Continuing Education (CEU) course for healthcare professionals. View the course online at wildirismedicaleducation.com for accreditation/approval information, course availability and other details, and to take the test for CE credit. The information provided in this course is to be used for educational purposes only. It is not intended as a substitute for professional healthcare.

Contact Hours: 2.5

Postpartum Care

LEARNING OUTCOME AND OBJECTIVES: Upon completion of this continuing education course, you will be able to describe normal postpartum physiology and psychology, assessment, intimate partner violence, and complications in order to provide appropriate teaching and support to postpartum women. Specific learning objectives include:

• Describe the normal physiologic and psychological adaptations to the postpartum period.
• Explain how to perform a postpartum nursing assessment.
• Identify the teaching topics that are relevant to postpartum female patients.
• Summarize the treatment of maternal complications seen during the postpartum period.
• List the symptoms that postpartum female patients should report to their healthcare providers after discharge.

The postpartum period covers the time period from birth until approximately six to eight weeks after delivery. This is a time of healing and rejuvenation as the mother’s body returns to prepregnancy states. Healthcare professionals need to be aware of the normal physiologic and psychological changes that take place in women’s bodies and minds after delivery in order to provide comprehensive care during this period. In addition to patient and family teaching, one of the most significant responsibilities of the postpartum nurse is to recognize potential medical complications after delivery.
NORMAL POSTPARTUM ADAPTATIONS: PHYSIOLOGIC

Reproductive System

UTERUS

Immediately after delivering, women experience massive shifting as the body returns to its prepregnant state. The uterus begins a process known as involution immediately after the delivery of the placenta. The uterus, with the assistance of the uterine muscles, contracts the uterine vessels and impedes blood flow. Large vessels at the site of placental attachment thrombose to control bleeding.

A process known as exfoliation also occurs at this time. Exfoliation is the sloughing off of dead tissue at the site where the placenta is attached to the uterine wall. Exfoliation leaves the site smooth and without scar tissue to allow for the implantation of fertilized ova in subsequent pregnancies.

The uterus continues to contract after delivery, and its size decreases rapidly as estrogen and progesterone levels diminish. Immediately after delivery, the upper portion of the uterus, known as the fundus, is midline and palpable halfway between the symphysis pubis and the umbilicus. By approximately one hour post delivery, the fundus is firm and at the level of the umbilicus. The fundus continues to descend into the pelvis at the rate of approximately one centimeter (finger-breadth) per day and should be nonpalpable by two weeks postpartum.

Uterine involution can be impeded by anything that would cause distention of the uterus, including an unusually large (macrosomic) infant, multiple pregnancies, multiple births, or excessive amniotic fluid.

Afterpains, or intermittent uterine contractions, are a normal occurrence during the postpartum period. Afterpains are caused by the release of the hormone oxytocin and the subsequent relaxation and contraction of the uterine muscles. Afterpains can be quite intense for postpartum women and are particularly painful for women who have given birth previously (multiparous). Women may also experience afterpains while breastfeeding as a result of nipple stimulation and the subsequent release of oxytocin. Afterpains are usually resolved by the end of the first postpartum week and can be alleviated by relaxation techniques and, if necessary, analgesics, including short-acting nonsteroidal anti-inflammatory drugs (NSAIDs).

After delivery, the endometrial surface of the uterus is shed via the vagina. The shedding endometrium is known as lochia. Lochia occurs in three successive stages that include lochia rubra, lochia serosa, and lochia alba. Lochia rubra is red/red-brown and is noted on postpartum days 1 to 3. Lochia serosa is pink to brown in color and occurs after day 3. By 10 days postpartum, lochia is yellow to white in color and is referred to as lochia alba.
CERVIX

As with all other reproductive organs and structures, the cervix also changes as the body returns to a prepregnancy state. After delivery, the cervix is edematous and may appear bruised. The external os resembles a slit as compared to the circular, dimpled opening prior to the first pregnancy. The internal os closes almost completely within three to four months of delivery (Berens, 2016).

VAGINA

The vaginal walls are smooth after delivery, and the vaginal folds, known as rugae, do not return until approximately 3 weeks postpartum. The vagina itself will never return to the prepregnant size but will decrease in size and return to a near prepregnancy state as the postpartum period progresses. The vagina usually appears edematous and may have small lacerations incurred during the delivery.

Vaginal dryness and painful intercourse, known as dyspareunia, may be noted during the postpartum period due to decreased estrogen levels. Mucus production should return with ovulation, and women are frequently encouraged to use water-based lubricants (e.g., K-Y Jelly) with intercourse to ease discomfort. Although most women may resume intercourse as early as two weeks postpartum, many women may not be ready because of fatigue, low sexual desire, pain, vaginal dryness or discharge, religious/cultural practices, psychological factors, or possibly postpartum blues or depression (Berens, 2016).

PERINEUM

This area between the posterior portion of the labia majora and the anus stretches and thins during birth to accommodate delivery of the infant. Lacerations of the perineum may occur during delivery, or an episiotomy (surgical incision) may be performed to accommodate the infant.

Lacerations of the perineum are identified as first-, second-, third-, or fourth-degree. First-degree lacerations extend through the skin and superficial layers of the perineum. Second-degree lacerations extend through the perineal muscles, while third-degree lacerations extend through the anal sphincter muscles. Fourth-degree lacerations extend through the anal sphincter muscles and the anterior rectal wall.

According to the National Hospital Discharge Survey, about 25% of all procedures performed on females were obstetrical. Cesarean sections and repair of current obstetric lacerations were the most frequent obstetrical procedures performed [in 2010]. In 2010, there were 1,291 repairs of current obstetrical lacerations in the United States (CDC/NCHS, 2010).

Ideally, the perineum should be protected from trauma during labor and birth. Aasheim and colleagues, through a review of the literature, recommend the use of warm compresses on the perineum to decrease the occurrence of perineal trauma. Perineal massage prior to delivery was also found to reduce third- and fourth-degree tears (Aasheim et al., 2010).
Regardless of the presence of lacerations or an episiotomy, the perineum is generally edematous and often bruised immediately following delivery. The muscle tone of this area is weakened as a result of delivery and never completely returns to the state it was prior to the first pregnancy.

**EPISIOTOMY**

An episiotomy to aid in the delivery of the infant should be performed only when necessary. There is much debate regarding the maternal benefits of episiotomies, and researchers continue to denounce its usage, except under extenuating circumstances. Since the 1996 World Health Organization recommendation for an episiotomy rate of approximately 10%, rates of episiotomy have generally been in decline. In the United States, the episiotomy rate dropped from 17.3% to 11.6% from 2006 to 2012.

*Source: Berkowitz & Foust-Wright, 2016.*

**BREASTS**

After delivery there is a significant decrease in estrogen and progesterone levels. Before milk production begins, the breasts secrete colostrum, a thin, yellowish fluid that helps maintain the blood glucose level in the breastfeeding infant. Nipple stimulation by the infant causes the release of the hormone oxytocin from the posterior pituitary gland, which triggers the release of the hormone prolactin from the anterior pituitary. Prolactin initiates milk production, and the breasts become full (engorged), as well as warm and tender, between postpartum days 3 and 4. Mothers often refer to this as having their milk “come in.” There may be a slight elevation in body temperature during this time.

Women who choose not to breastfeed will also experience their milk coming in; however, lactation can be suppressed through the use of a well-fitted bra. Nonbreastfeeding mothers should also avoid any type of nipple stimulation or heat to the breasts, such as warm or hot showers in which the water is allowed to run continuously over the breasts. These mothers can use ice packs or cool cabbage leaves to ease breast discomfort until milk production ceases. It generally takes five to seven days for the breasts to stop producing milk. Healthcare providers may consider prescribing mild analgesics if a woman has significant discomfort. Due to risks associated with the medications, drug therapy is not recommended for suppression of lactation (Beren, 2016).

**Endocrine System**

With the sharp decrease of estrogen and progesterone levels following delivery of the placenta, lactation begins and menstruation returns. Estrogen is a prolactin-inhibiting hormone. When mothers choose to bottle-feed, prolactin levels diminish and estrogen levels begin to rise. Menstruation returns in approximately six to eight weeks for these women. However, ovulation can return within four weeks.

When women breastfeed, prolactin levels increase as breastfeeding continues. Therefore, menstruation does not return until 12 weeks or later. Because ovulation can return prior to
menses, it is important for healthcare providers to discuss family planning with patients during the early postpartum period in order to prevent undesired pregnancies.

### POSTPARTUM SHIVERING

Postpartum shivering is observed in 25% to 50% of women after normal deliveries. Shivering usually starts within 30 minutes after delivery and lasts for up to 60 minutes. The cause is not clear, but “several mechanisms have been proposed, including fetal-maternal hemorrhage, micro-amniotic emboli, bacteremia, maternal thermogenic reaction to a sudden thermal imbalance due to the separation of the placenta, drop in body temperature following labor, use of misoprostol, and an anesthesia related etiology.”

Source: Berens, 2016.

### Cardiovascular System

As the pregnant body prepares for blood loss at birth, there is an increase in circulating **blood volume** during pregnancy. Women may lose up to 500 mL of blood during a vaginal delivery and between 800 and 1000 mL of blood during a cesarean (C-section) delivery.

At delivery, there are fluid changes within the body to accommodate postpartum blood loss and prevent hypovolemia. These changes include:

- Elimination of the placenta, which diverts 500 to 750 mL of blood flow into the maternal systemic circulation
- Rapid reduction of the size of the uterus, which puts more blood in the systemic circulation
- Increase of blood flow to the vena cava from elimination of compression by the gravid uterus
- Mobilization of body fluids accumulated during pregnancy
  (Leifer, 2011)

The postpartum body removes excess fluid accumulated during pregnancy by **diuresis**. Women may excrete up to 3000 mL of fluid per day during the postpartum period. In addition, women frequently experience excessive perspiration (**diaphoresis**), which also releases accumulated fluid during the postpartum period. Patients should be educated about increased urination and perspiration during this period.

During the early postpartum period there is a loss of plasma blood volume that is greater than that of red blood cells. Thus, there is a temporary rise in hemoglobin and hematocrit levels. It is difficult to measure hemoglobin and hematocrit levels accurately at this time. However, these levels do return to normal within four to six weeks (Murray & McKinney, 2014).
Due to the inflammation, pain, and the stress of birth, **neutrophils**, a type of white blood cell, are increased and are responsible for a marked increase in the white blood cell count during the postpartum period. White blood cell counts may increase to levels as high as 30,000/mm$^3$ (Murray & McKinney, 2014). As a result of this normal increase in the white blood cell count, it is important for healthcare providers to monitor patients closely for indications of infection during the postpartum period.

**Fibrinogen** is a protein that, along with other clotting factors, is responsible for the clotting of blood. In addition to the increase in circulating blood volume during pregnancy, plasma fibrinogen levels increase and remain increased for several days after delivery. Postpartum women have an increased risk of developing blood clots. Therefore, early ambulation is imperative.

**Respiratory System**

During pregnancy, the **diaphragm** is slightly elevated as the fetus nears term. This, along with other respiratory changes, causes thoracic versus abdominal breathing in the third trimester (Murray & McKinney, 2014). After delivery, the diaphragm descends and postpartum women’s respirations normally return to the prepregnant state.

**Gastrointestinal System**

Women are generally hungry and thirsty after delivery due to the amount of energy expended during labor. Food and fluid intake is usually restricted during labor, and many women may not have eaten for a number of hours prior to delivery. The diaphoresis that occurs during the postpartum period may also lead to increased thirst. It is important for nurses to provide nourishment and hydration upon delivery.

Many women experience **constipation** from the lack of fluid and food intake during labor. Furthermore, bowel tone is sluggish as a result of elevated progesterone levels during pregnancy and is slow to resolve. Often women are hesitant to have a bowel movement in the postpartum period due to pain in the perineal area resulting from an episiotomy, lacerations, or hemorrhoids. Some women are also fearful that they will rip their stitches should they have a bowel movement. Healthcare providers may prescribe stool softeners and/or laxatives to treat constipation and provide perineal comfort during defecation.

**Urinary System**

The bladder, urethra, and urinary meatus are edematous after delivery as a result of the fetal head passing through the birth canal. **Bladder tone** is diminished, and many women are unable to feel the need to void despite the rapid diuresis that occurs following delivery. In this situation, the bladder can become distended and displace the uterus upward and to the side, which prevents the uterine muscles from contracting properly and can lead to a postpartum hemorrhage. Therefore,
healthcare providers must carefully monitor bladder distention, the firmness of the fundus, and bleeding during the postpartum period.

Postpartum women may have protein in their urine that can be noted for the first few postpartum days. Proteinuria during this time is considered benign unless there are signs of a urinary tract infection or preeclampsia (Murray & McKinney, 2014).

**Musculoskeletal System**

As with all other body systems, the musculoskeletal system undergoes changes during the postpartum period. Relaxin is the hormone responsible for the relaxation of the pelvic ligaments and joints during pregnancy. After delivery, relaxin levels subside and the pelvic ligaments and joints return to their prepregnant state. However, the joints of the feet remain altered, and many women notice a permanent increase in shoe size.

The abdominal wall is weakened and the muscle tone of the abdomen is diminished after pregnancy. Some women have a separation between the abdominal wall muscles, called diastasis recti. This separation can be improved with certain abdominal exercises performed during the postpartum period (Nahabedian & Brooks, 2015). Patients should be instructed to begin abdominal exercises anytime following a vaginal delivery and after abdominal tenderness resolves following a cesarean section, generally in four weeks (Murray & McKinney, 2014). Patients should also be instructed to avoid overexertion during the first few weeks after delivery.

**Integumentary System**

Melanocyte-stimulating hormone (MSH) is responsible for the hyperpigmentation that occurs during pregnancy. MSH levels rapidly decrease after delivery, and the skin changes that occurred as a result of pregnancy revert to the prepregnant state or are permanently altered. More specifically, the mask of pregnancy (chloasma) usually disappears, while stretch marks (striae gravidarum) and linea nigra fade but generally do not go away. Hair loss may occur during the postpartum period but usually resolves without the need for intervention. As previously mentioned, diaphoresis is common during the postpartum period, and patients should be informed that they may need to change clothes and bed linens more frequently than usual.

**Immune System**

Other than increased white blood cell count, there are few changes in the immune system during the postpartum period. However, it is important for Rh-negative patients of Rh-positive babies to receive Rh immune globulin within 72 hours of delivery to prevent maternal antibody production in response to the Rh-positive antigen received from infants during pregnancy or birth.

The rubella vaccine should also be administered to postpartum patients who tested nonimmune or had a rubella titer less than 1:10 prior to delivery. Patients should be informed that the
vaccination is given to prevent fetal anomalies in subsequent pregnancies. Additionally, the rubella vaccine is a live virus and is contraindicated during pregnancy. Therefore, all women should be instructed to avoid becoming pregnant for the four weeks following the administration of the vaccine (CDC, 2016).

NORMAL POSTPARTUM ADAPTATIONS: PSYCHOLOGICAL

The postpartum period is a time of immense change for the new mother and her family. Roles and expectations often shift as families adjust to their newest addition and women learn to “become mothers” (Mercer, 2004).

Attachment

Bonding, sometimes referred to as attachment, between mothers and infants is affected by a multitude of factors, including socioeconomic status, family history, role models, support systems, disturbed sleep, cultural factors, and birth experiences. Nurses are encouraged to consider these variables when assessing the attachment process between mothers and infants. It is also important to note that women begin to show attachment behaviors not only in the postpartum period but also during pregnancy.

Healthcare providers have multiple opportunities to assess how pregnant patients will likely bond with their infants after delivery. Various tools, such as the Postpartum Bonding Questionnaire, can be helpful in assessing bonding (see box below).

POSTPARTUM BONDING QUESTIONNAIRE

The following statements are addressed on a scale of “always” to “never” and are multiplied by a factor of 1 to 4 based on the importance of the statement. The questions are as follows:

Please indicate how often the following are true for you. There are no “right” or “wrong” answers. Choose the answer that seems right in your recent experience.

• I feel close to my baby.
• I wish the old days when I had no baby would come back.
• I feel distant from my baby.
• I love to cuddle my baby.
• I regret having this baby.
• The baby does not seem to be mine.
• My baby winds me up.
• I love my baby to bits.
• I feel happy when my baby smiles or laughs.
• My baby irritates me.
• I enjoy playing with my baby.
• My baby cries too much.
• I feel trapped as a mother.
• I feel angry with my baby.
• I resent my baby.
• My baby is the most beautiful baby in the world.
• I wish my baby would somehow go away.
• I have done harmful things to my baby.
• My baby makes me feel anxious.
• I am afraid of my baby.
• My baby annoys me.
• I feel confident when caring for my baby.
• I feel the only solution is for someone else to look after my baby.
• I feel like hurting my baby.
• My baby is easily comforted.

Source: Brockington et al., 2006; Brockington et al., 2001. Used with permission.

In maternal-newborn healthcare, attachment refers to the emotional connection between a mother and her infant. This attachment is reciprocal; both the mother and the infant exhibit attachment behaviors. The infant responds to the mother by cooing, grasping, smiling, and crying. However, these behaviors are nondiscriminatory before approximately eight weeks. Nurses can assess for attachment behaviors by observing the interactions between mothers and their infants. Behaviors exhibited by mothers that indicate positive attachment include:

• Touching
• Holding
• Kissing
• Cuddling
• Talking and singing
• Choosing the “en face” position (face-to-face, approximately 8 inches apart)
• Expressing pride in the infant

Postpartum assessment of attachment should begin immediately after delivery and continue throughout the infant’s first year of life. Most women positively attach to their newborn infants.
However, there are some who do not form attachments appropriately. **Malattachment** behaviors vary and can include:

- Refusing to look at the infant
- Refusing to touch or hold the infant
- Refusing to name the infant
- Negative comments about the infant
- Refusing to respond or responding negatively to infant cues (e.g., crying, smiling)

It is important to note that during the early postpartum period many factors can affect attachment, including anesthesia after a cesarean section, pain, or a traumatic birthing experience. Healthcare providers should consider these factors when assessing attachment. If malattachment is noted, providers should immediately report the observation and continue to monitor both the mother and infant.

**Paternal/Domestic Partner Adjustment**

The postpartum period is a time of great change within the family unit. Just as postpartum women are required to adjust to the new role of mother, fathers and domestic partners also face a period of adjustment upon the arrival of the newborn. All partners, if possible, should also be assessed for attachment behaviors when interacting with their infants.

### CASE

Elizabeth is 25 years old and gave birth to her first child, Jacob, approximately 24 hours ago. She had an extended labor and eventually delivered vaginally with the assistance of forceps and anesthesia. Her birth plan was to deliver naturally, but she was unable to do so. Elizabeth complains frequently of pain and of feeling very tired. The nurse notices that the patient repeatedly sends her baby to the nursery. She is reluctant to hold him but is sometimes seen gently stroking his face.

What is most likely happening with Elizabeth and how can the nurse assist her?

### Discussion

Elizabeth probably had a traumatic experience during labor and birth. Being unable to follow their birth plan and deliver naturally often affects women during the immediate postpartum period—and sometimes longer. She also complains of pain frequently. The nurse should consider Elizabeth’s recent birthing experiences and pain level when assessing for attachment behaviors. Since she shows signs of positive attachment with Jacob, as evidenced by stroking his face, she is most likely not suffering from malattachment at this time.

It is important that nurses continue to monitor Elizabeth and her interaction with her baby prior to discharge. It would also be helpful to discuss with Elizabeth her pain/fatigue/possible depression and her feelings surrounding labor and birth.
POSTPARTUM ASSESSMENT AND PATIENT EDUCATION

Primary responsibilities of nurses in postpartum settings are to assess postpartum patients, provide care and teaching, and if necessary, report any significant findings. Postpartum nurses are essentially detectives searching for findings that might lead to negative outcomes for patients if left unattended. Thus, it is imperative for nurses to distinguish between normal and abnormal findings and to have a clear understanding of the nursing care necessary to promote patients’ health and well-being.

Many nurses find it useful to use the acronym **BUBBLE-LE** to remember the necessary components of the postpartum assessment and teaching topics. These include:

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**Breasts**

The breasts are assessed for:

- Signs of engorgement, including fullness, around postpartum days 3 and 4
- Hot, red, painful, and edematous areas, which could indicate mastitis
- Nipple condition and latch-on technique of mothers who are breastfeeding

Breastfeeding women should wear a comfortable, well-fitted support bra. Instructions can include gently rubbing colostrum or breast milk into their nipples and allowing the nipples to air dry after each feeding to “condition” the nipples. Mothers can prevent drying by avoiding soap and washing the nipples with only water.

It is also extremely important to teach patients proper **breastfeeding techniques** to ensure a positive experience for mothers and their infants. Teaching proper latch-on techniques and how to break the infant’s suction after feeding can have a positive and lasting effect on mothers’ breastfeeding experiences. Otherwise, mothers may develop sore, cracked, and sometimes bleeding nipples, which can discourage the continuation of breastfeeding.

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According to the Joanna Briggs Institute (2009), “Among the options of applying warm-water compresses, breast milk, or teabags, the placement of a warm-water compress was found to be the most effective intervention in controlling nipple pain and trauma.”

Patients who are not breastfeeding are instructed to wear a well-fitting support bra and to avoid any type of nipple stimulation until lactation is discontinued.

**Uterus**

The fundus is assessed for:

- By approximately one hour post delivery, the fundus is firm and at the level of the umbilicus.
- The fundus continues to descend into the pelvis at the rate of approximately 1 cm or finger-breadth per day and should be nonpalpable by 14 days postpartum.

In addition, patients are assessed for uterine cramping and treated for pain as needed.

Patients or a family member can be taught to assess the firmness of the fundus and to provide massage in the event of a boggy uterus or excessive bleeding. Patients are encouraged to void before palpation of the uterine fundus because a full bladder displaces the uterus and can lead to excessive bleeding.

**Bowel Function**

Assessment of the bowel is important in all postpartum patients. It is especially vital for patients following C-sections. The bowel is assessed for:

- Bowel sounds
- Return of bowel function
- Flatus
- Color and consistency of stool

Prescribed stool softeners or laxatives are administered as needed to treat constipation and ease perineal discomfort during defecation.

Patients should be instructed to ambulate soon after delivery. Instruction also includes teaching the need to eat fruits, vegetables, and other high-fiber foods daily. Postpartum patients should consume at least 2,000 mL/day of fluid. While patients may consider 2,000 mL a lot to drink in one day, consumption can be spread out throughout the day.
Bladder

Assessment of urination and bladder function includes:

- Return of urination, which should occur within six to eight hours of delivery
- For approximately 8 hours after delivery, amount of urine at each void. Patients should void a minimum of 150 mL per void; less than 150 mL per void could indicate urinary retention due to decreased bladder tone post delivery (in the absence of preeclampsia or other significant health problems).
- Signs and symptoms of a urinary tract infection (UTI), including frequent urination, bladder spasm, cloudy urine, persistent urge to urinate, and pain with urination

The bladder should be nonpalpable above the symphysis pubis.

Patients are encouraged to drink adequate fluid each day and to report signs and symptoms of a urinary tract infection, including frequency, urgency, painful urination, and hematuria.

Lochia

Lochia is assessed during the postpartum period:

- Saturating one pad in less than an hour, a constant trickle of lochia, or the presence of large (i.e., golf-ball sized) blood clots is indicative of more serious complications (e.g., retained placenta fragments, hemorrhage) and should be investigated immediately. A significant amount of lochia despite a firm fundus may indicate a laceration in the birth canal, which should be addressed immediately.
- Foul-smelling lochia typically indicates an infection and needs to be addressed as soon as possible.
- Lochia should progress from rubra to serosa to alba. Any changes in this progression could be considered abnormal and should be reported. Lochia rubra is present on days 1–3, lochia serosa on days 4–10, and lochia alba on days 11–21.

It is important to note that patients who had a C-section will typically have less lochia than patients who delivered vaginally; however, some lochia should be present.

After discharge, patients should report any abnormal progressions of lochia, excessive bleeding, foul-smelling lochia, or large blood clots to their physician immediately. Patients are instructed to avoid sexual activity until lochial flow has ceased.
Episiotomy/Perineum

The acronym REEDA is often used to assess an episiotomy or laceration of the perineum. REEDA stands for:

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<td>Ecchymosis</td>
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<td>D</td>
<td>Discharge</td>
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<td>Approximation</td>
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Redness is considered normal with episiotomies and lacerations; however, if there is significant pain present, further assessment is necessary. Furthermore, excessive edema can delay wound healing. The use of ice packs during the immediate postpartum period is generally indicated.

There should be an absence of discharge from the episiotomy or laceration, and the wound edges should be well approximated. Perineal pain must be assessed and treated. Nurses are encouraged to assess the rectal area for hemorrhoids and, if present, should instruct patients to discuss hemorrhoidal treatments (e.g., witch hazel pads or other over-the-counter hemorrhoid medications) with their certified nurse-midwife or physician.

Various actions can aid in perineal healing. To avoid infection, patients can pat from front to back and use a peri-bottle for gentle cleansing of the perineum after a bowel movement or urination. Many certified nurse-midwives and physicians prescribe topical ointments and sprays to ease the discomfort of a sore perineum. If one of these has been prescribed, patients are instructed to use a sitz bath and then apply the suggested topical agent for best results.

Analgesics are often prescribed for pain. Patients are generally instructed to apply ice packs to the perineum immediately after delivery. Patients with lacerations and episiotomies are informed that as sutures dissolve, the perineum may itch and that this is normal in the absence of any other perineal abnormalities. Patients are to avoid tampons and sexual activity until the perineum has healed.

Performing Kegel exercises are an important component of strengthening the perineal muscles after delivery and may be begun as soon as it is comfortable to do so.

Lower Extremities

To assess for deep vein thrombosis (DVT), the lower extremities are examined for the presence of hot, red, painful, and/or edematous areas. An elevated temperature may also be present.
The legs are assessed for adequate circulation by checking the pedal pulses and noting temperature and color. In addition, the lower extremities are assessed for edema. Pedal edema is normally present for several days after delivery as fluids in the body shift. However, lasting edema should be reported for further assessment.

To improve circulation and prevent the development of thrombi, patients are encouraged to ambulate shortly after delivery. They are to avoid crossing the legs for long periods of time and to keep the legs elevated while sitting. Many certified nurse-midwives and physicians seek to combat the development of thrombi by encouraging patients to wear TED hose and/or sequential compression devices (SCDs) after delivery.

**ASSESSING FOR DVT**

In the past, postpartum nurses assessed for DVT by eliciting a Homans’ sign (dorsiflexion of the foot). The presence of pain when eliciting the Homans’ sign indicated the probable presence of a DVT. It is, however, unreliable. Massage of the legs should be avoided due to the possibility of dislodging a clot.

**Emotions**

Emotions are an essential element of the postpartum assessment. Postpartum women typically exhibit symptoms of the “baby blues” or “postpartum blues,” demonstrated by tearfulness, irritability, and sometimes insomnia. The postpartum blues are caused by a multitude of factors, including hormonal fluctuations, physical exhaustion, and maternal role adjustment. This is a normal part of the postpartum experience.

If symptoms last longer than a few weeks or if the postpartum patient becomes nonfunctional or expresses a desire to harm herself or her infant, she should be instructed to report this to her certified nurse-midwife or physician immediately. Appropriate interventions should be implemented to protect the mother and her infant; this behavior is indicative of postpartum depression (discussed below under “Postpartum Complications”).

Postpartum mothers and their families should be taught to understand that the baby blues are a normal part of the postpartum experience. Patients should rest regularly and allow family members to care for them as needed. They should get plenty of fresh air and gentle exercise. Nurses can acquaint patients with groups for new mothers that provide the support of others experiencing postpartum blues. Finally, postpartum mothers and their families are taught the signs and symptoms of postpartum depression.
OTHER ASSESSMENTS

Vital Signs

During the postpartum period, women may exhibit a slight temperature elevation due to dehydration following delivery or as a result of breast milk coming in around day 3 or 4. Immediately after delivery, the blood pressure should remain the same as during delivery. An increase in blood pressure could indicate gestational hypertension (previously referred to as pregnancy-induced hypertension), while a decrease could indicate shock or orthostatic hypotension. Slight bradycardia is normal immediately after delivery; however, tachycardia could indicate hemorrhage or infection and should be monitored carefully. Respirations are usually within the normal range for an adult.

Pain

During the postpartum period, it is very important that healthcare providers continually assess a patient for pain, taking into account the patient’s acceptable pain levels. They should look for pain in all areas of the body, including the head, chest, breast, back, limbs, abdomen, uterus, perineum, and extremities. Positioning during labor may cause muscular discomfort, and headaches can indicate preeclampsia. Inadequate pain control can affect the patient’s care for her baby. Patients should also be assessed for emotional pain and treated accordingly.

Mild analgesics or narcotics may be prescribed. Providers can also teach nonpharmacologic methods of pain relief to the patient and her family. Some of these methods include the application of hot or cold packs, massage, progressive relaxation, and meditation.

Cesarean Section Issues

Women who deliver via C-section have some additional assessment needs during the postpartum period, including incision status, pain, respirations, and lung and bowel sounds.

C-section patients may have vertical or horizontal incisions that will need to be assessed throughout the postpartum period. The REEDA method (redness, edema, ecchymosis, discharge, and approximation) can be used to assess these incisions. Incisions should be well approximated and without signs and symptoms of infection, including significant redness, edema, and drainage. There should be minimal to no drainage from the incision. If minimal drainage is present, it should not have a foul odor.

It is important to teach patients to examine their incision each day with a mirror or have a family member monitor the incision for them. Patients are instructed to immediately report any abnormal findings, such as hematomas, abnormal drainage, odors, or significant pain, to their healthcare provider.
Providers should also monitor pain levels in patients who experienced a C-section. To manage pain during the initial postoperative period, these patients generally have a single morphine or opioid dose as spinal or epidural anesthesia or a continuous intravenous infusion of pain medication via a patient-controlled anesthesia (PCA) pump. Alternatively or additionally, patients may take NSAIDs and/or oral or parenteral opioids (Grant, 2016).

When patients receive narcotics for pain relief, there is a possibility of respiratory depression. Therefore, monitoring respirations is imperative. If a patient exhibits respirations below 12 breaths per minute, immediate intervention is necessary. The anesthesiologist or other physician (per hospital policy) should be notified immediately, oxygen administered, pulse oximetry levels monitored, and the head of the bed elevated. Naloxone hydrochloride (Narcan), a narcotic antagonist, should be available for administration per hospital policy or as ordered.

Assessment of patients delivering via C-section also includes auscultation of lung sounds because respiratory depression and prolonged periods of immobility may cause secretions to accumulate in the lungs, leading to further complications. Patients are taught to turn, cough, and deep-breathe while splinting the incision and to use an incentive spirometer to aid in clearing the lungs. Bowel sounds and the presence of flatus are assessed regularly to ensure proper GI functioning prior to discharge.

**Intimate Partner Violence**

In addition to the typical assessments deemed necessary during the postpartum period, it is vital to assess for signs and symptoms of intimate partner violence (IPV), formerly known as domestic violence. IPV touches the lives of countless families around the world, and healthcare providers can help to remedy this problem.

According to the National Intimate Partner and Sexual Violence Survey (CDC, 2014), an estimated 19% of women in the United States have been raped and an estimated 44% of women have experienced other forms of sexual violence during their lifetimes. The American Nurses Association (ANA) Position Statement on Violence Against Women (2000) indicates that the ANA supports the “assessment of women in healthcare institutions and community settings [for IPV].”

Abusive behaviors are often exacerbated during pregnancy and after delivery. Therefore, the maternal-child nurse has a special opportunity to assess and assist women suffering from IPV. It is essential that nurses have a clear understanding of the tools and techniques necessary to assess this population during the postpartum period and are knowledgeable about community services related to IPV.

**SIGNS AND SYMPTOMS**

Intimate partner violence is abuse that occurs between two people who are in a close or intimate relationship. It can manifest as physical, verbal/emotional, or sexual abuse, or as threatened abuse.
Symptoms of IPV include:

- Chronic pain
- Migraine
- Depression
- Anxiety
- Bruises at various stages of healing
- Bruises resembling cords or belts
- Pelvic inflammatory disease (PID)
- Urinary tract infection (UTI)

An abusive partner may exhibit hostile or demanding behavior or may refuse to leave the patient’s side. Abusers may also answer for the patient and find ways to alienate the patient from her family and friends.

**ASSESSMENT**

In assessing patients for IPV, nurses should provide a private space for the assessment and ensure confidentiality. Since IPV occurs between husband and wife, boyfriend and girlfriend, domestic partners, and other family members, nurses should avoid questions such as “Do you feel safe at home?” or “Is anyone abusive to you?” in the presence of others, including family members and friends.

Furthermore, it is essential that nurses ask questions in a nonjudgmental manner because victims of IPV are often afraid and may feel ashamed. It is important to use open-ended questions such as “Can you tell me more about this?” and to avoid judgmental questions like “Why don’t you just leave?” or “Why do you continue to go back?” It is essential for nurses to assess patients in an unhurried and supportive manner that will provide a safe space for them to talk about any violence.

Various tools are available to screen and assess patients for IPV, and many healthcare organizations have agreed to follow the ANA recommendation of screening all patients who enter healthcare facilities for IPV. The CDC has published *Intimate Partner Violence and Sexual Violence Victimization Assessment Instruments for Use in Healthcare Settings*, which lists and evaluates IPV screening tools that can be used by healthcare providers to assess patients for IPV (Basile et al., 2007). With the assistance of such tools, nurses are able to refer patients to the appropriate resources within healthcare facilities and the community.

**CASE**

Teresa, a home health nurse, visits newlyweds Maria and William during the postpartum period. They had their first baby four days ago. Maria appears very tired and does not speak much. When the nurse asks Maria any questions about herself or the baby, she looks at William
and he answers for her. Teresa notices that William will not leave Maria alone with her, even to calm the crying baby during the verbal portion of the assessment.

Administered at a previous visit, the Edinburgh Postnatal Depression Scale indicates that Maria is severely depressed, and upon examination today, Teresa notices bruises on Maria’s left shin. William quickly states, “Maria is clumsy and bumps into things a lot,” while Maria says nothing.

Teresa leaves the home but decides to follow up with Maria later in the day when William will not be present. At the second visit several hours later, Maria indicates that William sometimes hits her but is not abusive to the newborn. Maria says she wants to leave the home due to this abuse but is unsure how to do so. Teresa assesses that Maria and the newborn are not in any immediate danger requiring police intervention and that there are no weapons in the home. She provides Maria with information and referral numbers for local IPV services.

Back at the office, Teresa immediately consults with her supervisor on the agency’s protocol regarding IPV as well as the state’s reporting requirements, and together they take the necessary steps.

**Discussion**

Women being abused are often unwilling to leave the abusive relationship because they are afraid the abusive partner will retaliate. Sometimes women are unable to leave the relationship because they have been isolated from family members and friends and do not have a strong support system in place. Additionally, abusive partners often have control of the finances, and many women are not able to care for themselves and/or their children if they leave the relationship.

On her next home visit, Teresa will encourage Maria to prepare in advance to leave by performing the following:

- Packing and hiding a bag with needed items
- Having personal documents (Social Security card, driver’s license, medical cards, etc.) available
- Hiding extra sets of house and car keys
- Establishing an emergency code with family and friends
- Having a plan for where to go after leaving

**POSTPARTUM COMPLICATIONS**

Despite the normalcy of childbirth, complications may arise that will have detrimental effects on the postpartum patient. These include postpartum hemorrhage, thrombophlebitis, infections (including mastitis, endometritis, and urinary tract infections), and postpartum depression.
Healthcare professionals working with postpartum patients must have a clear understanding of these complications, including the symptoms, nursing interventions, and treatment.

**Postpartum Hemorrhage (PPH)**

Postpartum hemorrhage is one of the leading causes of death among postpartum women. PPH refers to a blood loss of at least 500 mL after a vaginal birth and at least 1000 mL after a C-section. Postpartum hemorrhage is categorized as early or late. Early refers to a hemorrhage occurring within the first 24 hours after birth, while late refers to a hemorrhage occurring 24 hours to 12 weeks after delivery. Early postpartum hemorrhage affects 1% to 5% of deliveries and late hemorrhage 0.2% to 2% of deliveries (Belfort, 2016).

**RISK FACTORS**

Every postpartum woman has the potential to hemorrhage after delivery. However, some patients have attributes that place them at higher risk for postpartum hemorrhage. These risk factors include:

- High parity
- Uterine overdistension (e.g., multiple gestation, polyhydramnios, macrosomia)
- Obesity
- Previous postpartum hemorrhage
- Uterine infection
- Hypertensive disorders
- Prolonged or precipitous labor
- Labor induction
- Vacuum or forceps delivery
- Lacerations
- Intrauterine fetal demise
- Placenta previa
- Use of certain medications (e.g., magnesium sulfate)
- Mechanical factors, such as a full bladder
- Retained placenta/membranes
  
  (Belfort, 2016)

**CAUSES AND INTERVENTIONS**

Early postpartum hemorrhage is often caused by uterine atony. With uterine atony, there is a failure of the uterine muscles to contract properly, thereby inhibiting the healing of blood vessels
at the site of placental attachment. The blood vessels continue to bleed until the uterine muscles contract. Signs of uterine atony include a boggy uterus, a fundus that is higher than expected upon palpation, and excessive lochia.

If the fundus is not firm (boggy), there are several nursing interventions that can alleviate the problem:

1. Massage the uterine fundus.
2. Encourage the patient to void, or catheterize as needed.
3. Administer prescribed medications, such as oxytocin (Pitocin), ergonovine, methylergonovine (Methergine), misoprostol (Cytotec), or carboprost tromethamine (Hemabate), to assist the uterus in contracting. (Methergine can cause an elevation in blood pressure and should not be used with hypertensive women.)

The nurse must report a PPH immediately and prepare for the insertion of a large-bore intravenous catheter, if one is not already present, and the administration of intravenous fluids and oxygen. A large-bore intravenous catheter is inserted to allow possible administration of blood products. The nurse should assess continually for bleeding, changes in vital signs, and oxygen saturation. The patient’s legs may also be elevated. Patients and their families will need nursing support during a PPH, as it can be quite a disconcerting experience.

Early postpartum hemorrhage can also be caused by damage to the birth canal during labor and birth. If an early PPH is due to trauma to the birth canal, such as a hematoma, an extension of a perineal incision, or an improperly sutured laceration, patients may exhibit one or more of the following symptoms:

- Contracted uterus with excessive lochia
- Bright red lochia
- Constant trickle of blood from the vagina
- Severe pain (possibly from a hematoma)
- Shock

In the case of an early PPH caused by damage to the birth canal, surgical repair is usually necessary. In the case of hematoma formation, surgical incision, evacuation of blood clots, and ligation of the bleeding blood vessel may be necessary. However, in the case of a small hematoma, observation and application of ice may be all that is necessary (Murray & McKinney, 2014).

Late postpartum hemorrhage is often caused by diffuse uterine atony or subinvolution of the uterus (uterus not returning to its normal size) caused by retained placental fragments and/or infection that prevent the uterus from contracting. In the case of retained placental fragments, clots develop around the retained fragments and hemorrhaging can occur days later when the clots are shed. The certified nurse-midwife or physician is responsible for examining the placenta after delivery and ensuring that it is intact; therefore, a late PPH is usually preventable. Women
with placenta accreta (an abnormally deep attachment of the placenta) or when providers attempt to extract the placenta prior to uterine wall separation are at higher risk for a late PPH.

Assessment and manual expression of placental fragments by the physician or nurse-midwife can often alleviate the problem; however, surgical intervention, such as a dilation and evacuation (D&E), may be necessary. With subinvolution and a late PPH, fundal massage, in addition to medications (Pitocin, misoprostol) and the previously mentioned interventions for early PPH, may be used to minimize bleeding.

**HYPOVOLEMIC SHOCK**

A sequela of PPH is hypovolemic shock. Under normal circumstances, postpartum women are able to withstand blood loss during the postpartum period as a result of increased blood volume during pregnancy. However, in the presence of a PPH, hypovolemic shock can occur and cause severe organ damage and even death if untreated.

Often mild tachycardia, palpitations, and lightheadedness are the first **signs and symptoms** of hypovolemic shock. The blood pressure usually decreases and the respiratory rate increases. Weakness and sweating with a further increase in heart rate (100–120 beats/min) can indicate more severe blood loss. Patients may also become restless, confused, and pale with worsening tachycardia (120–140 beats/min) as blood loss starts to affect the brain. Later stages show lethargy, air hunger, anuria, collapse, and more extreme tachycardia (>140 beats/min) (Belfort, 2016). Hypovolemic shock can be stopped by stopping blood loss.

These patients will also require oxygen (usually 8–10 L via face mask), IV fluids, and possibly blood products. This is a very serious situation, and nurses must be prepared to assist in this life-threatening emergency.

**Thrombophlebitis**

Women can suffer from thrombophlebitis as a result of venous stasis and the normal hypercoagulability state of the postpartum period. Thrombophlebitis is an inflammation of the blood vessel wall in which a blood clot forms and causes problems in the superficial or deep veins of the lower extremities or pelvis. All postpartum women are at risk. However, certain risk factors predispose some women to developing thrombophlebitis. These **risk factors** include:

- Cesarean delivery
- Preeclampsia
- Hemorrhage
- Infection
  (Berens, 2016)
The blood clot that develops in thrombophlebitis can lead to a life-threatening pulmonary embolism as a result of the clot detaching from the vein wall and blocking the pulmonary artery. The major signs of pulmonary embolism include dyspnea and chest pain.

In monitoring postpartum patients for the development or presence of thrombophlebitis, nurses assess for the presence of hot, red, painful, or edematous areas on the lower extremities or groin area. An elevated temperature may also be present. As previously mentioned, it is currently contraindicated to assess for a thrombophlebitis by eliciting a Homan’s sign.

Interventions to treat thrombophlebitis depend on the severity of the thrombosis. Usually, for superficial thrombosis, analgesics, bed rest, and elevation of the affected limb is enough to alleviate the problem. However, in the presence of a DVT, anticoagulants may be necessary. In addition to use of compression stockings and warm, moist heat applications, patients are instructed to keep their legs elevated and uncrossed. These patients are typically allowed to ambulate only after symptoms subside.

Infections

Postpartum infections are infections accompanied by a temperature of 38 °C or higher on two separate occasions during the first 10 days postpartum, exclusive of the first 24 hours (when low-grade fever is common and self-limited) (Berens, 2016). Postpartum patients are carefully monitored for signs and symptoms of infection during this period. Common infections that may occur during the postpartum period include mastitis, endometritis, wound infections, and urinary tract infections.

MASTITIS

Mastitis is a localized painful infection of the breast, which can progress to an abscess if not treated properly. It typically presents as a red, painful, firm, swollen area of one breast with a fever >38.3 °C. The patient may also complain of myalgia, chills, malaise, and flu-like symptoms (Dixon, 2016). Mastitis often occurs in the setting of the following breastfeeding problems, which typically lead to prolonged engorgement or poor drainage:

- Partial blockage of milk duct (reduced drainage results in stagnant milk distal to the obstruction)
- Pressure on the breast (e.g., tight brassiere or car seatbelt)
- Oversupply of milk
- Infrequent feedings
- Nipple excoriation or cracking
- Rapid weaning
- Illness in mother or baby
• Maternal stress or excessive fatigue
• Maternal malnutrition
  (Dixon, 2016)

Mastitis is less likely to occur with complete emptying of the breast and good breastfeeding technique. Thus, it is crucial that postpartum nurses teach breastfeeding patients proper latch-on technique and that they stress regular breastfeeding and allowing the breast to empty completely. Breastfeeding patients are also encouraged to avoid missing feedings and allowing the breast to become engorged.

Treatment for mastitis typically involves antibiotic therapy and regular breastfeeding or pumping the breast. Nurses can encourage these patients to apply cold or warm compresses to ease discomfort and to take analgesics as needed. Mastitis usually resolves quickly as long as patients continue to breastfeed or pump regularly.

ENDOMETRITIS

Endometritis is an infection of the uterus characterized by postpartum fever, midline lower abdominal pain, and uterine tenderness. Also purulent lochia, chills, headache, malaise, and/or anorexia may be present (Chen, 2016). The following factors predispose women to developing endometritis:

• Cesarean delivery (especially after the onset of labor)
• Chorioamnionitis
• Prolonged labor
• Prolonged rupture of membranes
• Multiple cervical examinations
• Internal fetal or uterine monitoring
• Large amount of meconium in amniotic fluid
• Manual removal of the placenta
• Low socioeconomic status
• Maternal diabetes mellitus or severe anemia
• Preterm birth
• Operative vaginal delivery
• Postterm pregnancy
• HIV infection
• Colonization with group B streptococcus
• Nasal carriage of Staphylococcus aureus
• Heavy vaginal colonization by Streptococcus agalactiae or Escherichia coli
  (Chen, 2016)
Endometritis is usually treated with broad-spectrum intravenous antibiotics and rest. Blood cultures to identify the causative organism of endometritis are done if the patient does not respond to empiric therapy. White blood cell (WBC) counts are monitored. However, it is important to remember that the white blood cell count is normally elevated after delivery for a short period; continued monitoring of the WBC count is required in identifying endometritis and is likely to show a left shift and increasing number of neutrophils.

**WOUNDS**

Wound infections are infections that occur at wound sites. Commonly affected wound sites during the postpartum period include the perineum, where lacerations and episiotomies occur, and C-section incisions. As with all infections, every patient is at risk.

Postpartum patients with wound infections typically have wounds that exhibit redness, warmth, poor wound approximation, tenderness, and pain. If untreated, these patients may develop a fever and other symptoms of an infection, such as malaise. Blood cultures may be obtained to isolate the causative organism. Antibiotics will typically be administered, and drainage of the wound may be necessary.

Patients are taught about proper handwashing and encouraged to maintain adequate fluid intake and increased protein intake to assist in wound healing. Wound infections can be intensely painful, especially in the perineum. Therefore, the nurse assists these patients in managing pain through the use of analgesics and positioning.

**URINARY TRACT INFECTIONS (UTIs)**

Urinary tract infections are common during the postpartum period. A woman’s urethra and bladder are often traumatized during labor and birth due to intermittent or continuous catheterizations and the pressure of the infant as it passes through the birth canal. Additionally, the bladder and urethra lose tone after delivery, making the retention of urine and urinary stasis common. The risk of developing a UTI is high. Women may also develop a UTI due to epidural anesthesia or vaginal procedures (Berens, 2016).

Patients with urinary tract infections often complain of frequent, urgent, and/or painful urination with suprapubic pain. A low-grade fever and hematuria may also be present. Urinary tract infections are treated with antibiotics, but it is important that these patients drink adequate fluids to flush bacteria out of the system.

**HEMORRHOIDS AND INCONTINENCE**

Hemorrhoids are common in late pregnancy (7.8%) and may also develop during pushing, especially with large babies and traumatic delivery. In the postpartum period, 35% of women experienced anal lesions, with 20% having thrombosed external hemorrhoids and 15% having anal fissures. Symptomatic hemorrhoids may be treated with local anesthetics, topical
Postpartum Care

Urinary and anal incontinence is also common in the first postpartum year. In a study of more than 1,500 women, 47% reported urinary incontinence and 17% reported anal incontinence in the first 12 months after delivery. The presence of urinary incontinence at 3 months is a risk factor for long-term urinary incontinence at 12 years, according to a longitudinal cohort study. (Source: Berens, 2016.)

Postpartum Depression

Postpartum depression is a serious and debilitating depression that affects many women throughout the world. Postpartum depression occurs in 8% to 15% of women after delivery. Symptoms are generally noted within the first three months but may occur up to a year after delivery. Symptoms typically include changes in sleep, energy, appetite, weight, and libido. Other symptoms include lack of energy to the point of not getting out of bed for hours; but this should be distinguished from the normal lack of energy that results from sleep deprivation of caring for an infant. Additional symptoms include anxiety and panic attacks; irritability and anger; feeling inadequate, overwhelmed, or unable to care for the baby; and feelings of shame, guilt, and having failed as a mother (Roy-Byrne, 2016).

Adverse outcomes of postpartum depression can include impaired bonding, impaired infant and child development, marital discord, suicide, and infanticide (Roy-Byrne, 2016).

It is the responsibility of nurses to assess postpartum patients for signs and symptoms of postpartum depression. Various assessment tools are available, including the Edinburgh Postnatal Depression Scale (EPDS) and the Postpartum Depression Screening Scale (PDSS). These tools are quick and provide a simple way to assess patients while at the hospital, at home during postpartum home visits, and during postpartum follow-up visits. These tools can also be used to assess mothers at pediatric follow-up visits. (See “Resources” at the end of this course.)

After screening and assessment, women who are at risk for developing (or who are suffering from) postpartum depression can be referred to the appropriate healthcare professional for follow-up and treatment. According to Murray & McKinney (2014), “Depression responds best to a combination of psychotherapy, social support, and medication.”

Postpartum depression is usually treated with counseling and medication. Nurses can support these patients in the healing process at follow-up appointments and during home visits. Driscoll (2006) recommends that nurses help mothers and their families understand postpartum depression and assist them in exploring the spiritual aspects of their suffering as an aid in the healing process. Additionally, nurses should encourage these patients to get adequate nutrition, rest, relaxation, and exercise.
DISCHARGE INSTRUCTIONS

Postpartum patients and their families are instructed to call the healthcare provider if the patient experiences any of the following:

- Fever
- Foul-smelling lochia
- Large blood clots (golf ball–sized or bigger) or bleeding that saturates a pad in one hour
- Discharge, erythema, or severe pain from incisions or stitched areas
- Hot, red, painful areas on the breasts or legs
- Bleeding and/or severe pain in the nipples or breasts
- Severe headaches and/or blurred vision
- Chest pain and/or dyspnea without exertion
- Frequent, painful urination
- Signs of depression

CONCLUSION

The postpartum period is a time of joy and satisfaction for most women and their families. In order to ensure that these mothers are off to a healthy and happy start with their newborns, nurses must be prepared to assess, intervene, and teach during this time. Most hospitals and birthing centers provide guidelines for nurses providing postpartum care. Nurses should remain up-to-date on postpartum care and are encouraged to follow their healthcare facility’s recommendations when providing patient care.

RESOURCES

Postpartum care (WIC)
https://wicworks.fns.usda.gov/pregnancy/postpartum-care

Postpartum depression (March of Dimes)
http://www.marchofdimes.org/pregnancy/postpartum-depression.aspx

Postpartum (PPD) Depression Screening Tool Grid
REFERENCES


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TEST

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1. When palpating the fundus of a female patient who delivered her newborn two days ago, the nurse expects to locate the fundus:
   a. At the level of the umbilicus.
   b. Two finger-breadths below the umbilicus.
   c. Five finger-breadths below the umbilicus.
   d. Not at all; it should be nonpalpable by this time.

2. A woman who delivered her third child approximately 24 hours ago begins to complain of severe uterine cramping while breastfeeding. What is the most likely cause of her cramping?
   a. Exfoliation of dead tissue
   b. Excessive amniotic fluid
   c. Shedding of the endometrium
   d. Afterpains

3. Three days after delivering her first child, a new mother calls the 24-hour postpartum hotline. She is crying and states that her breasts suddenly became “bigger” and “really hurt.” She is mostly likely experiencing:
   a. Colostrum production.
   b. A breast tumor.
   c. Engorgement.
   d. Difficulties with latch.

4. A female patient who delivered via C-section two days ago is frustrated by constant perspiration and urination. This is most likely the result of:
   a. Changes in urine pH and possibly a urinary tract infection.
   b. Drinking too much fluid during the early postpartum period.
   c. The body’s removal of fluids accumulated during pregnancy.
   d. The excessive amount of intravenous fluid administered during labor.

5. While assessing a 32-year-old female patient who recently gave birth to her third child, the nurse notices uterine bleeding and finds that the patient’s uterus is displaced upward and to the right. This displacement is probably caused by:
   a. Retained placental fragments.
   b. Rupture of the uterus.
   c. Distention of the bladder.
   d. Cervical bruising.
6. The nurse has just administered the rubella vaccine to a 38-year-old postpartum patient, who states that at her age she plans to get pregnant again right away. The nurse informs the patient that she should:
   a. Avoid pregnancy for at least four weeks following the rubella vaccination.
   b. Get pregnant as soon as possible given her age.
   c. Not get pregnant for at least a year after receiving the rubella vaccine.
   d. Abstain from sexual intercourse for at least two weeks after delivery.

7. A 17-year-old female patient just delivered a healthy baby boy six hours ago. Whenever the nurse is in the room, she hears the patient talking on her cellphone. The patient refuses to touch or hold her infant, even when he cries. The nurse overhears the patient tell someone that the baby “is ugly like his father.” The patient is most likely exhibiting signs of:
   a. Exhaustion.
   b. Malattachment.
   c. Normal attachment.
   d. Postpartum psychosis.

8. Recommended advice for new mothers who are breastfeeding includes:
   a. Avoiding the use of a support bra.
   b. Washing the nipples with soap and water after each feeding.
   c. Applying a warm-water compress to ease nipple pain.
   d. Using cabbage leaves for comfort.

9. After reading in the discharge booklet that postpartum women are at risk for thrombophlebitis, a female patient who just gave birth asks the nurse how she can prevent this from happening. The nurse instructs her to:
   a. Cross her legs.
   b. Ambulate frequently.
   c. Massage her legs.
   d. Cough and deep-breathe.

10. A female patient who had a vaginal delivery eight hours ago reports uterine cramping and rates her pain as a “9” on a scale of 0 to 10. When the patient refuses any pain medication, what is the nurse’s best response? D
    a. Argue with her to take the ibuprofen that her physician prescribed.
    b. Encourage her to “fight through the pain” because it will make her stronger.
    c. Ask her to use the call button if she changes her mind about taking the prescribed pain medication.
    d. Offer her a non-drug option such as a hot pack or massage.
11. When caring for a postpartum patient who the nurse suspects may be suffering from intimate partner violence, which physical assessment finding requires further investigation?
   a. Fatigue  
b. Urinary tract infection  
c. Diarrhea  
d. Pedal edema

12. Four hours ago, a 28-year-old mother of three has a fourth child by vaginal delivery. She reports that she is “bleeding a lot,” and her perineal pad, changed 45 minutes earlier, is fully saturated with blood. Palpation reveals a boggy uterus. Which is the priority nursing action in this situation?
   a. Starting intravenous fluids  
b. Catheterizing her bladder  
c. Massaging her uterus until firm  
d. Changing her perineal pad

13. A female patient experienced premature rupture of membranes during her pregnancy and had internal fetal monitors placed during labor. She later delivered via C-section. Twelve hours after delivery, the patient’s heart rate is 104 beats/min and her lochia smells foul. The nurse suspect that the patient has which condition?
   a. Chorioamnionitis  
b. Mastitis  
c. Uterine cancer  
d. Endometritis

14. The nurse in the birthing center is preparing to discharge a patient who delivered a healthy baby boy. The nurse believes that the patient understands the discharge teaching instructions when the patient states:
   a. “It is acceptable for the first few days to have bleeding nipples after breastfeeding.”  
b. “I should not worry if I have a large red mass under my breast. It will go away on its own.”  
c. “I will call my nurse-midwife if I saturate a pad with blood in one hour.”  
d. “Baby blues are normal and can last for the first few months after having my baby.”