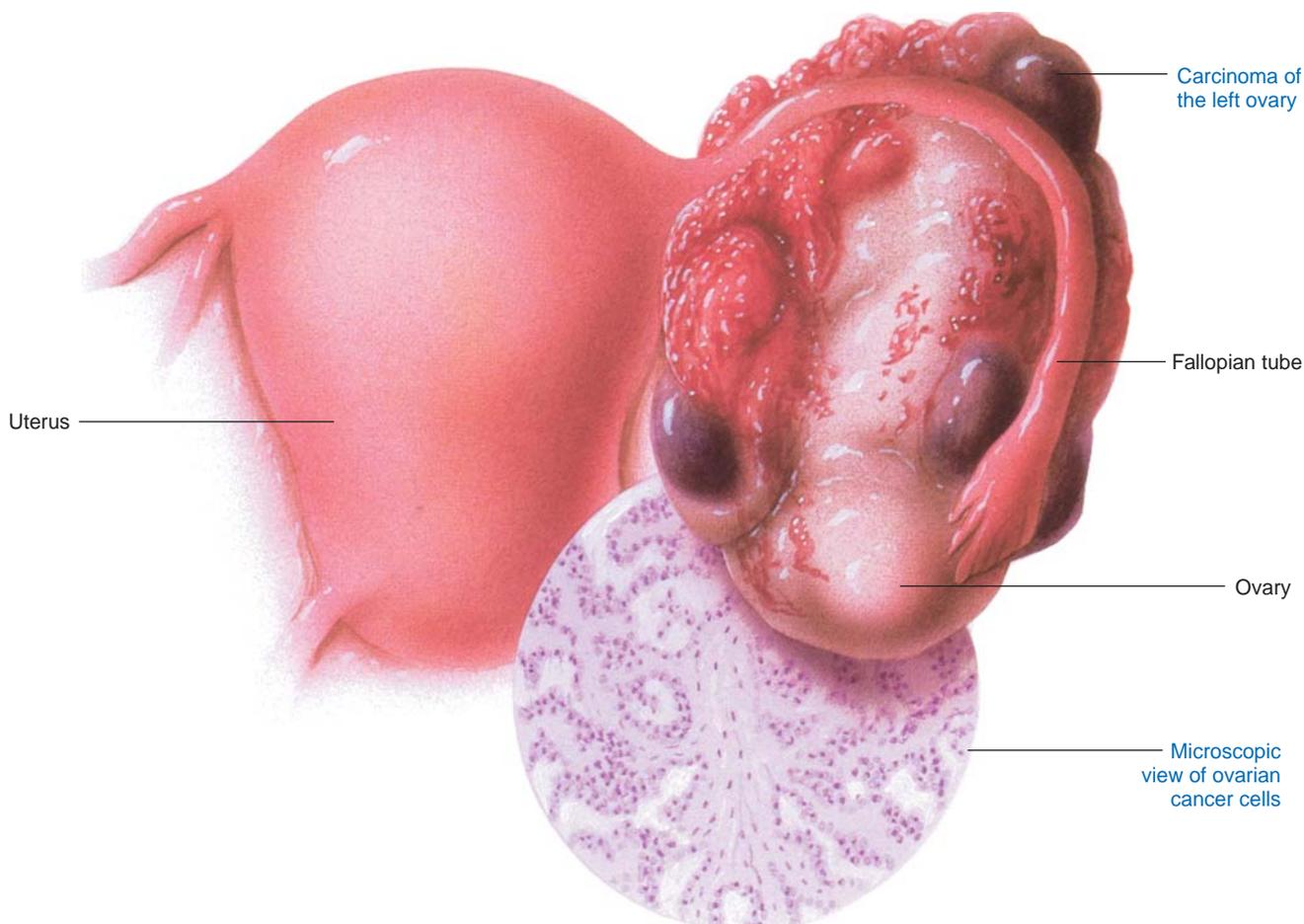
### Preventive and Follow-Up Measures for Endometrial Cancer

- Schedule regular pelvic examinations after the age of 21.
- Visit healthcare practitioner for early evaluation of any abnormal bleeding after menopause.
- Maintain a low-fat diet throughout life.
- Exercise daily.
- Manage weight to discourage hyperestrogenic states, which predispose to endometrial hyperplasia.
- Pregnancy serves as a protective factor by reducing estrogen.
- Ask your doctor about the use of combination estrogen and progestin pills.
- When combination oral contraceptives are taken to facilitate the regular shedding of the uterine lining, take risk-reduction measures.
- Be aware of risk factors for endometrial cancer and make modifications as needed.
- Report any of the following symptoms immediately:
  - Bleeding or spotting after sexual intercourse
  - Bleeding that lasts longer than a week
  - Reappearance of bleeding after 6 months or more of no menses
- After cancer therapy, schedule follow-up appointments for the next few years.
- After cancer therapy, frequently communicate with your healthcare provider concerning your status.
- After surgery, maintain a healthy weight.

cer deaths for women in the United States, accounting for more deaths than any other cancer of the reproductive system (ACS, 2005). The ACS estimates that about 23,000 new cases of ovarian cancer will be diagnosed in the United States during 2005 and 16,000 deaths will occur. A woman's risk of getting ovarian cancer during her lifetime is 1.7%, or about 1 in 58. About 77% of women with ovarian cancer survive 1 year after diagnosis (ACS, 2005). Older women are at highest risk. Ovarian cancer occurs most frequently in women between 55 and 75 years of age, and approximately 25% of ovarian cancer deaths occur in women between 35 and 54 years old (Brose, 2004).

## Etiology and Risk Factors

The cause of ovarian cancer is not known. Ovarian cancer can originate from different cell types, although most originate in the ovarian epithelium. They usually present as solid masses that have spread beyond the ovary and seeded into the peritoneum prior to diagnosis. An inherited genetic mutation is the causative factor in 5% to 10% of cases of epithelial ovarian cancer. Two genes, BRCA-1 and BRCA-2, are linked with hereditary breast and ovar-



● **Figure 8-3** Ovarian cancer. (The Anatomical Chart Company. [2002]. *Atlas of pathophysiology*. Springhouse, PA: Springhouse.)

ian cancers. Blood tests can be performed to assess DNA in white blood cells to detect mutations in the BRCA genes. These genetic markers do not predict whether the person will develop cancer; rather, they provide information regarding the risk of developing cancer. If a woman is BRCA positive, then her lifetime risk of developing ovarian cancer increases to between 16% and 60% versus the general population's risk of 1.7% (O'Rourke & Mahon, 2003). Nurses must know the risk factors associated with ovarian cancer so they can tailor patient care and teaching.

Risk factors for ovarian cancer include:

- Nulliparity
- Early menarche (<12 years old)
- Late menopause (>55 years old)
- Increasing age (>50 years of age)
- High-fat diet
- Obesity
- Persistent ovulation over time
- First-degree relative with ovarian cancer
- Use of perineal talcum powder or hygiene sprays
- Older than 30 years at first pregnancy
- Positive BRCA-1 and BRCA-2 mutations
- Personal history of breast or colon cancer
- Hormone replacement therapy for more than 10 years
- Infertility (Claus et al., 2005)

## Clinical Manifestations and Diagnosis

### Consider THIS!

I felt I was a lucky woman because I had been in remission from breast cancer for 12 years, and I had been given the gift of life to share with my beloved family. Recently I became ill with stomach problems: pain, indigestion, bloating, and nausea. My doctor treated me for GERD (acid reflux disease), but the symptoms persisted. I then was referred to a gastroenterologist, an urologist, and then a gynecologist, who did an ultrasound, which was negative. I received reassurance from all three that there was nothing wrong with me. As time went by, I experienced more pain, more symptoms, and increased frustration. Six months after seeing all three specialists, a repeat ultrasound revealed I had ovarian cancer, and I needed surgery as soon as possible. I underwent a complete hysterectomy and my surgeon found I was in stage 3. Since then, I have undergone chemotherapy and participated in a clinical cancer study that wasn't successful for me, and now I am facing the fact that I am going to die soon.

**Thoughts:** This woman has tried everything to save her life, but, alas, time has run out for her with advanced ovarian cancer. Women diagnosed with breast cancer are at a significant risk for developing ovarian cancer later in life. Of the string of doctors she saw, one has to ponder why none ordered a CA-125 blood test with her history of breast cancer. We are haunted with the question: If they had and it was elevated, would she be in stage 3 now? I guess we will never know.

Ovarian cancers are considered the worst of all the gynecologic malignancies, primarily because they sometimes develop slowly and remain silent and without symptoms until the cancer is far advanced. It has been described as “the overlooked disease” or “the silent killer” because women and health care practitioners often ignore or rationalize early symptoms. For example, women may attribute gastrointestinal problems to personal stress and midlife changes. However, vague complaints may precede more obvious symptoms by months. The most common symptoms include unusual bloating, back pain, abdominal fullness, fatigue, urinary frequency, constipation, and abdominal pressure. The less common symptoms include anorexia, dyspepsia, ascites, palpable abdominal mass, weight loss or gain, pelvic pain, and vaginal bleeding (Goff et al., 2004).

Seventy-five percent of ovarian cancers are not diagnosed until the cancer has advanced to stage III or IV, primarily because there is still no adequate screening test. There is no practical and certain way of detecting early cancer of the ovary. Currently available tests are not reliable, sensitive, or affordable enough to be useful in mass screening of all women. Pap smears are generally ineffective, and the cancer is usually found by chance in advanced stages.

Clinical guidelines for the diagnostic screening of ovarian cancer have not been developed, which markedly hinders the diagnosis of ovarian cancer until it is in later stages. The U.S. Preventive Services Task Force (USPSTF) recommends against routine screening for ovarian cancer with serum CA-125 or transvaginal ultrasound because earlier detection would have a small effect, at best, on mortality. The USPSTF concluded that the potential harm from the invasive nature of the diagnostic tests would outweigh the potential benefits (USPSTF, 2004). CA-125 is a biologic tumor marker associated with ovarian cancer. Although levels are elevated in many women with ovarian cancer, it is not specific for this cancer and may be elevated with other malignancies (pancreatic, liver, colon, breast, and lung cancers). Currently, it is not sensitive enough to serve as a screening tool (Speroff & Fritz, 2005).

Women need to have yearly bimanual pelvic examinations and a transvaginal ultrasound to identify ovarian

masses in their early stages. After menopause, a mass on an ovary is not a cyst. Physiologic cysts can arise only from a follicle that has not ruptured or from the cystic degeneration of the corpus luteum. There is no such thing as a physiologic cyst in a postmenopausal woman, therefore, because there are no follicles or luteal cysts in the postmenopausal ovary. A small ovarian “cyst” found on ultrasound in an asymptomatic postmenopausal woman should arouse suspicion. Any mass or ovary palpated in a postmenopausal woman should be considered cancerous until proven otherwise (DeGaetano, 2004).

## Treatment

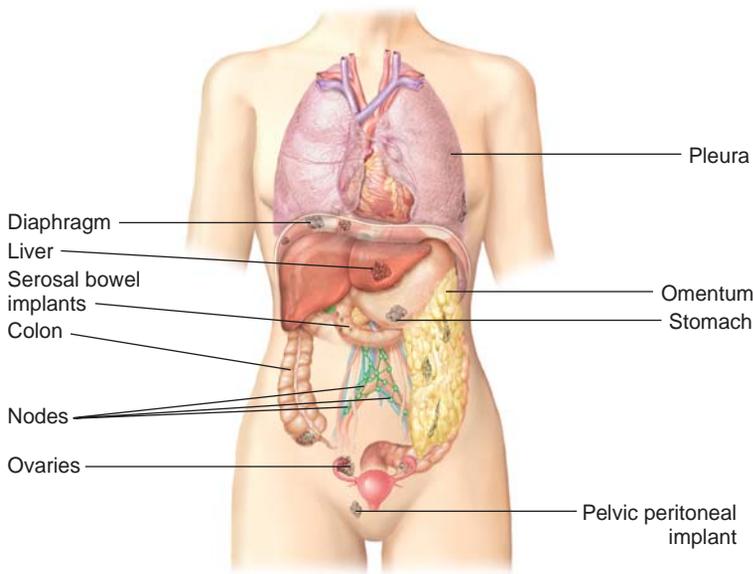
Treatment options for ovarian cancer vary depending on the stage and severity of the disease. Usually a laparoscopy (abdominal exploration with an endoscope) is performed for diagnosis and staging, as well as evaluation for further therapy. In stage I the ovarian cancer is limited to the ovaries. In stage II the growth involves one or both ovaries, with pelvic extension. Stage III cancer spreads to the lymph nodes and other organs or structures inside the abdominal cavity. In stage IV, the cancer has metastasized to distant sites (Alexander et al., 2004). Figure 8-4 shows the likely metastatic sites for ovarian cancer.

Surgical intervention remains the mainstay of treatment in the management of ovarian cancer. Surgery generally includes a total abdominal hysterectomy, bilateral salpingo-oophorectomy, peritoneal biopsies, omentectomy, and pelvic para-aortic lymph node sampling to evaluate cancer extension (Garcia, 2004). Because most women are diagnosed with advanced-stage ovarian cancer, aggressive management involving debulking or cytoreductive surgery is the primary treatment. This surgery involves resecting all visible tumors from the peritoneum, taking peritoneal biopsies, sampling lymph nodes, and removing all reproductive organs and the omentum. This aggressive surgery has been shown to improve long-term survival rates.

The most important variable influencing the prognosis is the extent of the disease. Survival depends on the stage of the tumor, grade of differentiation, gross findings on surgery, amount of residual tumor after surgery, and effectiveness of any adjunct treatment postoperatively. Many women with ovarian cancer will experience recurrence despite the best efforts of eradicating the cancer through surgery, radiation, or chemotherapy to eliminate residual tumor cells. The likelihood of long-term survival in the event of recurrence is dismal (Garcia, 2004). The 5-year survival rates (the percentage of women who live at least 5 years after their diagnosis) are shown in Table 8-2 according to stage.

## Nursing Management

Although ovarian cancer is a scary disease, a nurse with a positive attitude can be reassuring to the client. The complexities of ovarian cancer make a multidisciplinary ap-



● **Figure 8-4** Common metastatic sites for ovarian cancer. (The Anatomical Chart Company. [2002]. *Atlas of pathophysiology*. Springhouse, PA: Springhouse.)

proach necessary for optimal management. With the insidious nature and high risk of recurrence and mortality of this condition, most women find it an emotionally exhausting and devastating experience. The nurse should focus on activities related to early detection of the disease, information about ovarian cancer, and emotional support for women and their families. The nurse can also carry out the following interventions during all interactions with clients:

- Educate women about the risk factors and common early symptoms.
- Avoid dismissing innocuous symptoms as “just a part of aging.”
- Encourage women to describe their nonspecific complaints.
- Advise women about screening options. Emphasize the lack of good screening methods for ovarian cancer.
- Direct women with high personal risk to the appropriate screening strategies.
- Assess the woman’s family and personal history for risk factors.

**Table 8-2** Five-Year Survival Rates for Ovarian Cancer

Stage	Five-Year Relative Survival Rates
I	80% to 90%
II	65% to 70%
III	30% to 60%
IV	20%

American Cancer Society (ACS). (2005). *What are the key statistics about ovarian cancer?* American Cancer Society, Inc. (Online) Available at: [http://www.cancer.org/docroot/CRI/content/CRI\\_2\\_4\\_1X\\_What\\_are\\_the\\_key\\_statistics\\_for\\_ovarian\\_cancer\\_33.asp?sitearea=&level=](http://www.cancer.org/docroot/CRI/content/CRI_2_4_1X_What_are_the_key_statistics_for_ovarian_cancer_33.asp?sitearea=&level=)

- Encourage genetic testing for women with affected family members.
- Outline screening guidelines for women with hereditary cancer syndrome.
- Advise women about risk reduction.
- Explain that pregnancy and use of oral contraceptives reduce the risk of ovarian cancer.
- Stress the importance of maintaining a healthy weight to reduce risk.
- Encourage women to eat a low-fat diet.
- Raise community awareness about risk-reducing behaviors.
- Encourage breastfeeding as a risk-reducing strategy
- Instruct women to avoid the use of talc and hygiene sprays to genitals.
- Try to restore hope to women with ovarian cancer, and stress treatment compliance.
- Teach coping strategies to allow for the best quality of life.
- Outline information about treatment options and the implications of choices.
- Provide one-to-one support for women facing treatment for ovarian cancer.
- Describe in simple terms the tests, treatment modalities, and follow-up needed.
- Discuss the hereditary factors BRCA-1 and BRCA-2 and lifetime risks.
- Listen to and support women contemplating prophylactic oophorectomy.
- Encourage participation in clinical trials to offer hope for all women.
- Encourage open discussion of sexuality and the impact of cancer.
- Offer support for family members coping with grief and sadness.
- Refer the woman and family members to appropriate community resources and support groups.

## Vaginal Cancer

**Vaginal cancer** is malignant tissue growth arising in the vagina. It is rare, representing less than 3% of all genital cancers. The ACS estimates that in 2005, over 2,000 new cases of vaginal cancer will be diagnosed in the United States, and approximately 800 will die of this cancer (ACS, 2005). Vaginal cancer can be effectively treated, and when found early it is often curable. There are several types of vaginal cancer. About 85% are squamous cell carcinomas that begin in the epithelial lining of the vagina. They develop slowly over a period of years, commonly in the upper third of the vagina. They tend to spread early by directly invading the bladder and rectal walls. They also metastasize through blood and lymphatics. About 15% are adenocarcinomas, which differ from squamous cell carcinoma by an increase in pulmonary metastases and supraclavicular and pelvic node involvement (ACS, 2005).

### Etiology and Risk Factors

The etiology of vaginal cancer has not been identified. It usually occurs in women over age 50 and is usually of the squamous cell variety. The peak incidence of vaginal cancer occurs at 60 to 65 years of age. Malignant diseases of the vagina are either primary vaginal cancers or metastatic forms from adjacent or distant organs. About 80% of vaginal cancers are metastatic, primarily from the cervix and endometrium. These cancers invade the vagina directly. Cancers from distant sites that metastasize to the vagina through the blood or lymphatic system are typically from the colon, kidneys, skin (melanoma), or breast (Bardawil & Manetta, 2004). Tumors in the vagina commonly occur on the posterior wall and spread to the cervix or vulva.

Direct risk factors for the initial development of vaginal cancer have not been identified. Associated risk factors include advancing age (>60 years old), previous pelvic radiation, exposure to diethylstilbestrol (DES) in utero, vaginal trauma, history of genital warts (HPV infection), HIV infection, cervical cancer, chronic vaginal discharge, smoking, and low socioeconomic level (Lewis et al., 2004).

### Clinical Manifestations and Diagnosis

Most women with vaginal cancer are asymptomatic. Those who do present with symptoms have painless vaginal bleeding (often after sexual intercourse), abnormal vaginal discharge, dyspareunia, dysuria, constipation, and pelvic pain (Bardawil & Manetta, 2004). Colposcopy with biopsy of suspicious lesions confirms the diagnosis.

### Treatment and Nursing Management

Treatment of vaginal cancer depends on the type of cells involved and the stage of the disease. If the cancer is localized, radiation, laser surgery, or both may be used. If the cancer has spread, radical surgery might be needed, such

as a hysterectomy, or removal of the upper vagina with dissection of the pelvic nodes in addition to radiation therapy.

Women undergoing radical surgery need intensive counseling about the nature of the surgery, risks, potential complications, changes in physical appearance and physiologic function, and sexuality alterations. Nursing management for this cancer is similar to that for other reproductive cancers with emphasis on sexuality counseling and referral to local support groups.

The prognosis of vaginal cancer depends largely on the stage of disease and the type of tumor. The overall 5-year survival rate for squamous cell carcinoma is about 42%; that for adenocarcinoma is about 78% (Brose, 2004).

## Vulvar Cancer

**Vulvar cancer** is an abnormal neoplastic growth on the external female genitalia (Fig. 8-5). It is responsible for 1% of all malignancies in women and 4% of all female genital cancers. It is the fourth most common gynecologic cancer, after endometrial, ovarian, and cervical cancers (Youngkin & Davis, 2004). The ACS estimates that in 2005, about 4,000 cancers of the vulva will be diagnosed in the United States and about 870 women will die of this cancer (ACS, 2005). When detected early, it is highly curable. The overall 5-year survival rate when lymph nodes are not involved is 90%, but it drops to 50% to 70% when the lymph nodes have been invaded (ACS, 2005).

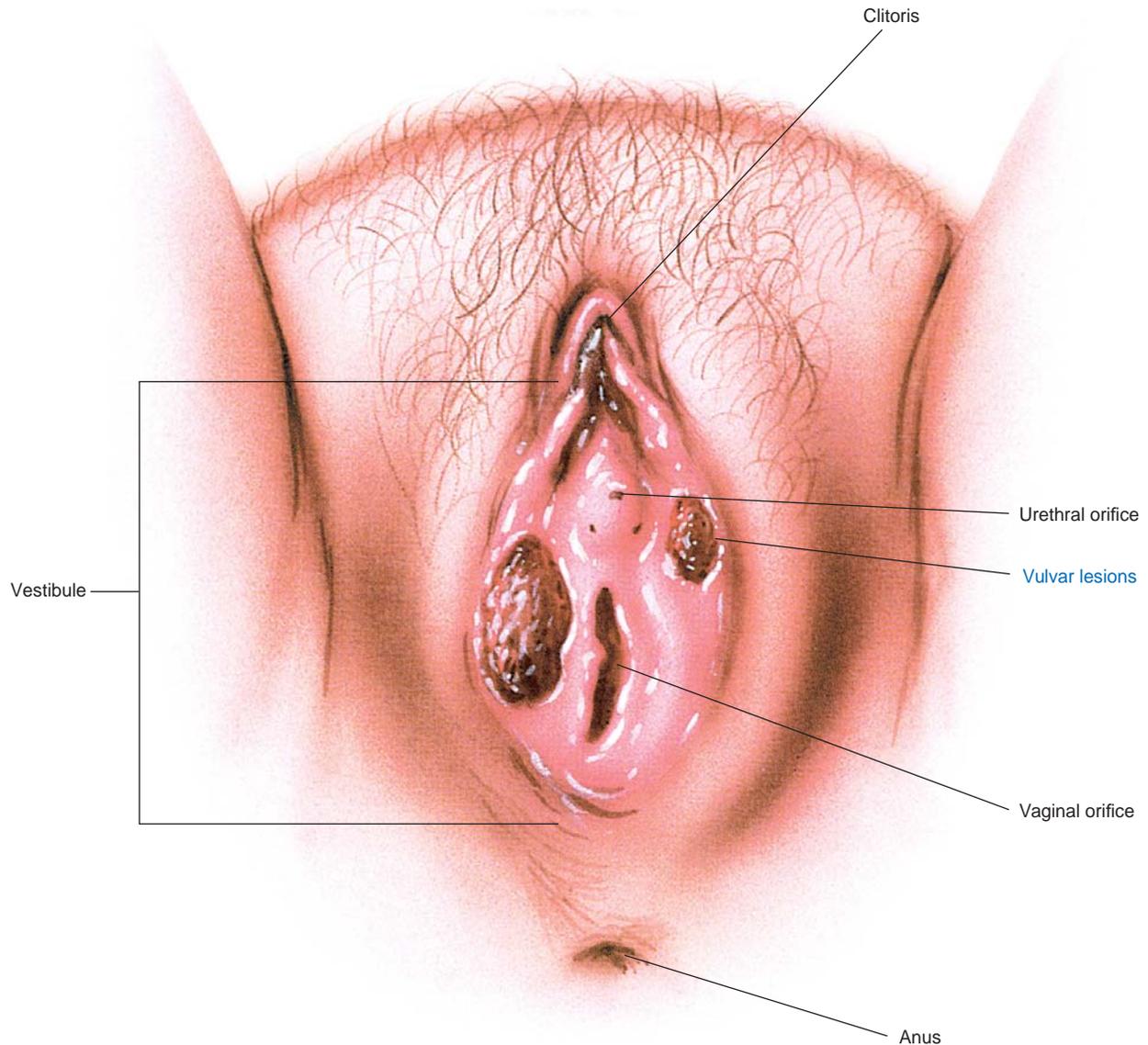
### Etiology and Risk Factors

Vulvar cancer is found most commonly in older women in their mid-60s to 70s, but the incidence in women younger than 35 years old has increased over the past few decades. The disease has been linked to the presence of genital warts caused by HPV (types 16, 18, 31, 33, 35, and 51), but the exact relationship is unknown (Lowdermilk & Perry, 2004).

Approximately 90% of vulvar tumors are squamous cell carcinomas. This type of cancer forms slowly over several years and is usually preceded by precancerous changes. These precancerous changes are termed vulvar intraepithelial neoplasia (VIN). The two major types of VIN are classic (undifferentiated) and simplex (differentiated). Classic VIN, the more common one, is associated with HPV infection and smoking. It typically occurs in women between 30 and 40 years old. In contrast to classic VIN, simplex VIN usually occurs in postmenopausal women and is not associated with HPV (Edwards et al., 2005).

The following risk factors have been linked to the development of vulvar cancer:

- Exposure to HPV type 16
- Age above 50
- HIV infection
- VIN



● **Figure 8-5** Vulvar cancer. (The Anatomical Chart Company. [2002]. *Atlas of pathophysiology*. Springhouse, PA: Springhouse.)

- Lichen sclerosus
- Melanoma or atypical moles
- Exposure to HSV II
- Multiple sex partners
- Smoking
- History of breast cancer
- Immune suppression
- Hypertension
- Diabetes mellitus
- Obesity (ACS, 2005)

### Clinical Manifestations and Diagnosis

The diagnosis of vulvar cancer is often delayed significantly because there is no single specific clinical symptom

that heralds it. The most common presentation is persistent vulvar itching that does not improve with the use of creams or ointments. Less common presenting symptoms include vulvar bleeding, discharge, dysuria, and pain. The most common presenting sign of vulvar cancer is a vulvar lump or mass. The vulvar lesion is usually raised and may be fleshy, ulcerated, leukoplakic, or warty (Naumann & Higgins, 2004). The diagnosis of vulvar cancer is made by a biopsy of the suspicious lesion, usually found on the labia majora.

### Treatment

Treatment varies depending on the extent of the disease. Laser surgery, cryosurgery, or electro-surgical incision may

be used. Larger lesions may need more extensive surgery and skin grafting. The traditional treatment for vulvar cancer has been radical vulvectomy, but more conservative techniques are being used to improve psychosexual outcomes.

## Nursing Management

Women with vulvar cancer must clearly understand their disease, treatment options, and prognosis. To accomplish this, nurses must provide information and establish effective communication with the patient and her family. The nurse's role is one of an educator and advocate. Important teaching points are as follows:

- Encourage smoking cessation.
- Teach clients self-examination of genitals.
- Advise clients to avoid tight undergarments.
- Advise clients to avoid using perfumes and dyes in the vulvar region.
- Instruct clients to seek care for any suspicious lesions.
- Educate women to use barrier methods of birth control (e.g., condoms) to reduce the risk of contracting HIV, HSV, and HPV.
- Discuss changes in sexuality if radical surgery is performed.
- Encourage open communication between the client and her partner.
- Refer to appropriate community resources and support groups.
- Instruct clients to complete vulvar examinations monthly between menstrual periods, looking for any changes in appearance (e.g., whitened or reddened patches of skin); changes in feel (e.g., areas of the vulva becoming itchy or painful); or the development of lumps, moles (e.g., changes in size, shape, or color), freckles, cuts, or sores on the vulva. These changes should be reported to the healthcare provider (ACS, 2005).

## Nursing Management for Women With Cancer of the Reproductive Tract

Neoplastic conditions often cause extreme emotional distress to women and their families. Nurses, therefore, can play a vital role in the healing process for many patients. Nurses can have a positive impact by providing answers to clients to help guide them through the “medical maze” of diagnostic tests and decision-making.

### Assessment

Nurses may assess for cancers of the reproductive tract by considering risk factors, prompting discussion of symptoms, and recording thorough medical and gynecologic histories. Physical assessment centers on the collection of

data to rule out or confirm cancer of the reproductive tract. A nurse might recommend further diagnostic procedures or follow-up appointments.

## Nursing Diagnosis

Applicable nursing diagnosis might include:

Disturbed body image related to:

- Loss of body part
- Loss of good health
- Altered sexuality patterns

Anxiety related to:

- Threat of malignancy
- Potential diagnosis
- Anticipated pain/discomfort
- Effect of condition or treatment on future

Deficient knowledge related to:

- Disease process and prognosis
- Specific treatment options
- Diagnostic procedures needed

## Nursing Interventions

Nurses can arm patients with the facts, which helps to prevent disease and enhance quality of life. Nurses should educate women about the importance of consistent and timely screenings to identify a neoplasm early to improve their overall outcome. Nurses can be instrumental in assisting women to identify lifestyle behaviors that need to be altered to reduce their risk of developing various reproductive tract cancers. Nursing interventions are not limited to preventive education; they also include informing women about the consequences of “doing nothing” about their conditions and what the long-range possibilities might be without treatment. Other nursing interventions for cancers of the reproductive tract may include:

- Promote cancer awareness, prevention, and control.
- Work to improve the availability of cancer-screening services.
- Provide public education about risk factors for pelvic cancers.
- Stress the importance of annual pelvic examinations by a healthcare professional.
- Stress the importance of visiting a healthcare professional if certain symptoms appear:
  - Blood in a bowel movement
  - Unusual vaginal discharge or chronic vulvar itching
  - Persistent abdominal bloating or constipation
  - Irregular vaginal bleeding
  - Persistent low backache not related to standing
  - Elevated or discolored vulvar lesions
  - Bleeding after menopause
  - Pain or bleeding after sexual intercourse
- Validate the patient's feelings and provide realistic hope.
- Use basic communication skills in a sincere way during all interactions.

- Provide useful, nonjudgmental advice to all women.
- Individualize care to address the client's cultural traditions.
- Carry out postoperative care and instructions as prescribed.
- Discuss postoperative issues, including incision care, pain, and activity level.
- Instruct client on health maintenance activities after treatment.
- Inform the client and family about available support resources.

Nurses have traditionally served as advocates in the health care arena. They must continue to be on the forefront of health education and diagnosis and leaders in the fight against malignancies. Over a half million women in the United States will be diagnosed with cancer this year alone, and more than half will die of it. It is important to get the word out that not only are these deaths preventable, but also many of the cancers themselves are preventable. Nurses need to work to improve the availability and quality of cancer-screening services, as well as make them accessible to underserved and socioeconomically disadvantaged patients. Through consistency, continuity, and collaboration, nurses can offer quality care to all women who experience a malignancy.

A reduction in malignant pelvic disorders can be achieved through a unified effort between health care professionals, health policy experts, government agencies, health insurance companies, the media, educational institutions, and women themselves. Nurses can have a tremendous impact on the lives of many women and their families by stepping forward and meeting the challenges ahead.

## KEY CONCEPTS

- Women have a one in three lifetime risk of developing cancer, and one out of every four deaths is from cancer; thus, nurses must focus on screening and educating all women regardless of risk factors.
- Cervical cancer incidence and mortality rates have decreased noticeably in the past several decades, with most of the reduction attributed to the Pap test, which detects cervical cancer and precancerous lesions.
- The nurse's role involves primary prevention of cervical cancer through education of women regarding risk factors and preventive techniques to avoid cervical dysplasia.
- Unopposed endogenous and exogenous estrogens are the major etiologic risk factors associated with the development of endometrial cancer.
- The American Cancer Society (ACS) recommends that women should be informed about risks and symptoms of endometrial cancer at the onset of menopause and strongly encouraged to report any unexpected bleeding or spotting to their health care providers.
- Ovarian cancer is the seventh most common cancer among women and the fourth most common cause of cancer deaths for women in the United States, accounting for more deaths than any other cancer of the reproductive system.
- Ovarian cancer has been described as “the overlooked disease” or “silent killer,” because women and/or health care practitioners often ignore or rationalize early symptoms. It is typically diagnosed in advanced stages.
- Vaginal cancer tumors can be effectively treated and, when found early, are often curable.
- Malignant diseases of the vagina are either primary vaginal cancers or metastatic forms from adjacent or distant organs.
- Diagnosis of vulvar cancer is often delayed significantly because there is no single specific clinical symptom that heralds it. The most common presentation is persistent vulvar itching that does not improve with the application of creams or ointments.
- Nurses should educate women about the importance of consistent and timely screenings to identify a neoplasm early to improve their overall outcome.
- Nurses can be very instrumental in assisting women to identify lifestyle behaviors that need to be altered to reduce their risk of developing various reproductive tract cancers.

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## Web Resources

- American Cancer Society: 1-800-ACS-2345, [www.cancer.org](http://www.cancer.org)
- American Urological Association: (410) 727-1100, [www.auanet.org](http://www.auanet.org)
- Cancer Care, Inc.: (212) 712-8080, [www.cancercare.org](http://www.cancercare.org)
- Gilda Radner Familial Ovarian Cancer Registry: (800) OVARIAN, [www.ovariancancer.com](http://www.ovariancancer.com)
- Gynecologic Cancer Foundation: (800) 444-4441, [www.wcn.org](http://www.wcn.org)
- Hysterectomy Educational Resource and Services (HERS): (215) 667-7757, [www.ccon.com/hers](http://www.ccon.com/hers)
- National Ovarian Cancer Coalition: (888) 682-7426. [www.ovarian.org](http://www.ovarian.org)
- National Women's Health Information Center: (800) 994-9662, [www.4women.gov](http://www.4women.gov)
- Oncology Nursing Society (ONS): (866) 257-4ONS, [www.ons.org](http://www.ons.org)
- Ovarian Cancer Research Fund, Inc.: (800) 873-9569, [www.ocrf.org](http://www.ocrf.org)
- Sexuality Information and Education Counsel of the United States: (212) 819-9770, [www.siecus.org](http://www.siecus.org)
- SHARE: Self-Help for Women with Breast or Ovarian Cancer: (866) 891-3431, [www.sharecancersupport.org](http://www.sharecancersupport.org)
- Vulvar Health: [www.vulvarhealth.org](http://www.vulvarhealth.org)
- Women's Cancer Network: (312) 644-6610, [www.wcn.org](http://www.wcn.org)

## Chapter WORKSHEET

### ● MULTIPLE CHOICE QUESTIONS

- Ovarian cancer is often not diagnosed early because:
  - The disease progresses very slowly
  - The early stages produce very vague symptoms
  - The disease usually is diagnosed only at autopsy
  - Clients don't follow up on acute pelvic pain
- A postmenopausal woman reports that she has started spotting again. The nurse should advise the client to:
  - Keep a menstrual calendar for the next few months
  - Not to worry, since this a common but not serious event
  - Start warm-water douches to promote healing
  - Visit her doctor for an endometrial biopsy
- One of the key psychosocial needs of women diagnosed with cancer is:
  - Providing clear information
  - Hand-holding
  - Being cheerful
  - Offering hope
- The most effective screening tool for the early detection of cervical cancer is:
  - Fecal occult blood test
  - CA-125 blood test
  - Pap smear
  - Sigmoidoscopy
- The deadliest cancer of the female reproductive system is:
  - Vulvar
  - Ovarian
  - Endometrial
  - Cervical

### ● CRITICAL THINKING EXERCISES

- Tammy Scott, a 27-year-old sexually active Caucasian woman, visits the Health Department family planning clinic and requests information about the various methods available. In taking her history, the nurse learns that she started having sex at age 15 and has had multiple sex partners since then. She smokes two packs of cigarettes daily. Because she has been unemployed for a few months, her health insurance policy has lapsed. She has never previously obtained any gynecologic care.
  - Based on her history, which risk factors for cervical cancer are present?
  - What recommendations would you make for her and why?
  - What are this patient's educational needs concerning health maintenance?
- Jennifer Nappo, a 60-year-old nulliparous woman, presents to the gynecologic oncology clinic after her health care provider palpated an adnexal mass on her right ovary. In taking her history, the nurse learns that Mrs. Nappo has experienced mild abdominal bloating and weight loss for the past several months but felt fine otherwise. She was diagnosed with breast cancer 15 years ago and was treated with a lumpectomy and radiation. She has occasionally used talcum powder in her perineal area over the past 20 years. A transvaginal ultrasound revealed a complex mass in the right adnexa. She underwent a total abdominal hysterectomy and bilateral salpingo-oophorectomy and lymph node biopsy. Pathology confirmed a diagnosis of stage III ovarian cancer with abdominal metastasis and positive lymph nodes.
  - Is Mrs. Nappo typical for a woman with this diagnosis?
  - What in her history might increase her risk for ovarian cancer?
  - What can the nurse do to increase awareness of this cancer for all women?

## ● STUDY ACTIVITIES

1. During your surgical clinical rotation, interview a female patient undergoing surgery for cancer of her reproductive organs. Ask her to recall the symptoms that brought her to the healthcare provider. Ask her what thoughts, feelings, and emotions went through her mind before and after her diagnosis. Finally, ask her how this experience will change her life in the future.
2. Visit an oncology and radiology treatment center to find out about the various treatment modalities available for cancer. Contrast the various treatment methods and report your findings to your class.
3. Visit one of the websites listed at the end of the chapter to explore a topic of interest concerning reproductive cancers. Critique the web site for correctness, currency, and level of content. Share your assessment with your classmates.
4. Taking oral contraceptives provides protection against \_\_\_\_\_ cancer.
5. Two genes, BRCA-1 and BRCA-2, are linked with hereditary \_\_\_\_\_ and \_\_\_\_\_ cancers.

