

CHAPTER Nursing Care 51 of Women with Reproductive System and Breast Disorders

LEARNING OUTCOMES

- Explain the pathophysiology, manifestations, complications, interdisciplinary care, and nursing care of disorders of female sexual function, menstrual disorders, structural disorders, reproductive tissue disorders, and breast disorders.
- Describe the physiologic process of menopause.
- Compare and contrast the incidence, risk factors, pathophysiology, manifestations, diagnosis, treatment, and nursing care for cancer of the cervix, endometrium, ovary, vulva, and breast.
- Discuss the purposes, nursing implications, and health education for clients and their families for cancer screening, medications, and treatments for women with disorders of the reproductive system and breast.
- Discuss alternative and complementary therapies used by women to relieve manifestations associated with menopause and menstrual disorders.
- Describe the surgical procedures used to treat female reproductive system and breast disorders.

CLINICAL COMPETENCIES

- Assess functional status of women with reproductive system and breast disorders, and monitor, document, and report abnormal manifestations.
- Use evidence-based research to design interventions to promote early diagnosis and treatment of African American women with breast cancer.
- Determine priority nursing diagnoses, based on assessed data, to select and implement individualized nursing interventions for women with reproductive system and breast disorders.
- Administer medications used to treat female reproductive system and breast disorders knowledgeably and safely.
- Provide skilled care for the woman having a D&C, laparoscopy, hysterectomy, mastectomy, and breast reconstruction.
- Integrate interdisciplinary care into care of women with reproductive system and breast disorders.
- Provide teaching appropriate for community-based self-care of female reproductive and breast disorders.
- Revise plan of care as needed to provide effective interventions to promote, maintain, or restore functional health status to women with reproductive system and breast disorders.

MEDIALINK



Resources for this chapter can be found on the Prentice Hall Nursing Medialink DVD-ROM accompanying this textbook, and on the Companion Website at <http://www.prenhall.com/lemone>

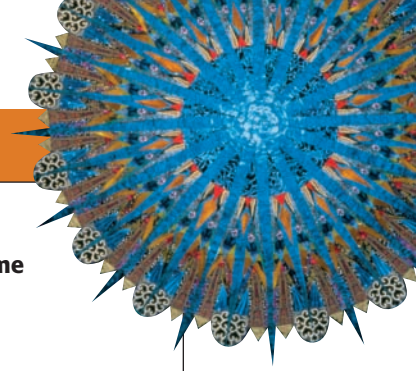


KEY TERMS

amenorrhea, 1802
anorgasmia, 1795
dysfunctional uterine bleeding (DUB), 1802
dysmenorrhea, 1800
dyspareunia, 1795

endometriosis, 1810
fibrocystic changes (FCC), 1820
leiomyoma, 1809
lymphedema, 1825
menopause, 1795
menorrhagia, 1802

metrorrhagia, 1802
premenstrual syndrome (PMS), 1798



Disorders of the female reproductive system range from a minor discomfort of menstrual cramps to life-threatening diseases such as cancer. Many of these disorders can occur at any point in a woman's adult life. They may affect her ability to bear children, her sexuality, and her sense of well-being as a woman.

Women who experience reproductive system changes and disorders require a holistic approach to meet their physical, emotional, and educational needs. Because the ability to reproduce affects self-esteem, feelings of femininity, and general health, both sensitivity and understanding from caregivers are essential. Providing a medical and family history and undergoing diagnostic tests often require women to disclose personal, intimate information, which they may find embarrassing and uncomfortable. When planning and implementing care, nurses must consider the woman within the context of her culture, socioeconomic and educational level, and lifestyle. It is also important that the nurse not make assumptions or judgments about sexual orientation.

This chapter summarizes disorders of female sexual function and discusses the physiologic process of menopause, menstrual disorders, structural disorders, and disorders of female reproductive tissue, including the breast. Sexually transmitted

infections, including vaginal infections and pelvic inflammatory disease, are discussed in Chapter 52 ∞. Many of the disorders result in actual or potential health problems requiring nursing care based on similar nursing diagnoses. To avoid repeating those diagnoses and interventions for each disorder, they have been divided among the nursing care discussions as appropriate. Treatment of cancer with chemotherapy and radiation is discussed in Chapter 14 ∞.

DISORDERS OF FEMALE SEXUAL FUNCTION

The female body maintains the capacity for sexual activity and orgasm long after menopause (see the Meeting Individualized Needs box below). In a typical sexual event, two physiologic sexual responses occur: vasocongestion and myotonia. Sexual stimulation results in vasocongestion of the blood vessels surrounding the vagina, causing engorgement, increased lubrication, and genital swelling and enlargement. Arousal, or myotonia, increases muscular tension, resulting in voluntary and involuntary muscle contraction.

MEETING INDIVIDUALIZED NEEDS Sexual Function in the Aging Woman

Myths, taboos, and stereotypes held by society may foster the belief that older women are no longer interested in expressing their sexuality. Two commonly held myths are that menopause is the death of a woman's sexuality and that hysterectomy results in the inability to function sexually. Loss of sexual function is not an inevitable result of aging, although physical changes related to aging do affect the female sexual response. These physical changes, along with chronic conditions common in aging women, may alter a woman's sexual function. In addition, some medications used to treat the chronic conditions associated with aging can also alter the sexual response. It is the role of the nurse to educate women about the myths and misinformation about changes in sexual functioning and to provide information about ways to achieve optimal sexual health.

PHYSIOLOGIC CHANGES

Changes in aging women's sexual function begin in the perimenopausal period as estrogen levels decrease. Estrogen-sensitive cells are found throughout the central nervous system and the cardiovascular system. These cells are involved in the female sexual response. With menopause comes a decrease in the levels of estradiol, which affects nerve transmission and the response in the peripheral vascular system. As a result, the timing and degree of vasocongestion during the sexual response are affected.

Specific changes in the female sexual response occur in all phases. During the plateau phase, the capacity for vasocongestion decreases, as does muscle tension. In the orgasmic phase, the contractions are fewer and less intense. During the resolution phase, vasocongestion subsides more quickly.

NURSING CARE

The nurse's role in assisting aging women to reach optimal sexual functioning centers on teaching them about the physiologic and psychologic changes associated with menopause. In addition, the nurse should instruct the woman in how the effects of chronic illness and the medications used to treat these illnesses affect sexual functioning. The woman should be taught the importance of maintaining a healthy lifestyle, which includes a balanced diet, weight-bearing and aerobic exercises, stress management, and routine health examinations.

For problems related to vaginal dryness and dyspareunia, the nurse can recommend water-soluble vaginal lubricants or vaginal gels before intercourse. Intercourse on a regular basis and estrogen replacement therapy can also be recommended for these problems. Women who experience joint pain or other musculoskeletal pain due to conditions such as arthritis can benefit from instruction in how to adapt positions for intercourse.

The sexual response cycle has four phases: excitement, plateau, orgasm, and resolution. These phases always occur in the same sequence; however, the duration of each phase may vary. Sexual arousal typically ends in orgasm (climax), but sometimes fails to do so. A refractory period, or period in which the sexual organs are incapable of responding to stimulus, does not occur in the female. Multiple orgasms are physically possible in all women.

Although nurses may not conduct sexual counseling, they should be able to obtain a sexual history without embarrassment, discuss sexual concerns with women, and make appropriate referrals.

Pathophysiology

Disorders of sexual function include dyspareunia, inhibited sexual desire, and orgasmic dysfunction.

Dyspareunia

The woman with **dyspareunia** (pain during intercourse) may find it difficult to express her feelings to her partner. This condition may manifest itself as decreased desire or inhibited orgasm. The causes of dyspareunia range from organic to psychogenic.

Physical conditions, such as imperforate hymen, vaginal scarring, or vaginismus, may cause dyspareunia. *Vaginismus* is a rare condition in which the vaginal muscles at the introitus contract so tightly that an erect penis cannot be inserted. An early traumatic event, such as sexual abuse, fear of men, or rape, may contribute to this disorder. However, it is estimated that most dyspareunia is psychogenic in origin. The woman develops an anxiety–fear–guilt cycle in which negative thoughts become associated with the act of vaginal penetration, initiating a conditioned involuntary reflex. Other sexual activity may be pleasurable.

Inhibited Sexual Desire

Inhibited sexual desire may be a result of pathophysiologic processes or may be psychogenic in origin. Often, inhibited sexual desire is rooted deeply in childhood teaching or experiences that may be too painful to recall. Cultural and religious values can also affect the processing of sexual stimuli. Fear of pregnancy or sexually transmitted infections (STIs) and depression also contribute to decreased libido.

Orgasmic Dysfunction

Inhibited female orgasm (**anorgasmia**) is the most prevalent sexual problem among women. However, fewer than 20% of cases are physiologic in origin. It is estimated that from 8% to 15% of women have never experienced an orgasm in the waking state. Psychogenically induced anorgasmia may result from unresolved conflicts about sexual activity. Organic causes of anorgasmia include the presence of disease that results in general debilitation or that affects the sexual response cycle, and the use of drugs that depress the central nervous system (CNS).

Primary anorgasmia exists when a woman has never experienced an orgasm during the waking state, either through self-stimulation or intercourse. Secondary anorgasmia exists when a woman who previously experienced orgasms is no longer able to do so.



NURSING CARE

Nursing care focuses on identifying the type of sexual dysfunction with a thorough history, including the onset, duration, frequency, and context or situation in which the problem occurs. The woman's partner should be included in discussions when possible.

Teach the woman and her partner about varied normal sexual responses. The goal is to increase self-awareness and understanding of communication and their relationship to sexual desire. Explain the differences in the behaviors that men and women consider sexually stimulating. Sex therapists may provide training in autostimulation techniques (masturbation) after inhibitions against this practice are discussed. Group therapy may be encouraged to help the woman discuss her problem and to decrease the sense of isolation it gives her.

THE PERIMENOPAUSAL WOMAN

Menopause is the permanent cessation of menses. The *climacteric*, or *perimenopausal*, period denotes the time during which reproductive function gradually ceases. For most women, the perimenopausal period lasts several years. It begins with a decline in the production of the hormone estrogen, includes the permanent cessation of menstruation due to loss of ovarian function, and extends for 1 year after the final menstrual period, at which time a woman is said to be *postmenopausal*. The average woman will live one-third of her life after menopause.

Menopause is neither a disease nor a disorder, but a normal physiologic process. It is included here because it does increase the risk of physical disorders as well as various aspects of women's health. Many women welcome the freedom from monthly menstrual periods and have relatively minor physical effects from the estrogen depletion. However, the hormonal changes that occur can be accompanied by side effects. There is wide variation in how individual women experience these side effects. In the United States, most women stop menstruating between 48 and 55 years of age. Earlier menopause is associated with genetics, smoking, higher altitude, and obesity (Association of Reproductive Health Professionals [ARHP], 2005b). Certain health risks increase after menopause, including heart disease, osteoporosis, macular degeneration, cognitive changes, and breast cancer.

The Physiology of Menopause

The menopausal period marks the natural biologic end of reproductive ability. *Surgical menopause* occurs when the ovaries are removed in premenopausal women, dramatically reducing the production of estrogen and progestins. *Chemical menopause* often occurs during cancer chemotherapy, when cytotoxic drugs arrest ovarian function.

As ovarian function decreases, the production of estradiol (E_2), the most biologically active estrogen, decreases and is ultimately replaced by estrone as the major ovarian estrogen. Estrone is produced in small amounts and has only about one-tenth the biologic activity of estradiol. With decreased ovarian function, the second ovarian hormone, progesterone,

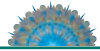
which is produced during the luteal phase of the menstrual cycle, also is markedly reduced.

Manifestations

As estrogen decreases, various tissues are affected. The breast tissue, body hair, skin elasticity, and subcutaneous fat decrease. The ovaries and uterus become smaller, and the cervix and vagina also decrease in size and become pale in color. These changes may result in problems with vaginal dryness, dyspareunia, urinary stress incontinence, urinary tract infections (UTIs), and vaginitis. Vasomotor instability often results in hot flashes, palpitations, dizziness, and headaches. Other problems resulting from vasomotor instability include insomnia, frequent awakening, and perspiration (night sweats). The woman may experience irritability, anxiety, and depression as a result of these events.

Long-term estrogen deprivation results in an imbalance in bone remodeling and osteoporosis, leading to fractures and kyphosis. The risk for cardiovascular diseases increases in response to an increase in atherosclerosis (from an increase in the LDL-to-HDL cholesterol ratio). Manifestations of the perimenopausal period are listed in the box below. These manifestations vary widely. Some women experience severe symptoms, others experience moderate symptoms, and some women experience few or no symptoms.

INTERDISCIPLINARY CARE



Care of the woman experiencing menopausal symptoms focuses on relieving symptoms and minimizing postmenopausal health risks.

Diagnosis

As estrogen secretion diminishes, levels of follicle-stimulating hormone (FSH) and luteinizing hormone (LH) rise and remain elevated. A woman who had not menstruated for 1 full year or who has an increased FSH blood level is considered menopausal (Porth, 2005).



MANIFESTATIONS of the Perimenopausal Period

- Menstrual cycles become erratic. Menstrual flow varies widely in amount and duration and eventually ceases.
- Vaginal, vulval, and urethral tissues begin to atrophy.
- Vaginal pH rises, predisposing the woman to bacterial infections.
- Vaginal lubrication decreases, and vaginal rugae decrease in number. This may result in dyspareunia, injury, and fungal infections.
- Vasomotor instability due to a decrease in estrogen may result in hot flashes and night sweats. A hot flash starts in the chest and moves upward toward the face and may last from seconds to several minutes.
- Psychologic symptoms may include moodiness, nervousness, insomnia, headaches, irritability, anxiety, inability to concentrate, and depression.

Medications

Although controversial, hormone replacement therapy (HRT) may be prescribed to alleviate severe manifestations of menopause, but only for a limited amount of time and only after a woman has been provided with known risks. HRT may include estrogen alone for women who have had a hysterectomy, or a combination of estrogen and progestin. The addition of progestin stimulates monthly shedding of the interuterine lining, decreasing the risk of uterine cancer. HRT relieves hot flashes and night sweats and decreases problems of vaginal dryness and urogenital tissue atrophy, which can lead to painful intercourse and urinary incontinence. Long-term HRT may increase the risk for breast cancer, ovarian cancer, stroke, heart attacks, and venous thrombosis (Tierney et al., 2004). However, women who have had a hysterectomy and take estrogen alone do not have an increased risk of breast cancer (Health & Science, 2006).

Selective estrogen receptor modulators (SERMs) such as raloxifene (Evista) and triphenylethylene (Tamoxifen) bind to estrogen receptors and exert site-specific effects in different target tissues. Tamoxifen and toremifene (a derivative of tamoxifen) have a beneficial effect on bone mineral density and serum lipids and decrease the risk of invasive breast cancer in women at high risk. They also provide an alternative to HRT for preventing osteoporosis.

Alternative and Complementary Therapies

As a result of the controversy surrounding the use of HRT, non-traditional or alternative therapies have become more popular. The following complementary therapies are examples of those used by menopausal women to reduce associated discomforts (ARHP, 2005b; Mayo Clinic, 2004):

- Acupuncture
- Biofeedback
- Massage
- Herbs: *Cimicifuga racemosa* (black cohosh), Vitex agnus castii (chaste tree), *Rehmannia*, ginseng, Chinese tonic of He Shou Wu, dong quai, golden seal, flaxseed, and evening primrose
- Supplements: vitamin E, soy protein (soy is high in plant estrogens)
- Meditation and yoga.



NURSING CARE

Nursing care during and after the menopausal period focuses on minimizing the symptoms associated with hormonal changes, reducing the risk of cardiovascular disease, cancer, and osteoporosis, and educating the woman about lifestyle changes important to health and well-being.

Health Promotion

The American Cancer Society recommends a cancer-related checkup every year after the age of 40. This checkup includes examination for cancers of the thyroid, ovaries, lymph nodes, oral cavity, and skin. Other important checkups include screening for cervical, breast, and colorectal cancer. Health

counseling should also include information about alcohol and tobacco use, sun exposure, diet and nutrition, exercise, risk factors, sexual practices, and environmental and occupational exposures. It is important to discuss the benefits of rest and exercise, as well as a diet that includes fruits, vegetables, and fiber. In addition, suggest the following resources for further information:

- National Institute on Aging
- Centers for Disease Control and Prevention
- North American Menopause Society
- Association of Reproductive Health Professionals
- Women's Health Initiative
- National Women's Health Information Center.

Assessment

Collect the following data through the health history and physical examination. When assessing the older woman, be aware of normal changes with aging, as outlined in Chapter 49 ∞.

- **Health history:** Problems with urinary frequency, urgency, or incontinence; menstrual history; sexual history; dyspareunia; use of alcohol, nicotine, and drugs; medications, sleep patterns, hot flashes, night sweats, changes in emotional responses.
- **Physical assessment:** Height and weight, posture, vital signs, breast examination, pelvic examination, abdominal assessment.

Nursing Diagnoses and Interventions

Although each nursing care plan must be individualized, interventions often focus on problems with lack of information, sexuality, self-esteem, and a disturbed body image.

Deficient Knowledge

Because menopausal manifestations vary widely, it is difficult to predict their effect on an individual woman. However, the well-informed woman is better prepared to deal with whatever symptoms she experiences.

- Discuss physiologic manifestations, such as hot flashes and night sweats. *The underlying cause of hot flashes is not known (Porth, 2005). Many physiologic effects of menopause are amenable to nonpharmacologic methods of relief, such as lifestyle changes.*

PRACTICE ALERT

When hot flashes occur at night and are accompanied by perspiration, they are called night sweats. Night sweats often interfere with normal sleep patterns, leading to increased fatigue and irritability.

- Provide information about dietary recommendations. The recommended daily intake of calcium for women over 50 is 1200 mg. *Some women need to use calcium supplements or calcium-containing antacid tablets to meet this requirement.*
- Emphasize the importance of weight-bearing exercise. *Weight-bearing exercise reduces the rate of bone loss, helps maintain optimum weight, and reduces cardiovascular risk.*

- Provide information about the benefits and risks of HRT. Not every woman will need or want it. *Every woman needs to understand both the risks and the benefits before deciding whether to use HRT.*
- Encourage the woman to obtain yearly mammograms, clinical breast examinations, and Pap tests, and to perform monthly breast self-examination (BSE) at the same day each month. *The increased risk for cancer of the breast and pelvic reproductive organs makes self-examination and healthcare provider screening during and after menopause even more important.*

Ineffective Sexuality Pattern

Vaginal dryness and atrophy, together with the emotional effect of menopause, can interfere with sexual expression and satisfaction. Suggesting measures to help the woman and her partner cope with these changes can enable them to continue or resume a mutually satisfying sexual relationship.

- Encourage expression of feelings and concerns about how menopause is changing her sex life. *Midlife and older women may not be comfortable in discussing their intimate sexual behavior.*
- Suggest ways to increase vaginal lubrication, such as spending more time in foreplay and/or using water-soluble gels (e.g., Replens) for vaginal lubrication. *A more leisurely approach to sexual activity can be mutually gratifying for both the woman and her partner. Use of water-soluble gels can prevent vaginal pain and irritation and improve the quality of the sexual experience.*

PRACTICE ALERT

Plant estrogens, found in food such as brown rice, corn, green beans, lemon and orange peels, and tofu, are mildly estrogenic and may improve vaginal dryness.

- Explain that as women age, it may take longer for vaginal lubrication and orgasm to occur. *This information is important to prevent the woman from believing something is wrong with her, or her partner believing he or she is no longer interesting or sexually exciting.*

Situational Low Self-Esteem

Each woman responds to the aging process in her own way, and most women have coping skills that adequately equip them to deal with the gradual changes associated with aging. Among the factors that may provoke a self-esteem disturbance are the loss of youth, a sense of emptiness as children leave home, and the need to redefine one's self-concept and roles as parenting becomes less important. Women who place a high value on their physical attractiveness may experience a painful psychologic response to the physical changes of menopause.

- Encourage expression of fears and concerns related to changes in interpersonal and family functions. *Many women associate aging with "uselessness" and unattractiveness.*
- Suggest volunteer activities or employment for the woman who has extra time. *This enables the woman to feel that she is still a contributing member of society. Volunteering for activities involving young people can help reduce anxiety about*

the loss of reproductive ability or any late regrets about not having had children.

- Discuss the importance of a healthy lifestyle in maintaining physical attractiveness. Identify risk factors and high-risk behaviors. *Lifestyle habits and behaviors affect many body systems and physical appearance. For example, cigarette smoking and overexposure to the sun make the skin age faster, contributing to wrinkles. Active women who exercise and eat a well-balanced diet look and feel better.*

Disturbed Body Image

As women progress through the perimenopausal period, changes in appearance and the loss of childbearing ability may combine to make the woman feel “old, ugly, and useless.” Although this is far from the truth, with women living at least one-third of their lives after menopause in productive careers and activities, it nevertheless is the perception of women as well as society. The physical changes the woman often experiences in-

clude growth of facial hair, excessive perspiration and flushing of the face, and weight gain.

- Encourage the woman to describe her perceptions of her own body. *This information is necessary to obtain data to establish an individualized plan of care.*
- Encourage verbalization of feelings of concern, anger, anxiety, loss, and fear over body changes. *Expressing these emotions can facilitate the grieving process and acceptance of change.*
- Stress that certain physical characteristics of a person cannot be changed; emphasize the importance of learning to recognize and appreciate one’s own special strengths. *These help the woman gain acceptance and a realistic appraisal of self.*
- Refer, as appropriate, for dietary management, exercise, stress management, and cosmetic assistance (e.g., for aggravating facial hair). *These actions increase wellness and a positive sense of self.*

MENSTRUAL DISORDERS

Monthly menstruation normally involves some minor discomfort, including breast tenderness, a feeling of heaviness and congestion in the pelvic area, uterine cramping, and lower backache. Many women, however, experience more serious effects, both physiologic and psychologic. This section discusses premenstrual syndrome, dysmenorrhea, and abnormal uterine bleeding. (The menstrual cycle is discussed in Chapter 49 ∞.)

THE WOMAN WITH PREMENSTRUAL SYNDROME

Premenstrual syndrome (PMS) is a complex of manifestations (e.g., mood swings, breast tenderness, fatigue, irritability, food cravings, and depression) that are limited to 3 to 14 days before menstruation and relieved by the onset of menses. It is estimated that 25% to 40% of all adult women experience mild to moderate symptoms and 2% to 5% have severe symptoms (Porth, 2005). For a small number of women, PMS is so disabling that it is called by the psychiatric label of *premenstrual dysphoric disorder (PMDD)*.

The syndrome is seen less frequently during the teens and 20s, reaching a peak in women in their mid-30s. Major life stressors, age greater than 30, and depression are risk factors associated with PMS. Premenstrual syndrome can be a factor in absenteeism at school or work, decreased productivity, interpersonal relationship difficulties, and lifestyle disruption.

Pathophysiology

Although the pathophysiology of PMS is not clearly understood, it is believed that hormonal changes such as altered estrogen–progesterone ratios, increased prolactin levels, and rising aldosterone levels during the luteal phase of the menstrual cycle contribute to the problem. Increased production of aldosterone results in sodium retention and edema. Decreased levels of monoamine oxidase in the brain are associated with depression, and reduced levels of serotonin can lead to mood swings.

Manifestations

Manifestations of PMS occur during the luteal phase of the menstrual cycle (7 to 10 days prior to the onset of the menstrual flow), abating when the menstrual flow begins. The *Multisystem Effects of PMS* are shown on the next page. Although PMS may produce a variety of physiologic and psychologic manifestations, the exact nature of these manifestations and their intensity are individualized for each woman with this disorder. The manifestations may even differ from month to month in the same woman.

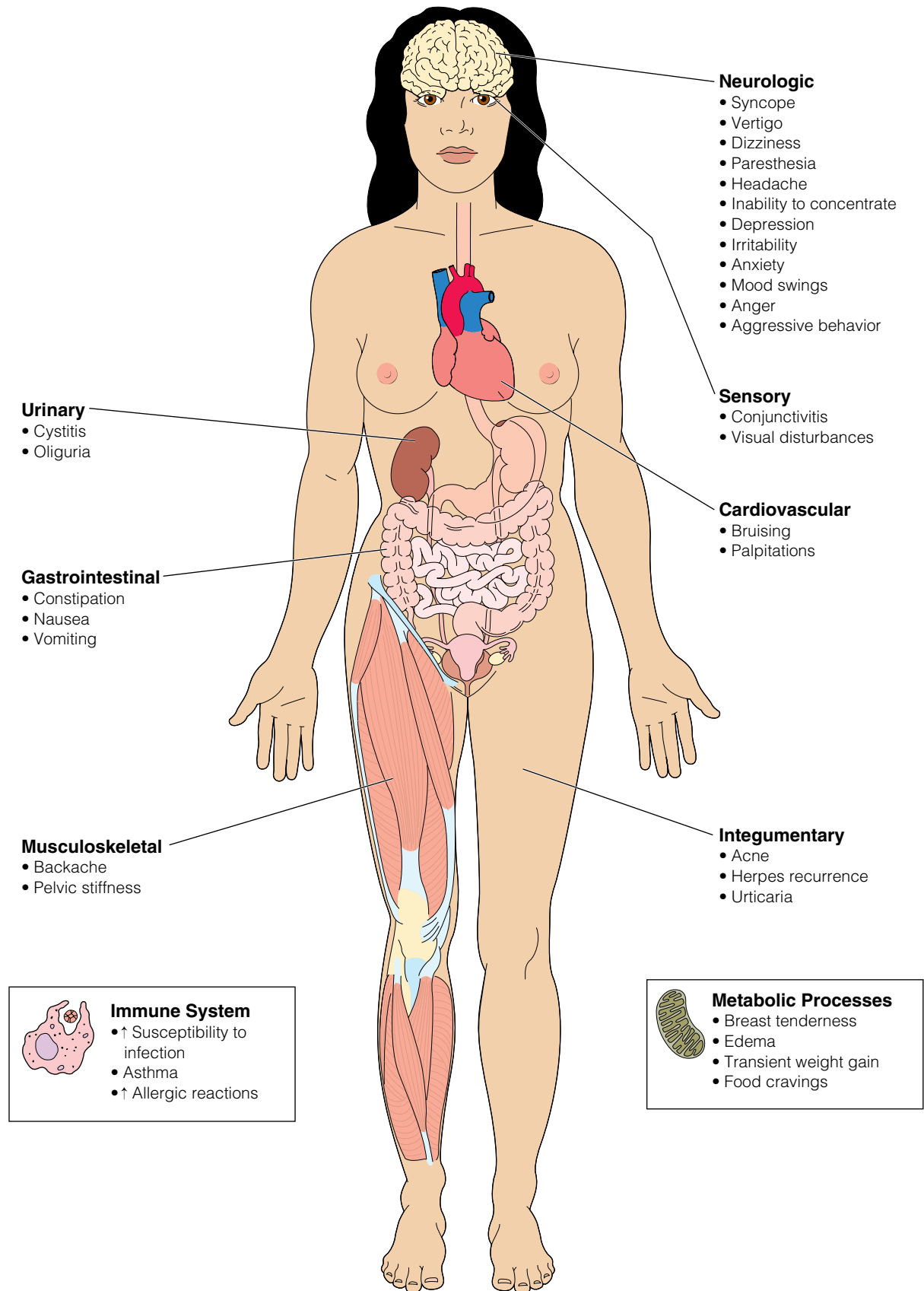
INTERDISCIPLINARY CARE

If no organic cause can be identified, the goals of care are to relieve manifestations and to help develop self-care patterns that will help the woman anticipate and cope more effectively with future episodes of PMS. There are no definitive diagnostic tests for PMS. The regular recurrence of manifestations preceding the onset of menses for at least 3 months leads to a diagnosis of PMS. The treatment of PMS integrates this self-monitored record of manifestations, regular exercise, avoiding caffeine, and a diet low in simple sugars and high in lean proteins (Porth, 2005). Although many different medications, vitamins, and herbal supplements have been used to treat the manifestations of PMS, the most promising appears to be the use of selective serotonin reuptake inhibitors (SSRIs).

Medications

If the manifestations of PMS are severe or incapacitating, ovulation may be suppressed by the use of gonadotropin-releasing hormone (GnRH) agonists, oral contraceptives, or danazol. Progesterone and antiprostaglandin agents such as nonsteroidal anti-inflammatory drugs (NSAIDs) may help relieve cramping. Diuretics may be prescribed to relieve bloating. SSRIs such as fluoxetine (Prozac), sertraline (Zoloft), and paroxetine (Paxil) may be used to manage mood and some physical manifestations of PMS.

MULTISYSTEM EFFECTS OF Premenstrual Syndrome



Alternative and Complementary Therapies

Alternative and complementary therapies the woman with PMS may find helpful focus on diet, exercise, relaxation, and stress management:

- A diet high in complex carbohydrates with limited simple sugars and alcohol is recommended to minimize reactive hypoglycemia, which can contribute to the manifestations of PMS.
- Reduced sodium intake helps minimize fluid retention. Increased intake of calcium (1200 mg per day), magnesium (200 mg per day), vitamin B₆ (50 to 100 mg per day), and vitamin E (400 international units per day) may be helpful (Mayo Clinic, 2004).
- Caffeine is restricted to reduce irritability.
- Herbal remedies include black cohosh, ginger, chaste tree berry, and evening primrose oil. Natural progesterone creams, derived from wild yams and soybeans, relieve manifestations in some women (Mayo Clinic, 2004). Discussion about these alternative therapies with the healthcare provider is recommended.
- Exercise is beneficial, but adequate rest also is necessary.
- Techniques for relaxation and stress management include deep abdominal breathing, meditation, muscle relaxation, and guided imagery.



NURSING CARE

Nursing Diagnoses and Interventions

Nursing care for the woman with PMS focuses on relieving manifestations. Most women experiencing PMS require interventions to manage pain and enhance coping.

Acute Pain

The woman with PMS may have pain from headache (including migraine), menstrual cramps, excessive fluid retention, breast swelling, joint and muscle pain, and backache.

- Teach effective pharmacologic and nonpharmacologic self-care measures to relieve pain: application of heat, relaxation techniques (such as breathing exercises, imagery techniques, or meditation), and exercise. *Heat relieves muscle spasms and dilates blood vessels, increasing blood supply to the pelvis and uterine muscles. Relaxation and exercise aid the release of naturally produced pain relievers called endorphins.*
- Review daily activities and suggest ways to balance rest periods and activity. *During rest periods, energy and oxygen requirements decrease, increasing the amount of energy and oxygen available to muscles.*
- Review manifestations and, if possible, correlate these with dietary patterns and activity levels. Encourage the woman to keep a diary of PMS manifestations. *Maintaining a diary of PMS manifestations, activity, and foods eaten can provide data to identify modifiable causes of discomfort.*
- If appropriate, suggest sexual activity as a way to lessen menstrual cramps. *Orgasm may help relieve dysmenorrhea.*

Ineffective Coping

Many women experience wide mood swings during episodes of PMS, sometimes exhibiting self-destructive or aggressive behav-

iors toward others. These mood swings can interfere with a woman's ability to manage her responsibilities at home or at work.

- Encourage the woman to keep a journal of her menstrual cycle and to document her mood changes in the 7 to 10 days prior to menstruation. *Recognizing the signs and timing of PMS is the first step in developing methods to cope with the problem.*
- Explore possible ways to rearrange or reschedule activities when experiencing PMS. *Planning ahead enables the woman to assume more control and promotes coping methods.*
- Explore what, if any, self-care measures have helped cope with mood alterations in the past. *Encourage healthful coping mechanisms, such as relaxation techniques and exercise. Some women may rely on alcohol or other drugs during PMS, which only exacerbate the manifestations.*

Community-Based Care

Teach the woman and family that PMS is not caused by a pathologic process but is a physiologic response to hormonal changes of the menstrual cycle. With an understanding of the condition, the woman is better able to manage anxiety and to become actively involved in techniques to reduce the manifestations. Teaching should also include dietary measures, relaxation techniques and exercise, stress reduction techniques, and support systems.

THE WOMAN WITH DYSMENORRHEA

Dysmenorrhea (pain or discomfort associated with menstruation) is experienced by a significant number of menstruating women. *Primary dysmenorrhea* occurs without specific pelvic pathology, and is most often seen in girls who have just begun menstruating, becoming less severe after the mid-20s or giving birth. *Secondary dysmenorrhea* is related to identified pelvic disease.

Pathophysiology

In primary dysmenorrhea, excessive production of prostaglandins stimulates uterine muscle fibers to contract. As the muscles contract, uterine circulation is compromised, resulting in uterine ischemia and pain. These contractions can range from mild cramping to severe muscle spasms. Psychologic factors, such as anxiety and tension, may contribute to dysmenorrhea. Secondary dysmenorrhea is related to underlying organic conditions that involve scarring or injury to the reproductive tract. Endometriosis, fibroid tumors, pelvic inflammatory disease, or ovarian cancer may result in painful menses.

Manifestations

Manifestations of primary dysmenorrhea (see the box on the next page) may be severe enough to disrupt activities of daily living, sexual function, and even fertility.

INTERDISCIPLINARY CARE



Care of the woman with menstrual pain focuses on identifying the underlying cause, reestablishing functional capacity, and managing pain.

MANIFESTATIONS of Primary Dysmenorrhea

- Abdominal pain beginning with onset of menses and lasting 12 to 48 hours
- Pain radiating to lower back and thighs
- Headache
- Nausea
- Vomiting
- Diarrhea
- Fatigue
- Breast tenderness

A careful history and physical assessment are performed to rule out any underlying organic cause of dysmenorrhea. If no organic cause can be found, the diagnosis is primary dysmenorrhea. In addition, attitudes and expectations about menstruation and lifestyle disruption are identified and explored.

Diagnosis

Various diagnostic tests are performed to identify structural abnormalities, hormonal imbalances, and pathologic conditions that could cause menstrual pain. Diagnostic tests are described in Chapter 49 ∞.

Diagnosis is made based on findings from a pelvic examination and diagnostic procedures, including a Papanicolaou (Pap) smear and cervical and vaginal cultures, ultrasound of the pelvis and vagina, and CT scan or MRI to detect structural abnormalities, malignancy, or infections. Laboratory tests used to assess possible causes of dysmenorrhea are as follows:

- *FSH* and *LH* levels to assess the function of the pituitary gland. The results are correlated with the time of the menstrual cycle.
- Progesterone and estradiol levels to assess ovarian function.
- Thyroid function tests (T_3 and T_4) to assess thyroid function.

Laparoscopy is used to diagnose structural defects and blockages caused by scarring, endometriosis, tumors, and cysts (Figure 51–1 ■). See the box below for nursing care of the woman having a laparoscopy. A dilation and curettage (D&C) of the uterus may be performed to obtain tissue for evaluation

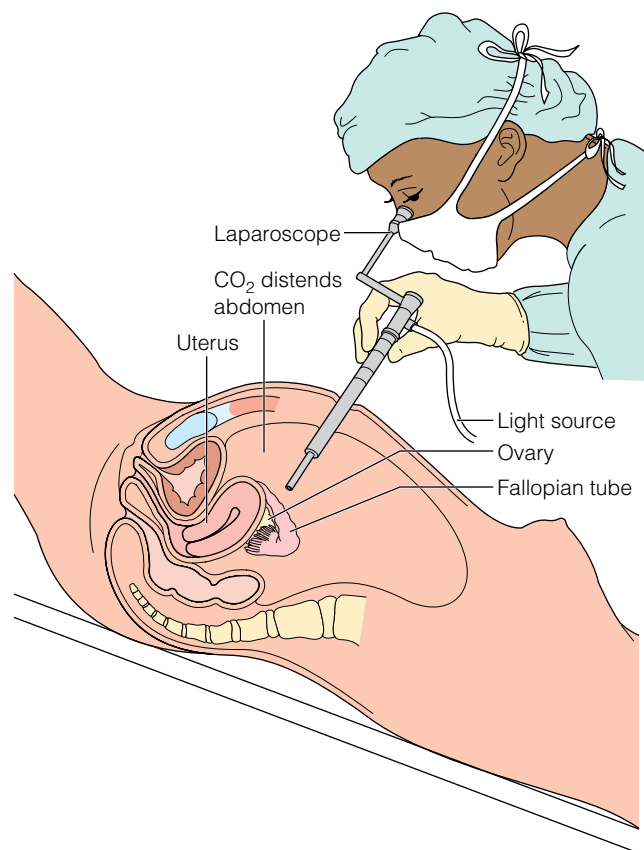


Figure 51–1 ■ Laparoscopy. In this surgical procedure, a flexible, lighted instrument (laparoscope) is inserted through a periumbilical incision. Laparoscopy allows visualization of the pelvic cavity.

or to relieve dysmenorrhea and heavy menstrual bleeding. (This procedure is discussed later in this chapter.)

Medications

Dysmenorrhea may be treated with analgesics, prostaglandin inhibitors such as NSAIDs, or oral contraceptives (see the Medication Administration box on the next page).

Alternative and Complementary Therapies

The complementary therapies listed for the woman with PMS may also be useful for the woman with dysmenorrhea. Other

NURSING CARE OF THE WOMAN HAVING A Laparoscopy

PREOPERATIVE CARE

- Instruct the woman to empty the bladder prior to the surgical procedure.
- Explain to the woman that referred shoulder pain or expulsion of gas through the vagina may occur postoperatively. *During the procedure, the woman's abdomen is insufflated with carbon dioxide gas to distend the abdomen and facilitate visualization of the pelvic organs. The surgical table is then tilted so that the intestines will fall away from the pelvic organs. Some carbon dioxide gas may remain in the abdomen after the procedure.*

- Explain that pain should be minimal. Instruct the woman to report excessive pain to the nurse or physician at once. *Excessive pain signals infection or other postoperative complication.*

POSTOPERATIVE CARE

- Apply a perineal pad. Teach the woman proper perineal hygiene, emphasizing the need to change pads at least every 4 hours. Keep a pad count. *Proper perineal hygiene reduces the risk of postoperative infection. Pad count is an indication of blood loss.*
- Assess for excessive vaginal bleeding. *Minor bleeding is normal; excessive bleeding may indicate hemorrhage.*

MEDICATION ADMINISTRATION

The Woman with Dysmenorrhea



EXAMPLES OF ORAL CONTRACEPTIVES

Norethindrone and ethinyl estradiol (Brevicon, Norinyl) Norgestrel and ethinyl estradiol (Ovral)

Oral contraceptives inhibit ovulation and help reduce cramping and bleeding. Side effects of oral contraceptives include breast tenderness, weight gain, nausea, midcycle bleeding, mood swings, depression, chloasma (skin discoloration) on the face and chest, hypertension, vascular complications, vaginal candidiasis, migraines, and glucose intolerance. Oral contraceptives are contraindicated in women with personal or family history of breast cancer in first-degree relatives, hypertension, history of stroke or transient ischemic attack (TIA), smoking, history of estrogen-dependent cancer, pregnancy, liver disease, or thrombophlebitis.

Nursing Responsibilities

- Assess the client for potential contraindications to drug therapy.

Health Education for the Client and Family

- Take the drug as prescribed until the physician indicates otherwise or until side effects prevent you from continuing to take them.
- If you are taking oral contraceptives, be sure to take them at the same time every day.
- Report to the physician suspected pregnancy and any side effects such as nausea, rash, drowsiness, stomach pain, ringing in the ears, tenderness in the calf of the leg, and shortness of breath.
- Do not smoke while taking oral contraceptives.

helpful activities are regular physical exercise, supplementing the diet with zinc and calcium, and using herbal remedies such as *Viburnum prunifolium*, black cohosh, evening primrose oil, and blue cohosh (About Women's Health, 2005). Using a heating pad on the abdomen or taking a warm bath also helps reduce pain.



NURSING CARE

Nursing care for the woman with primary dysmenorrhea focuses on controlling manifestations and providing education about the normal physiology of the menstrual cycle and self-care measures. Care of the woman with secondary dysmenorrhea varies according to the underlying cause and is discussed in this chapter within sections on specific disorders. Nursing interventions previously described for the woman with PMS are also appropriate for the woman with dysmenorrhea.

THE WOMAN WITH DYSFUNCTIONAL UTERINE BLEEDING

Dysfunctional uterine bleeding (DUB) refers to vaginal bleeding that is usually painless but abnormal in amount, duration, or time of occurrence. The types of DUB include primary and secondary amenorrhea, oligomenorrhea, menorrhagia, metrorrhagia, and postmenopausal bleeding.

A number of factors may predispose a woman to DUB. These factors include stress, extreme weight changes, use of oral contraceptive agents or intrauterine devices (IUDs), and

postmenopausal status. Dysfunctional uterine bleeding is usually related to hormonal imbalances or pelvic neoplasms, either benign or malignant.

Pathophysiology

The types of DUB include amenorrhea, oligomenorrhea, menorrhagia, metrorrhagia, and postmenopausal bleeding.

- **Amenorrhea** is the absence of menstruation. Primary amenorrhea, absence of menarche by age 16, or by age 14 if secondary sex characteristics fail to develop, may be caused by structural abnormalities, hormonal imbalances, polycystic ovary disease, or an imperforate hymen. Because a certain percentage of body fat is required for menstruation to occur, anorexia nervosa, bulimia, or excessive athletic training can also cause primary amenorrhea. Secondary amenorrhea, absence of menses for at least 6 months in a previously menstruating female, may also be caused by anorexia nervosa, excessive athletic activity or training, or a large weight loss. Other causes include hormonal imbalances and ovarian tumors. Normal (physiologic) secondary amenorrhea occurs during pregnancy, breast-feeding, and menopause.
- **Oligomenorrhea** (scant menses) usually is related to hormonal imbalances.
- **Menorrhagia** (excessive or prolonged menstruation) may result from thyroid disorders, endometriosis, pelvic inflammatory disease, functional ovarian cysts, or uterine fibroids or polyps. Clotting disorders and anticoagulant medications also can cause menorrhagia. A single heavy or long menses is not in itself a cause for concern; however, repetitive long or heavy menses can lead to hemorrhage, excessive blood loss, fatigue, and anemia.
- **Metrorrhagia** (bleeding between menstrual periods) may be caused by hormonal imbalances, pelvic inflammatory disease, cervical or uterine polyps, uterine fibroids, or cervical or uterine cancer. Because cancer is a possible cause of metrorrhagia, early evaluation and treatment are extremely important. *Mittelschmerz* (midcycle spotting associated with ovulation) occurs in many women and is not considered metrorrhagia.
- **Postmenopausal bleeding** may be caused by endometrial polyps, endometrial hyperplasia, or uterine cancer. The possibility of cancer makes early evaluation and treatment essential.


Hormonal imbalances, especially progesterone deficiency with relative estrogen excess, result in endometrial hyperplasia. Estrogen stimulates endometrial proliferation. However, without the support provided by progesterone, sloughing occurs, resulting in vaginal bleeding that may be irregular, prolonged, or profuse. Defects in the follicular phase shorten the proliferative phase of the menstrual cycle, resulting in spotting and breakthrough bleeding. Defects during the luteal phase result in excessive amount or duration of flow due to persistence of the corpus luteum. This leads to a deficiency of progesterone, resulting in vaginal bleeding. *Anovulation*, absence of ovulation, is associated with both estrogen and progesterone deficiencies. Emotional upsets or stress can cause hormonal imbalances and thus affect menstruation. Pelvic neoplasms, discussed later, also cause abnormal bleeding.

INTERDISCIPLINARY CARE



The care of the woman with DUB focuses on identifying and treating the underlying disease. A careful history and physical examination are performed. Abdominal and pelvic examinations are performed to rule out abdominal masses. The woman may need to keep a menstrual history and basal body temperature chart for several months to determine whether ovulation is occurring.

Diagnosis

A variety of diagnostic tests are used to diagnose the cause of DUB. Diagnostic tests are discussed in Chapter 49 , and include a Pap smear to rule out or identify cervical carcinoma, a pelvic ultrasound to identify luteal cysts, a hysteroscopy to detect abnormalities of the uterine cavity, or an endometrial biopsy to obtain endometrial tissue for histologic examination.

Laboratory studies may include the following:

- A *complete blood count (CBC)* to rule out systemic disease as a contributing factor to DUB and to evaluate its effects.
- *Thyroid function studies*, including measurement of triiodothyronine (T₃), thyroxine (T₄), and thyroid-stimulating hormone (TSH) levels, to rule out hyper- or hypothyroidism as a cause of DUB.
- Endocrine studies to evaluate pituitary and adrenal function. Pituitary dysfunction may first be manifested by menstrual irregularities.
- Serum progesterone levels to determine the level of progesterone deficiency.

Medications

For many women, hormonal agents can correct menstrual irregularities. For anovulatory DUB, oral contraceptives may be prescribed for 3 to 6 months. Progesterone or medroxyprogesterone also may be prescribed to regulate uterine bleeding.

Ovulatory DUB may be treated with progestins during the luteal phase. Oral iron supplements may be prescribed to replace iron lost through menstrual bleeding.

Surgery

Surgical intervention emphasizes the least invasive method that proves effective relief, beginning with a therapeutic dilation

and curettage (D&C), then endometrial ablation, and, finally, hysterectomy.

THERAPEUTIC D&C In a therapeutic D&C, the cervical canal is dilated and the uterine wall is scraped. D&C, the most frequently performed minor gynecologic surgical procedure, is used to diagnose and treat DUB and other disorders of the female reproductive system. It may be performed to correct excessive or prolonged bleeding. D&C is contraindicated in any woman who has been taking anticoagulant drugs or whose condition precludes the use of regional or general anesthesia. Nursing care of the woman having a D&C is described in the box below.

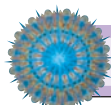
ENDOMETRIAL ABLATION In an endometrial ablation, the endometrial layer of the uterus is permanently destroyed using laser surgery or electrosurgical resection. It is performed in women who do not respond to pharmacologic management or D&C. The woman needs to understand that this procedure ends menstruation and reproduction.

HYSTERECTOMY Hysterectomy, or removal of the uterus, may be performed when medical management of bleeding disorders is unsuccessful or malignancy is present, particularly if the woman no longer wishes to bear children. In premenopausal women, the ovaries are usually left in place; in postmenopausal women, a total hysterectomy, or panhysterectomy, may be performed; this procedure involves removal of the uterus, fallopian tubes, and ovaries.

FAST FACTS

Hysterectomy

- Approximately 600,000 hysterectomies are performed each year in the United States, and an estimated 20 million women have had a hysterectomy (Centers for Disease Control and Prevention, 2006d).
- This surgery is most often performed in women who are between the ages of 40 and 44.
- The three conditions most associated with hysterectomy are uterine leiomyoma (fibroids), endometriosis, and uterine prolapse.



NURSING CARE OF THE WOMAN HAVING A Dilation and Curettage (D&C)

PREOPERATIVE CARE

- If ordered, ask the woman to come in 24 hours before surgery for insertion of a laminaria tent. *This device absorbs cervical secretions and slowly dilates the cervix.*
- Instruct the woman to remain NPO after midnight on the day of surgery.

POSTOPERATIVE CARE

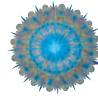
- Monitor circulation and sensation in the legs, and avoid compression of the popliteal area. *The lithotomy position requires the woman's legs to be elevated in stirrups, which can impair circulation.*

- Instruct the woman to use perineal pads and avoid tampons for 2 weeks. *This reduces the risk of infection and allows tissues to heal.*
- Explain that the onset of the next menstrual period may be delayed.
- Explain that intercourse should be avoided until after the postoperative checkup and after vaginal discharge has ceased. *This precaution reduces the risk of infection.*
- Instruct the woman to rest for several days after surgery, avoid heavy lifting, and report any bleeding that is bright red or exceeds that of a normal menstrual period. *Vigorous activity, lifting, or straining interferes with healing and may cause hemorrhage.*

Hysterectomy may involve either an abdominal or a vaginal approach. The choice depends on the underlying disorder, the need to explore the abdominal cavity, and the preference of the surgeon and woman. Nursing care of the woman undergoing a hysterectomy is described in the box below.

Abdominal hysterectomy is performed when a preexisting abdominal scar is present, when adhesions are thought to be present, or when a large operating field is necessary. For example, the woman with endometriosis is more likely to have an abdominal hysterectomy because endometrial tissue implants that may be present on other abdominal organs need to be removed. The surgical incision may be either longitudinal, made in the midline from umbilicus to pubis, or a *Pfannenstiel incision*, also known as the bikini cut.

Vaginal hysterectomy, removal of the uterus through the vagina, is desirable when the uterus has descended into the vagina or if the urinary bladder or rectum have prolapsed into the vagina. Vaginal hysterectomy leaves no visible abdominal scar. Laparoscopy-assisted vaginal hysterectomy (LAVH) is most often performed.



NURSING CARE

DUB usually causes the woman anxiety. Her self-image, sexuality, or reproductive capacity may be threatened, and she may fear the possibility of cancer. She may be embarrassed to discuss her menstrual history and hygiene practices.

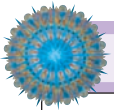
Nursing Diagnoses and Interventions

Interventions for the woman with DUB commonly address problems with anxiety and sexual function.

Anxiety

The anxiety associated with abnormal uterine bleeding can be intense. Until the cause of the bleeding is identified and has been addressed, the woman may fear cancer or other life-threatening conditions.

- Discuss the results of tests and examinations with the woman. *This allows for open exchange of information.*
- Provide information about the causes, treatments, risks, long-term effects of treatments, and prognosis. *This allows the woman to assume responsibility for her own health and become involved in her own treatment plan.*



NURSING CARE OF THE WOMAN HAVING A Hysterectomy

PREOPERATIVE CARE

- Assess the woman's understanding of the procedure. Provide explanation, clarification, and emotional support as needed. Reassure that the anesthesia will eliminate any pain during surgery and that medication will be administered postoperatively to minimize discomfort. *The woman who understands about the procedure to be performed and what to expect after surgery will be less anxious.*
- Cleanse the abdominal and perineal area, and, if ordered, shave the perineal area.
- If ordered, administer a small cleansing enema and ask the woman to empty her bladder. *This precaution helps prevent contamination from the bowel or bladder during surgery.*
- Administer preoperative medications as ordered.
- Check the chart to ensure that the consent form has been signed.

POSTOPERATIVE CARE

- Assess for signs of hemorrhage. *Hemorrhage is more common after vaginal hysterectomy than after abdominal hysterectomy.*
- Monitor vital signs every 4 hours, auscultate lungs every shift and measure intake and output. *These data are important indicators of hemodynamic status and complications.*
- Once the catheter has been removed, measure the amount of urine voided.
- Assess for complications, including infection, ileus, shock or hemorrhage, thrombophlebitis, and pulmonary embolus.
- Assess vaginal discharge; instruct the woman in perineal care.
- Assess incision and bowel sounds every shift.
- Encourage turning, coughing, deep breathing, and early ambulation.
- Encourage fluid intake.

- Teach to splint the abdomen and cough deeply. Teach the use of the incentive spirometer.
- Instruct to restrict physical activity for 4 to 6 weeks. Heavy lifting, stair climbing, douching, tampons, and sexual intercourse should be avoided. The woman should shower, avoiding tub baths, until bleeding has ceased. *Infection and hemorrhage are the greatest postoperative risks; restricting activities and preventing the introduction of any foreign material into the vagina helps reduce these risks.*
- Explain to the woman that she may feel tired for several days after surgery and needs to rest periodically.
- Explain that appetite may be depressed and bowel elimination may be sluggish. *These are aftereffects of general anesthesia, handling of the bowel during surgery, and loss of muscle tone in the bowel while empty.*
- Teach the woman to recognize signs of complications that should be reported to the physician or nurse:
 - a. Temperature greater than 100°F (37.7°C)
 - b. Vaginal bleeding that is greater than a typical menstrual period or is bright red
 - c. Urinary incontinence, urgency, burning, or frequency
 - d. Severe pain.
- Encourage the woman to express feelings that may signal a negative self-concept. Correct any misconceptions. *Some women believe that hysterectomy means weight gain, the end of sexual activity, and the growth of facial hair.*
- Provide information on risks and benefits of hormone replacement therapy, if indicated. *If the ovaries have also been removed, the woman is immediately thrust into menopause and may want or need hormone replacement therapy.*
- Reinforce the need to obtain gynecologic examinations regularly even after hysterectomy.

- Evaluate coping strategies and psychosocial support systems. Teach coping strategies if indicated. *The possibility of surgery or cancer represents a crisis for the woman and her support system. Support groups can provide assistance for the woman through crisis intervention.*

Sexual Dysfunction

The woman with DUB may be unwilling to express herself sexually, particularly if bleeding is frequent or heavy. Additionally, fatigue may prevent her from participating in sexual activity.

- Offer information about engaging in sexual activity during menstruation. Explain that conception is possible during this time and that orgasm may help relieve symptoms. *Some women mistakenly believe that birth control measures are unnecessary during menstruation. Orgasm causes a release of tension and vascular congestion and frequently provides at least temporary relief of symptoms.*
- Provide an opportunity for the expression of concerns related to alterations in lifestyle and sexual functioning. *Some women have had a prolonged period of sexual abstinence related to DUB. Allowing women to verbalize concerns can assist them in working collaboratively with the healthcare provider to minimize the impact of illness and optimize function.*
- Encourage frequent rest periods. *This conserves energy and may allow sexual activities to resume.*

- Provide information about alternative methods of sexual expression. *Methods of sexual expression other than vaginal intercourse may satisfy the needs of both partners.*

PRACTICE ALERT

If the nurse is not comfortable with frank discussions about sexual activities, referral is indicated.

Community-Based Care

Provide support, appropriate reassurance, and information to help the woman and her family better understand her disorder and the therapeutic interventions indicated. Teaching also includes self-care measures that help minimize the effects of DUB on the daily functioning of the woman. The following topics should be included:

- Administration and side effects of prescribed medications, including iron
- The need to maintain a balanced diet, increasing iron-rich foods such as eggs, beans, liver, beef, and shrimp (Inform the woman that while orange juice may improve the absorption of iron, foods high in calcium and oxalic acid, such as spinach, may reduce its absorption.)
- Importance of maintaining a fluid intake of 2000 to 3000 mL a day
- The need to immediately report recurring episodes of DUB, particularly in postmenopausal women, to the healthcare provider.

STRUCTURAL DISORDERS

Structural disorders of the female reproductive system include displacement disorders and fistulas.

THE WOMAN WITH A UTERINE DISPLACEMENT

The uterus may be displaced within the pelvic cavity or may descend into the vaginal canal. Displacement of the uterus within the pelvic cavity is classified according to the direction of the displacement (Figure 51–2 ■):

- *Retroversion* of the uterus is a backward tilting of the uterus toward the rectum.
- *Retroflexion* involves a flexing or bending of the uterine corpus in a backward manner toward the rectum.
- *Anteversio*n is an exaggerated forward tilting of the uterus.
- *Anteflexio*n is a flexing or folding of the uterine corpus upon itself.

Prolapse of the uterus into the vaginal canal can vary from mild to complete prolapse outside of the body. First-degree, or mild, prolapse involves a descent of less than half the uterine corpus into the vagina. Second-degree, or marked, prolapse involves the descent of the entire uterus into the vaginal canal, so that the cervix is at the introitus to the vagina. Third-degree prolapse, or *procidentia*, is complete prolapse of the uterus outside the body, with inversion

of the vaginal canal (Figure 51–3 ■). Prolapse of the uterus is often accompanied by *cystocele* (herniation of the bladder into the vagina) or *rectocele* (herniation of the rectum into the vagina).

Pathophysiology

Displacement or prolapse of the uterus, bladder, or rectum can be a congenital or an acquired condition. Congenital tilting or flexion of the uterus is rare. More commonly, tilting or flexion disorders in which the uterus remains within the pelvic cavity are related to the scarring and inflammation of pelvic inflammatory disease, endometriosis, pregnancy, and tumors.

Downward displacement of the pelvic organs into the vagina results from weakened pelvic musculature, usually attributable to stretching of the supporting ligaments and muscles during pregnancy and childbirth. Unrepaired lacerations from childbirth, rapid deliveries, multiple pregnancies, congenital weakness, or loss of elasticity and muscle tone with aging may contribute to these disorders.

Manifestations

The manifestations of displacement disorders are listed on page 1807.

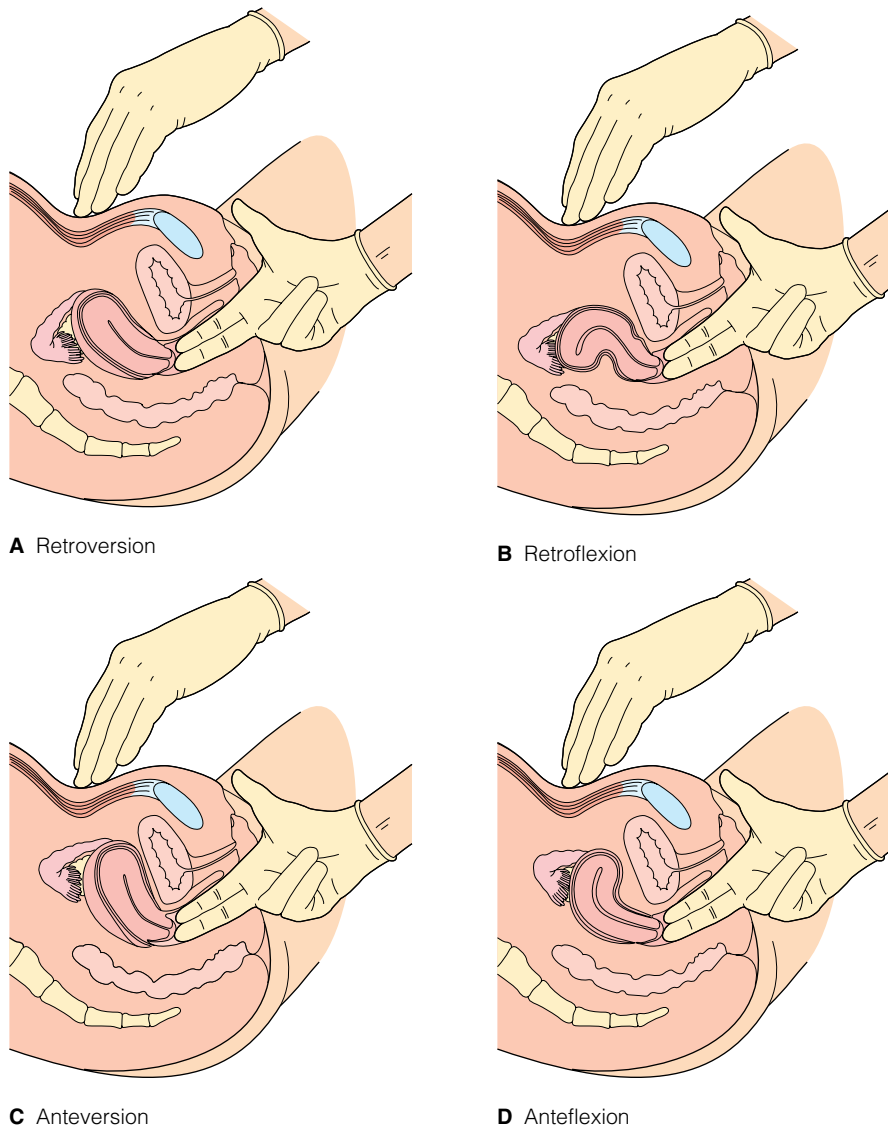


Figure 51-2 ■ Displacements of the uterus within the uterine cavity. *A*, Retroversion is a backward tilting. *B*, Retroflexion is a backward bending. *C*, Anteversion is a forward tilting. *D*, Anteflexion is a forward bending.

INTERDISCIPLINARY CARE



Interdisciplinary care focuses on identifying the cause of the structural disorder, correcting or minimizing the condition, relieving pain, preventing or treating infection, and supporting and educating the woman.

A careful history and physical examination are performed. Diagnosis of uterine displacement is made after physical examination. If herniation of the rectum or bladder is suspected, the woman is asked to bear down or cough during the examination so the prolapse can be palpated and any leakage of urine or feces visualized. A history of infections, multiple pregnancies in rapid succession, and rapid labors support this diagnosis.

Treatment may include Kegel exercises to strengthen weakened pelvic muscles. Kegel exercises can be useful in the early stages of downward displacement. These exercises are discussed in Chapter 28 ∞.

Surgery

Several surgical procedures are used to repair structural disorders. For women presenting with a cystocele, anterior *colporrhaphy* (repair of the cystocele) is the most common procedure. The anterior repair shortens the pelvic muscles, providing tighter support for the bladder. The *Marshall-Marchetti-Krantz procedure* involves resuspension of the urinary bladder in correct anatomic position. A rectocele is repaired with a posterior *colporrhaphy*, which shortens the pelvic muscles, providing a tighter support for the rectum.

A prolapsed uterus may be surgically repositioned and the supporting muscles shortened to provide greater support. In postmenopausal women or women with *procidentia*, hysterectomy is the preferred treatment.

Pessary

When surgery is contraindicated, a *pessary* (a removable device) may be inserted into the vagina to provide temporary sup-



Figure 51-3 ■ Prolapse of the uterus can vary from mild to complete. In third-degree uterine prolapse, or procidentia, the uterus prolapses completely outside the body, with inversion of the vagina.

Source: M. English/Custom Medical Stock Photo.

port for the uterus or bladder. At regular intervals, the pessary is removed, cleaned, and reinserted.



NURSING CARE

Nursing care focuses on education about the disorder, proposed treatments, and self-care measures for relief of symptoms.

Nursing Diagnoses and Interventions

Nursing interventions for the woman with a displacement disorder address problems with urinary incontinence and anxiety.

Stress Incontinence

Relaxation of the pelvic floor can lead to stress incontinence. This can prove both troublesome and embarrassing and can increase the incidence of urinary tract infection.



MANIFESTATIONS of Displacement Disorders

Uterine Displacement within the Pelvic Cavity

- Dysmenorrhea
- Dyspareunia
- Backache
- Infertility

Uterine Prolapse

- Backache
- Bearing-down sensation
- Constipation
- Urinary incontinence
- Hemorrhoids
- Dyspareunia

Cytocele/Rectocele

- Bearing-down sensation
- Constipation
- Fecal incontinence
- Hemorrhoids
- Urinary incontinence

- Teach Kegel exercises. *These exercises strengthen perineal muscle tone, minimize urinary leakage, and minimize descent of the bladder and rectum into the vagina. In postmenopausal women, estrogen supplements also can improve muscle tone in the perineal area.*
- Suggest the use of perineal pads (ranging from thin panty liners to full-thickness incontinence pads) or special underwear (such as Depends) to absorb urine leakage. *Using pads or undergarments often allows the woman to once again take part in her usual social activities.*
- Explain perineal care and proper use of perineal pads. *Cleansing the perineum from front to back, and applying and removing perineal pads the same way, minimizes cross-infection from the anus to the vaginal and urethral openings. Incontinence pads need to be changed frequently to minimize surface bacterial counts.*
- Suggest reducing or eliminating caffeine intake. *Reducing caffeine intake can reduce urinary frequency and urgency.*
- Stress the importance of cleaning the perineal area. *Urine is very irritating to the skin.*

Anxiety

Anxiety is common among women with a displacement disorder. Many women have only a cursory understanding of their reproductive anatomy. This lack of knowledge often compounds the anxiety. The nurse can use drawings and models to explain structural disorders and treatment options available.

- Encourage questions from the woman and her partner. *This helps assess the level of understanding so that teaching can be more effective.*
- Explain that the relief from discomfort and fatigue may positively influence sexual expression, and reassure the woman that the capacity for orgasm will not be affected. *Many women and their partners have major concerns about the effects of the disorder and its treatment on their sex life and capacity for sexual pleasure.*
- Explore coping mechanisms that have been previously successful. *This can help relieve anxiety and boost self-esteem.*

Community-Based Care

If surgery is the treatment of choice, teaching centers on what to expect in the preoperative and postoperative periods. If medical treatment is used initially, teaching focuses on measures to relieve the manifestations, such as Kegel exercises, use of incontinence pads, or the use, care, and insertion of a pessary.

Because obesity is a risk factor associated with relaxation of the pelvic and abdominal muscles, dietary counseling may be indicated. Preoperatively, a diet high in fiber may alleviate constipation, a particular concern during the postoperative period.

THE WOMAN WITH A VAGINAL FISTULA

A fistula is an abnormal opening or passage between two organs or spaces that are normally separated or an abnormal passage to the outside of the body. Vaginal fistulas may be vesicovaginal or rectovaginal. A *vesicovaginal fistula* is an abnormal opening between the urinary bladder and the vagina,


leading to incontinent leakage of urine through the vagina. A *rectovaginal fistula* (less common) is an abnormal opening between the rectum and vagina, causing incontinent leakage of stool or flatus through the vagina.

Fistulas between the bladder and the vagina (vesicovaginal) or between the rectum and the vagina (rectovaginal) may develop as a complication of childbirth, gynecologic or urologic surgery, or radiation therapy for gynecologic cancer. Cancer of the bladder is sometimes involved. The woman with a vaginal fistula often presents with a complaint of involuntary leakage of urine or flatus and symptoms of infection.

Interdisciplinary Care

Fistulas are diagnosed by pelvic examination. Diagnosis of a vesicovaginal fistula can be made by instilling dye into the urinary bladder through a catheter and observing the vagina for leakage. If no leakage is detected, a tampon or vaginal pack is inserted into the vagina, and the woman is asked to ambulate. If an abnormal opening is present, the tampon will absorb the dye. Dye may also be injected intravenously because it is ex-

creted by the kidneys. Urine and vaginal cultures may be performed to rule out infections. Antibiotics are administered if infection is present.

A small vaginal fistula may resolve spontaneously. Otherwise, surgery is performed after inflammation has subsided, often a period of several months. Rarely, in the presence of a large, highly inflamed rectovaginal fistula, a temporary colostomy is performed, allowing inflammation and irritation to subside (see Chapter 26 ) .

Nursing Care

Nursing care for the woman with repair of a vaginal fistula is similar to that for the woman with a displacement disorder. Teaching is an important component of nursing care. Stress the importance of careful perineal cleansing to reduce irritation and prevent further tissue breakdown. Suggest perineal irrigation or sitz baths for cleansing. Perineal pads or special underwear may be used to absorb urine or fecal drainage. For the woman with a rectovaginal fistula, provide information about avoiding gas-forming foods to minimize embarrassment from odor.

DISORDERS OF FEMALE REPRODUCTIVE TISSUE

Both benign and malignant tissue disorders affect the female reproductive system. Benign tumors and cysts include Bartholin's gland cysts, cervical polyps, endometrial cysts and polyps, ovarian cysts, and uterine leiomyomas (fibroids). Endometriosis is a condition in which endometrial tissue implants outside the uterus in various locations in the pelvic cavity. Malignant tumors of reproductive tissue include cervical cancer, endometrial cancer, ovarian cancer, and vulvar cancer.

THE WOMAN WITH CYSTS OR POLYPS

A *cyst* is a fluid-filled sac. A *polyp* is a highly vascular solid tumor attached by a pedicle or stem. Cysts or polyps of the female reproductive system can occur in the vulva, cervix, endometrium, or ovaries.

Pathophysiology

Following are different types of female reproductive tissue cysts and polyps:

- *Bartholin's gland cysts* are the most common cystic disorder of the vulva. These cysts are caused by the infection or obstruction of Bartholin's gland.
- *Cervical polyps* are the most common benign cervical lesion in women of reproductive age. These polyps tend to occur in women over age 40 who have borne several children and have a history of using oral contraceptives. It is possible that cervical polyps develop from endocervical hyperplasia. The polyp develops at the vaginal end of the cervix, has a stem, and is highly vascular.
- *Endometrial cysts and polyps* are caused by endometrial overgrowth and are often filled with old blood (the dark color leads to the label "chocolate cysts"). Endometrial cysts are the result of endometrial implants on the ovary and are asso-

ciated with endometriosis. Endometrial polyps, in contrast, are intrauterine overgrowths, similar to cervical polyps, and usually have a stalk.

- *Ovarian cysts* are classified as follicular cysts and corpus luteum cysts. Follicular cysts develop as a result of failure of the mature follicle to rupture or failure of an immature follicle to reabsorb fluid after ovulation. Corpus luteum cysts develop as a result of increased hormone secretion by the corpus luteum after ovulation. Most functional cysts regress spontaneously within two or three menstrual cycles.
- *Polycystic ovarian syndrome* (POS, also known as *Stein-Leventhal syndrome*) is an endocrine disorder characterized by an excess of androgens and a long-term lack of ovulation. The exact cause is unknown. As a part of the disease, as many as 8 to 10 cysts form in the ovaries from a failure to release ovum. Manifestations include amenorrhea or irregular menses, hirsutism, obesity, acne, hypertension, sleep apnea, and infertility. Women with POS often have insulin resistance and are at increased risk for early-onset type 2 diabetes, as well as heart disease, breast cancer, and endometrial cancer.

Manifestations and Complications

The causes and manifestations of benign cysts and polyps of the female reproductive system are presented in Table 51-1. Complications associated with these disorders include infection, rupture, infertility, hemorrhage, and recurrence.

INTERDISCIPLINARY CARE

Care focuses on identifying and correcting the disorder and preventing its recurrence. A careful history and physical examination are performed, including inspection and visualization.



TABLE 51–1 Benign Cysts and Polyps of the Female Reproductive System

SITE	TYPE	ETIOLOGIC ORIGIN	MANIFESTATIONS
Ovary	Functional cysts	Ovulation—include follicular cysts and corpus luteum cysts	May resolve spontaneously; can cause pain, menstrual irregularity, or amenorrhea
	Polycystic ovarian syndrome	Unknown; possible hypothalamic-pituitary dysfunction	Hirsutism, obesity; amenorrhea or irregular menses; hyperinsulinemia; infertility
Vulva	Bartholin cysts	Obstruction or infection of Bartholin's gland	Pain, redness, perineal mass, dyspareunia
Endometrium	Chocolate cysts	Endometrial overgrowth; filled with old blood	
	Endometrial polyps	Unknown	Bleeding between periods
Cervix	Cervical polyps	Unknown	Bleeding after intercourse or between periods

Examination of the reproductive tract reveals the presence of most cysts and polyps. The menstrual history may reveal menstrual irregularities.

Diagnosis

Diagnostic tests that may be used to diagnose cysts and polyps of the female reproductive system include a laparoscopy to visualize ovarian cysts, an ultrasound or x-ray to differentiate cysts from solid tumors, and a pregnancy test when luteal cysts are suspected. Laboratory analysis will demonstrate elevated LH and testosterone levels, as well as a reverse in FSH/LH in the woman with polycystic ovary syndrome (POS).

Medications

Antibiotics are used to treat infection or abscess, and oral contraceptives are used to promote regression of functional ovarian cysts. Clomiphene (Clomid, Serophene) may be prescribed to stimulate ovulation in the woman with POS who wishes to become pregnant. Dexamethasone (Decadron) suppresses ACTH and adrenal androgens, and may be added to increase the likelihood of ovulation.

Surgery

Cervical polyps are visible through a vaginal speculum and usually are removed with a clamp, using a twisting motion. To remove endometrial cysts or polyps, a transcervical approach is used. The specimen is sent to the laboratory for evaluation, and chemical or electrical cauterization is applied after cyst removal. For Bartholin's gland cysts and any abscesses, the lesion is incised and drained, and a drainage device is left in place. Follicular cysts may be punctured through laser surgery, or a wedge resection of the ovary may be performed to restore ovulation. Rarely, *oophorectomy* (removal of the ovary) is performed if the cysts are very large.

- If cervical polypectomy is performed, advise use of external pads for 1 week. The woman must be able to state the signs of excessive bleeding and recognize that saturating more than one pad in an hour indicates the need for immediate follow-up.
- The importance of long-term follow-up care for the woman with POS.

THE WOMAN WITH LEIOMYOMA

Leiomyomas (*fibroid tumors*) are benign tumors that originate from smooth muscle of the uterus. They are the most common form of pelvic tumor, believed to occur in 1 of every 4 or 5 women older than 35 years of age (Porth, 2005). Fibroids are seen more often and grow more rapidly in African American women.

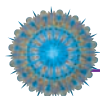
Pathophysiology

The actual cause of fibroid tumors is not clearly understood, but there is a strong association with estrogen stimulation. Fibroid tumors usually develop in the uterine corpus, and may be intramural, subserous, or submucous (Figure 51–4 ■):

- *Intramural fibroid tumors* (the most common type) are embedded in the myometrium. They usually present as an enlargement of the uterus.
- *Subserous fibroid tumors* lie beneath the serous lining of the uterus and project into the peritoneal cavity. They may become pedunculated (on a stem) and displace or compress other tissues, such as the ureter or bladder.
- *Submucous fibroid tumors* lie beneath the endometrial lining of the uterus. They displace endometrial tissue and are more likely to cause bleeding, infection, and necrosis than the other types.

Manifestations

Small tumors may be asymptomatic. The rate of growth varies, but they may increase in size during pregnancy or with use of oral contraceptives or HRT. Large fibroid tumors can crowd other organs, leading to pelvic pressure, pain, dysmenorrhea, menorrhagia, and fatigue. Depending on the location of the tumor, constipation and urinary urgency and frequency may occur. Most fibroid tumors shrink with menopause.



NURSING CARE

Nursing care focuses on relieving pain and preventing recurrence and complications. Address the following topics for self-care at home:

- The condition, its treatment, and measures to relieve pain
- The importance of keeping follow-up appointments
- Manifestations of infection (for postsurgical care) and the need to notify the physician should they occur

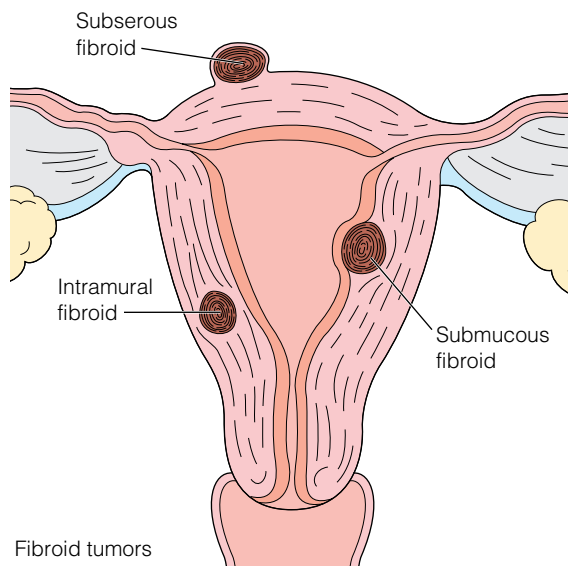


Figure 51–4 ■ Types of uterine fibroid tumors (leiomyomas). Intramural fibroid tumors lie within the uterine wall. Subserous fibroid tumors lie beneath the serous lining of the uterus and project into the peritoneum. Submucous fibroid tumors lie beneath the endometrial lining of the uterus.

INTERDISCIPLINARY CARE

Treatment of the woman with uterine fibroids depends on the size and location of the tumors, the severity of the manifestations, and her age and childbearing status. Tests used to diagnose uterine fibroids may include an ultrasound to differentiate leiomyoma from endometriosis and a laparoscopy to visualize subserosal leiomyomas.

In asymptomatic women who wish to bear children, the fibroid tumors are monitored. Follow-up is recommended two to three times per year to monitor growth.

Medications

Leuprolide acetate (Lupron) is used to decrease the size of the tumor if surgery is contraindicated or not desired. Gonadotropin-releasing hormone (GnRH) agonists are also administered.

Surgery

Myomectomy, removal of the tumor without removing the entire uterus, is the surgical procedure of choice for young women who wish to retain reproductive capability. Laparoscopic laser technique is used for many women. A hysterectomy is performed if tumors are large, and if bleeding or other problems continue in perimenopausal women. A hysterectomy usually requires a hospital stay of 3 to 4 days, and a 6-week recovery time. A nonsurgical method of treatment is a *uterine fibroid embolization*. In this procedure, a catheter is guided through the femoral artery to the uterus, where tiny particles are injected into the artery supplying the fibroid to cut off the fibroid's blood supply. This procedure requires only an overnight hospital stay with a return to normal activities in 1 week.



NURSING CARE

If surgery is deferred, teaching emphasizes the importance of regular follow-up assessments to monitor tumor growth. If a hysterectomy is performed, teaching emphasizes appropriate preoperative and postoperative care. Dietary modifications to increase iron intake, prevent constipation, and promote healing are important.

THE WOMAN WITH ENDOMETRIOSIS

Endometriosis is a condition in which multiple, small, usually benign implantations of endometrial tissue develop most commonly in the pelvic cavity, but may also be found in other areas of the body, such as the lungs. Endometriosis affects from 10% to 15% of women of childbearing age and is more common in women who postpone childbearing. Risk factors for endometriosis include early menarche, regular periods with a cycle of less than 27 days, menses lasting more than 7 days, heavier flow, increased menstrual pain, and a history of the condition in first-degree female relatives (Porth, 2005).

Pathophysiology

The cause of endometriosis is unclear, but several theories have been proposed. The metaplasia theory asserts that endometrial tissue develops from embryonic epithelial cells as a result of hormonal or inflammatory changes. The theory of retrograde menstruation suggests that menstrual tissue backs up through the fallopian tubes during menses, implants on various pelvic structures, and survives. The transplantation theory asserts that endometrial implants spread via lymphatic or vascular routes.

The abnormally located endometrial tissue responds to cyclic ovarian hormone stimulation, and bleeding at the time of menstruation occurs at the sites of implantation. Scarring, inflammation, and adhesions may develop. Endometriosis is a slowly progressive disease, responsive to ovarian hormone stimulation. Thus, the implants regress during pregnancy and atrophy at menopause unless the woman is receiving HRT. Because progressive scarring may interfere with the ability to conceive, women with significant endometriosis are encouraged to have children early if they wish to do so.

Manifestations

Manifestations of endometriosis, which usually occur during the luteal phase of the menstrual cycle, are summarized on the next page.

INTERDISCIPLINARY CARE

Endometriosis may be difficult to diagnose, but a history of dysmenorrhea, dyspareunia, and infertility strongly suggests this diagnosis. Interventions depend on the severity of symptoms, the extent of the disease, and the woman's age and desire for childbearing. Treatment goals focus on pain management and restoring fertility.

Diagnosis

Diagnostic tests are ordered to rule out other medical conditions and identify the endometrial implants. The tests include a pelvic ultrasound and laparoscopy (see Chapter 49 ∞) as

 **MANIFESTATIONS of Endometriosis**

- Heavy, throbbing pain of the lower abdomen and pelvis, radiating down the thighs and around the back (The degree of pain, however, is not indicative of the severity of the disease.)
- Feeling of rectal pressure and discomfort when having a bowel movement
- Dyspareunia
- Dysfunctional uterine bleeding
- Infertility

well as a CBC with differential to rule out pelvic abscesses and infectious processes. A low hemoglobin and hematocrit may be noted if menorrhagia accompanies endometriosis or tissue implants bleed significantly during the menses.

Medications

Medications include analgesics to control pain and prostaglandin synthesis inhibitors such as NSAIDs. Hormone

therapy may include oral contraceptives or progesterone to induce pseudopregnancy, or danazol (Danocrine) to induce amenorrhea and involution of endometrial tissue. Prolonged use of danazol, however, may result in masculinizing effects. GnRH is used to elevate levels of estrogen and progesterone and minimize bleeding.

Surgery

Surgical interventions include laparoscopy with laser ablation (excision or removal) of endometrial implants. Refractory endometriosis may be treated with total hysterectomy.

 **NURSING CARE**

Nursing care includes providing pain relief, providing education about the condition and the treatment options, and helping the woman cope with treatment outcomes. The severity of the disease and its manifestations are not necessarily related. Advanced disease may exhibit few manifestations, whereas early disease may be quite painful. A Nursing Care Plan for a woman with endometriosis is found below.

 **NURSING CARE PLAN A Woman with Endometriosis**

Angela Hall is a 31-year-old married accountant, who relates a history of severe dysmenorrhea and menorrhagia, a feeling of pelvic heaviness and pain that radiates down her thighs. Because of her discomfort, her husband has complained about the quality of their sex life and has expressed concerns about their plans for having children. Mrs. Hall reports being so tired she doesn't care whether she has sex or not, and, in fact, would really prefer not to: "Sex hurts so much, I just can't stand it." Endometriosis is suspected, and a diagnostic laparoscopy has been scheduled.

ASSESSMENT

Christine Brigham, RN, NP, interviews Mrs. Hall and makes the following assessments: BP 110/70, P 68, R 18, T 98.2°F (36.7°C). Mrs. Hall's weight is 130 lb (59 kg) and within normal limits for her height. Review of laboratory findings indicate a hemoglobin level of 9.8 g/dL (normal range: 12 to 16 g/dL) and a hematocrit of 33.1% (normal range: 35% to 45%). Physical examination reveals pelvic tenderness on manipulation of the cervix, and small masses that are palpable on abdominal/pelvic examination.

DIAGNOSES

- *Chronic Pain* related to endometrial pelvic implants
- *Anxiety* related to effect of endometriosis on fertility
- *Deficient Knowledge* related to diagnosis and treatment options
- *Ineffective Sexuality Pattern* related to the manifestations of endometriosis

EXPECTED OUTCOMES

- Develop effective self-care measures to deal with the pain and discomfort.
- Verbalize decreased anxiety.
- Demonstrate understanding of the disease and treatment options.
- Verbalize an improvement in sexual functioning and a decrease in interpersonal stress between herself and her husband.

PLANNING AND IMPLEMENTATION

- Identify the location, type, duration, and history of the pain.
- Recommend analgesics and heat therapy.
- Provide information on biofeedback, relaxation, and imagery to lessen pain.
- Discuss with Mr. and Mrs. Hall the causes of endometriosis and its manifestations.
- Encourage the Halls to discuss their feelings about the effect of the disease on their sex life, lifestyle, and fertility.
- Refer the couple to the local mental health center if appropriate.

EVALUATION

Two years after the initiation of treatment, Mr. and Mrs. Hall have become parents of a baby girl. Mrs. Hall states that the discomfort and other manifestations of endometriosis have eased. Relaxation and imagery have effectively minimized her pain and brought about improvement in her function as wife, mother, and sexual partner. Counseling has improved the interpersonal and sexual relations between the Halls. Dietary management has improved her anemia, although the menorrhagia persists. The Halls are trying to have a second child, understanding the advantages of rapid succession of pregnancies. They will be followed in the nursing clinic and referred to an infertility clinic if conception does not occur within 1 year.

CRITICAL THINKING IN THE NURSING PROCESS

1. Explain the pathophysiologic basis for Mrs. Hall's anemia.
2. How would you handle the situation if Mr. and Mrs. Hall were extremely uncomfortable and embarrassed about discussing their sexual problems?
3. Develop a plan of care for Mrs. Hall for the nursing diagnosis *Situational Low Self-Esteem* related to the manifestations of endometriosis.

See Evaluating Your Response in Appendix C.

Nursing Diagnoses and Interventions

Interventions for pain, discussed previously, are also appropriate for the woman with endometriosis. A priority diagnosis for the young woman with this disorder is anxiety related to the risk for loss of reproductive function.

Anxiety

Anxiety about the unsure prognosis related to infertility is a particular problem for young women who plan to have a family in the future.

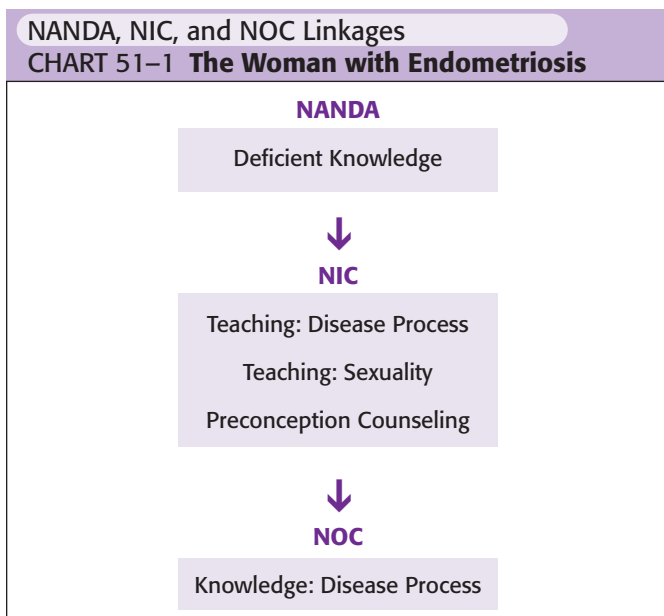
- Encourage expression of fears and anxiety about infertility, and answer questions honestly. *Knowledge helps relieve anxiety and fear.*
- Provide information on fertility awareness methods, including measurement of basal body temperature and other techniques for recognizing ovulation. *Understanding these techniques helps the woman and her partner optimize the conditions for conception.*

Using NANDA, NIC, and NOC

Chart 51–1 shows links between NANDA nursing diagnoses, NIC, and NOC when caring for the client with endometriosis.

Community-Based Care

Explain the cause of the disorder and the various treatment options, including their side effects. Discuss fertility awareness methods and the risks and benefits of long-term use of oral contraceptives. Stress the importance of exercise, smoking cessation, and weight control. If surgical treatment is chosen, provide preoperative and postoperative teaching.



Data from *NANDA's Nursing Diagnoses: Definitions & Classification 2005–2006* by NANDA International (2003), Philadelphia; *Nursing Interventions Classification (NIC)* (4th ed.) by J. M. Dochterman & G. M. Bulechek (2004), St. Louis, MO: Mosby; and *Nursing Outcomes Classification (NOC)* (3rd ed.) by S. Moorhead, M. Johnson, and M. Maas (2004), St. Louis, MO: Mosby.

THE WOMAN WITH CERVICAL CANCER

Cancer of the cervix is the second most common cancer in women worldwide, and the 14th most common in women in the United States (the lower number is primarily the result of screening with Pap tests). The incidence is greater in black women than in white women.

FAST FACTS

Cervical Cancer

- The American Cancer Society (ACS, 2006d) estimates that there will be more than 10,000 new cases of cervical cancer each year, resulting in nearly 4000 deaths annually.
- Nearly 100% of women with cervical cancer have evidence of cervical infection with human papillomavirus (HPV) (see Chapter 52 ∞).
- The FDA recently approved HPV testing as an adjunct to cervical cancer screening.

Effective screening with the Pap smear test and treatment have reduced the death rate by 55% during the last 30 years, although the death rates for blacks continues to be more than two times that of whites (ACS, 2006c). The age of diagnosis is usually between 50 and 55 years; however, cervical cancer begins to appear in women in their 20s.

Risk Factors

Risk factors for cervical cancer include infection of the external genitalia and anus with HPV, first intercourse before 16 years of age, multiple sex partners or male partners with multiple sex partners, a history of sexually transmitted infections, and infection with HIV. The most important risk factor is infection with HPV. Other risk factors include smoking and poor nutritional status, family history of cervical cancer, and exposure to diethylstilbestrol (DES) *in utero*.

Pathophysiology

Most cervical cancers (90%) are squamous cell carcinomas that begin as neoplasia in the cervical epithelium. *Precancerous dysplasia (cervical intraepithelial neoplasia [CIN], cervical carcinoma in situ)* is estimated to occur in one of eight women before the age of 20 and is often associated with HPV infection. Studies have also found a strong association with reproductive infections with *Chlamydia trachomatis*. (These infections are discussed in Chapter 52 ∞.) The precursor lesions may spontaneously regress (60%), persist (30%), or progress and undergo malignant change (10%). Only about 1% become invasive (Porth, 2005). Systems of grading of dysplastic changes in the cervix use the term *cervical intraepithelial neoplasia (CIN)* or the Bethesda system (Table 51–2). Carcinoma *in situ* is localized; invasive cancer spreads to deeper layers.

Cancer *in situ* most often develops in the transformation zone where the columnar epithelium of the cervical lining meets the squamous epithelium of the outer cervix and vagina. Squamous cell cancers spread by direct invasion of accessory structures, including the vaginal wall, pelvic wall, bladder, and rectum. Although metastasis is most frequently confined to the

TABLE 51–2 Classification Systems for Pap Smears

DYSPLASIA/NEOPLASIA	CIN (CERVICAL INTRAEPITHELIAL NEOPLASIA)	BETHESDA SYSTEM	NUMERICAL
Benign	Benign	■ Normal	1
Benign with inflammation	Benign with inflammation	■ Normal	2
		■ Atypical squamous cells of undetermined significance (ASC-US)	
Moderate dysplasia	CIN I	■ Low-grade squamous intraepithelial lesion (SIL)	3
Severe dysplasia	CIN II	■ High-grade SIL	3
Carcinoma <i>in situ</i>	CIN III	■ High-grade SIL	4
Invasive cancer	Invasive cancer	■ Invasive cancer	5

pelvic area, distant metastasis may occur through the lymphatic system.

Manifestations

Preinvasive cancer is limited to the cervix and rarely causes manifestations. Invasive cancer causes vaginal bleeding after intercourse or between menstrual periods, and a vaginal discharge that increases as the cancer progresses. These changes are subtle, and may be more readily noticed by the postmenopausal woman. Manifestations of advanced disease include referred pain in the back or thighs, hematuria, bloody stools, anemia, and weight loss.

INTERDISCIPLINARY CARE



The goals of treatment are to eradicate the cancer and minimize complications and metastasis. The type of treatment depends on the degree of malignant change, the size and location of the lesion, and the extent of metastasis.

Diagnosis

Diagnostic tests used to diagnose cervical cancer include a Pap smear, colposcopy, and cervical biopsy (see Chapter 49 ∞ for further information about these procedures). A loop diathermy technique (loop electrosurgical excision procedure [LEEP]) allows simultaneous diagnosis and treatment of dysplastic lesions found on colposcopy. This procedure is performed in the health provider's office, using a wire for both cutting and coagulation during excision of the dysplastic region of the cervix. An MRI or CT of the pelvis, abdomen, or bones may be performed to evaluate the spread of the tumor.

Medications

Chemotherapy is used for tumors not responsive to other therapy, tumors that cannot be removed, or as adjunct therapy if metastasis has occurred (see Chapter 14 ∞).

Surgery

When combined with colposcopy, laser surgery is a viable treatment method provided that the cancer is limited to the cervical epithelium. Cryosurgery, which involves the use of a probe to freeze tissue, causing necrosis and sloughing, is also

used for noninvasive lesions. Conization (Figure 51–5 ■) is performed to treat microinvasive carcinoma when colposcopy cannot define the limits of the invasion. For invasive lesions, hysterectomy or radical hysterectomy (removal of the uterus, fallopian tubes, lymph nodes, and ovaries) is performed.

A *pelvic exenteration*, the removal of all pelvic contents, including the bowel, vagina, and bladder, is performed if the cancer recurs without involvement of the lymphatic system. An anterior exenteration is the removal of the uterus, ovaries, fallopian tubes, vagina, bladder, urethra, and lymphatic vessels and nodes. An ileal conduit is created for excretion of urine (see Chapter 29 ∞). A posterior exenteration is the removal of the uterus, ovaries, fallopian tubes, bowel, and rectum. A colostomy is created for excretion of feces (see Chapter 26 ∞).

Radiation Therapy

Radiation therapy is used to treat invasive cervical cancer. External radiation beam therapy and intracavity cesium irradiation can be used. Radiation is discussed in Chapter 14 ∞.

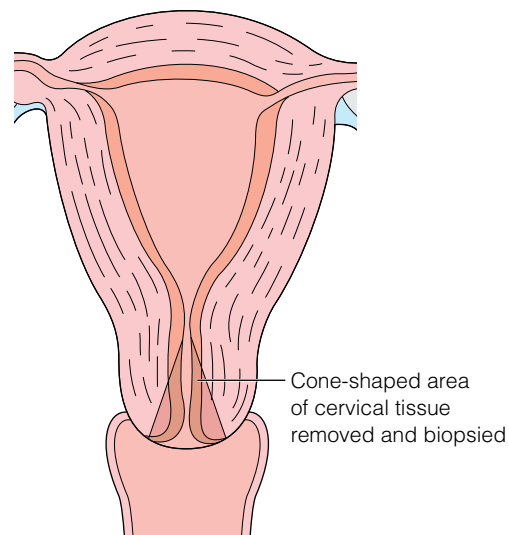
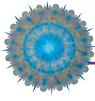


Figure 51–5 ■ Conization, the surgical removal of a cone-shaped section of the cervix, is used to treat microinvasive carcinoma of the cervix.



NURSING CARE

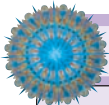
Nursing care involves helping the woman deal with the physical and psychologic effects of a potentially life-threatening illness, providing information needed to make informed decisions, and minimizing the adverse effects of therapy. Pain relief measures are important, as is grief work on the part of the woman and family. The woman should be encouraged to perform self-care activities and resume normal everyday activities and sexual functioning to the extent possible. A Nursing Care Plan for a woman with cervical cancer is found below.

Health Promotion

The ACS (2006c) recommends that women should begin annual screening for cervical cancer with the Pap test about 3 years after a woman begins having vaginal intercourse, but no later than 21 years of age. Screening should be done every year with regular

Pap tests or every 2 years using liquid-based tests. At or after the age of 30, after three consecutive normal Pap tests, screening can be performed every 2 to 3 years, at the discretion of the healthcare provider. Alternately, cervical cancer screening with HPV DNA tests and Pap tests may be performed every 3 years. Women 70 years of age and older who have had three or more normal Pap smears in the last 10 years may choose to stop cervical cancer screening. Screening for women who have had a total hysterectomy (including the cervix) is not recommended unless the surgery was done as a treatment for cancer. Women who have a hysterectomy without removal of the cervix should continue to follow ACS guidelines (ACS, 2006c).

It is vital that nurses educate women of all ages about controlling risk factors for cervical cancer and about the importance of screening for this cancer throughout the life span. Teach young women about the relationship between early sexual activity, multiple partners, and risk for STIs and cervical cancer. Discuss safer



NURSING CARE PLAN A Woman with Cervical Cancer

Anna Eliza Gillam is a 45-year-old divorced mother of four children ranging in age from 16 to 23. She was married at age 18 and had several sexual partners prior to her marriage. She has had three sexual partners since her marriage ended. Last year she was treated with cryosurgery for venereal warts. The Pap smear taken 2 weeks ago showed atypical cells, and she has come in for a repeat test.

ASSESSMENT

Judy Davis, RN, FNP, the admitting nurse, interviews Ms. Gillam and records the following assessment findings: BP 130/80, P 72, R 18, T 99.2°F (37.3°C). Ms. Gillam weighs 142 lb (64.5 kg). Examination of the cervix reveals a large necrotic lesion at the 7 o'clock position. She has reduced her smoking to less than 10 cigarettes per day, and she does not drink alcohol.

Ms. Gillam is extremely fearful and anxious and has told no one about her abnormal Pap smear. She reveals that she has had back pain radiating down her thighs for several months and a foul vaginal discharge that increases after intercourse. Until 2 weeks ago, she had not had a Pap smear for 5 years. Ms. Davis performs the repeat Pap smear, which is positive for squamous cell carcinoma of the cervix. A CT scan and lymphangiography are scheduled. Laparoscopy shows the disease to be widespread in the pelvic cavity.

DIAGNOSES

- *Decisional Conflict* related to treatment options
- *Chronic and Acute Pain* related to metastasis and surgery
- *Risk for Impaired Skin Integrity* related to radiation
- *Fear* related to diagnosis of cervical cancer
- *Anticipatory Grieving* related to potential loss of life

EXPECTED OUTCOMES

- Gain knowledge to make informed decisions about treatment options.
- Develop strategies for pain control.
- Maintain skin and tissue integrity during radiation treatment.
- Express her feelings about the fear of cancer and death.

- Develop effective coping strategies for dealing with life-threatening illness and pain.

PLANNING AND IMPLEMENTATION

- Discuss treatment alternatives, including the prognosis with each option.
- Administer pain medications as prescribed.
- Inspect skin surfaces daily before and after radiation therapy.
- Provide information on biofeedback training and relaxation techniques for control of moderate pain.
- Refer to a local cancer support group so that she can interact with cancer survivors.
- Refer Ms. Gillam to a social worker in preparation for her altered level of functioning.

EVALUATION

Ms. Gillam has begun radiation therapy following pelvic exenteration. She controls her pain with relaxation and imagery techniques, requiring only occasional analgesics. She uses a water-based lotion to soothe the skin surface and is careful not to remove the skin markings. She seems optimistic and has quit smoking. She and her family have continued to attend the cancer support group meetings. Ms. Gillam is planning for the future and has talked with her family about what it means to live with cancer.

CRITICAL THINKING IN THE NURSING PROCESS

1. Compare and contrast your teaching plan for health promotion interventions to decrease the risks of cervical cancer for a young woman of 17 and an older woman of 70. Would they differ and, if so, how?
2. Develop a teaching plan to help Ms. Gillam cope with the effects of radiation.
3. During a home visit, Ms. Gillam tells the nurse that she has been so tired since beginning radiation treatments that all she can do is sit in her chair. Design a plan of care for the nursing diagnosis *Fatigue*.
See Evaluating Your Response in Appendix C.

sex alternatives and using condoms for protection. Emphasize the importance of continued screening exams for the older woman who may not see a gynecologic specialist on a regular basis. Encourage women under the age of 26 to receive Gardasil, the vaccine developed to prevent cervical cancer, precancerous genital lesions, and genital warts due to HPV types 6, 11, 16, and 18. Gardasil is given as three injections over a six-month period and does not protect against HPV in a woman already infected. For this reason, a federal advisory panel is recommending that the vaccine be routinely given to girls ages 11 and 12 (ACS, 2006d).

Assessment

Collect the following data through a health history and physical examination (see Chapter 49 ∞):

- **Health history:** History of STIs, sexual history, partner's sexual history, family history of cervical cancer, vaginal bleeding or discharge, smoking history, maternal treatment with DES.
- **Physical assessment:** Pelvic examination, abdomen, lymph glands.

Nursing Diagnoses and Interventions

This section discusses nursing interventions for the woman who has been diagnosed with cervical cancer and requires surgical and/or radiation treatment. Other nursing diagnoses and interventions that may be appropriate for the woman with cervical cancer are discussed in the sections discussing other female reproductive system cancers.

Fear

Many people believe that cancer equals death; however, this is no longer true in many cases, especially with early diagnosis. For cervical cancer that is diagnosed at an early stage, the 5-year survival rate is 92%. If the disease is *in situ*, the rate is nearly 100% (ACS, 2006a).

- Explain that 71% of all women with cervical cancer survive for 5 years or more and that the earlier the cancer is detected, the better the prognosis. *This gives the woman hope, an essential ingredient in recovery.*
- Allow adequate time for the woman and her partner to express their concerns and to ask questions. *Unexpressed feelings and fears and lack of understanding may cause the woman to view the situation as worse than it is.*
- Refer to cancer counselor or support groups for additional information. *Cancer survivors who visit clients in the hospital provide proof that people can survive the diagnosis and treatment of cancer and lead normal, productive lives.*

Impaired Tissue Integrity

Surgery interrupts the integrity of the skin surface, providing a potential portal of invasion for bacteria. Radiation therapy causes an inflammatory response in the skin and mucous membranes within the field of radiation, creating further risk of tissue reaction and breakdown.

- Teach wound and skin care, particularly if pelvic exenteration is performed. Irrigations with saline or solutions of saline and hydrogen peroxide are performed at intervals, with dry heat applied thereafter to dry the area. *Open and damaged tissue in-*

creases the risk for infection. Meticulous skin and wound care is necessary to prevent infection and further tissue destruction.

- If appropriate, teach stoma care, and care for the skin surrounding the stoma. (These procedures are discussed in Chapters 26 ∞ and 29 ∞.) *Urine and stool are irritating to the skin. Without proper care, the skin surrounding the stoma can become excoriated.*
- Apply non-oil-based lotions to skin surface. This may minimize itching and help maintain integrity. *Oil-based lotions are not recommended for tissue undergoing radiation.*
- Instruct the woman not to remove the markings used to localize the radiation beam to the target area. *Markings are used in future radiation treatments.*
- Monitor for evidence of fistula formation, and teach the woman to do the same. *Fistula formation is a potential complication of radiation to the pelvic or abdominal cavities. Vaginal fistulas may form between the vagina and the bladder or rectum. Fistulas may also develop between the bladder and rectum, resulting in the expulsion of stool in the urine or loss of urine through the anus.*

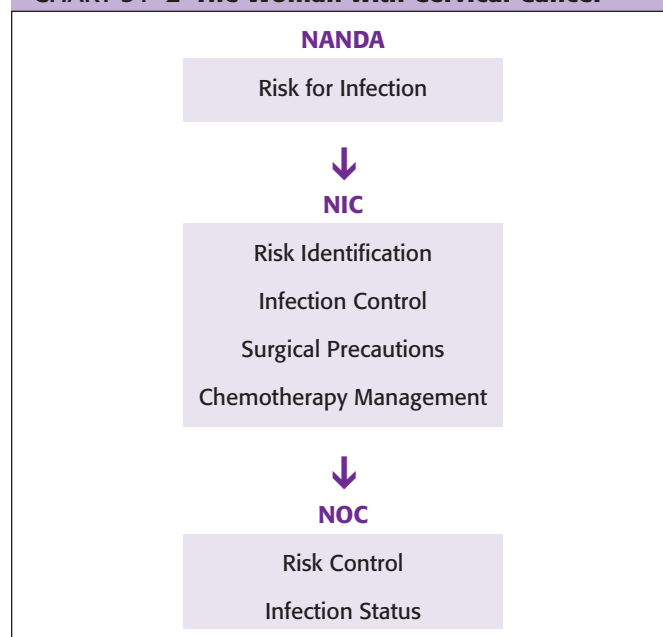
Using NANDA, NIC, and NOC

Chart 51–2 shows links between NANDA nursing diagnoses, NIC, and NOC when caring for the client with cervical cancer.



Community-Based Care

Teaching varies according to the stage of the cancer and the treatment selected. Provide information concerning radiation,

NANDA, NIC, and NOC Linkages
CHART 51–2 The Woman with Cervical Cancer



Data from *NANDA's Nursing Diagnoses: Definitions & Classification 2005–2006* by NANDA International (2003), Philadelphia; *Nursing Interventions Classification (NIC)* (4th ed.) by J. M. Dochterman & G. M. Bulechek (2004), St. Louis, MO: Mosby; and *Nursing Outcomes Classification (NOC)* (3rd ed.) by S. Moorhead, M. Johnson, and M. Maas (2004), St. Louis, MO: Mosby.

chemotherapy, or surgery, as indicated. Preoperative teaching focuses on postoperative expectations, including management of urinary or fecal diversion, if indicated (see Chapter 26  and 29 ). Help the woman and family recognize signs of infection and understand the importance of follow-up care. In addition, suggest the following resources:

- American Cancer Society
- National Cancer Institute
- Women's Cancer Network.

THE WOMAN WITH ENDOMETRIAL CANCER

Endometrial cancer is the most frequently diagnosed pelvic cancer in the United States. The ACS (2006a) estimates that each year approximately 41,000 women are diagnosed with endometrial cancer, and more than 7000 die annually from this disease. The incidence is higher in white women than in black women, but the mortality rate is nearly twice as high in black women. Most endometrial cancer is diagnosed in postmenopausal women, with the peak incidence in the late 50s and early 60s, with only a 2% to 5% incidence in women younger than 40 (Porth, 2005). When diagnosed and treated early in the disease, the 5-year survival rate is about 90%.

Risk Factors

A significant risk factor for endometrial cancer is prolonged estrogen stimulation. Other factors that increase risk are obesity, anovulatory menstrual cycles, decreasing ovarian function (as from menopause), estrogen-secreting tumors, and unopposed estrogen (e.g., estrogen therapy without progesterone). Medical conditions that may alter estrogen metabolism and increase the risk of endometrial cancer are diabetes mellitus, hypertension, and POS (Porth, 2005). Tamoxifen, a drug that blocks estrogen receptor sites and is used to treat breast cancer, has a weak estrogenic effect on the endometrium, and is also a risk factor.

Endometrial cancer is the most commonly inherited gynecologic cancer. A family history of hereditary nonpolyposis colon cancer (HNPCC) may mean that a woman has an inherited mutation that is a mismatch of repair genes, and has a 60% risk of endometrial cancer (Porth, 2005).

Pathophysiology

Most endometrial malignancies are adenocarcinomas that are slow to grow and metastasize. These cancers develop in the glandular cells or endometrial lining of the uterus (the same tissue that is shed each month during a normal menstrual period). Endometrial hyperplasia (excessive growth) is a precursor of endometrial cancer. These tumors tend to grow slowly in the early stages.

Tumor growth usually begins in the fundus, invades the vascular myometrium, and spreads throughout the female reproductive tract. Metastasis occurs by means of the lymphatic system, through the fallopian tubes to the peritoneal cavity, and to the rest of the body via the bloodstream. Target areas for metastasis include the lungs, liver, and bone. The International

Federation of Gynecology and Obstetrics (FIGO) classification of endometrial cancer is presented in Table 51–3.


Manifestations

The major manifestation of endometrial hyperplasia or overt endometrial cancer is abnormal, painless vaginal bleeding. In menstruating women, this bleeding is manifested as menorrhagia or metrorrhagia. In postmenopausal women, any bleeding is abnormal. Later manifestations include pelvic cramping, bleeding after intercourse, and lower abdominal pressure. In advanced disease, lymph node enlargement, pleural effusion, abdominal masses, and ascites may be present.

INTERDISCIPLINARY CARE

The goals of care for the woman with endometrial cancer are to eradicate the cancer and minimize complications and metastasis.

Diagnosis

Tests used to diagnose cancer of the endometrium include a vaginal or transvaginal ultrasound, used to determine endometrial thickening, which may indicate hypertrophy or malignant changes, or an endometrial biopsy or a dilation and curettage (D&C) to provide a definitive diagnosis (see Chapter 49  for further information and nursing care). Other tests to determine the extent of the disease include chest x-ray, intravenous urography, cystoscopy, barium enema, sigmoidoscopy, MRI, and bone scans.

Medications

Although the treatment of choice for primary endometrial carcinoma is surgery, progesterone therapy may be used for recurrent disease. About one-third of women respond favorably, primarily those with well-differentiated tumors. Chemotherapy is less effective than other forms of therapy, although cisplatin or combination chemotherapy may be used for women with disseminated disease.

Surgery

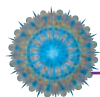
After the diagnosis is confirmed, a total abdominal hysterectomy and bilateral salpingo-oophorectomy is performed for stage I cancer. A radical hysterectomy with node dissection is performed if the disease is stage II or beyond.

TABLE 51–3 FIGO Staging Classification for Endometrial Cancer

STAGE	DESCRIPTION
I	Tumor limited to endometrium or myometrium
II	Endocervical glandular involvement or invasion of cervical stroma
III	Metastasis or invasion of serosa, adnexae, vagina, and pelvic or para-aortic lymph nodes
IV	Tumor invasion of bladder or bowel mucosa; distant metastases

Radiation Therapy

Treatment with external and internal radiation may be performed as a preoperative measure or as adjuvant treatment in advanced cases.



NURSING CARE

Health Promotion

All perimenopausal and postmenopausal women need annual pelvic examinations. The ACS recommends that at the time of menopause all women be informed of the risks and manifestations of endometrial cancer, and strongly encouraged to report any unexpected bleeding or spotting to their healthcare provider. Those in high-risk groups are advised to have endometrial biopsies every 2 years, beginning at age 35. In addition, control of diseases such as diabetes mellitus and hypertension decrease the risk of endometrial hyperplasia.

Assessment

Collect the following data through a health history and physical examination (see Chapter 49 ∞):

- **Health history:** Abnormal vaginal bleeding, menstrual history, use of estrogen (without progesterone) to treat menopausal symptoms, breast cancer treated with tamoxifen, childbearing status, presence of chronic illnesses, family history of hereditary nonpolyposis colon cancer.
- **Physical assessment:** Height and weight, pelvic examination, abdomen, lymph glands.

Nursing Diagnoses and Interventions

Nursing care involves helping the woman deal with the physical and psychologic effects of a potentially life-threatening illness, make informed decisions, and minimize the adverse effects of therapy. Pain relief is a key component of care, as is grief work on the part of the woman and family. Encourage the woman to perform self-care and resume normal activities of daily living.

Acute Pain

Total abdominal hysterectomy can involve severe and prolonged pain, not only from the surgical incision but also from the manipulation of internal organs during surgery. Abdominal viscera are highly vascular and easily bruised by handling.

- Administer analgesics as ordered. *Analgesics provide pain relief and promote early ambulation.*
- Encourage ambulation. *Ambulation facilitates the expulsion of flatus, which can cause distention as well as discomfort.*
- Apply heat to the abdomen, and recommend that the woman use a heating pad at home. *Heat dilates blood vessels, increasing blood supply to the pelvis, decreasing pain.*

Disturbed Body Image

For many women, the side effects of cancer treatment can be almost as difficult and painful as the disease itself. Although side effects of the different therapies vary among individuals, the woman's body image and quality of life are always affected. Such side effects as alopecia (hair loss), nausea, vomiting, fatigue, diarrhea, stomatitis, and surgical scarring disturb body image.

- Review the side effects of the treatment regimen proposed, and assist the woman to develop a plan to deal with these effects. *This promotes a sense of control.*
- Remind the woman and family that side effects are usually manageable and may be temporary. *Over-the-counter agents can be used to alleviate stomatitis. Frequent rest periods can relieve fatigue. Medications can be prescribed for nausea, vomiting, and diarrhea.*

Ineffective Sexuality Pattern

Altered sexuality may result from a feeling of unattractiveness, fatigue, or pain and discomfort. The woman's partner may fear that sexual activity will be harmful.

- Encourage expression of feelings about the effect of cancer on their lives and sexual relationship. *Verbalizing feelings helps relieve stress and maximizes relaxation.*
- Suggest that the couple explore alternative sexual positions and coordinate sexual activity with rest periods and times that are relatively free from pain. *This creates a more favorable environment for satisfying sexual activity.*

Community-Based Care

Provide information about the specific treatment and prognosis for the cancer. Explain the expected side effects of radiation implant therapy (see Chapter 14 ∞). Pain control measures are also an essential part of the teaching plan (see Chapter 9 ∞). The resources listed for the woman with cervical cancer are also appropriate for the woman with endometrial cancer.

THE WOMAN WITH OVARIAN CANCER

Ovarian cancer is the fourth most common gynecologic cancer in women in the United States. Approximately 20,000 women are diagnosed with ovarian cancer and an estimated 15,000 deaths result each year (ACS, 2006a). The incidence increases with age, peaking in women between the ages of 40 and 80 years; half of all cases are in women over 65 years of age (Porth, 2005). Ovarian cancer is more common in white women than in black women, and mortality rate is highest in whites.

Risk Factors

Family history is a significant risk factor, with a 50% risk of developing the disease if two or more first- or second-degree relatives have site-specific ovarian cancer. Other types of inherited risk are breast-ovarian cancer syndrome (first- and second-degree relatives have both breast and ovarian cancer) and family cancer syndrome (Lynch syndrome II), in which male or female relatives have a history of colorectal, endometrial, ovarian, pancreatic, or other types of cancer (Porth, 2005). The breast cancer susceptibility genes *BRAC1* and *BRAC2* are implicated in 5% to 10% of hereditary ovarian cancers.

Risk factors also include having no children or giving birth after age 35, exposure to talc or asbestos, endometriosis, pelvic inflammatory disease, and living in a Western civilized country. Protective factors include long-term contraceptive use, having a child before the age of 25, tubal ligation, breast-feeding, and hysterectomy (Martin, 2005).

Pathophysiology

There are several types of ovarian cancers: epithelial tumors, germ cell tumors, and gonadal stromal tumors. Most ovarian cancers are epithelial tumors, originating from the surface epithelium of the ovary. Ovarian cancer usually spreads by local shedding of cancer cells into the peritoneal cavity and by direct invasion of the bowel and bladder. Cancer cells in peritoneal fluid can implant in the intestines, bladder, and mesentery. Tumor cells also spread through the lymph and blood to such organs as the liver, and across the diaphragm to involve the lungs. Both pelvic and para-aortic lymph nodes may be involved and tumor cells can block lymphatic drainage from the abdomen, resulting in ascites. Staging for ovarian cancer is based on surgical and histologic evaluation (Table 51–4).

Manifestations

In early stages, ovarian cancer generally causes no warning signs or manifestations. When manifestations do develop, they are often vague and mild, such as indigestion, urinary frequency, abdominal bloating, and constipation. Abnormal vagi-

nal bleeding may occur if the endometrium is stimulated by a hormone-secreting tumor or if the tumor erodes the vaginal wall. Pelvic pain sometimes occurs. An enlarged abdomen with ascites signals later stage disease.

Complications

The complications of advanced ovarian cancer, with related nursing assessments and treatment, are outlined in Table 51–5.

INTERDISCIPLINARY CARE



As with other malignancies, care of the woman with ovarian cancer is focused on surgery to determine the stage of the tumor and to remove as much of the tumor as possible. Unfortunately, because there are no early manifestations, the disease is often well advanced prior to diagnosis. In younger women, an ovarian mass may be monitored for several menstrual cycles, but any ovarian mass must immediately be investigated in a postmenopausal woman.

Diagnosis

Tests used in the diagnosis of ovarian cancer may include transvaginal or abdominal ultrasound and a CT scan of the abdomen and pelvis (see Chapter 49 for further information about diagnostic tests).

The blood test most useful is a CA-125 antigen level. CA-125 is a tumor marker that is highly specific to epithelial ovarian cancer. Transvaginal or transabdominal ultrasonography is used to measure ovarian size and detect small masses. These tests, however, are not appropriate screening measures because they cannot differentiate between cystic or benign ovarian masses and malignancy.

Medications

While surgery is the treatment of choice for ovarian cancer, chemotherapy may be used to achieve remission of the dis-

TABLE 51–4 FIGO Staging Classification for Ovarian Cancer

STAGE	DESCRIPTION
I	Growth limited to the ovaries
II	Growth involving one or both ovaries with pelvic extension
III	Tumor involving one or both ovaries, with peritoneal implants outside the pelvis or positive retroperitoneal or inguinal nodes
IV	Growth involving one or both ovaries with distant metastasis

TABLE 51–5 Complications of Advanced Ovarian Cancer

COMPLICATION	ASSESSMENTS	TREATMENT
Ascites (accumulation of fluid in the abdominal cavity; a form of third spacing)	<ul style="list-style-type: none"> ■ Abdominal distention ■ Everted umbilicus ■ Shiny abdominal skin ■ Dullness on percussion of dependent areas ■ Dyspnea, constipation ■ Abdominal pain 	Paracentesis (removing fluid from the abdomen)
Intestinal obstruction	<ul style="list-style-type: none"> ■ Abdominal distention ■ Abdominal pain ■ Projectile vomiting ■ Constipation ■ Hyperactive bowel sounds 	Nasogastric tube insertion, NPO
Deep venous thrombosis	<ul style="list-style-type: none"> ■ Leg edema ■ Leg pain ■ Redness, warmth 	Anticoagulants
Lymphedema (leg)	<ul style="list-style-type: none"> ■ Edema of leg ■ Decreased range of motion ■ Tight, shiny skin on leg 	Skin care, range-of-motion exercises, massage or physical therapy, compression bandaging

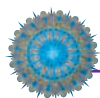
ease. Chemotherapy is not curative for ovarian cancer. Combination chemotherapy regimens using cyclophosphamide and cisplatin or other agents may be employed. Combination therapy with a platinum compound (cisplatin or carboplatin) is superior to treatment with a single drug, with paclitaxel/carboplatin the preferred regimen (Martin, 2005). Chemotherapy with paclitaxel (Taxol) may prolong survival. Close monitoring of bone marrow and renal function is vital while the woman is on chemotherapy because these drugs have significant toxic effects.

Surgery

In young women with stage I disease who wish to have children, treatment may be limited to removal of one ovary. Usually, however, total hysterectomy with bilateral salpingo-oophorectomy (removal of the ovaries and fallopian tubes) and removal of the omentum are performed.

Radiation Therapy

Radiation therapy using external-beam or intracavitary implants is performed for palliative purposes only and is directed at shrinking the tumor at selected sites.



NURSING CARE

Nursing care for the woman with ovarian cancer is similar to the nursing care for women with other gynecologic cancers. The side effects of treatment of cancer and generally poor prognosis diminish the woman's quality of life and involve major psychosocial implications (see Chapter 14 ∞).

Community-Based Care

Address the following topics in preparing the woman and her family for self-care:

- If a positive family history of the disease or previous breast cancer exists, stress the importance of obtaining regular pelvic examinations. Inform women in this risk group that annual screening with transvaginal ultrasound and CA-125 measurements may be recommended.
- Long-term use of oral contraceptives may reduce the risk of developing ovarian cancer.
- It is crucial not to ignore manifestations such as indigestion, nausea, or urinary frequency, because these seemingly unrelated manifestations may be early signs of ovarian tumors. Emphasize, however, that ovarian cancer usually is asymptomatic in early stages.
- Discuss treatment options and their side effects and provide information on ways to minimize or manage side effects.
- Refer to hospice services when appropriate. The resources suggested for the woman with cervical cancer are also appropriate for the woman with ovarian cancer.

THE WOMAN WITH CANCER OF THE VULVA

Cancer of the vulva occurs most often in women over 50 years of age. The prognosis of vulvar carcinoma depends on the de-

gree of invasion, general health status of the woman, presence of chronic diseases, and ability to withstand treatment.

Pathophysiology

The cause of vulvar cancer is unknown, but there is evidence to associate it with STIs, particularly HPV. Nearly 85% of malignant and premalignant cervical and vulvar lesions have been found to contain HPV DNA, HPV structural antigens, or both. Herpes simplex type 2 (HSV2) infection has also been associated with vulvar cancer. Other risk factors include advanced age, diabetes, and a history of leukoplakia (a precancerous lesion on the vulvar mucous membranes characterized by raised white patches).

Most vulvar cancers are epidermoid or squamous cell carcinomas. The primary site is usually the labia majora, but vulvar cancer is also found on the labia minora, clitoris, vestibule, and occasionally in multiple locations. Metastasis occurs by direct extension into the vagina, perineal skin, anus, and urethra. The cancer also spreads through the lymphatic system via the superficial and deep inguinal and femoral nodes, and to the pelvic lymph nodes.

Manifestations

The woman with vulvar cancer is often asymptomatic, and lesions are discovered on routine examination or self-examination. Discoloration can vary from white macular patches to red painless sores. Lesions may be *exophytic* (proliferating outwardly), *endophytic* (proliferating inwardly), ulcerative, or *verrucous* (resembling a wart).

Pruritus is the most common manifestation, and the woman often has had a history of prolonged vulvar irritation. Perineal pain and bleeding indicate large tumors and advanced disease. In very advanced disease, dysuria related to urethral involvement may be the presenting symptom.

INTERDISCIPLINARY CARE



The report of itching, burning, or a sore on the vulva merits careful investigation and biopsy of any lesions found. Inguinal lymph nodes may be enlarged. The goal of care is to eradicate the lesion and reduce the risk of recurrence. Surgical resection is the preferred treatment. If lymph nodes are involved, radiation therapy is used postoperatively. Chemotherapy is reserved for distant metastases.

Diagnosis is based on the results of an excisional biopsy of the lesion. Metastasis, if suspected, can be evaluated by chest x-ray examination, barium enema, intravenous pyelogram, cystoscopy, CT and MRI scans, and proctoscopy. Lymphangiography can also be used.

Surgery is the most common treatment for vulvar cancer. The specific procedure depends on the stage of the cancer. Early, noninvasive lesions may be treated with laser surgery, cryosurgery, or electrocautery. For more advanced disease, vulvectomy may be performed (Figure 51-6 ■). A simple vulvectomy involves the removal of the vulva, labia majora and minora, clitoris, and prepuce. A radical vulvectomy is

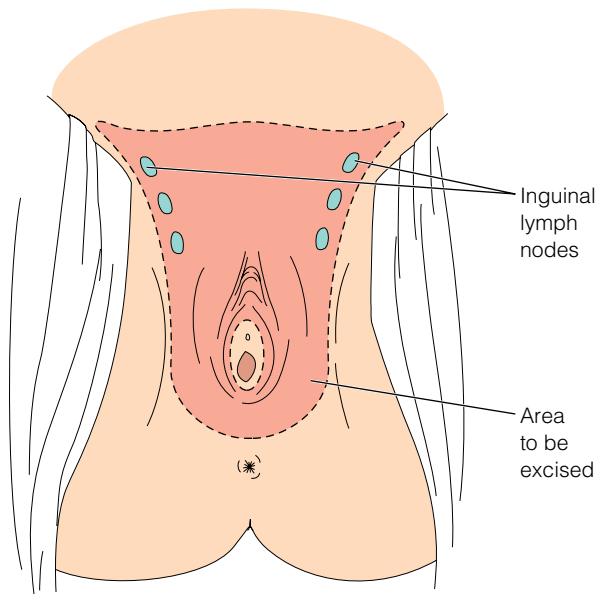


Figure 51–6 ■ Vulvectomy for vulvar carcinoma. A radical vulvectomy involves removal of the vulva, labia majora, labia minora, clitoris, prepuce, subcutaneous tissue, and regional lymph nodes.

performed if invasion is suspected. This procedure involves removal of all the tissue in a simple vulvectomy, as well as the subcutaneous tissue and regional lymph nodes.



NURSING CARE

Nursing care is similar to that for the woman with endometrial cancer. The woman fears death as the ultimate outcome as well as the possible pain and suffering that surgery and other treatments may cause. Radical surgery represents a great loss to women of all ages.

DISORDERS OF THE BREAST

Breast disorders are common conditions that primarily affect women (disorders of the male breast are discussed in Chapter 50 ∞). When a woman discovers a breast lump, her first response is often fear: of breast cancer, of losing her breast, and perhaps of losing her life. Because American society views the breast as a significant component of feminine beauty, any problem that threatens the breast often strikes at the core of a woman's self-image.

Nurses play a critical role in the care of women experiencing breast disorders by providing education, support, and advocacy. Part of the nurse's role is educating women about normal breast tissue, common benign breast disorders, available screening techniques and risk factors for breast cancer, and breast self-examination.

THE WOMAN WITH A BENIGN BREAST DISORDER

Benign breast disorders occur frequently in women and may be a source of anxiety. Changes in a woman's breast tissue often cor-

Nursing Diagnoses and Interventions

Disruption of perineal tissues is a priority problem for these women.

Impaired Tissue Integrity

The woman who has undergone a vulvectomy is at high risk for infection and impaired healing because of proximity of the surgical site to urinary and anal orifices. In addition, the women are often older and may have age-related changes in healing and immune function.

- Teach the woman and/or her partner or other family member the procedure for irrigation of the vulvectomy. If neither is able to perform this procedure, arrange for home health nursing. *Irrigation helps prevent skin breakdown and infection.*
- After irrigation, apply dry heat using a heat lamp positioned about 18 inches from the area; emphasize safety precautions, including use of a low-wattage bulb (40 to 60 watts). *Dry heat helps promote healing and comfort.*
- Provide information on maintaining a diet high in protein, iron, and vitamin C. *These nutrients promote collagen formation and wound healing.*

Community-Based Care

Explain the association between STIs such as HPV (genital warts) and cancer of the vulva. Provide information about safer sex practices such as abstinence, limiting the number of sexual partners, and using condoms (male or female). Explain that early diagnosis and treatment of STIs and other irritative conditions of the external genitalia may reduce the risk of developing vulvar cancer. Teaching for the woman undergoing a vulvectomy should emphasize the potential for skin breakdown, particularly with radiation therapy. Explain that removal of lymph nodes leads to lymphedema and that recurrent cellulitis and sexual dysfunction are common complications of vulvar cancer.

respond to hormonal changes of the menstrual cycle. Most women notice increased tenderness and lumpiness prior to menses. (For this reason, it is best to perform breast self-examination (BSE) 7 to 10 days after the beginning of the menstrual period.) Breast tissue changes in response to hormonal, nutritional, physical, and environmental stimuli. Benign breast disorders include fibrocystic breast changes, fibroadenomas, intraductal papillomas, duct ectasia, fat necrosis, and mastitis (Table 51–6).

Pathophysiology and Manifestations

Fibrocystic Changes

Fibrocystic changes (FCC) (*fibrocystic breast disease*) is the physiologic nodularity and breast tenderness that increases and decreases with the menstrual cycle. An estimated 50% to 80% of all women experience some of these changes, which include fibrosis, epithelial proliferation, and cyst formation. FCC is most common in women 30 to 50 years of age, and is rare in postmenopausal women who are not taking hormone replacement (Porth, 2005).

TABLE 51–6 Summary of Common Breast Disorders

CONDITION	AGE	PAIN	NIPPLE DISCHARGE	LOCATION	CONSISTENCY AND MOBILITY	DIAGNOSIS AND TREATMENT
Duct ectasia	35 to 55 years; median age 40	Burning around nipple	Sticky, multicolored; usually bilateral	No specific location	Retroareolar mass with advanced disease	Open biopsy; local excision of diseased portion of breast
Fibroadenoma	15 to 39 years; median age 20	No	No	No specific location	Mobile, firm, smooth, well- delineated mass	Mammography, surgical or needle biopsy; excision of the tumor
Fibrocystic changes (FCC)	20 to 49 years; median age 30 (may subside with menopause)	Yes	May occur	Upper outer quadrant	Bilateral multiple lumps influenced by the menstrual cycle	Needle aspiration; observation; biopsy if there is an un- resolved mass or mammo- graphic changes
Intraductal papilloma	35 to 55 years; median age 40	Yes	Serous or sanguineous; usually unilateral from one duct	No specific location	Usually soft, poorly delineated mass	Pap smear of nipple discharge; biopsy; wedge resection
Mastitis, acute	Childbearing years	Tenderness, pain	No	No specific location	Generalized redness of overlying skin	Antibiotic therapy; incision and drainage if mastitis progresses to an abscess
Mastitis, chronic	Any age	Tenderness, pain; headache; high fever	No	No specific location	Generalized redness and swelling	Antibiotics, usually penicillin
Fat necrosis	Any age	Tenderness	No	No specific location	Firm, irregular, palpable	Surgical biopsy to rule out cancer

FCC includes many different lesions and breast changes. The more common nonproliferative form does not increase the risk for breast cancer. The proliferative form, accompanied by giant cysts and proliferative epithelial lesions, does increase the risk for breast cancer.

Nonproliferative changes may be cystic or fibrous. Cystic change refers to the dilation of ducts in the subareolar, lobular, or lobe areas. Cysts often go unnoticed unless pain and tenderness is associated with menses. Fibrous changes are infrequent but can occur during the menstrual years. A firm, palpable mass, 2 to 3 cm in size, is typically located in the upper outer breast quadrant following an inflammatory response to ductal irritation.

Women with fibrocystic changes experience bilateral or unilateral pain or tenderness in the upper, outer quadrants of their breasts, and report that their breasts feel particularly thick and lumpy the week prior to menses. Nipple discharge may be pres-

ent. Pain is due to edema of the connective tissue of the breast, dilation of the ducts, and some inflammatory response; some women report an increase in breast size. Multiple, mobile cysts may form, usually in both breasts (Figure 51–7 ■). Fluid aspirated from these cysts ranges in color from milky white to yellow, brown, or green. If the fluid is tinged with blood, there is reason to suspect malignancy.

Intraductal Disorders

An *intraductal papilloma* is a tiny, wartlike growth on the inside of the peripheral mammary duct that causes discharge from the nipple. The discharge may be clear and sticky or bloody. When more than one of these growths is present, the condition is called *intraductal papillomatosis*. This condition is most common in women in their 30s and 40s. The lesion must be investigated to rule out malignancy.

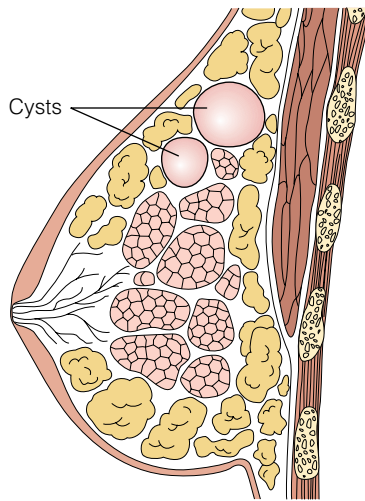


Figure 51–7 ■ Fibrocystic breast changes.

Mammary duct ectasia (plasma cell mastitis) is a palpable lumpiness found beneath the areola. Duct ectasia involves periductal inflammation, dilation of the ductal system, and accumulation of fluid and dead cells that block the involved ducts. The condition usually occurs in perimenopausal women and is difficult to differentiate from cancer.

Manifestations of mammary duct ectasia include sticky, thick nipple discharge with burning and itching around the nipple, and inflammation. The discharge may be green, greenish brown, or bloody. Nipple retraction often is associated with duct ectasia in postmenopausal women.

INTERDISCIPLINARY CARE

Diagnosis of FCC is based on complete history, physical examination, and imaging studies. A biopsy may be required for diagnosis.

Analysis of nipple discharge, mammography, and possibly ductography may be used to diagnose ductal disorders. The affected duct is excised in an open biopsy procedure. Nursing care for the woman is similar to that for any client with an open biopsy. It also is important to reassure the woman that these disorders are not breast cancer.

The treatment is usually symptomatic. Cyst aspiration may relieve pain, and also allows examination of fluid to confirm the cystic nature of the disease. A well-fitting brassiere (“bra”) that provides good support worn day and night helps relieve discomfort. Some women report that eliminating xanthines (found in coffee, tea, cola, and chocolate) from the diet decreases symptoms. Aspirin, mild analgesics, local heat or cold, and vitamin E may help relieve breast pain. Hormone therapy is controversial because of the benign nature of the disease and potential adverse effects of therapy. Danazol, a synthetic androgen, may be prescribed for women with severe pain.



NURSING CARE

When a woman presents with a breast mass, nursing responsibilities include taking a careful history and facilitating

follow-up care. If a palpable mass is present, it is important to ask how long the lesion has been present and whether the woman has noticed any pain associated with the mass, any change in its size, and any changes in association with the menstrual cycle.

In many cases, definitive diagnosis of the breast disorder requires surgical biopsy to rule out cancer. During the diagnostic process, the nurse can provide emotional support and education about diagnostic and therapeutic procedures, self-care and comfort measures, and resources to help the woman cope with the experience.

THE WOMAN WITH BREAST CANCER

Breast cancer is the unregulated growth of abnormal cells in breast tissue. Breast cancer is the most commonly occurring cancer in women and the second leading cause of death in women in the United States. The ACS (2006a) estimates that more than 212,000 women will be diagnosed with breast cancer each year, and approximately 41,000 women will die from it annually. There are racial differences in the incidence and mortality of breast cancer (see the Focus on Cultural Diversity box below).

Risk Factors

Of the various kinds of risk factors for breast cancer, some can be changed and some cannot. Those that cannot be changed are (ACS, 2006e):

- *Age and gender.* Women are 100 times more likely to have breast cancer than are men, with the risk increasing with age. See the Meeting Individualized Needs on the next page.
- *Genetic risk factors* (as previously described).
- *Family history of breast cancer.* Relatives from either the maternal or paternal side of the family. Having a first-degree relative (mother, sister, or daughter) with breast cancer approximately doubles the risk, and having two first-degree relatives increases it fivefold. Having a male family member with breast cancer also poses an increased risk.
- *Personal history of breast cancer.* A woman with cancer in one breast has a three- to fivefold increase in risk for developing a new cancer in the other breast or in a different part of the same breast.
- *Previous breast biopsy.* If earlier breast biopsies were diagnosed as proliferative, then breast disease without atypical hyperplasia increases risk by 1.5 to 2 times. A previous biopsy of atypical hyperplasia increases risk by 4 to 5 times.



FOCUS ON CULTURAL DIVERSITY

Incidence and Mortality for Breast Cancer in Women

- Breast cancer is more prevalent in African American women up to the age of 40 years.
- Breast cancer is more prevalent in Caucasian women over the age of 40 years.
- Asian, Hispanic, and American Indian women have a lower risk of developing breast cancer.
- African American women are more likely to die from the cancer because they are often diagnosed at an advanced stage.

MEETING INDIVIDUALIZED NEEDS Older Women with Breast Cancer

- Although the incidence of breast cancer is increasing among premenopausal women, it is still primarily a disease of older women. However, the needs of older women with breast cancer have been inadequately addressed in the professional literature and in the popular media.
- Women between the ages of 50 and 65 are the group most likely to benefit from annual screening mammography, yet many women in this age group have never had a mammogram. Failure of physicians to refer older women for mammography is the reason most frequently cited for this statistic; nurse practitioners and female physicians are more likely to refer women for mammography. Promotional campaigns for mammography send a confusing message by showing images of women in their 20s and 30s for whom mammography is largely ineffective, rather than women in older age groups who are more likely to benefit from mammography.
- For too long, mastectomy was perceived as the only treatment option open to most older women with breast cancer, even those with early-stage disease. Slowly that perception is changing as breast-conservation treatment gains greater acceptance. The choice of surgical treatment, particularly for older women, is highly individual. Many older women wish to preserve their breasts.
- Although older women with breast cancer may experience co-existing chronic illnesses and impaired physical function, research suggests that they show lower levels of emotional distress than younger women. Obviously the need for services such as personal care, shopping, housekeeping, and transportation increases as the ages of the woman and the caregiver increase.

- **Previous chest irradiation.** Radiation of the chest as a child or young woman for other cancer (such as Hodgkin's disease) significantly increases the risk.
- **Menstrual history.** Women who begin menstruating before the age of 12 or who have menopause after the age of 50 are at a slightly higher risk.

Lifestyle-related factors and breast cancer risk include using oral contraceptives, not having children or having them after the age of 30, using HRT for more than 5 years, not breast-feeding, drinking alcohol (especially two to five drinks daily), obesity, high-fat diets, physical inactivity, and (possibly) environmental pollution. Lower risk factors for breast cancer include breast-feeding, moderate or vigorous physical activity, and maintaining a healthy body weight.

Pathophysiology

Possible causes of breast cancer include environmental, hormonal, reproductive, and hereditary factors. Two breast cancer susceptibility genes have been identified: *BRCA1* on chromosome 17 and *BRCA2* on chromosome 13. These genes may be responsible for the approximately 10% of women with hereditary breast cancer, with genetic mutations causing up to 80% of breast cancer in women younger than 50 years of age. A woman with identified mutations in *BRCA1* (known to be involved in tumor suppression) has a lifetime risk of 56% to 85% for breast cancer and also has an increased risk for ovarian cancer (Porth, 2005). Mutations of a tumor suppressor gene are also linked to increased risk for breast cancer.

Cancer of the breast begins as a single transformed cell and is hormone dependent. Cancers of the breast are classified as noninvasive (in situ) or invasive, depending on the penetration of the tumor into surrounding tissue. Breast cancer may remain a noninvasive disease, or an invasive disease without metastasis, for long periods of time.

Breast cancer may be categorized as carcinoma of the mammary ducts, carcinoma of mammary lobules, or sarcoma of the breast. Most breast cancers are adenocarcinomas and appear to arise in the terminal section of the breast ductal tissue. There are many histologic types of breast cancer, and only examples are

described here. The most common type is *infiltrating ductal carcinoma*. Two atypical types of breast cancer are inflammatory carcinoma and Paget's disease. Inflammatory carcinoma of the breast, a systemic disease, is the most malignant form of breast cancer. Edema with dimpling of the skin that results in the skin looking like the peel of an orange (*peau d'orange*) is usually present. *Paget's disease* is a rare type of breast cancer involving infiltration of the nipple epithelium.

Breast cancer can metastasize to other sites through the bloodstream or lymphatic system. The common sites of metastasis of breast cancer are bone, brain, lung, liver, skin, and lymph nodes. Staging is a system of classifying cancer according to the size of the tumor, involvement of lymph nodes, and metastasis to distant sites, and the presence/absence of distant metastasis (Table 51–7). The staging of the breast cancer provides important information for making decisions about treatment options and is also used as a basis for prognosis.

Manifestations

The manifestations of breast cancer may include a nontender lump in the breast (most often in the upper outer quadrant, the area with the most glandular tissue), abnormal nipple discharge, a rash around the nipple area, nipple retraction, dimpling of the skin, or a change in the position of the nipple (see the box below). There may also be nipple pain, scaliness, ulceration, skin irritation, or discharge. Breast cancer is usually painless, but

MANIFESTATIONS of Breast Cancer

- Breast mass or thickening
- Unusual lump in the underarm or above the collarbone
- Persistent skin rash near the nipple area
- Flaking or eruption near the nipple
- Dimpling, pulling, or retraction in an area of the breast
- Nipple discharge
- Change in nipple position
- Burning, stinging, or pricking sensation

TABLE 51–7 Staging of Breast Cancer

STAGE	TUMOR	NODE	METASTASIS
0	Tis-Carcinoma <i>in situ</i> or Paget's disease of the nipple	N0-No regional lymph node metastasis	M0-No evidence of distant metastasis
I	T1-Tumor no larger than 2 cm	N0	M0
IIA	T0-No evidence of primary tumor	N1-Metastasis to movable ipsilateral axillary nodes	M0
	T2-Tumor no larger than 5 cm	N0	M0
IIB	T2	N1	M0
	T3-Tumor larger than 5 cm	N0	M0
IIIA	T0	N2-Metastasis to ipsilateral fixed axillary nodes	M0
	T1		
	T2	N1	M0
	T3	N2	M0
IIIB	T4-Tumor of any size with direct extension to chest wall or skin	Any N	M0
	Any T	N3-Metastasis to ipsilateral internal mammary lymph nodes	M0
IV	Any T	N0 and N1	M1-Distant metastasis

some women report a burning or stinging sensation. Many women with breast cancer have no manifestations, and their tumors are detected by mammography. However, most breast cancers are found by the women themselves (during BSE or a shower) or by their partners during sexual activity.

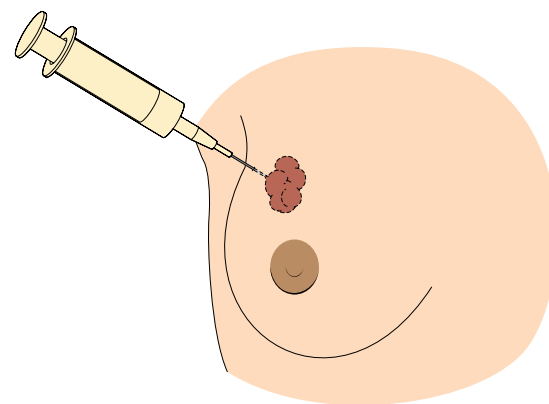
INTERDISCIPLINARY CARE

Diagnosis of breast cancer begins with detection, either detection of asymptomatic lesions discovered through screening or symptomatic lesions discovered by the woman. Any palpable mass requires evaluation. Once the diagnosis is made, a number of treatment options are available. The choice of treatment depends on several factors, such as the stage of the cancer, the age of the woman, and the woman's preferences.

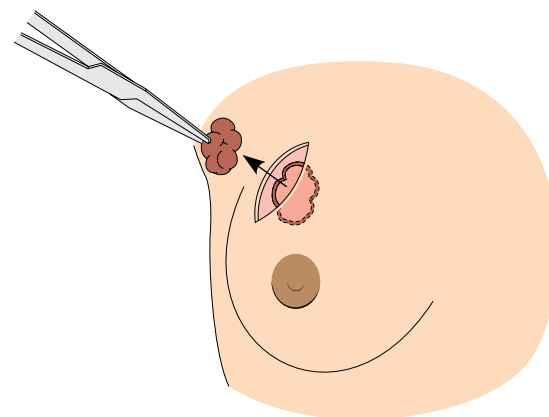
Diagnosis

Early detection of breast cancer is possible with clinical breast examination (CBE) and mammogram (see Chapter 49 for further information). Mammography can detect breast tumors 2 years before they reach palpable size; most of these tumors have been present for 8 to 10 years. Although controversy exists about the ability of screening mammography to improve mortality rates for women under 50, the ACS recommends annual mammograms beginning at age 40 and CBE at least every 3 years for women in their 20s and 30s.

Other diagnostic tests include a percutaneous needle biopsy to define a cystic mass or fibrocystic changes and provide specimens for cytologic examination, and a breast biopsy. In aspiration biopsy or fine-needle aspiration biopsy, a needle is used to remove cells or fluid from the breast lesion (Figures 51–8A and B). The types of breast biopsy and related nursing care are described in Chapter 49. In many



A Aspiration biopsy



B Excisional biopsy


Figure 51–8 ■ Types of breast biopsy. *A*, In an aspiration biopsy, a needle is used to aspirate fluid or tissue from the breast. *B*, In an excisional biopsy, tissue from the breast lesion is removed surgically.

facilities, fine-needle aspiration biopsies are performed using a stereotactic biopsy device; mammography and a computer are used to guide the needle.

Medications

Tamoxifen citrate (Nolvadex) is an oral medication that interferes with estrogen activity. It is used to treat advanced breast cancer, as an adjuvant for early-stage breast cancer, and as a preventive treatment for women at high risk of developing breast cancer. Nursing implications for tamoxifen are presented in the Medication Administration box below.


Immunotherapy, using trastuzumab (Herceptin), is used to stop the growth of breast tumors that express the HER2/neu receptor (which binds an epidermal growth factor that contributes to cancer cell growth) on their cell surface. This drug is a recombinant DNA-derived monoclonal antibody that binds to the receptor, inhibiting tumor cell proliferation.

Chemotherapy has become the standard of care for the majority of breast cancer cases with axillary node involvement. In late metastatic disease, chemotherapy becomes the primary treatment to prolong the woman's life. Chemotherapy is discussed in Chapter 14 . Adjuvant (additional) systemic therapy following primary treatment for early-stage breast cancer refers to the administration of chemotherapy and other pharmacologic agents. This type of therapy has been widely studied; its use reduces the rates of recurrence and death from breast cancer. For example, the drug Avastin, when combined with chemotherapy to treat metastatic breast cancer, has extended cancer-free survival; and Femara (an aromatase inhibitor) has reduced the risk of recurrence after surgery (in some cases more effectively than tamoxifen).

Surgery

Until recently, the treatment of choice for breast cancer was a radical mastectomy. The trend now is toward more conservative surgery combined with chemotherapy, hormone therapy, or radiation, depending on the stage of the tumor and the age of the woman.

MASTECTOMY There are various types of mastectomy for breast cancer. *Radical mastectomy* is the removal of the entire

affected breast, the underlying chest muscles, and the lymph nodes under the arms. *Simple mastectomy* is the removal of the complete breast only. *Segmental mastectomy* or *lumpectomy* (Figure 51–9A ) is the removal of the tumor and the surrounding margin of breast tissues. *Modified radical mastectomy* is the removal of the breast tissue and lymph nodes under the arm (axillary node dissection), leaving the chest wall muscles intact (Figure 51–9B). See the next page for the nursing care of a woman having a mastectomy.

Axillary node dissection is generally performed during surgery for all invasive breast carcinoma to stage the tumor. Because this surgery can cause **lymphedema** (accumulation of fluid in the soft tissues of the arm caused by removal of lymph channels), nerve damage, and adhesions, and because of the role of the lymph nodes in immune system function, nonsurgical methods of detecting lymph node involvement are being used. Sentinel node biopsy prior to a node dissection is conducted by injecting a radioactive substance or dye into the region of the tumor. The dye is carried to the first (sentinel) lymph node to receive lymph from the tumor and would therefore be the node most likely to contain cancer cells if the cancer had metastasized. If the sentinel node is positive, more nodes are removed. If it is negative, further node evaluation is usually not indicated.

LUMPECTOMY Breast conservation surgery (*lumpectomy*) may be defined as excision of the primary tumor and adjacent breast tissue followed by radiation therapy. Many women are candidates for this procedure; however, women who have multicentric breast neoplasms and those who have large tumors in relation to their breast size are examples of unsuitable candidates. Selection of women for this procedure is guided by the need for local control of the lesion, cosmetic results, and personal preference.

BREAST RECONSTRUCTION After a mastectomy, some women may choose to have their breast reconstructed. They report that surgical reconstruction of the breast simplifies their lives and restores a sense of body integrity. Other women choose to use a removable breast prosthesis, and some women are comfortable without reconstruction or a prosthesis.

MEDICATION ADMINISTRATION Tamoxifen

TAMOXIFEN (NOLVADEX)

Tamoxifen is the most widely prescribed breast cancer drug, commonly given to prevent recurrence of estrogen-positive breast cancer in postmenopausal women. It inhibits tumor growth by blocking the estrogen receptor sites of cancer cells. Tamoxifen increases a woman's risk of developing endometrial cancer, deep venous thrombosis (DVT), and pulmonary embolism.

Nursing Responsibilities

- Assess for potential contraindications to therapy.
- Assess liver function tests; tamoxifen may interfere with liver function.

Health Education for the Client and Family

- If in childbearing years, use a nonhormonal, barrier form of contraception; tamoxifen has adverse effects on the developing fetus.
- Take the drug as prescribed until the physician indicates otherwise.
- Side effects such as hot flashes, vaginal dryness, irregular periods, and weight gain are commonly experienced by women taking tamoxifen.
- Do not smoke while taking tamoxifen; smoking further increases the risk of DVT.
- Promptly report any abnormal vaginal bleeding (nonmenstrual bleeding, bleeding after menopause) to your primary care provider.



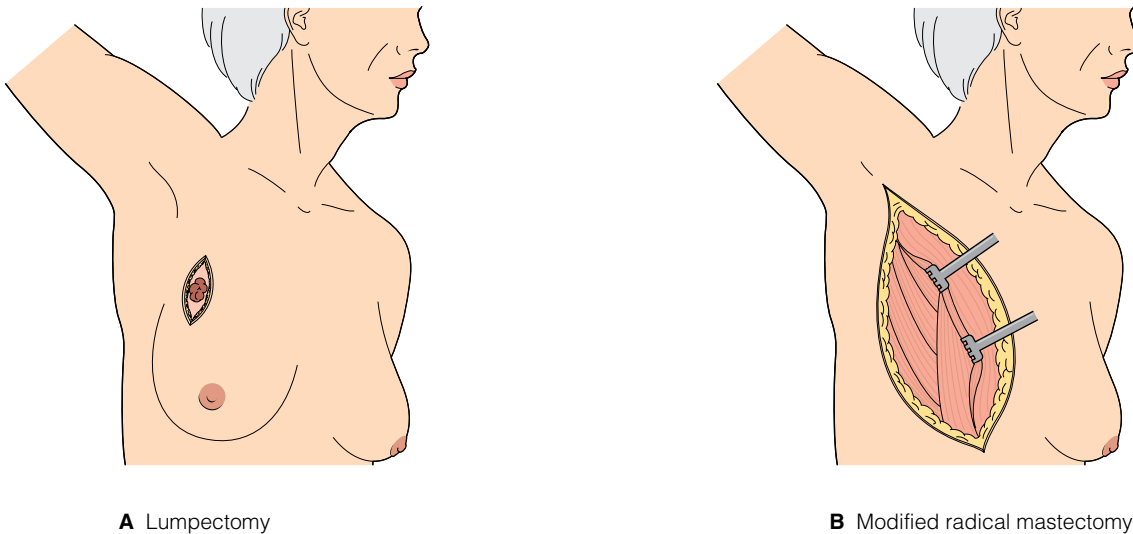


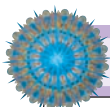
Figure 51-9 ■ Types of mastectomy. *A*, In a lumpectomy, only the tumor and a small margin of surrounding tissue are removed. *B*, In a modified radical mastectomy, all breast tissue and the underarm lymph nodes are removed, but the underlying muscles remain.

Breast reconstruction may be performed at the time of the mastectomy or at any time thereafter, depending on the woman's preference. A number of procedures may be used for the breast reconstruction (Figure 51-10 ■). These include placement of a submuscular implant, the use of a tissue expander followed by an implant, the transposition of muscle and blood supply from the abdomen or back, or using (most often) the transverse rectus abdominis myocutaneous (TRAM) free tissue flap. Nursing implications for the care of

women undergoing breast reconstruction surgery are summarized in the box on the next page.

Radiation Therapy

Radiation therapy is typically used following breast cancer surgery to destroy any remaining cancer cells that could cause recurrence or metastasis. If a tumor is unusually large, radiation may be used to shrink the tumor prior to surgery. Radiation therapy is most commonly used in combination with lump-



NURSING CARE OF THE WOMAN HAVING A Mastectomy

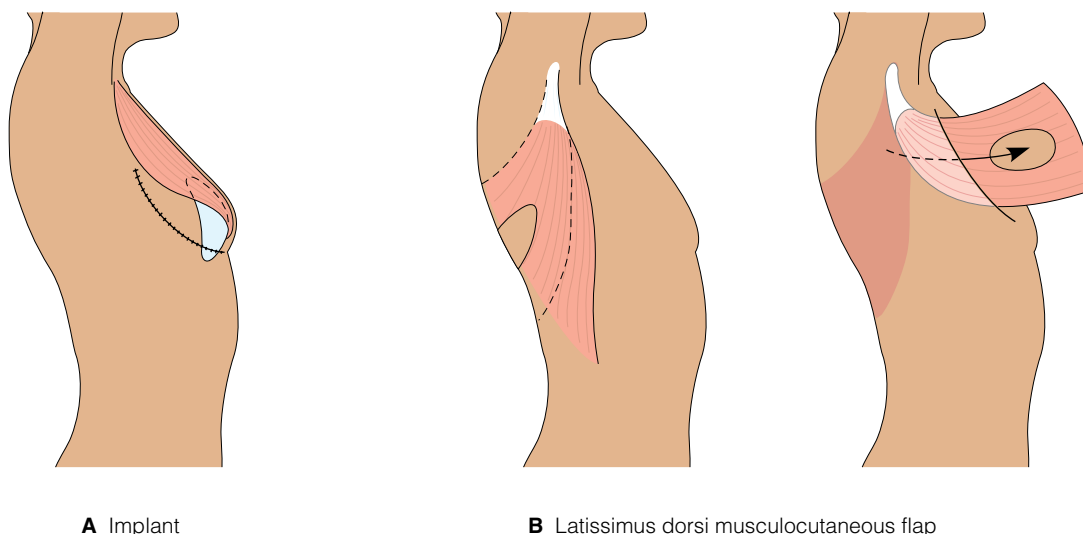
PREOPERATIVE CARE

- Ensure that the woman or family member signs an informed consent form.
- See Chapter 4 ∞ for preoperative preparation.

POSTOPERATIVE CARE

- Deep-breathing exercises are important because after general anesthesia, it is difficult for air to reach the lungs, particularly with the restrictive surgical dressing that decreases chest expansion.
- A suction apparatus will be placed in the wound to allow drainage of excess body fluids that accumulate when the lymph nodes are removed. This device is usually removed 3 to 5 days after surgery.
- An IV line may be in place for fluid replacement and antibiotics to reduce the risk of postoperative infection.
- Control pain by using the patient-controlled analgesia device or requesting analgesics before pain becomes severe. Take analgesics as needed before performing recommended exercises to facilitate full movement.
- Note any signs of bleeding on the dressing or on the bedding.
- Numbness or feelings of "pins and needles" in the axillary area are common.

- Lying on one's back or on the side not operated on helps fluid drain from the site.
- Moving the arm on the operated side helps regain mobility; specific exercises will be prescribed for increasing mobility after the incisions have healed.
- If fluid builds up after the drains have been removed, it can be aspirated by the surgeon.
- Use caution about lifting heavy objects with the arm on the operated side.
- Be careful about injury and infection on the affected side; wear rubber gloves when washing dishes, garden gloves when working outside. Request that caregivers not perform blood pressures or venipunctures on the operative side to reduce the risk of injury and infection.
- Feelings of anxiety, sadness, and fear of looking at the incision are normal; mastectomy means abrupt change in body image. It is normal to mourn the loss of a breast and to fear the loss of one's life after a cancer diagnosis.
- Sexual intimacy can be affected by mastectomy; it often helps to be able to discuss potential sexual problems with one's partner, with a counselor, or with a breast cancer support group.



A Implant

B Latissimus dorsi musculocutaneous flap

Figure 51–10 ■ Types of breast reconstruction surgeries. *A*, A breast implant is inserted under the pectoris muscle. *B*, Autogenous procedures transfer a flap of skin, muscle, and fat from the donor site on the woman's body to the mastectomy site. The most frequently used donor muscle sites are the latissimus dorsi and the rectus abdominis (the TRAM flap).

ectomy for early stage (I or II) breast cancer. Palliative radiation therapy is also used to treat chest wall recurrences and some bone metastases to help control pain and prevent fractures. Radiation therapy is administered by means of an external-beam or tissue implants (see Chapter 10 ∞).

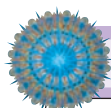
A new radiation treatment (*intraoperative radiotherapy*) is provided by a single, concentrated dose of radiation. During surgery, a probe is inserted into the cavity created by the lumpectomy and radiation equivalent to 6 weeks of doses is emitted for about 25 minutes. If this proves successful, the treatment could make lumpectomy available to more women

and prevent the woman from having 6 weeks of daily radiation treatments following surgery.



NURSING CARE

Breast cancer is not one disease entity, but many, depending on the affected breast tissue, the tissue's estrogen dependency, and the age of the person at onset. The psychosocial impact of breast cancer extends beyond the fear and threat of death. The diagnosis may transform the woman's sense of self and lead to reintegration or negotiation



NURSING CARE OF THE WOMAN HAVING Breast Reconstruction

HEALTH EDUCATION FOR THE CLIENT AND FAMILY

- Controversy exists about the health effects of silicone. While there is no conclusive evidence that silicone implants induce cancer or autoimmune disease, they are associated with hardening and pain due to contracture of the capsule around the implant. The implant may rupture, releasing silicone gel, or infection may occur. Saline-filled breast implants may be an alternative.
- Reconstruction can be done immediately after a mastectomy, or at any time later on. Some surgeons believe that delayed reconstruction offers better cosmetic results.
- Reconstructive surgery can create a natural looking breast that makes clothes fit better. Since it has no nerve endings, however, the reconstructed breast has no feeling or sensations.
- If a simple mastectomy is done, an implant approximately the same size as the other breast is placed under the pectoral muscle on the operative side. This creates a breast mound that closely resembles the natural breast in shape and softness. If the implant is placed over the pectoral muscle, a high degree of firmness may occur.
- With a simple mastectomy or modified radical mastectomy, a tissue expander may be used to replace the breast. The tissue expander is placed under the pectoral muscle and gradually expanded with saline injections every 2 to 3 weeks to stretch the overlying skin and create a pocket. After a period of time, usually 1 to 2 months, the tissue expander is exchanged for a saline implant.
- With more extensive surgery such as radical mastectomy, a flap of skin, fat, or muscle is transferred from a donor site to the operative area. A new nipple may be created by using tissue from the opposite nipple or from the inner thigh.
- Reconstructive surgery may require multiple surgeries, including all the risks associated with anesthesia. As the complexity of the procedures increases, so does the risk of complications such as infection.
- To decrease the risk of a fibrous capsule forming around the implant, it is important to perform breast massage as instructed.

of family relationships. A Nursing Care Plan for a woman with breast cancer is found below.

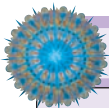
Health Promotion

The ACS recommends that all women conduct a monthly breast self-examination beginning at age 20, have a clinical breast examination every 3 years from ages 20 to 39 years, and have a clinical breast examination and mammogram each year starting at age 40 years.

All women should be taught to perform BSE monthly (Box 51–1). Premenopausal women should perform BSE 7 to 10 days

from the first day of their menstrual period, because hormonal changes increase breast tenderness and lumpiness prior to menses. Postmenopausal women should choose one date of the month (for example, the first day of the month) for BSE.

Educational messages about breast cancer screening need to be culturally sensitive to the intended audience. Media campaigns promoting mammography often show young white women, an approach that has proved ineffective among women of color (see the Nursing Research box on the next page). By working with women of different races and cultures, nurses can help make breast cancer education more meaningful to women in these groups.



NURSING CARE PLAN A Woman with Breast Cancer

Rachel Clemments is a 42-year-old mother of two, Sarah, age 12, and Jennifer, age 18. Because of a family history of breast cancer, she has been closely monitored (annual mammograms and clinical breast examination, monthly BSE, a needle aspiration biopsy with negative findings) for 4 years prior to her diagnosis. Mrs. Clemments discovers a lump in her left breast during her monthly BSE. An incisional biopsy reveals invasive lobular carcinoma in the left breast. Mrs. Clemments is debating whether to have reconstructive breast surgery. One of her greatest concerns is how her illness will affect her ability to support and care for her daughters. The breast cancer diagnosis seems part of the family legacy. She wonders, "When will it happen to Jennifer? To Sarah?"

ASSESSMENT

During the history, Laura Nelson, RN, the nurse admitting Mrs. Clemments, learns that her mother, two of her aunts, and one sister had been diagnosed with breast cancer. Her mother and one of the aunts died before age 45. Physical assessment findings include T 98.5°F (37.0°C), BP 110/62, P 65, R 14. Her weight is 120 lb (54 kg); she is 66 inches (168 cm) tall. Modified radical mastectomy is performed; histologic examination shows a 3-cm tumor; axillary node dissection shows that 4 of 16 lymph nodes are positive.

DIAGNOSES

- *Risk for Infection* related to surgical incision
- *Acute Pain* related to surgery
- *Disturbed Body Image* related to loss of breast
- *Decisional Conflict* about treatment, related to concerns about risks and benefits
- *Fear* related to disease process/prognosis

EXPECTED OUTCOMES

- Remain free of infection.
- Experience minimal pain or discomfort during her recovery.
- Maintain a positive body image, regardless of her decision about reconstruction.
- Evaluate the treatment options in relation to personal values and decide on a course of action.
- Identify the sources of her fear and demonstrate behaviors that may reduce fears.

PLANNING AND IMPLEMENTATION

- Teach her about hand washing and wound care.
- Assess her pain tolerance and administer analgesics as prescribed.

- Teach her to use caution when moving the arm on the operated side, to avoid lifting heavy objects, and to wear gloves when gardening.
- Encourage her to discuss her thoughts and feelings about her body changes.
- Suggest that she talk with a Reach to Recovery volunteer about her thoughts and feelings.
- Assess her interest in spiritual/religious support and refer if appropriate.
- Discuss the use of a temporary prosthesis and later the fitting of a permanent prosthesis (6 to 8 weeks after surgery), the need to be fitted by an experienced person, and insurance reimbursement for the prosthesis.
- Discuss the possibility of attending a breast cancer support group where she can draw on the experiences of other women who have undergone mastectomy, chemotherapy, or radiation.
- Encourage her to verbalize her fears about her own prognosis and about her daughters' future risk of breast cancer; assess the need/interest for referral to psychological counseling.

EVALUATION

At discharge, Mrs. Clemments has no signs of physical complications and is looking forward to being at home with her daughters as temporary caregivers. Mrs. Clemments met with a Reach to Recovery volunteer, who brought her a temporary prosthesis and booklets about postmastectomy exercises, chemotherapy, and breast reconstruction. The volunteer also referred her to a local cancer support group. Mrs. Clemments has talked about her concerns related to breast reconstruction. "I want to avoid anything that would increase the risk of complications. The possibility of recurrence and my fear for my daughters' future health are more than enough to worry about."

CRITICAL THINKING IN THE NURSING PROCESS

1. What role could genetic counseling play in helping Mrs. Clemments and her daughters better understand the daughters' risk of breast cancer?
2. Describe the types of mastectomies and their implications for nursing care.
3. What medications might help minimize the side effects of chemotherapy?
4. Develop a plan of care for Mrs. Clemments for the nursing diagnosis *Disturbed Sleep Pattern*.
See Evaluating Your Response in Appendix C.

BOX 51–1 Breast Self-Examination (BSE)

- Lie down on your back and place your right arm behind your head. (BSE should be done while lying down because this position spreads breast tissue evenly over the chest wall, making it easier to feel all the breast tissue.)
- Use the finger pads of the middle fingers on your left hand to feel for lumps in the right breast. Use overlapping dime-sized circular motions of the finger pads to feel the breast tissue.
- Use three different levels of pressure to feel all the breast tissue. Light pressure is needed to feel the tissue closest to the skin; medium pressure to feel a little deeper; and firm pressure to feel the tissue closest to the chest and ribs. A firm ridge in the lower curve of each breast is normal. Use each pressure level to feel the breast tissue before moving on to the next spot.
- Move around the breast in an up and down pattern starting at an imaginary line drawn straight down your side from the underarm and moving across the breast to the middle of the chest bone (sternum, breastbone). Be sure to check the entire breast area before going down until you feel only ribs and up to the neck or collar bone.
- Repeat the exam on your left breast, using the finger pads of your right hand.
- Stand in front of the mirror with your hands pressing firmly down on your hips. Look at your breasts for any changes in size, shape, contour, or dimpling.
- Examine your underarm while sitting or standing and with your arm only slightly raised.
- If you find any changes, see your healthcare provider as soon as possible.

Assessment

Collect the following data through the health history and physical examination (see Chapter 49 ∞). Further focused assessments are described with nursing interventions.

- **Health history:** Family history of breast cancer, breast changes, nipple discharge, use of HRT, personal history of breast cancer, previous diagnostic tests and treatment for cancer, menstrual history, pregnancies, alcohol intake, physical activity, dietary history.
- **Physical assessment:** Height and weight, breasts, lymph glands.

Nursing Diagnoses and Interventions

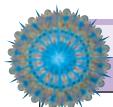
Although each woman has individual needs, nursing diagnoses prior to surgery are concerned with anxiety, decisional conflict,

grief, risk for infection, risk for injury, and disturbed body image over the loss of a breast. Because the typical hospital stay is short, usually 2 to 3 days, preoperative teaching is done on an outpatient basis.

Anxiety

The woman with breast cancer is often anxious about the diagnosis, the surgery, the outcome of surgery if nodal involvement is found, and the possible changes in sexual and family relationships. Studies show that young women with breast cancer, a growing population, are particularly vulnerable for anxiety and other psychosocial effects, as are their spouses and their children.

- Provide opportunities to express thoughts and feelings. In this process, the woman can name her fears. *Once the fears*

**NURSING RESEARCH Evidence-Based Practice: Improve Diagnosis and Treatment of African American Women with Breast Cancer**

Despite efforts to improve both the diagnosis and treatment of women with breast cancer, African American women die more often from breast cancer than other groups of women. It is believed that this statistic is the result of African American women's advanced stage of disease at diagnosis, primarily due to a delay in seeking treatment. Bradley (2005) conducted a study to examine the variables affecting delay in seeking treatment as well as the possible effects of worry about breast cancer manifestations in African American women that might delay seeking treatment. The researcher found that, although delay in some women does exist, one cannot assume that all African American women delay seeking treatment. The researcher recommended that the relationship between worry and delaying treatment for breast cancer in African American women be further studied.

IMPLICATIONS FOR NURSING

Nurses must consider multiple factors when considering what may or may not influence African American women from a delay in seeking diagnosis and treatment for breast cancer, includ-

ing biologic characteristics and intra- and intercultural differences and similarities, as well as perceptions and health beliefs. It is important that nurses do not assume that a delay in seeking care exists, but rather make assessments and design interventions based on consideration of both individual and group cultural differences.

CRITICAL THINKING IN CLIENT CARE

1. What barriers to breast cancer screening in women of all races can you identify? Do you think these barriers differ based on culture, race, or socioeconomic level? Why or why not?
2. Are there barriers to breast cancer screening that might be unique to African American women? To Hispanic women? To Asian American women?
3. What type of questions would you include in a health assessment to identify women who may be worried about breast cancer, but have not sought diagnosis?

are named, the nurse may simply listen, educate, or dispel fears that stem from lack of understanding.

- Discuss with the woman her knowledge of breast cancer. *Assessing the woman's knowledge of breast cancer helps the nurse plan more effective teaching.*
- Encourage discussion relating to immediate concerns about resuming her life at home and the changes she must make. *Anticipatory guidance can help plan for and cope with changes in her life and relationships.*
- Explain the surgical procedure, including information about preoperative medications, anesthesia, and recovery. *Knowing what to expect helps to decrease anxiety.*
- Explain that it is normal to have decreased sensation in the surgical area. *Severed or damaged nerves reduce sensation.*

Decisional Conflict

The woman with breast cancer must make life-changing decisions about treatment within a relatively brief and highly stressful time. Her age, menopausal status, and stage of cancer are only some of the factors that affect her decisions. Culture, values, lifestyle, socioeconomic status, and self-esteem also are considered.

- Provide an opportunity for the woman to ask questions; answer questions as simply and directly as possible. Make eye contact and pay attention to body language. *During this time, the woman can process information and make informed decisions.*
- Focus on immediate concerns, and provide up-to-date written material for the woman to review. *Written material provides easy reference to information not processed immediately because of anxiety and stress.*
- Listen to the woman in a nonjudgmental manner during her decision-making process. *Nonjudgmental, empathic listening helps the woman process information and make informed decisions. Only she knows the context of her life.*
- If the woman wishes, provide opportunities for her to meet with other women who have had breast cancer surgery. *Not all women are ready to meet others in their situation, but opening the door to this resource is appropriate. The woman may choose to talk with these women after the surgery.*
- Facilitate a team approach with the surgeon, anesthesiologist, oncologist, plastic surgeon, and other health professionals. *Being the woman's advocate during this time of anxiety and decision making reduces the stress of coordinating multiple healthcare provider schedules.*

Anticipatory Grieving

Breast surgery, even lumpectomy, alters the appearance of the breast. This loss is expressed through grief.

- Listen attentively to expressions of grief and watch for non-verbal cues (failure to make eye contact, crying, silence). *Not all women will express grief clearly; sometimes unspoken grief is the most painful. Grief is relieved only when expressed in a nonthreatening environment.*

- Allow time to interact and do not rush interactions. *Taking time to be with the woman communicates caring.*
- Explain that it is normal to have periods of depression, anger, and denial after breast surgery. *All these feelings are appropriate expressions of grief.*
- If the woman wishes to do so, involve the partner in helping the woman cope with her grief. *Remember that the partner may also be grieving. Not all women want to share their grief, and not all partners are interested and supportive.*

Risk for Infection

Like any surgical client, the woman who has breast surgery is at risk for infection. Removal of lymph nodes and the presence of a draining wound increase the risk.

- Assess the surgical dressings for bleeding, drainage, color, and odor every 4 hours for 24 hours and document your findings. Circle any visible bleeding and drainage on the dressing as a baseline for subsequent assessment. *Excessive bleeding or drainage signals postoperative complications that may require emergency attention.*
- Observe the incision and IV sites for pain, redness, swelling, and drainage. Assess the drainage system for patency and adequate suction; note the color and amount of drainage. *Careful observation for any signs of infection is essential because the woman's immune system is compromised. IV catheters should be placed on the uninvolved side only.*
- Change dressings and IV tubing using aseptic technique. *Moist dressings and intravenous tubing provide sites for bacterial growth. Routine dressing and IV tubing changes using aseptic technique reduce the risk for infection.*
- Encourage a protein-rich diet. Discuss the woman's nutritional status with the dietitian and request a consultation for the woman. *Adequate nutrition promotes healing and boosts the immune system.*
- Teach the woman how to care for the drainage system, if present (clean the site, empty the device, and record the amount, color, and type of drainage). *The woman is often discharged prior to removal of the drainage system and dressings and needs teaching to provide self-care.*
- At discharge, teach the woman to watch for and report to her healthcare provider the manifestations of infection: fever, redness or hardness at the surgical site, or purulent drainage. *Any of these manifestations should be reported to the physician/surgeon. Knowing the signs and symptoms of infection prepares the woman to seek prompt treatment if infection occurs.*
- Explain that she may experience scaling, flaking, dryness, itching, rash, or dry desquamation of the skin, particularly after radiation therapy. *Impaired skin integrity increases the risk of infection.*
- Tell the woman to avoid deodorants and talcum powder on the affected side until the incision is completely healed. *These substances may irritate the skin and impede healing.*

Risk for Injury

Removal of the lymph nodes puts the woman at risk for injury and long-term complications such as lymphedema and infection.

- When obtaining blood pressure and starting IVs, use the non-surgical side. *Compression of the arm on the surgical side may cause lymphedema.*
- Elevate the affected arm higher than the shoulder on a pillow, but do not abduct it; the hand should be higher than the elbow. *Elevating the arm permits drainage, prevents swelling, and promotes circulation.*
- Encourage range-of-motion exercises in the affected arm. *Exercise helps develop collateral drainage.*
- Explain that lymphedema massage and an elastic compression bandage may help control the swelling after she has recovered from surgery. *It is important that women know about the resources available after recovery.*

Disturbed Body Image

Breast surgery can change the woman's body image. The surgical changes may be compounded by weight gain and other side effects of chemotherapy or hormone therapy. Self-esteem also affects adjustment to a changed body image.

- Assess how the woman views her body. Discuss with the woman what image of herself she had prior to surgery. *Self-image is related to self-esteem. Discuss whether her self-image has changed.*
- Explain that redness and swelling in the scar will fade with time. *The knowledge that the scar will fade may give the woman a more realistic view of the changes.*

PRACTICE ALERT

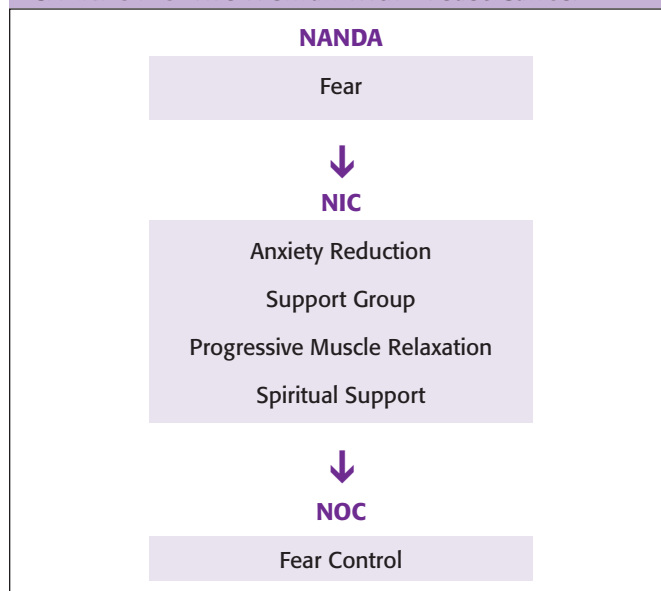
Offer referral to support groups with women experiencing similar problems. Some women may prefer one-on-one counseling.

- Include the partner and family if possible when discussing the plan of care and activities of daily living (ADLs). Request consultation with a psychologist or other professional if the woman is interested. *Discussion with the partner and family can facilitate the woman's emotional healing process.*
- Offer pamphlets and suggest books and videos that might increase knowledge about what lies ahead. *Knowing what to expect can help the woman cope.*
- Encourage the woman to look at her incision when she feels ready; often the reality is not as frightening as the woman had imagined. Explain that it is normal to be afraid to look. *Reassurance that her behavior is normal decreases anxiety.*
- If the woman is interested in breast reconstruction, provide written material and encourage her to talk with a plastic surgeon and with women who have had reconstruction. *It is important for the woman to be fully informed about available options to make an informed decision.*

Using NANDA, NIC, and NOC

Chart 51–3 shows links between NANDA nursing diagnoses, NIC, and NOC when caring for the woman with breast cancer.

NANDA, NIC, AND NOC LINKAGES CHART 51–3 The Woman with Breast Cancer



Data from NANDA's *Nursing Diagnoses: Definitions & Classification 2005–2006* by NANDA International (2003), Philadelphia; *Nursing Interventions Classification (NIC)* (4th ed.) by J. M. Dochterman & G. M. Bulechek (2004), St. Louis, MO: Mosby; and *Nursing Outcomes Classification (NOC)* (3rd ed.) by S. Moorhead, M. Johnson, and M. Maas (2004), St. Louis, MO: Mosby.

Community-Based Care

The woman with breast cancer and her family have much to learn to provide self-care at home. Address the following topics in preparation for home care:

- Manifestations of infection and the need to report any that occur to her healthcare provider
- The importance of ADLs, such as eating, combing her hair, and washing her face
- Postmastectomy exercises and lymphedema care (Figure 51–11 ■) as discussed with physicians and physical therapists
- The need for adequate rest and emotional support
- Participation in a breast cancer support group and online information services and bulletin boards for sources of education and support
- Prosthesis management, if this option is chosen (A temporary lightweight prosthesis may be worn immediately after the drains and sutures have been removed from the surgical site. Because prostheses are expensive, a permanent one should not be purchased until the wound has completely healed. Prostheses are available at medical stores and many larger department stores. Most private and government insurance policies pay for the first prosthesis.)
- Helpful resources:
 - Reach to Recovery
 - American Cancer Society
 - National Breast Cancer Coalition
 - National Lymphedema Network.

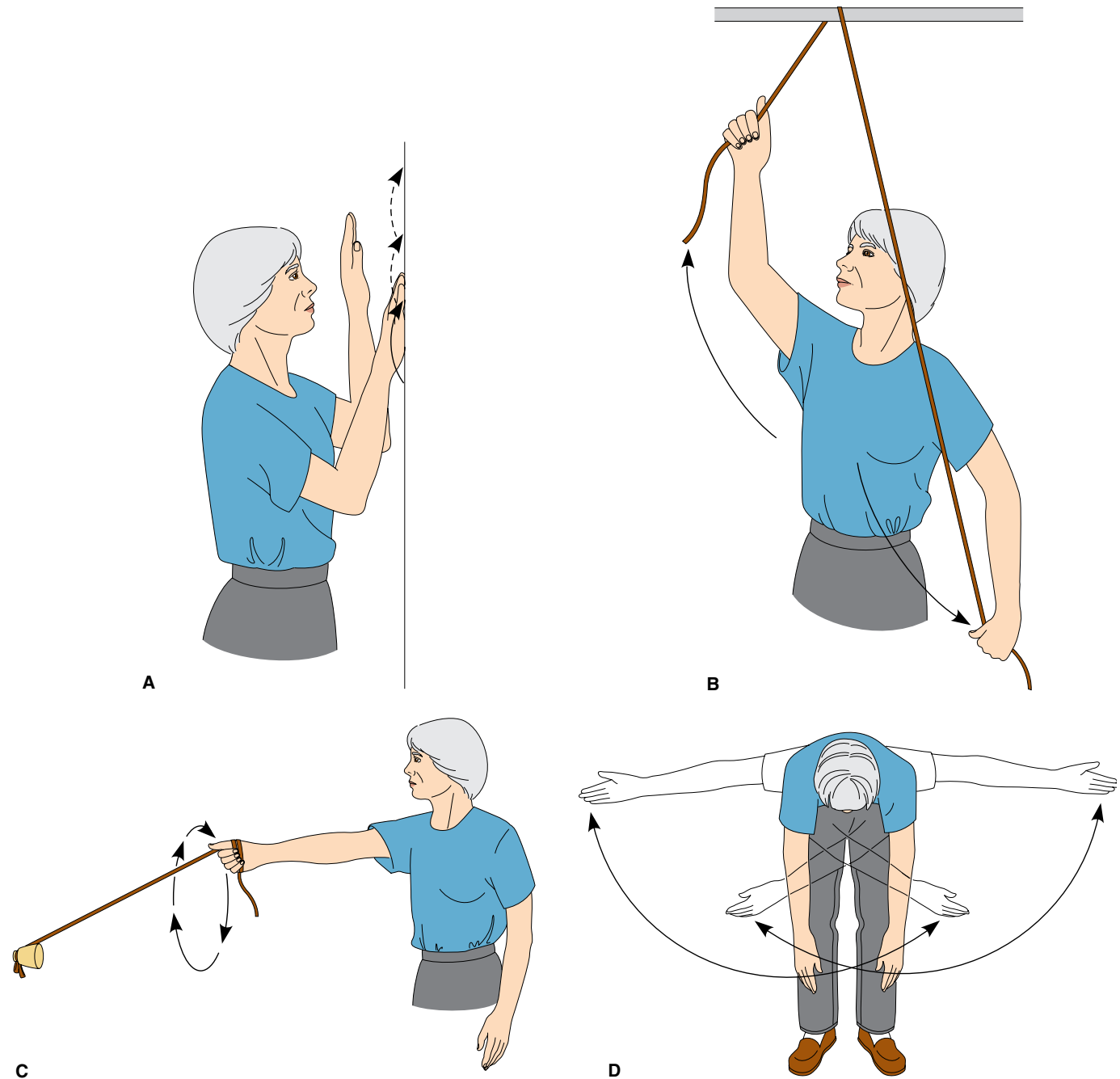


Figure 51-11 ■ Postmastectomy exercises. *A*, Wall climbing: Stand facing wall with toes 6 to 12 inches from wall. Bend elbows and place palms against wall at shoulder level. Gradually move both hands up the wall parallel to each other until incisional pulling or pain occurs. (Mark that spot on wall to measure progress.) Work hands down to shoulder level. Move closer to wall as height of reach improves. *B*, Overhead pulley: Using operated arm, toss 6-foot rope over shower curtain rod (or over top of a door that has a nail in the top to hold the rope in place for the exercise). Grasp one end of rope in each hand. Slowly raise operated arm as far as comfortable by pulling down on the rope on opposite side. Keep raised arm close to your head. Reverse to raise unoperated arm by lowering the operated arm. Repeat. *C*, Rope turning: Tie rope to door handle. Hold rope in hand of operated side. Back away from door until arm is extended away from body, parallel to floor. Swing rope in as wide a circle as possible. Increase size of circle as mobility returns. *D*, Arm swings: Stand with feet 8 inches apart. Bend forward from waist, allowing arms to hang toward floor. Swing both arms up to sides to reach shoulder level. Swing back to center, then cross arms at center. Do not bend elbows. If possible, do this and other exercises in front of mirror to ensure even posture and correct motion.

EXPLORE MEDIA LINK

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Animation

Premenstrual Syndrome

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NCLEX-RN® Review
Care Plan Activity: Postoperative Hysterectomy Care
Case Studies
Breast Cancer
Endometriosis
Teaching Plans
Breast Cancer
Mammogram
MediaLink Applications
Pap Smears
Post-Menopause Dietary Recommendations
Links to Resources



CHAPTER HIGHLIGHTS

- Disorders of female sexual function include dyspareunia, inhibited sexual desire, and orgasmic dysfunction. Nurses should be able to obtain a sexual history, discuss sexual concerns, and make appropriate referrals without embarrassment.
- Menopause, a normal physiologic event in the life span of a woman, is the permanent cessation of menses. Loss of estrogen results in widespread tissue changes and increases the risk for osteoporosis, fractures, and cardiovascular disease.
- Menstrual disorders encompass PMS, dysmenorrhea, and abnormal uterine bleeding. Nursing interventions are focused on teaching about good health practices and interventions to relieve manifestations. Interdisciplinary care includes a therapeutic D&C and hysterectomy.
- Uterine displacement and vaginal fistulas are structural disorders. Uterine displacements may be treated surgically or with a pessary, and may include teaching Kegel exercises to minimize urinary leakage. Fistulas may spontaneously resolve if small, or may be surgically repaired.
- There are both benign and malignant disorders of female reproductive tissue, including cysts or polyps, leiomyomas, endometriosis, and cancers of the cervix, endometrium, ovaries, and vulva.
- Leiomyomas (fibroid tumors) are benign tumors that originate from smooth muscle of the uterus. Treatment depends on the size and location of the tumors. Both leiomyomas and endometrial implants (benign implants of endometrial tissue in the pelvic cavity) may interfere with the ability to have a child and are reduced in size after menopause.
- Cervical cancer is a common female reproductive system cancer, but the incidence and mortality has been greatly reduced with the Pap smear for early diagnosis. Nearly 100% of women with cervical cancer have evidence of cervical infection with HPV.
- Endometrial cancer is the most frequently diagnosed pelvic cancer in the United States. The major manifestation is abnormal, painless vaginal bleeding (menorrhagia or metrorrhagia in menstruating women). Postmenopausal women should have annual pelvic examinations and report any unexpected vaginal bleeding to their healthcare provider.
- Ovarian cancer increases in incidence with aging; seen most often in women over age 65. In early stages, there are generally no warning signs.
- Benign breast disorders in women include fibrocystic changes and intraductal disorders. Both treatment and nursing care are primarily symptomatic.
- Breast cancer is the most commonly occurring cancer in women and the second leading cause of death in women in the United States. A strong genetic link has been identified, as have a large number of risk factors. Early diagnosis is possible with breast self-examination, clinical breast examination, and mammograms. Treatment includes surgery (one of several types of mastectomy, lumpectomy), radiation therapy, and chemotherapy. Both combination therapies and immunotherapy are proving to be effective in suppressing tumor growth and facilitating longer life. Among other problems, mastectomy and radiation therapy interfere with lymph drainage on the affected side, leading to lymphedema of the arm.
- Appropriate preoperative nursing diagnoses for the woman with breast cancer include anxiety and fear, decisional conflict, and anticipatory grieving. Following surgery, interventions focus on risk for infection, risk for injury, pain, and disturbed body image.

TEST YOURSELF NCLEX-RN® REVIEW

- 1 During a health assessment at a local clinic, a woman in her 50s tells you that she is having some pain with intercourse. You are uncomfortable discussing this topic with her. What would you say?
 1. "I know this can be a problem; please discuss it with your physician."
 2. "I don't know anything about that; please ask someone else."
 3. "Do you normally enjoy sexual activity?"
 4. "What do you think is causing your problem?"
- 2 Long-term estrogen deprivation results in an increased risk for physical disorders. What are these? (Select all that apply.)
 1. colon cancer
 2. osteoporosis
 3. cardiovascular disease
 4. fractures
 5. cervical cancer
- 3 You are conducting an educational seminar for postmenopausal women. When discussing calcium intake, you recommend _____mg per day.
- 4 An intervention for the woman with a uterine displacement disorder is to teach Kegel exercises. These exercises may help reduce:
 1. stress incontinence.
 2. menorrhagia.
 3. vaginal discharge.
 4. retroversion.
- 5 Which of the following topics would you include in a health-promotion seminar to reduce the risk of cervical cancer?
 1. weight loss
 2. safer sex methods
 3. yearly mammograms
 4. a diet high in iron
- 6 When discussing dietary guidelines with a woman with PMS you recommend she reduce her sodium intake. What is the rationale for this recommendation?
 1. Sodium increases reactive hypoglycemia, increasing physical manifestations.
 2. Sodium increases thirst, thereby facilitating increased oral fluid intake.
 3. In and of itself, sodium is not harmful but it may increase cancer risk.
 4. Sodium restriction helps minimize fluid retention.
- 7 What happens to endometrial implantations after menopause?
 1. They tend to become malignant.
 2. They tend to atrophy and disappear.
 3. The number of implants increases.
 4. Each implant enlarges.
- 8 You are designing a teaching plan for home care for a woman who had an abdominal hysterectomy. What interventions should be included? (Select all that apply.)
 1. Restrict heavy lifting for 4 to 6 weeks.
 2. Take tub baths until bleeding has stopped.
 3. Report an increase in temperature or severe pain.
 4. Take regular rest periods.
 5. Avoid coughing and deep breathing at home.
- 9 Of the following women, which one would be most at risk for breast cancer?
 1. age 23, two children
 2. age 33, never pregnant
 3. age 45, very thin
 4. age 64, positive family history
- 10 You are caring for a woman who is scheduled to have a mastectomy for breast cancer. She is crying. What would be an appropriate nursing diagnosis?
 1. *Disturbed Body Image*
 2. *Fatigue*
 3. *Anticipatory Grieving*
 4. *Risk for Injury*

See Test Yourself answers in Appendix C.

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