chapter 7

Benign Disorders of the Female Reproductive Tract

KeyTERMS

cystocele
enterocele
Kegel exercises
ovarian cyst
pelvic organ prolapse
pessary
polyps
rectocele
urinary incontinence
uterine fibroids
uterine prolapse

LearningOBJECTIVES

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

1. Define the key terms.
2. Describe the major pelvic relaxation disorders in terms of etiology, management, and nursing interventions.
3. Outline the nursing management needed for the most common benign reproductive disorders in women.

WOW

Women can influence their aging process by making wise lifestyle choices early on.

Several benign pelvic disorders increase in incidence as women age. For instance, women may experience pelvic support disorders related to pelvic relaxation or urinary incontinence. These disorders generally develop after years of wear and tear on the muscles and tissues that support the pelvic floor—such as that which occurs with childbearing, chronic coughing, straining, surgery, or simply aging. In addition to pelvic support disorders, woman may also experience various benign neoplasms of the reproductive tract, such as cervical polyps, uterine leiomyomas (fibroids), and ovarian cysts.

This chapter provides an overview of various pelvic support disorders and benign neoplasms, along with assessment, treatment, and potential prevention strategies for each.

Pelvic Support Disorders

Pelvic support disorders such as pelvic organ prolapse and urinary and fecal incontinence are prevalent conditions in aging women. They cause significant physical and psychological morbidity, with obvious detriment to women's social interactions, emotional well-being, and overall quality of life. Because pelvic support disorders increase with age, the problem will grow worse as our population ages. These disorders occur as a result of weakness of the connective tissue and muscular support of pelvic organs due to a number of factors: vaginal childbirth, obesity, lifting, chronic cough, straining at defecation, and estrogen deficiency (McIntosh, 2005). The bony pelvis has an exaggerated lumbar spine curve and downward tilt to it. The bladder rests on the symphysis and the posterior organs rest on the sacrum and coccyx. The pelvis holds the organs, but a woman's erect posture causes a funneling effect and constant downward pressure.

Pelvic Organ Prolapse

Pelvic organ prolapse (from the Latin *prolapsus*, a slipping forth) refers to the abnormal descent or herniation of the pelvic organs from their original attachment sites or their normal position in the pelvis. Pelvic organ prolapse occurs when structures of the pelvis shift and protrude into or outside of the vaginal canal. The Egyptians were the first to describe prolapse of the genital organs. Hippocrates made reference to placing a half of a pomegranate into the vagina for the treatment of organ prolapse (Shaw, 2003). Even today, the treatment and diagnosis of pelvic organ prolapse continues to be problematic.

The four most common types of genital prolapse are cystocele, rectocele, enterocele, and uterine prolapse (Fig. 7-1):

- **Cystocele** occurs when the posterior bladder wall protrudes downward through the anterior vaginal wall.
- **Rectocele** occurs when the rectum sags and pushes against or into the posterior vaginal wall.
- **Enterocele** occurs when the small intestine bulges through the posterior vaginal wall (especially common when straining).
- **Uterine prolapse** occurs when the uterus descends through the pelvic floor and into the vaginal canal. Multiparous women are at particular risk for uterine prolapse.

The extent of uterine prolapse is described in terms of degree:

- First degree: prolapse of the organ into the vaginal canal
- Second degree: cervix descends to the vaginal introitus
- Third degree: cervix is below the vaginal introitus (Youngkin & Davis, 2004)

Incidence and Etiology

It is difficult to determine the incidence of women with pelvic organ prolapse, as the disorder is often asymptomatic and many women do not seek treatment. It has been estimated, however, that at least half of all women who have given birth experience pelvic organ prolapse (Thakar & Stanton, 2002).

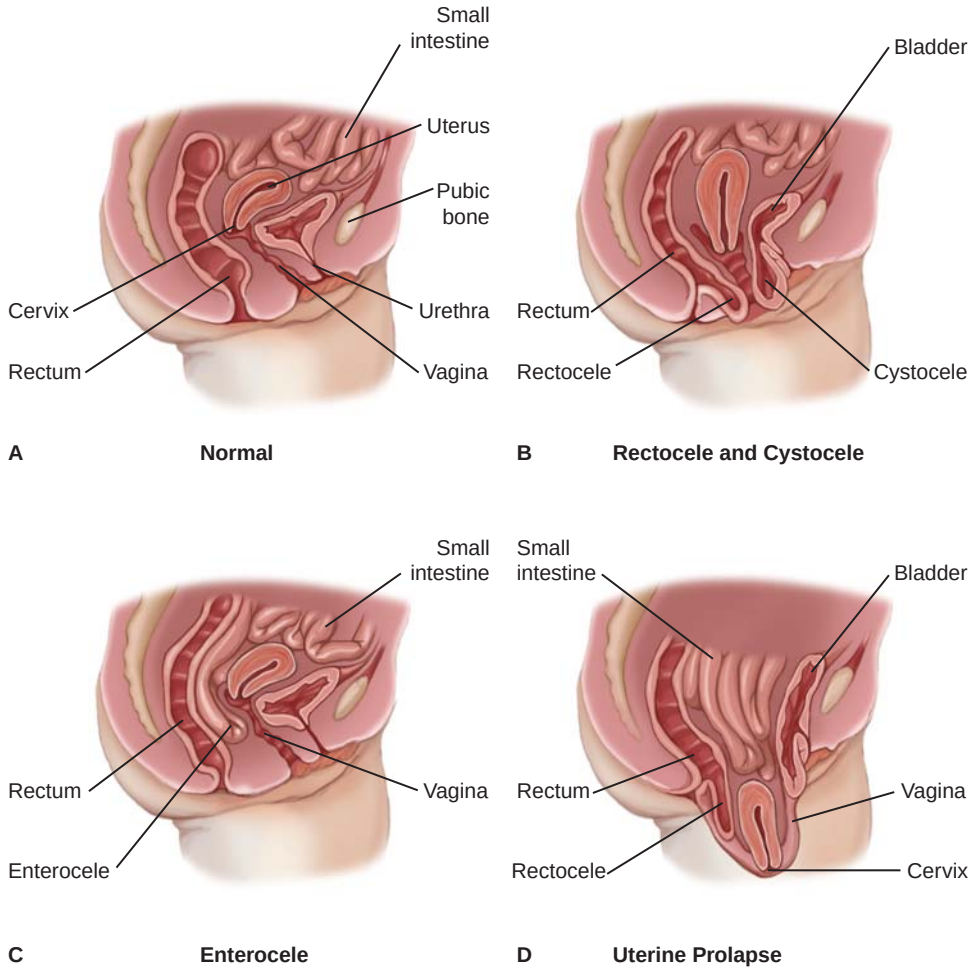
Causes of pelvic organ prolapse might include:

- Constant downward gravity because of erect human posture
- Atrophy of supporting tissues with aging and decline of estrogen levels
- Weakening of pelvic support related to childbirth trauma
- Reproductive surgery
- Pelvic radiation
- Increased abdominal pressure secondary to:
  - Lifting of children or heavy objects
  - Straining due to chronic constipation
  - Respiratory problems or chronic coughing
  - Obesity (Lowdermilk & Perry, 2004)

Clinical Manifestations

Pelvic organ prolapse is often asymptomatic, but when symptoms do occur, they are often related to the site and type of prolapse. Symptoms common to all types of prolapses are a feeling of dragging, a lump in the vagina, or something "coming down." Symptoms associated with pelvic organ prolapse are summarized in Box 7-1.

Women present with varying degrees of descent. Uterine prolapse is the most troubling type of pelvic



● Figure 7-1 Types of pelvic prolapses. (**A**) Normal. (**B**) Rectocele and cystocele. (**C**) Enterocele. (**D**) Uterine prolapse.

relaxation because it is often associated with concomitant defects of the vagina in the anterior, posterior, and lateral compartments (Lazarou & Scotti, 2004).

Treatment and Nursing Management

Treatment options for pelvic organ prolapse depend on the nature of the symptoms and their effect on the client's quality of life. Important considerations when deciding on nonsurgical or surgical options include the severity of symptoms, the woman's preferences, the woman's health status, age, and suitability for surgery, and the presence of other pelvic conditions (urinary or fecal incontinence). When surgery is being considered, the nature of the procedure and the likely outcome must be fully explained and discussed with the woman and her partner.

Nurses should help clients understand the nature of the condition, the treatment options, and the likely outcomes. Nursing considerations might include the following:

- Describe normal anatomy and causes for pelvic prolapse.
- Assess how this condition has affected the client's life.
- Outline the options available, with the advantages and disadvantages of each.
- Allow the client to make the decision that is right for her.
- Provide education.
- Schedule preoperative activities needed for surgery.
- Reassure the client that there is a solution for her symptoms.
- Provide community education concerning genital prolapse.

Nursing Care Plan 7-1 provides an overview of care for a woman with pelvic organ prolapse.

Nonsurgical Interventions

Nonsurgical interventions for pelvic organ prolapse include Kegel exercises, estrogen replacement therapy, dietary and lifestyle modifications, and use of pessaries.

Kegel Exercises

Kegel exercises strengthen the pelvic-floor muscles to support the inner organs and prevent further prolapse. An American gynecologist, Arnold Kegel, was the first to describe pelvic-floor exercises in the treatment of urinary

BOX 7-1

SYMPTOMS ASSOCIATED WITH PELVIC ORGAN PROLAPSE

- Urinary symptoms
  - Stress incontinence
  - Frequency (diurnal and nocturnal)
  - Urgency and urge incontinence
  - Hesitancy
  - Poor or prolonged stream
  - Feeling of incomplete emptying
- Bowel symptoms
  - Difficulty in defecation
  - Incontinence of flatus, liquid or solid stool
  - Urgency of defecation
  - Feeling of incomplete evacuation
  - Rectal protrusion or prolapse after defecation
- Sexual symptoms
  - Inability to have frequent intercourse
  - Dyspareunia
  - Lack of satisfaction or orgasm
  - Incontinence during sexual activity
- Other local symptoms
  - Pressure or heaviness in the vagina
  - Pain in the vagina or perineum
  - Low back pain, after long standing
  - Abdominal pressure or pain (Lazarou & Scotti, 2004)

incontinence in women. The purpose of pelvic-floor exercises is to increase the muscle volume, which will result in a stronger muscular contraction. Kegel exercises might limit the progression of mild prolapse and alleviate mild prolapse symptoms, including low back pain and pelvic pressure. They will not, however, help severe uterine prolapse. Nurses should encourage clients to perform Kegel exercises daily (Teaching Guidelines 7-1).

Estrogen Replacement Therapy

Estrogen replacement therapy (orally, transdermally, or vaginally) may help to improve the tone and vascularity of the supporting tissue in perimenopausal and menopausal women by increasing blood perfusion and elasticity to the vaginal wall. Before this therapy is started, each woman must be evaluated based on a thorough medical history to validate her risk for complications (e.g., endometrial cancer, myocardial infarction, stroke, breast cancer, pulmonary emboli, and deep vein thrombosis). Because of these risks, estrogens, with or without progestins, should be taken at the lowest effective doses and for the shortest duration consistent with the treatment goals and risks for the individual woman (Spratto & Woods, 2005).

Controversy still exists regarding the benefits versus the risks of taking estrogen, so the woman must weigh this option carefully (Hendrix et al., 2005). The nurse can discuss current research findings and educate the woman about hormone therapy, allowing the woman to make her own decision on whether to use hormones.

Dietary and Lifestyle Modifications

Dietary and lifestyle modifications may help prevent pelvic relaxation and chronic problems later in life. Dietary habits can exacerbate the prolapse by causing constipation and consequently chronic straining. The stools of a constipated woman are hard and dry, and typically she must strain while bearing down to defecate. This straining to pass a hard stool increases intra-abdominal pressure, which over time causes the pelvic organs to prolapse.

Dietary modifications can help to establish regular bowel movements without discomfort and eliminate flatus and bloating. Nurses should instruct clients to increase dietary fiber and fluids to prevent constipation. A high-fiber diet with an increase in fluid intake alleviates constipation by increasing stool bulk and stimulating peristalsis. It is accomplished by replacing refined, low-fiber foods with high-fiber foods. The recommended daily intake of fiber for women is 25 grams daily (Dudek, 2006). In addition to increasing the amount of fiber in her diet, the nurse should also encourage the woman to drink eight 8-oz glasses of fluid daily and to engage in regular aerobic exercise, which promotes muscle tone and stimulates peristalsis.

Other lifestyle changes that will assist with prolapse include:

- Achieve ideal weight to reduce higher intra-abdominal pressures and strain on pelvic organs, including pressure on the bladder.
- Wear a girdle or abdominal support to help support the muscles surrounding the pelvic organs.
- Avoid lifting heavy objects to reduce the risk of increasing intra-abdominal pressure, which can push the pelvic organs downward.
- Avoid high-impact aerobics, jogging, or jumping repeatedly to minimize the risk of increasing intra-abdominal pressure, which places downward pressure on the organs.
- Give up smoking to minimize the risk for a chronic "smoker's cough," which increases intra-abdominal pressure and forces the pelvic organs downward.

Pessaries

A **pessary** is a hard rubber or plastic device that is placed into the vagina to support the uterus, bladder, and rectum (Fig. 7-2). While there are many types and shapes, the most commonly used pessary is a firm ring that presses against the wall of the vagina and urethra to help decrease

Nursing Care Plan 7-1

Overview of a Woman With Pelvic Organ Prolapse (POP)

Katherine, a 62-year-old multiparous woman, came to her gynecologist with complaints of a chronic dragging or heavy painful feeling in her pelvis, lower backache, constipation, and urine leaking. Her symptoms increase when standing for long periods. She hasn't had menstrual cycles for at least a decade. She states, "I'm not taking any of those menopausal hormones."

Nursing Diagnosis: Pain related to relaxation of pelvic support and elimination difficulties

Outcome identification and *evaluation*	Interventions with *rationales*
Client will report an acceptable level of discomfort within 1 to 2 hours of intervention as *evidenced by verbalizing a rating of <4 on a 0-to-10 pain scale.*	Obtain a thorough pain history, including ongoing pain experiences, previously used methods of pain control, what worked, what didn't, any allergies to pain medications, and the effect of pain on her activities of daily living *to provide a baseline and enable a systematic approach to pain management.* Assess the location, frequency, severity, duration, precipitating factors, and aggravating/alleviating factors *to identify defining characteristics of the client's subjective pain experience to better plan appropriate interventions.* Educate client about any medications prescribed as to correct dosage, route, side effects, and potential precautions *to increase understanding of and help promote compliance with therapy.* Assess problematic elimination patterns *to aid in identifying underlying factors from which to plan appropriate prevention strategies.* Encourage client to increase fluids and fiber in diet and increase physical activity daily *to promote peristalsis.* Assist client with establishing regular toileting patterns by setting aside time daily for bowel elimination *to promote regular bowel function and evacuation.* Urge client to avoid the routine use of laxatives *to reduce risk of compounding constipation.*

(continued)

Overview of a Woman With Pelvic Organ Prolapse (POP) (continued)

Nursing Diagnosis: Knowledge deficit related to causes of structural disorders and treatment options

Outcome identification and *evaluation*	Interventions with *rationales*
Client will demonstrate understanding of current condition and possible treatments *as evidenced by identifying possible treatment options, making health-promoting lifestyle choices, verbalizing appropriate healthcare practices, and adhering to measures to comply with treatment plan.*	Assess client's understanding of pelvic organ prolapse and its treatment options *to provide a baseline for teaching.* Review information provided about possible surgical procedures and recommendations for healthy lifestyle, obtaining feedback frequently *to validate adequate understanding of instructions.* Discuss association between uterine, bladder, and rectal prolapse and symptoms *to assist client in understanding the etiology of her symptoms and pain.* Have client verbalize and discuss information related to diagnosis, surgical procedure, preoperative routine, and postoperative regimen *to ensure adequate understanding and provide time for correcting or clarifying any misinformation or misconceptions.* Provide written material with pictures *to promote learning and help client visualize what has occurred to her body secondary to aging, weight gain, childbirth, and gravity.* Discuss pros and cons of hormone replacement therapy, osteoporosis prevention, and cardiovascular events common in postmenopausal women *to promote informed decision making by the client about available menopausal therapies.* Inform client about the availability of community resources and make appropriate referrals as needed *to provide additional education and support.* Document details of teaching and learning *to allow for continuity of care and further education, if needed.*

TEACHING GUIDELINES 7-1

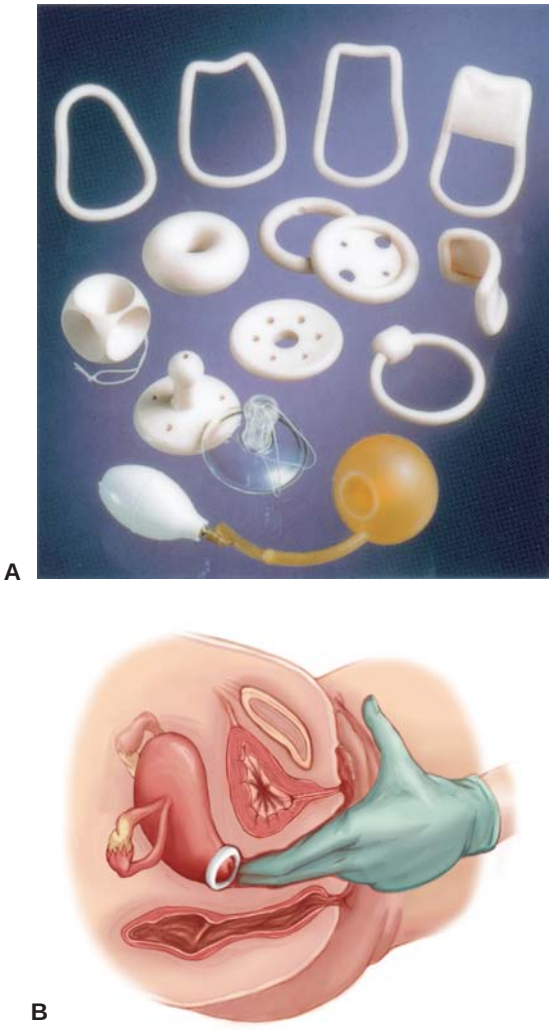
Performing Kegel Exercises

- Squeeze the muscles in your rectum as if you are trying to prevent passing flatus.
- Stop and start urinary flow to help identify the pubococcygeus muscle.
- Tighten the pubococcygeus muscle for a count of three, then relax it.
- Contract and relax the pubococcygeus muscle rapidly 10 times.
- Try to bring up the entire pelvic floor and bear down 10 times.
- Repeat Kegel exercises at least five times daily.

leakage and support a prolapsed vagina or uterus. Pessaries are of two main types:

- Support pessaries, which rest under the symphysis and sacrum and elevate the vagina (e.g., Ring, Gehrung, and Hodge pessaries)
- Space-occupying pessaries, which are designed to manage severe prolapse by supporting the uterus even with a lack of vaginal tone (e.g., cube, donut, and inflatable Gellhorn pessaries)

Indications for pessary use include uterine prolapse or cystocele, especially among elderly clients for whom surgery is contraindicated; younger women with prolapse who plan to have additional children; and women with



● Figure 7-2 Examples of pessaries. (**A**) Various shapes and sizes of pessaries available. (**B**) Insertion of one type of pessary.

marked prolapse who prefer to use a pessary rather than undergo surgery (Brolmann, 2004).

Pessaries are fitted by trial and error. Proper fitting of the pessary often requires the woman to try several sizes or styles. The largest pessary that the woman can wear comfortably is generally the most effective. The woman should be instructed to report any discomfort or difficulty with urination or defecation while wearing the pessary.

Although the pessary is a safe device, it is still a foreign body in the vagina. Because of this, the most common side effects of the pessary are increased vaginal discharge, urinary tract infections, vaginitis, and odor. This can be reduced by douching with dilute vinegar or hydrogen peroxide. Postmenopausal women with thin vaginal mucosa are susceptible to vaginal ulceration with the use of a pessary. Using estrogen cream can make the vaginal mucosa more resistant to erosion and strengthen the vaginal walls. Nurses should discuss these complications as part of their instruction.

Women must be capable of managing use of the pessary, either alone or with the help of a caretaker. The most common recommendations for pessary care include removing the pessary twice weekly and cleaning it with soap and water; using a lubricant for insertion; and having regular follow-up examinations every 6 to 12 months after an initial period of adjustment. Nurses should educate women in the care of their pessaries so that they feel comfortable with all aspects of care before leaving the healthcare facility.

Surgical Interventions

Surgical interventions for genital organ prolapse are designed to correct specific defects, with the goals being restoration of normal anatomy and preservation of function (Lewis et al., 2004). Surgery is not an option for all women. Women who are at high risk of suffering recurrent prolapse after a surgical repair or who have morbid obesity, chronic obstructive pulmonary disease, or medical conditions that would place them at risk for general anesthesia are not good candidates for surgical repair (Kimmons, 2003), and noninvasive treatment strategies should be discussed with them.

Surgical interventions might include anterior or posterior colporrhaphy (to repair a cystocele or rectocele) and vaginal hysterectomy (for uterine prolapse).

An anterior and posterior colporrhaphy may be effective for a first-degree prolapse. This surgical procedure tightens the anterior and posterior vaginal wall, thus repairing a cystocele or rectocele. The pubocervical fascia (supportive tissue between the vagina and bladder) is folded and sutured to bring the bladder and urethra in proper position (Cronje et al., 2004).

A vaginal hysterectomy is the treatment of choice for uterine prolapse because it removes the prolapsed organ that is bringing down the bladder and rectum with it. It can be combined with an anterior and posterior repair if a cystocele or rectocele is present.

Nurses can prepare the woman for surgery by reinforcing the risks and benefits of surgery and describing the postoperative course. The nurse can explain that a Foley catheter will be in place for 1 to 2 days after surgery, and the woman might be unable to urinate due to the swelling after the catheter has been removed. During the recovery period, the nurse should instruct the client to avoid for several weeks activities that cause an increase in abdominal pressure, such as straining, sneezing, and coughing. In addition, she should avoid lifting anything heavy or straining to push anything. Stool softeners and gentle laxatives might be prescribed to prevent constipation and straining with bowel movements. Pelvic rest will be prescribed until the operative area is healed in 6 weeks.

Urinary Incontinence

Urinary incontinence is the involuntary loss of urine sufficient enough to be a social or hygiene problem (Wilson,

2003). This disorder affects approximately 18 million people in the United States, about 11 million of them women (Getliffe & Dolman, 2002). It has been estimated that one in four women experience urinary incontinence at some time in their life, varying from mild to severe leakage (Sloane, 2002). It is more prevalent than diabetes and Alzheimer's disease, both of which receive a great deal of press attention. About half the women with incontinence have never discussed the problem with their healthcare provider because they are too embarrassed to talk about it (Weiss, 2005).

Incontinence can have far-reaching affects on the lives of women who experience it. Some women experience anxiety, depression, social isolation, and disruption in self-esteem and personal dignity. It can cause women to stop working, traveling, socializing, and enjoying sexual relationships. In addition, incontinence can create a tremendous burden for caretakers and is a common reason for admission to a long-term care facility (Weiss, 2005).

Pathophysiology

Urinary continence depends on several factors, including effective functioning of the bladder, adequate pelvic-floor muscles, neural control from the brain, and the integrity of neural connections that facilitate voluntary control. The bladder neck and proximal urethra function as a sphincter. During urination the sphincter relaxes and the bladder empties. The ability to control urination depends on the integrated function of numerous components of the lower urinary tract, which must be structurally sound and function normally. Incontinence can develop if the bladder muscles become overactive due to weakened sphincter muscles, if the bladder muscles become too weak to contract properly, or if signals from the nervous system to the urinary structures are interrupted. A major factor in women that contributes to urinary continence is the estrogen level, because this hormone helps maintain bladder sphincter tone. In perimenopausal or menopausal women, incontinence can be a problem as estrogen levels begin to decline and genitourinary changes occur.

Types of Urinary Incontinence

The three most common types of incontinence are urge incontinence (overactive bladder caused by detrusor muscle contractions), stress incontinence (inadequate urinary sphincter function), and mixed incontinence (involves both stress and urge incontinence) (Guerrero & Sinert, 2004).

Urge incontinence is precipitous loss of urine, preceded by a strong urge to void, with increased bladder pressure and detrusor contraction. Causes might be neurologic, idiopathic, or infectious. Clinical manifestations include urgency, frequency, nocturia, and a large amount of urine loss.

ConsiderTHIS!

It seems that life can be complicated and embarrassing at times when we least expect it. I met a man in church who seemed interested in me, and he asked me out for coffee after Sunday services. I have been alone for 10 years and this prospect seemed exciting to me. We talked for hours over coffee and seemed to have a great deal in common, especially since both of us had lost our spouses to cancer. He asked me to go square dancing with him since that was an activity we both had enjoyed in the past with our spouses. I hadn't been out or physically active for ages and didn't realize how our body changes with age.

It was during the first dance that I noticed a wet sensation between my legs, which I was unable to control. I managed to continue on and pretend that all was fine, but then realized what many of my friends were talking about—stress incontinence. Not being able to control one's urine is very embarrassing and it complicates your life, but I made up my mind that it wasn't going to control me!

Thoughts: Gravity and childbirth take a toll on women's reproductive organs by bringing them downward. It would appear that stress incontinence isn't going to curtail her outside activity, which demonstrates a good attitude. What can be done about her embarrassing accidents? Were there any preventive strategies she could have used at an earlier age?

Stress incontinence is the accidental leakage of urine that occurs with increased pressure on the bladder from coughing, sneezing, laughing, or physical exertion. It develops commonly in women in their 40s and 50s and is usually the result of weakened muscles and ligaments in the pelvis following childbirth. Clinical manifestations include the involuntary loss of a small amount of urine in response to physical activity that raises intra-abdominal pressure.

Treatment

Treatment options depend on the type of urinary incontinence that the woman experiences. Overall, the least invasive procedure with the fewest risks is the first choice for treatment. Surgery is used only if other methods have failed. There is a widespread belief that urinary incontinence is an inevitable problem of getting older and that little or nothing can be done to relieve symptoms or reverse it. Nothing is further from the truth, and attitudes must change so that women feel comfortable seeking help for this embarrassing condition.

For many women with urge incontinence, simple reassurance and lifestyle interventions might help. However, if more than simple lifestyle measures are needed, effective treatments might include:

- Bladder training to establish normal voiding intervals (every 3 to 5 hours)

- Kegel exercises to strengthen the pelvic floor
- Pharmacotherapy to reduce the urge to void. Anticholinergic agents such as oxybutynin (Ditropan) or tolterodine (Detrol) (Balmforth & Cardozo, 2005) might be prescribed.

For women with stress incontinence, treatment is not always a cure, but it can certainly minimize the impact of this condition on the woman's quality of life. Some treatment options for stress incontinence might include:

- Weight loss if needed
- Avoidance of constipation
- Smoking cessation
- Kegel exercises to strengthen the pelvic floor
- Pessaries
- Weighted vaginal cones to improve the tone of pelvic-floor muscles
- Periurethral injection (injecting a bulking agent [collagen] to form a bulge that brings the urethral walls closer together to achieve a better closure)
- Medications such as duloxetine (Yentreve) to increase urethral sphincter contractions during the storage phase of urination cycle
- Estrogen replacement therapy to improve bladder sphincter tone
- Surgery to correct genital prolapse and improve urethral and bladder tone

Nursing Management

Incontinence can be devastating and can cause psychosocial concerns and isolation. Nurses can encourage women with troublesome symptoms to seek help. Nurses should discuss the treatment options with the client, including benefits and potential outcomes, and encourage her to select the continence treatment best for her lifestyle. Nurses can provide education about good bladder habits and strategies to reduce the incidence or severity of incontinence (Teaching Guidelines 7-2). Patients need the nurse's support and encouragement to ensure compliance. Nurses need to remember that aging can increase the risk of incontinence, but incontinence is not an inevitable part of aging. Reviewing the anatomy and physiology of the urinary system and offering simple explanations can help women cope with urinary alterations.

TEACHING GUIDELINES 7-2

Managing Urinary Incontinence

- Avoid taking in too much fluid (i.e., 1.5 L total daily limit). However, do not decrease intake of fluids and become dehydrated.
- Reduce intake of fluids and foods that are bladder irritants and precipitate urgency: chocolate; caffeine; sodas; alcohol; artificial sweetener; hot, spicy foods; orange juice; tomatoes; and watermelon (Thompson & Smith, 2002).
- Increase fiber and fluids in diet to reduce constipation.
- Control blood glucose levels to prevent polyuria.
- Treat chronic cough.
- Remove any barriers that delay reaching the toilet.
- Practice good perineal hygiene by using mild soap and water. Wipe from front to back to prevent urinary tract infections.
- Increase awareness of adverse drug effects.
- Take medications as prescribed.
- Continue pelvic-floor (Kegel) exercises.

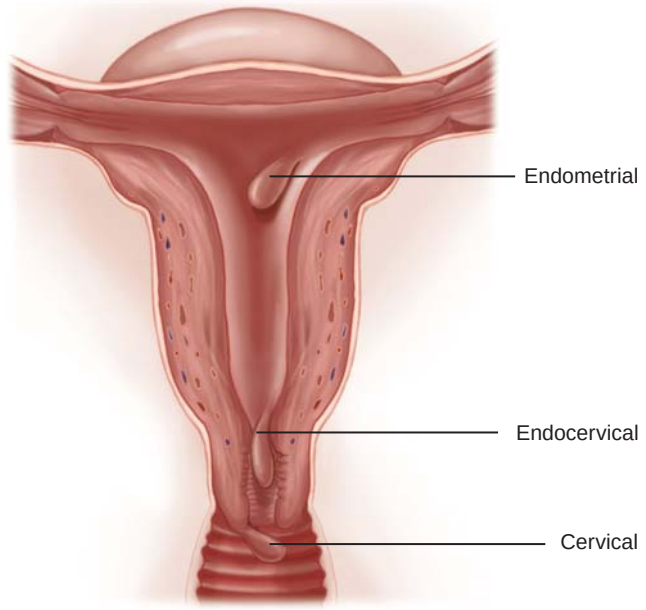
Benign Growths

The most common benign growths of the reproductive tract include cervical, endocervical, and endometrial polyps; uterine fibroids (leiomyomas); and ovarian cysts.

Polyps

Polyps are small benign growths. The etiology underlying polyp growth is not well understood, but they are frequently the result of infection. Polyps might be associated with chronic inflammation, an abnormal local response to increased levels of estrogen, or local congestion of the cervical vasculature (Chen, 2004). Single or multiple polyps might occur. They are most common among multiparous women. Polyps can appear anywhere but are most common on the cervix and in the uterus (Fig. 7-3).

Cervical polyps often appear after the onset of menstruation. Endocervical polyps are commonly found in multiparous women age 40 to 60. Endocervical polyps are



● Figure 7-3 Cervical, endocervical, and endometrial polyps.

more common than cervical polyps, with a stalk of varied width and length. Endometrial polyps are benign tumors or localized overgrowths of the endometrium. Most endometrial polyps are solitary, and they rarely occur in women younger than 20 years of age. The incidence of these polyps rises steadily with increasing age, peaks in the fifth decade of life, and gradually declines after menopause. They are present in about 10% to 24% of women being seen for abnormal bleeding (Condon, 2004).

Clinical Manifestations and Diagnosis

Most endocervical polyps are cherry red, while most cervical polyps are grayish-white (Scott, 2004). Typically, cervical polyps are diagnosed when the cervix is visualized through a speculum during the woman's annual gynecologic examination (Youngkin & Davis, 2004). Cervical and endocervical polyps are often asymptomatic, but they can produce mild symptoms such as abnormal vaginal bleeding (after intercourse, douching, between menses) or discharge.

The most frequent clinical manifestation of women with endometrial polyps is *metrorrhagia* (irregular, acyclic uterine bleeding). They are not detected on physical examination, but rather with ultrasound or hysteroscopy (introduction of a small camera through the cervix to visualize the uterine cavity).

Treatment

Treatment of polyps usually consists of simple removal with small forceps done on an outpatient basis, removal during hysteroscopy, or dilatation and curettage (D&C). Removal of the polyp base can be done by laser vaporization. Because many polyps are infected, an antibiotic may be ordered after removal as a preventive measure (prophylactically) or due to early signs of infection.

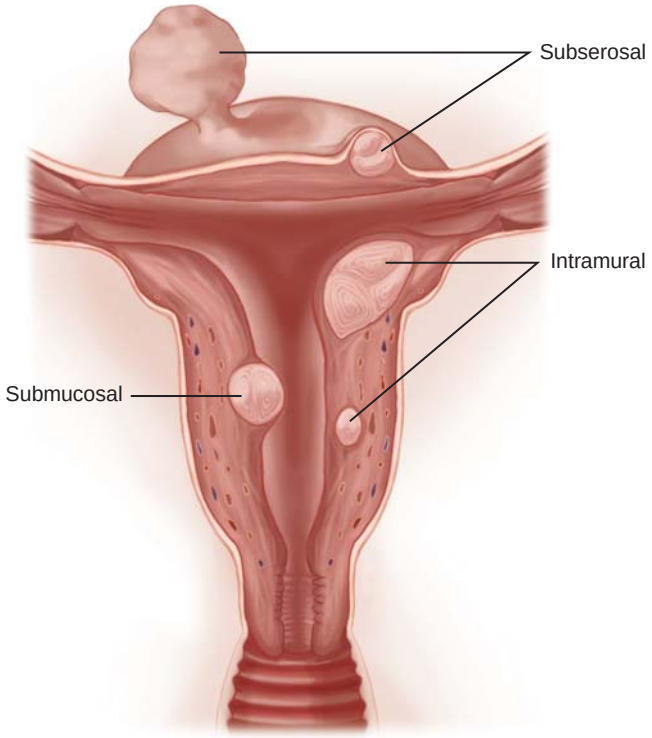
Although polyps are rarely cancerous, a specimen should be sent after surgery to a pathology laboratory to exclude malignancy. A cervical biopsy typically reveals mildly atypical cells and signs of infection. Polyps rarely return after they are removed. Regularly scheduled Pap smears are suggested for women with cervical polyps to detect any future abnormal growths that may be malignant.

Nursing Management

Nursing management of polyps involves explaining the condition and the rationale for removal and giving follow-up care instructions. The nurse also assists the healthcare provider with any procedure for removal.

Uterine Fibroids

Uterine fibroids, or leiomyomas, are benign tumors composed of muscular and fibrous tissue in the uterus. Fibroids can occur in the submucous layer, the intramural layer, or the subserous layer of the uterus (Fig. 7-4). They are estrogen-dependent and thus grow rapidly during the childbearing years, when estrogen is plentiful, but they shrink during menopause, when estrogen levels decline. It is believed that these benign tumors develop in about 25% of all women older than age 30 (Flake et al., 2003). Fibroids are the most common indication for hysterectomy in the United States. The peak incidence occurs around the age of 45, with approximately 8 cases per 1,000 women annually in the United States (Speroff & Fritz, 2005).



● Figure 7-4 Submucosal, intramural, and subserosal fibroids.

Although the cause of fibroids is unknown, several predisposing factors have been identified, including:

- Age (late reproductive years)
- Genetic predisposition
- African-American ethnicity
- Nulliparity
- Obesity (Alexander et al., 2004).

Clinical Manifestations and Diagnosis

Fibroids are usually detected during pelvic examinations because the uterus is enlarged and irregularly shaped. Common symptoms of fibroids depend on the size and location of the tumors and may include:

- Chronic pelvic pain
- Low back pain
- Iron deficiency anemia secondary to bleeding
- Bloating
- Infertility (with large tumors)
- Dysmenorrhea
- Dyspareunia

- Irregular vaginal bleeding (menorrhagia)
- Feeling of heaviness in the pelvic region

Treatment

Treatment depends on the size of the fibroids and the symptoms experienced and may include several options, from watchful waiting to surgery.

Medical Management

The goals of medical therapy are to reduce symptoms and to reduce the tumor size. This can be accomplished with gonadotropin-releasing hormone (GnRH) agonists, which induce reversible menopause, or low-dose mifepristone, a progestin antagonist. Both have produced regression and reduced the size of the tumors without surgery, but long-term therapy is expensive and not tolerated by most women. The side effects of GnRH medications include hot flashes, headaches, mood changes, vaginal dryness, musculoskeletal malaise, bone loss, and depression (Speroff & Fritz, 2005). Long-term mifepristone therapy can result in endometrial hyperplasia, which increases the risk of endometrial malignancy. Once either therapy is stopped, the fibroids typically reoccur.

Uterine artery embolization (UAE) is an option in which polyvinyl alcohol pellets are injected into selected blood vessels via a catheter to block circulation to the fibroid, causing shrinkage of the fibroid and resolution of the symptoms. After treatment, most fibroids are reduced by 50% within 3 months, but they might recur (Todd, 2002). The failure rate is approximately 10% to 15%, and this therapy should not be performed on women desiring to retain their fertility.

Surgical Management

For women with large fibroids or severe menorrhagia, surgery is preferred over medical treatment. Surgical management might involve myomectomy, laser surgery, or hysterectomy.

Myomectomy involves removing the fibroid alone. A myomectomy is performed through a laparoscopic or abdominal incision approach or through a vaginal approach. The advantage is that only the fibroid is removed, and fertility is not jeopardized because this procedure leaves the uterine muscle walls intact. Myomectomy relieves symptoms but does not affect the underlying process; thus, fibroids do grow back, and further treatment is needed in the future.

Laser surgery (or electrocauterization) involves destroying small fibroids with lasers. Laser therapy can be done using a vaginal approach or laparoscopically. The laser treatment preserves the uterus, but the process may cause scarring and adhesions, and fertility may be disturbed (Lowdermilk & Perry, 2004). Fibroids can return after this procedure. Controversy remains as to whether laser treatment weakens the uterine wall and thus may contribute to uterine rupture in the future.

A *hysterectomy* is the surgical removal of the uterus. After cesarean section, it is the second most frequently performed surgical procedure for women in the United States. Approximately 600,000 hysterectomies are performed annually in the United States (CDC, 2005). The top three conditions associated with hysterectomies are fibroids, endometriosis, and uterine prolapse (CDC, 2005). A hysterectomy to remove fibroids eliminates both the symptoms and the risk of recurrence, but it also terminates the woman's ability to bear children. Three types of hysterectomy surgeries are available: vaginal hysterectomy, laparoscopically assisted vaginal hysterectomy, and abdominal hysterectomy.

In a vaginal hysterectomy, the uterus is removed through an incision in the posterior vagina. Advantages include a shorter hospital stay and recovery time and no abdominal scars. Disadvantages include a limited operating space and poor visualization of other pelvic organs.

In a laparoscopically assisted vaginal hysterectomy, the uterus is removed through a laparoscope, through which structures within the abdomen and pelvis are visualized. Small incisions are made in the abdominal wall to permit the laparoscope to enter the surgical site. Advantages include a better surgical field, less pain, less cost, and a shorter recovery time. Disadvantages include potential injury to the bladder and the inability to remove enlarged uteruses and scar tissue.

In abdominal hysterectomy, the uterus and other pelvic organs are removed through an incision in the abdomen. This procedure allows the surgeon to visualize all pelvic organs and is typically used when a malignancy is suspected or a very large uterus is present. Disadvantages include the need for general anesthesia, a longer hospital stay and recovery period, more pain, higher cost, and a visible scar on the abdomen.

Nursing Management

Women considering surgery need information so they can make an informed decision. Nurses can offer a thorough explanation of the procedure and aftercare (Box 7-2). A woman undergoing a hysterectomy for the treatment of fibroids often needs special care.

Ovarian Cysts

An **ovarian cyst** is a fluid-filled sac that forms on the ovary (Fig. 7-5). These very common growths are benign 90% of the time and are asymptomatic in many women (Breslin & Lucas, 2003). Ovarian cysts occur in 30% of women with regular menses, 50% with irregular menses, and 6% of postmenopausal women (Kazzi & Roberts, 2004). When cysts grow large and exert pressure on surrounding structures, women often seek medical help.

The most common benign ovarian cysts include follicular cysts, corpus luteum (lutein) cysts, theca-lutein cysts, and polycystic ovarian syndrome (PCOS).

BOX 7-2

NURSING INTERVENTIONS FOR A WOMAN UNDERGOING A HYSTERECTOMY

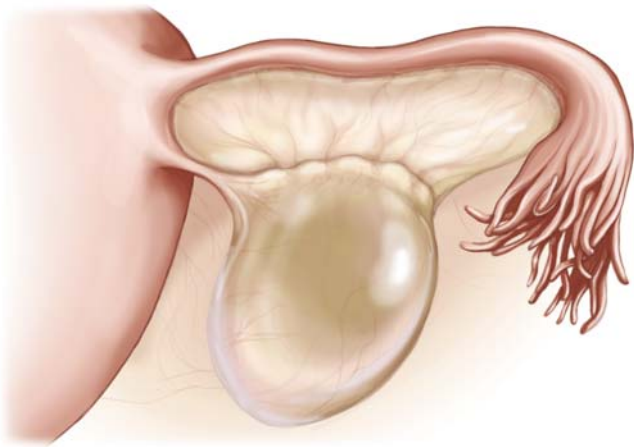
Preoperative Care
- Instruct the patient and her family regarding the procedure and aftercare.
- Teach turning, deep breathing, and coughing prior to the surgery to prevent atelectasis and respiratory complications such as pneumonia.
- Encourage discussion of feelings and emotions. Some women equate their femaleness with their reproductive capability, and loss could evoke grieving.
- Complete all preop orders in a timely manner to allow for rest.

Postoperative Care
- Provide comfort measures.
- Administer analgesics promptly or use PCA pump.
- Administer antiemetics to control nausea and vomiting per order.
- Change linens and gown frequently to promote hygiene.
- Change position frequently and use pillows for support to promote comfort and pain management.
- Assess incision, dressing, and vaginal bleeding and report if excessive (soaking perineal pad within an hour).
- Monitor elimination and provide increased fluids and fiber to prevent constipation and potential straining.
- Encourage ambulation and active range of motion when in bed to prevent thrombophlebitis and venous stasis.
- Monitor vital signs to detect early complications for treatment.
- Be open to listening and discussing sexual concerns with client.

Discharge Planning
- Advise client to reduce activity level to avoid fatigue, which might inhibit healing.
- Advise client to rest when tired and increase activity level slowly.
- Educate client on need for pelvic rest (nothing in the vagina) for 6 weeks.
- Instruct client to avoid heavy lifting or straining for about 6 weeks to prevent an increase in intra-abdominal pressure, which may weaken sutures.
- Teach client signs and symptoms of infection.
- Advise showers instead of tub baths to reduce risk for infection.
- Encourage a healthy diet with increased intake of fluids to prevent dehydration and potential fluid and electrolyte imbalance.
- Instruct client to change peri-pad frequently to prevent infection.
- Explain and schedule follow-up care appointments as needed.
- Provide community resources for support/help.

Follicular Cysts

Follicular cysts are caused by the failure of the ovarian follicle to rupture at the time of ovulation. Follicular cysts seldom grow larger than 5 cm in diameter; most regress and require no treatment. They can occur at any age but are more common in reproductive-aged women and are rare after menopause. They are detected by vaginal ultrasound.



● Figure 7-5 Ovarian cyst.

Corpus Luteum (Lutein) Cyst

A corpus luteum cyst forms when the corpus luteum becomes cystic or hemorrhagic and fails to degenerate after 14 days. These cysts might cause pain and delay the next menses. A pelvic ultrasound helps to make this diagnosis. Typically these cysts appear after ovulation and resolve without intervention.

Theca-Lutein Cysts

Prolonged abnormally high levels of human chorionic gonadotropin (hCG) stimulate the development of theca-lutein cysts. Although rare, these cysts are associated with hydatiform mole, choriocarcinoma, PCOS, and Clomid therapy.

Polycystic Ovarian Syndrome

PCOS involves the presence of multiple inactive follicle cysts within the ovary that interfere with ovarian function. Hyperandrogenism, insulin resistance, and chronic anovulation characterize PCOS. Careful attention should be given to this condition because women with it are at increased risk for long-term health problems such as cardiovascular disease, hypertension, dyslipidemia, type 2 diabetes, and cancer (endometrial, breast, and ovarian) (Speroff & Fritz, 2005). Because this syndrome is com-

plex and of unknown etiology, it can be difficult to manage (Jackson, 2005).

Clinical Manifestations

Common symptoms of large ovarian cysts include:

- Abdominal distention
- Interference with normal voiding patterns
- Altered bowel habits
- Abnormal uterine bleeding
- Dyspareunia
- Pelvic pain (Lowdermilk & Perry, 2004)

The typical clinical picture of a woman with PCOS includes infertility, hyperinsulinemia, obesity, menstrual irregularities (amenorrhea or oligomenorrhea, or menorrhagia), and androgen excess (hirsutism on upper lip, chin, cheeks, and between the breasts, and acne). Making the diagnosis of PCOS is difficult; the diagnosis is primarily one of exclusion because of the diffuse nature of the symptoms and the lack of standard criteria.

Treatment

Treatment of ovarian cysts focuses on differentiating a benign cyst from a solid ovarian malignancy. Transvaginal ultrasound is useful in distinguishing fluid-filled cysts from solid masses. Laparoscopy may be needed to remove the cyst, if it is large and pressing on surrounding structures. For smaller cysts, monitoring with repeat ultrasounds every 3 to 6 months might be in order (Helm, 2004). Oral contraceptives are often prescribed to suppress gonadotropin levels, which may help resolve the cysts. Pain medication is also prescribed if needed.

Management of PCOS includes both drug and nondrug therapy, along with lifestyle modifications. Goals of therapy focus on suppressing hyperandrogenism to decrease hirsutism and acne, restoring reproductive function in women desiring children, and reducing the long-term risk of developing diabetes and cardiovascular disease (Hill, 2003). Treatment modalities for PCOS are highlighted in Box 7-3.

Nursing Management

Nursing care should include education about the condition, treatment options, diagnostic test arrangements, and referral for surgery if needed. Providing support and reassurance during the diagnostic period is vital to allay anxiety in the client and her family. Many women need reassurance that the majority of ovarian cysts are benign, but follow-up care should be stressed regardless. Listening to the woman's concerns about her appearance, infertility, and facial hair growth is important. Offering suggestions on ways to bring about improvement can go a long way in making the woman feel better about herself and her future health.

Nurses can have a positive impact on women with PCOS through counseling and education. They can provide support for women dealing with negative self-image secondary to the physical manifestations of PCOS. Through education, nurses can help women to understand the syndrome and its associated risk factors to prevent long-term health problems. Nurses should encourage women to make positive lifestyle changes. Making community referrals to local support groups may help the woman build her coping skills.

BOX 7-3

TREATMENT MODALITIES FOR PCOS

- Oral contraceptives to treat menstrual irregularities and acne
- Mechanical hair removal (shaving, waxing, plucking, or electrolysis) to treat hirsutism
- Glucophage (metformin), which improves insulin uptake by fat and muscle cells, to treat hyperinsulinemia
- Ovulation induction agents (Clomid) to treat infertility
- Lifestyle changes (e.g., weight loss; exercise; balanced, low-fat diet)
- Referral to support groups to help improve emotional state and build self-esteem (ACOG, 2002)

Summary

Nurses can play a key role in helping women deal with various benign disorders of the reproductive tract by providing pictures or diagrams to explain the disorder and discussing the treatment options available. Much of the time, reassurance might be all that is needed to reduce their fears and anxieties. Offering physical presence and empathetic therapeutic communication will help them through their difficult times. Including the family in the instructional sessions will help strengthen the woman's support system. Nurses must keep up to date on the latest research about treatments so that they can present the most current information to allow the woman to make informed decisions about her healthcare.

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Web Resources

American Cancer Society: (800)-ACS-2345, **www.cancer.org**

American College of Obstetricians and Gynecologists: (202) 863-2518, **www.acog.org**

American Urological Association: (410) 727-1100, **www.auanet.org**

Fibroid Treatment Collective: (310) 794-6645, **www.fibroid.org**

Hysterectomy Educational Resource and Services (HERS): (215) 667-7757, **www.ccon.com/hers**

National Association for Continence: (800) 252-3337, **www.nafc.org**

National Women's Health Information Center: (800) 994-9662, **www.4women.gov**

Polycystic Ovarian Syndrome Association: **www.pcossupport.org**

Sexuality Information and Education Council of the United States: (212) 819-9770, **www.siecus.org**

Chapter WORKSHEET

MULTIPLE CHOICE QUESTIONS

1. As the nurse interviewing a patient with uterine fibroids, what subjective data would you expect from her history?
   a. Cyclic migraine headaches
   b. Urinary urgency
   c. Chronic pelvic pain
   d. Chronic constipation
2. Treatment options available for women experiencing pelvic organ prolapse are:
   a. Pessaries and Kegel exercises
   b. External pelvic fixation devices
   c. Weight gain and yoga programs
   d. Firm panty and girdle garments
3. Which of the following dietary and lifestyle modifications might the nurse recommend to help prevent pelvic relaxation as women age?
   a. Consume a high-fiber diet to avoid constipation and straining.
   b. Avoid sitting for long periods; get up and walk around frequently.
   c. Limit the amount of exercise to prevent over-developing muscles.
   d. Space children a year apart to reduce wear and tear on uterus.
4. Women experiencing polycystic ovarian syndrome (PCOS) are at increased risk for developing which of the following long-term health problems?
   a. Osteoporosis
   b. Lupus
   c. Type 2 diabetes
   d. Migraine headaches
5. Side effects experienced by women taking gonadotropin-releasing hormone (GnRH) agonists for the treatment of fibroids closely resemble those of:
   a. Osteoporosis
   b. Osteoarthritis
   c. Depression
   d. Menopause

CRITICAL THINKING EXERCISE

1. Faith, a 42-year-old multiparous woman, presents to the women's health clinic complaining of pelvic pain, menorrhagia, and vaginal discharge. She says she has been experiencing these problems for several months. On examination, her uterus is enlarged and irregular in shape. Her blood studies reveal anemia.
   a. What condition might Faith have, based on her symptoms?
   b. What treatment options are available to address this condition?
   c. What educational interventions should the nurse discuss with Faith?

STUDY ACTIVITIES

1. Prepare an educational session to teach women how to do Kegel exercises to prevent stress incontinence and pelvic-floor relaxation.
2. In a small group, discuss the personal, social, and sexual issues that might affect a woman with pelvic organ prolapse. How might these issues affect her socialization? How might a support group help?
3. List the symptoms that a woman with uterine fibroids might experience. Discuss how these symptoms might mimic a more frightening condition and why the woman might delay seeking treatment.
4. A bladder that herniates into the vagina is a _____.
5. A rectum that herniates into the vagina is a _____.