



# Health Education Materials for Beneficiaries

## ***BENEFICIARY EDUCATION FACT SHEET #3***

# Information for Beneficiaries on Preconception, Prenatal, and Postpartum Care

The purpose of this fact sheet is to help women plan for a healthy pregnancy (preconception care), enjoy a healthy pregnancy (prenatal care), experience the successful delivery of their baby (intrapartum care), and learn how to care for their newborn (postpartum care).

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## Preconception Care

### *Plan a Healthy Family*

Before becoming pregnant, it is essential to prepare yourself for your pregnancy, labor and delivery, the postpartum period, and life with your child. Take time to talk with your primary healthcare provider about having a family, attend pregnancy and childrearing classes, read books and other materials about pregnancy, and review recommended sites on the internet about maternal-child health.

**Remember:**  
Health education and knowledge is the key to having a successful pregnancy and raising a healthy, happy child. Learn about good nutrition, physical fitness, well-child care, ways to control the environment so that it is safe for your baby, and stress management.

There are a number of issues that you should discuss with your healthcare provider about preparing to have a baby. These issues are:

- **Your support system:** A first step is to assess your family relationships, and if you can count on help from your husband/partner, and other family members, including other children. Does your family communicate well? Do other family members support your desire for a child? How do you and your family handle stress? Who makes the major decisions in your family? How does your partner or significant other feel about having a child?
- **Financial considerations:** While money is not everything, it is very important to have enough money to provide your child with a comfortable home, nutritious food, good health care, and schooling. You will also need the funds to take care of yourself properly during and following your pregnancy.
- **Location and access to health care:** Do you live in a remote rural area that will make it difficult to keep your prenatal appointments? How far is the hospital from where you live? Will you have transportation available so that you can see your healthcare provider?
- **Cultural aspects:** What are your culturally-based beliefs and values concerning family, motherhood, pregnancy, and childbirth? What value does your culture place on family? What is the place of women in your culture, and what is considered to be a woman's role? What traditional rituals surround pregnancy and childbirth? What type of diet do you normally follow? Does your diet contain a great deal of sodium or fatty cooking substances such as lard? Do you eat a Kosher diet or a strict vegetarian diet? If so, you will want to discuss issues about food with your healthcare provider and with a dietician.
- **Language barriers:** Do you easily read, speak, and understand English? Will you need an interpreter to help you understand instructions during your pregnancy? Do members of your family understand English? Will you need books and instruction guides in your own language in order to understand your provider's instructions? If so, ask for help from your healthcare provider.



- **Spiritual beliefs:** Do you practice any specific religion? How do your spiritual beliefs affect your desire to have a child? Do you have a spiritual leader with whom you would like to consult during your prenatal period, and during the process of labor and delivery?

### **Health Coverage Planning**

You should check with your health plan about maternity benefits *before* you become pregnant. Request information from your plan on exactly what maternity benefits are covered. If the coverage does not meet your needs, consider switching plans during open enrollment. A comprehensive benefits package should include:

- Amniocentesis, ultrasounds, and sonograms.
- Breastfeeding counseling and instruction.
- Contraceptive agents.
- Immunizations (e.g., influenza, hepatitis B, tetanus).
- Labor and delivery.
- Maternal depression screening, counseling, and treatment.
- Newborn hearing screening.
- Newborn screening for genetic and endocrine disorders.
- Postpartum care.
- Preconception counseling (e.g., alcohol and tobacco cessation).
- Preeclampsia screening.
- Prenatal care visits
- Preventive and treatment services for sexually transmitted infections (STIs).
- Rh (D) incompatibility screening and preventive interventions.
- Rubella susceptibility screening.
- Screening for Down syndrome and other common genetic disorders, and neural tube defects.

Your employer-sponsored health plan may also cover additional services such as doulas (medical paraprofessionals who provide support to women during labor and delivery), visiting nurse programs (which reduce stress by helping a new mother learn child care techniques in the home environment), or new parent education and counseling.

Also remember to investigate what special health promotion services your employer provides at the worksite. For example, does your employer offer parenting programs for expectant or new parents? Does your employer have an employee assistance program (EAP)? Does the EAP offer support groups for new parents?

### **Avoiding Unintended Pregnancy**

Planned pregnancies are far more likely to have successful outcomes, and to produce healthier children. Unintended pregnancies can cause life-long medical, financial, social, and emotional problems for the mother, the child, and the entire family. The first step is for women and their partners to learn about contraception. It is important for men to be included in family planning and contraception decisions.

If you are planning a family, but are not ready yet to become pregnant, you need to discuss contraceptive methods with your healthcare provider. Also, check with your health plan to see which types of contraception are covered.

There are many different types of contraceptive methods:

- **Combination oral contraceptives**, which are the most popular form of contraception in the United States.
- **Injectables, implants, and intrauterine devices (IUDs)**, which have the advantage that they do not need to be used daily.
- Condoms and diaphragms (called **barrier methods**). Condoms have the advantage that they can help prevent pregnancy and the transmission of sexually transmitted infections (STIs), yet they are not always reliable.
- **Cervical caps and female condoms** help to reduce the risk of unintended pregnancies. Female condoms also result in “safer sex” (although not safe sex) by reducing the degree to which partners are exposed to genital contact and contact with fluid secretions.
- **Spermicides** such as foams, jellies, and creams; coitus interruptus (withdrawal); and the rhythm system are other methods of contraception. Withdrawal and the rhythm system are the least effective forms of contraception.
- **Emergency contraceptives**, sometimes called the “morning after pill,” contain higher doses of hormones than found in oral contraceptives. These medications are not for routine use; they are to be used in emergencies when regular contraceptives fail (e.g., a condom breaks) or when contraception was not used. Emergency contraceptives should be taken within 48 hours of intercourse to prevent an unintended pregnancy. The sooner emergency contraceptives are taken following sexual intercourse, the more effective they are. Emergency contraceptives are safe, and they rarely cause major side effects.
- The only 100% effective form of contraception is **abstinence**.

### *Planning for a Healthy Pregnancy*

If you plan to become pregnant soon, it is important to begin to: (a) make healthy lifestyle changes now, (b) address any existing health problems, and (c) gather information about pregnancy through classes, books, videos, and other sources. Here are some suggestions to follow during your preconception period:

- Sign up for parenting classes where you can learn about the physical and emotional changes you will go through during your pregnancy. If possible, have your partner accompany you to these classes.
- Stop smoking and drinking alcohol immediately as these substances can be very dangerous to the fetus, particularly during the first trimester of pregnancy. Tell your provider about every medication that you are taking to make certain that your medications are safe for the baby.
- Learn all you can about good nutrition, and strive to eat a balanced diet. Speak with your healthcare provider or a dietician if you must consider dietary restrictions due to cultural or religious beliefs. Healthy pregnancies require adequate nutrition; if you are not getting enough protein, iron, calcium, or other essential nutrients you or your fetus may suffer from health problems during or after pregnancy.
- If you have not had **rubella** (German measles), you should be immunized against this disease

at least 3 months before you become pregnant. Rubella is a dangerous viral disease that may cause severe fetal defects during the first and second trimesters of pregnancy.

- You should be screened for the presence of **STIs**, and receive counseling on how to prevent STIs in the future. You should be immediately treated for an STI if you are infected. STIs put a fetus at risk during pregnancy and some such as HIV and syphilis, can be transmitted to a baby during labor and delivery.
- Seek counseling if you feel **depressed** much of the time. In addition to talking with a therapist, you may need medication to manage your depression.
- Seek **couples counseling** if you and your partner are having any problems, especially concerning having a family. It is best to talk through problems and work out potential issues before you become pregnant. Be certain to report any incidents of threatened or actual domestic abuse that have arisen between you and your spouse or sexual partner. The stress of a pregnancy can aggravate domestic problems. Seek counseling before starting or enlarging your family.

## Prenatal Care

### *Choosing a Healthcare Provider for Your Pregnancy*

Choosing a healthcare provider to care for you during your pregnancy is one of the most important decisions you will make. There are several types of providers available. You can select:

- A **midwife** who is qualified to care for you if you are at low risk for complications during pregnancy. There are **certified nurse-midwives (CNMs)** who are registered nurses and certified midwives who are not nurses. A nurse midwife should be associated with a physician and a hospital in case complications arise.
- Your **family physician** who you know and trust, and who may have cared for you and other family members over the years.
- An **obstetrician-gynecologist (OB-GYN)** who is a physician who has specialized in all phases of pregnancy, labor and delivery, and the postpartum period.
- A **maternal-fetal medicine specialist** who is trained to care for women facing very high-risk pregnancies. You should consider a specialist if you have severe preexisting medical conditions, have had complications of pregnancy in the past, or carry a severe genetic condition that could damage the baby.

### *Your First Prenatal Visit*

After you have chosen a healthcare provider, you should next schedule your first prenatal visit. This visit is very important because it will provide your physician or midwife with the information needed



to help ensure the successful delivery of your baby. You may want to take your partner or significant other to this and other prenatal visits. During this or subsequent visits, the physician or nurse will gather the following information<sup>1</sup>:

- Your **medical history**. The provider will ask you about any preexisting medical conditions, previous pregnancies, allergies, and any congenital problems that exist in your family. You should take all of your medications (prescribed and over-the-counter) to this meeting.
- Your **due date**. Your provider will estimate your due date by counting ahead 40 weeks from the beginning of your last menstrual period. An accurate due date is important in order for your provider to monitor your pregnancy and your baby's growth.
- Your **health status**. Your height, weight, blood pressure, and pulse will be measured, and your provider will evaluate your overall physical health.
- **Pelvic examination data**. The provider will examine the vaginal area and cervix for abnormalities, including the presence of infection.
- **Blood test results**. These lab tests will confirm your blood type (including your Rh (D) factor) and also confirm exposure to syphilis, measles, mumps, rubella, hepatitis B, and HIV. You may need immunizations if you are not up-to-date. Some immunizations (e.g., rubella) are contraindicated during pregnancy so you may be asked to return for the immunization as soon as you deliver your baby.
- **Urine test results**. Urinary test results are used to diagnose kidney or bladder infections. Sugar in the urine may indicate diabetes or gestational diabetes. Urinary tract infections are particularly harmful during pregnancy and should be treated immediately.
- **Prenatal tests results**. Prenatal tests provide valuable information about the status of your fetus. Tests your provider may recommend include a routine ultrasound, amniocentesis, or chorionic villus sampling (CVS).
- **Fetal movements**. Your provider will assess fetal movements, and teach you how to count fetal movements on a regular basis at home.
- Your **lifestyle choices**. Lifestyle choices are crucial to a healthy pregnancy. You and your provider will discuss your usual diet, exercise routine, smoking, use of recreational drugs, alcohol consumption, and what type of work you do.

After completing your first visit, you will usually schedule future prenatal visits every 4 to 6 weeks during the first 3 months (first trimester) of your pregnancy. During each visit, your provider will monitor your vital signs, weight, fetal movements, and fetal heart tones. During each visit, you should discuss any problems or concerns that you have.

**Caution:**  
 Avoid eating shark, swordfish, king mackerel, tilefish, or tuna because these fish contain high levels of mercury that could harm the fetus. Limit fish to two or three servings a week, including canned fish.

### *Making Healthy Lifestyle Changes*

You need to be willing to make some important lifestyle changes during your pregnancy in order to ensure good health for you and your baby. Important areas to discuss with your healthcare provider are:

- **Nutrition**. You need to eat a balanced, nutritious diet that contains whole grain products, fruits, vegetables, meat, poultry, fish, eggs, beans, and dairy products. It is all right to enjoy sweets and fats occasionally, in small amounts. You will probably gain between 20 and 35 pounds during your pregnancy. There are some important

precautions that you should take in the kitchen. Fully cook meat, eggs, and fish. Do not eat hot dogs and luncheon meats, including deli ham, turkey, bologna, and salami, unless you have reheated them until very hot. These foods could expose the baby to dangerous bacteria that may cause serious complications. Avoid unpasteurized milk, cheese, and other dairy products. Limit caffeine intake to two drinks a day.

- **Exercise.** You should exercise moderately around 30 minutes a day. It is important to not become overheated or dehydrated during exercise. If you cannot carry on a conversation while exercising, slow down and breathe.
- **Work.** It is usually safe to work during your pregnancy as long as you do not become overly exhausted or develop any signs of complications. Check with your employer about restrictions on work activities, or special safety precautions that you should take once pregnant. You may be asked (or required) to avoid jobs that require heavy lifting, operating dangerous machinery, continuous standing, or working around toxic substances that could harm the fetus.
- **Vitamins and minerals.** It is essential to take 400 mcg (0.4 mg) of folic acid daily during the first trimester of pregnancy.<sup>2</sup> Folic acid will help to protect your baby's brain and spinal cord, and prevent some cardiovascular disorders. You will also need to take calcium pills and iron. If you are not anemic, you will probably take 120 mg of iron weekly. Remember to follow your provider or pharmacist's instructions on vitamins and minerals, and don't assume that more is better: Excessive iron intake can result in premature and low-birthweight babies.<sup>3</sup>
- **Care of your cat.** If you have a cat, you should wear gloves when you change your cat's litter box, or have a family member do it for you. Caring for your cat could expose you to an infection called toxoplasmosis.
- **Hot tubs.** Do not use hot tubs or saunas during the first trimester.
- **Sexual relations.** Unless you develop complications, it is safe to have sexual relationships while you are pregnant. Remember to take precautions against contracting sexually transmitted infections (STIs) during pregnancy. Contracting an STI could result in complications for you and your baby. Having your partner wear a condom will provide safer sex, but not safe sex.

### *Taking Medications and Using Alternative Therapies*

Because many medications can cause fetal abnormalities, you must inform your healthcare provider about **every medication** that you are taking, including over-the-counter medications and alternative medications, such as herbal supplements.

**The fetus is especially vulnerable to the effects of medications or substances taken during the first trimester of pregnancy.**

Be sure to obtain your healthcare provider's approval before taking any new medication or herbal substance, and do not stop taking a medication without your provider's permission.

Medications that are particularly harmful to the fetus include the following:

- Accutane (used to treat acne).
- Tegison and soriatane (used to treat psoriasis).
- Ace inhibitors (used to control high blood pressure).
- Aspirin (it can cause excessive bleeding if taken close to the time of delivery).

Alternative drugs that should not be used during pregnancy because they may cause fetal abnormalities or premature labor include:

- Ginseng, golden seal, kava kava, licorice, Saint Johns wort, and woodworm.

Aromatherapy essential oils can also cause damage to the fetus, so avoid:

- Wintergreen, sage, myrrh, basil, marjoram, and thyme.

### **Stopping all Substance Use**

The use of alcohol or illicit drugs during pregnancy is considered abuse because it can severely harm the growth and development of the fetus, and cause lifelong problems for the child. Substances that can harm the fetus include nicotine (found in cigarettes, cigars, and chewing tobacco), alcohol, cocaine, marijuana, narcotics, hallucinogens, stimulants, sedatives, tranquilizers, and pain relievers.

**The fetus is at the greatest risk of complications from a woman's substance abuse during the first trimester of pregnancy. A pregnant woman must stop smoking, drinking alcohol, and using any unprescribed drugs before she plans to become pregnant, or as soon as she suspects she is pregnant.**

Women who continue to abuse substances during pregnancy may develop high blood pressure, anemia, nutritional deficiencies, pancreatitis, alcohol-induced hepatitis, and liver cirrhosis. Complications of maternal substance abuse for the fetus

and newborn include growth retardation, premature birth, and permanent brain damage. Also, the infant of a woman who abuses drugs may be born addicted to the abused substance. The baby may have to endure severe withdrawal symptoms such as hyperactivity, tremors, seizures, fever, vomiting, and restless sleep. As they grow older, some of these children experience long-term learning and behavioral problems.

### **Reporting Discomforts**

You may experience some discomforts during your pregnancy. One common problem during the first trimester of pregnancy is nausea and vomiting, known as **morning sickness**. You may also develop increased urination, constipation, hemorrhoids, shortness of breath, nasal stuffiness, minor cramping, backache, and fatigue. Your feet and ankles may swell, and you may develop mild varicose veins. Be certain to tell your healthcare provider about these problems if they arise.

### **Recognizing Danger Signs**

Pregnancy and childbirth are usually normal, healthy events. However, complications do sometimes develop. If you experience any of the following signs, contact your healthcare provider immediately.

- A significant change in, or absence of, fetal movement for 6 to 8 hours.
- Abdominal pain.
- Elevated temperature, above 101 degrees Fahrenheit (38.3 degrees Celsius), with chills.
- Painful urination.
- Persistent vomiting, lasting more than one day.
- Rupture of membranes.
- Severe, persistent headache.
- Swelling of the face or hands.
- Vaginal bleeding in any amount or of any color.
- Visual disturbances.

## Treating Complications

There are a number of potentially dangerous complications that may develop during pregnancy. Some of these complications include the following:

- **Iron deficiency anemia.** Risk factors for iron deficiency anemia during pregnancy include anemia prior to the pregnancy, poor nutritional status, lack of supplemental iron intake, close spacing of pregnancies, twins, and excessive vaginal bleeding prior to or as a result of pregnancy. It is important to correct your anemia because it will make you more susceptible to infections, and less able to tolerate blood loss during and after delivery. Also, the baby may be born prematurely. To treat iron deficiency anemia, follow these guidelines:
  - √ Increase your intake of iron-rich foods such as fortified cereals, enriched breads, liver, meat, dried fruits, green leafy vegetables, and legumes. Take iron supplements as ordered by your healthcare provider.
  - √ Do not take iron with milk because milk inhibits absorption. Because iron causes constipation, eat a diet high in fiber and fluids. Do not be alarmed if iron turns your stools black as this is normal.
- **Hyperemesis gravidarum.** Some women develop severe, uncontrollable vomiting during pregnancy. The cause of this problem is unknown. Severe vomiting can result in dehydration and rapid weight loss. If you develop this condition, eat six small meals a day, avoid spicy and fried foods, and eat dry crackers before getting up in the morning. Also sit quietly upright for 30 minutes or longer after eating. Notify your healthcare provider at once if these simple nutritional changes do not stop the vomiting as other interventions will be necessary.
- **Pregnancy induced hypertension (PIH) or preeclampsia.** PIH, which is the second leading cause of maternal death, develops in 6% to 8% of all pregnancies.<sup>4</sup> Signs of PIH are elevated blood pressure, swelling of the face and hands, and protein in the urine. If you have been diagnosed with PIH and develop a severe headache, blurred vision, epigastric pain, decreased urine output, or nausea and vomiting, call your healthcare provider at once. You will need to go to the hospital immediately. As the only cure for PIH is delivery, you should anticipate that you will undergo a cesarean delivery. Once your baby is delivered, you and your baby will be free of symptoms and out of danger.
- **Gestational diabetes mellitus (GDM).** Gestational diabetes usually occurs in the second or third trimester. If you have a family history of diabetes, you are at increased risk for GDM and should be screened for GDM between weeks 24 and 28 of your pregnancy. If you test positive for GDM, your healthcare provider will place you on a special diet to control your blood sugar. Uncontrolled GDM increases your baby's risk for complications before and after birth, and can increase your risk of developing adult-onset diabetes later in life. If diet alone does not control your GDM, your healthcare provider may prescribe insulin therapy. Your healthcare provider will teach you how to give yourself insulin, either via injection or an insulin pump. He or she will instruct you in monitoring your blood glucose levels. You will need to learn the signs and symptoms of having too low or too high a blood glucose level so that your insulin dosage and diet can be adjusted.

### *Overcoming Maternal Depression*

Despite the assumption that having a baby is always a happy event, it is not unusual for a woman to become depressed during or following a pregnancy. Maternal depression can affect a woman at any time during her pregnancy. Women who have experienced a previous episode of depression are at increased risk for maternal depression. The major signs and symptoms of maternal depression include:

- Depressed attitude, irritability, or anxiety.
- Loss of pleasure in hobbies, interests, and activities.
- Abnormal weight loss or gain.
- Insomnia (not being able to sleep) or sleeping too much.
- Agitation or loss of energy.
- Feelings of worthlessness or guilt.
- Impaired concentration.
- Lack of self-confidence and self-esteem.
- Poor concentration and memory.
- Negative expectations.
- In severe cases, recurrent thoughts of death or suicide.

Maternal depression is a very serious problem. This condition can reduce a woman's quality of life and willingness to make important lifestyle changes, which are necessary for a successful pregnancy, labor, and delivery. Maternal depression can also affect the child's life, and result in emotional, cognitive, and behavioral problems that can extend into adulthood.

#### **Remember:**

**If you are experiencing any of the symptoms of depression, notify your healthcare provider right away. Maternal depression is a treatable problem, and the sooner you receive the help you need, the better for you and your baby.**

If you are depressed, you should be able to receive counseling through your health plan, and your employer's employee assistance program (EAP). Your primary care provider or a specialist may prescribe medication as well. Some communities also offer health education services, prenatal programs, and parenting classes that can assist you. Contact your health plan or EAP to see what services are available in your area.

## Intrapartum Care – Labor and Delivery

### *Recognizing True Labor Versus False Labor*

**Labor** is the physiological processes by which the fetus is expelled from the uterus into the vagina, and then into the outside world. To prepare for labor, you will hopefully have taken prenatal classes with your partner during which you will have learned: (a) breathing and relaxing exercises, (b) what to expect during labor and delivery and the postpartum period, and (c) how to tell the difference between true labor and false labor.

During **true labor**, you will experience regular contractions that gradually become stronger, longer, and closer together. The pain of true labor starts in the lower back, and it moves across the lower abdomen. Comfort measures and hydration do not stop the process of true labor. The cervix dilates, and you will feel the baby move down into the birth canal. **False labor** is characterized by irregular contractions, which may be regular for brief periods of time. You can stop false labor contractions by walking, changing your position, and drinking fluids.

### *Managing Pain During Labor*

Every woman experiences pain during the birth of her child. However, the degree of pain that a woman experiences is influenced by a number of factors such as:

- Her physical condition at the time of birth.
- Her degree of fatigue and anxiety.
- The size and position of the fetus.
- The amount of noise and activity in the labor and delivery room.
- Cultural factors such as attitude toward pain.
- Her attitude toward pain, and prior experiences with pain and pain relief.
- Her self-efficacy (how well she thinks she will deal with pain).
- The presence of a partner or significant other to offer comfort.

**Nonpharmacologic** measures provide pain relief without analgesics or anesthesia. These measures include breathing exercises, acupuncture, visual imagery, relaxation techniques, listening to music, watching television, talking on the telephone, taking a warm shower with assistance, sitting in different positions, squatting, and rocking. Immersion in tubs and birth balls are other highly-rated measures, as well as the presence of a companion who can provide continuous supportive care throughout labor.

You may choose to have **pharmacologic** pain management that includes systemic, regional, and general interventions. Systemic analgesics such as opioids and sedatives help to relieve pain and anxiety without producing unconsciousness. These medications can cause nausea and vomiting. They may also cause respiratory depression in the newborn if given within 4 hours of delivery. These medications are therefore used with caution.

**Epidural anesthesia** is one of the most common methods of regional pain relief. The anesthesiologist inserts a catheter into the epidural space within the spinal column. Most women experience pain relief within 20 minutes. The advantage of regional anesthesia is that the woman remains awake during the birth of her child, but does not feel pain in the area that has been blocked. Epidurals can cause complications, however. Epidurals have been linked to an increased risk of fetal distress and cesarean section. Adverse effects can also include immobility (the woman can't walk

easily during labor and delivery), difficulty urinating or getting to the bathroom, low blood pressure, difficulty pushing, itching, severe perineal tears, and reduced likelihood of having a vaginal birth.

**General anesthesia** is used primarily in emergencies such as an emergency cesarean section. Unfortunately, the woman is not awake to experience her baby being born, and the newborn may have nervous system depression and be difficult to awaken after the surgery.

### Remember:

**Start discussing pain relief during labor with your healthcare provider early in your pregnancy. You should talk about any fears or concerns that you have, and what pain relief measures are available. Your partner or significant other may want to be present during these discussions, and also attend birthing classes with you. Many women who use low-risk drug-free pain relief methods such as tubs, showers, birth balls, application of hot or cold objects, and massage or stroking give these measures high marks. To avoid or minimize the side effects of epidurals and other medications, consider giving non-pharmacologic methods a try.**

## *Labor and Delivery Complications*

### **Undergoing an Episiotomy Procedure**

An **episiotomy** is a surgical cut to enlarge the vaginal outlet just before the baby is born. Episiotomies are performed more frequently on first-time mothers, or when the newborn is believed to be unusually large. Research has repeatedly shown that routine or liberal episiotomy does not offer benefits and in fact increases risk of harm such as more pain and longer healing time.

The rate of episiotomies has declined over time. In 1980, 64% of women underwent an episiotomy; by 2004 the rate had decreased to 23%.<sup>5</sup> Research findings indicate that birth in a side-lying position, the administration of intravenous narcotics during the second stage of labor, the application of warm compresses to the perineum during second stage labor, and massage of the area reduce the incidence of tears.<sup>5</sup>

It is important to ask your healthcare provider about your risk for undergoing an episiotomy, and the measures that can be taken to protect the perineal area from trauma during childbirth.

### **Undergoing a Cesarean Section**

A **cesarean section (c-section)** is major abdominal surgery. The surgeon makes an incision through the woman's abdomen and uterus and removes the baby. C-sections require a longer recovery time than vaginal births do, and involve increased risk for infection, blood clots, difficulty establishing breastfeeding, breathing problems in the newborn, severe and longer-lasting postpartum pain, and many other adverse effects. C-sections are performed for

high-risk pregnancies when the woman's life or health is at risk, and when natural delivery of the child might result in severe complications.<sup>6</sup> Some reasons to perform a c-section include:

- Cephalopelvic disproportion (the uncommon situation when a baby's head is too large to pass through the woman's pelvis).
- Compression of the umbilical cord that cuts off nutrients to the fetus.
- Untreated sexually transmitted infections.
- Failure of labor to progress.
- Non-reassuring fetal heart tones.

In recent years due to health system pressures, c-sections have been performed on women with minor complications or none at all.<sup>6</sup>

If you require a c-section, you will first need to sign consent forms for the surgery and for your baby's care. The nurse will teach you how to move, cough, and deep breathe so that you will not develop postoperative complications such as pneumonia. The nurse will insert an indwelling urinary catheter, shave and cleanse the abdomen in the area of the incision, take your blood pressure, monitor the fetal heart rate, and start an intravenous infusion. You will then be given preoperative medications. During this period, talk with your partner or a significant other, and practice **deep breathing** and **relaxation exercises** to allay your anxiety prior to the surgery.

## Postpartum Care

### *Routine Care of Your Newborn in the Delivery Room*

With your newborn's first breath, your baby begins the transition from life in the womb to life in the outside world. This first breath initiates major changes in the newborn's cardiovascular and respiratory systems. Air enters the newborn's lungs, and fluid is removed from the lungs. If the baby is born via c-section, it may need to initially be on a ventilator. In either case, it is the newborn's respiratory adjustment that is most critical at birth. A major task of the labor room staff is to immediately assess your infant's respirations. Also, just after delivery, the newborn is quickly checked for any abnormalities, and then assigned an Apgar score—at 1 and 5 minutes. An **Apgar score** assesses an infant's well-being in five physiological areas:

- **Heart rate.** Is it absent? Below 100 beats per minutes? Over 100 beats per minute?
- **Respiratory effort.** Are breaths absent? Or are breaths slow and irregular? Does the infant have a good cry?
- **Muscle tone.** Are muscles flaccid? Does the newborn bend its arms and legs, fingers and toes? Does the newborn display active motion (does it wiggle)?
- **Reflex irritability.** Is the newborn non-responsive? Does the baby grimace? Does the newborn have a vigorous cry?
- **Color.** Is the newborn pale or blue? Pink with blue extremities? Completely pink?



Each assessment area has a score from zero to two, with a total score of zero to 10. A good Apgar score is between eight and 10. Two apgar scores are measured; one immediately at birth and one a few minutes after. Though ideally both are high, the second of the two is more significant. It is not uncommon for a baby to have a low immediate Apgar score.

In addition to measuring your newborn's Apgar score, the nurse will quickly perform many other duties to ensure the safety of your baby. The nurse will:

- Keep your infant warm by drying the newborn with a pre-warmed blanket, and placing him/her against your skin, under a radiant heat warmer, or in warm blankets. Evidence shows that infants who are immediately placed next to their mother's skin are better able to begin breastfeeding, and interact with and attach to their mother faster. They also cry less, stay warmer, and have improved heart and lung function.<sup>7</sup>
- Suction the baby's mouth and nose to make the infant gasp for air, and also remove mucus and fluids. These actions may improve the newborn's ability to breathe.
- Stimulate the infant by stroking the back so that he/she cries.
- Take your infant's vital signs and obtain an ancillary temperature.
- Measure and record the infant's weight, length, and the circumference of his/her head and chest.
- Inject vitamin K intramuscularly to prevent bleeding problems until the infant can manufacture his/her own clotting factors.
- Place antibiotic drops or ointment into your infant's eyes to prevent eye infections.
- Give your infant an injection that will immunize him/her against hepatitis B.

### *Receiving Routine Maternal Care Following Delivery*

The **postpartum period** is the 6-week period after birth during which a woman's body returns to the pre-pregnant physiological condition. Your needs and your care will continually change throughout this time period. In the first day after delivery, healthcare providers should:

- Measure your blood pressure, pulse, and temperature.
- Provide a warm blanket to prevent 'postpartum chill.'
- Provide food and fluids.
- Allow you quiet time to rest.
- Check for bladder distention and urinary retention.
- Examine the height and firmness of your fundus, which is the body of the uterus that is above the openings of the fallopian tubes.
- Examine the perineal area for bleeding, bruising, or trauma.
- Assess lochia, which is a uterine discharge composed of blood, tissue, and mucus. For the first 6 days following giving birth, lochia is red-tinged; during the next 3 or 4 days, lochia is brownish; finally lochia turns to white and then disappears altogether.
- Examine the breasts. The breasts will be secreting colostrums, which is a yellowish fluid that contains protein, fat-soluble vitamins, and antibodies. Two (2) to 4 days following delivery, your breasts will become engorged with milk.
- Prepare you to breastfeed your baby, or, if breastfeeding isn't possible, teach you to bottle-feed.
- Keep a record of your bowel movements.
- Encourage your partner to participate in holding and caring for your infant.

## Care Following Labor and Delivery Complications

### Receiving Care Following an Episiotomy

If you underwent an episiotomy, you can expect to experience some discomfort in the perineal area. During the first 12 hours after delivery, a healthcare provider will apply ice to the perineum for 30-minute periods. Ice will help to reduce pain, swelling, redness, or discharge. After 12 hours, you will be encouraged to take comforting, warm sitz baths. You will probably be given a stool softener to make having a bowel movement easier. Prior to discharge, the nurse will teach you perineal care which involves (a) patting the perineal site with witch hazel pads or Tucks®, (b) wiping from front to back following urination, and (c) changing perineal pads after urinating or having a bowel movement. In addition, you need to learn the signs and symptoms of infection such as a fever, swelling of the perineum, foul discharge from the area, and pain. Normally, you can expect the episiotomy to heal within 3 to 4 weeks. Do not have sexual intercourse until the episiotomy is completely healed.

### Receiving Care Following a Cesarean Section

Following a c-section, your postoperative care will be similar to care after any abdominal surgery. For example a healthcare provider will:

- Frequently measure your blood pressure, pulse, and temperature.
- Provide intravenous fluids as ordered.
- Administer medications for pain or for nausea.
- Change your abdominal dressing.
- Examine your abdominal incision for signs of bleeding or infection.
- Measure your intake of fluids and your output of urine.

In addition, your healthcare provider will assess: (a) the height and firmness of the top of your uterus, (b) the color and odor of the lochia, and (c) the breasts for the secretion of colostrums or milk. The nurse will also help you with the care of your newborn baby when you feel strong enough.

### Learning to Feed Your Infant

Infants need adequate nutrition if they are to grow and develop properly. While carbohydrates are the most important source of energy, a newborn must take in protein for tissue growth, fats for energy, and essential fatty acids. Infants must also receive fluids, vitamins, and minerals. Without adequate nutrition, infants can suffer malnutrition or anemia (resulting from low iron intake).

Medical experts agree that **breastfeeding** is better than formula-feeding. Leading national and international organizations recommend exclusive breastfeeding for the first 6 months of the infant's life, continued breastfeeding to at least the infant's first birthday, and as long thereafter as mother and baby desire.

Human breast milk is nutritionally superior to formula. Infants who are breastfed are better prepared to fight off infections and allergens as they grow. Evidence also suggests that breastfed infants are less likely to develop obesity, and type I and type II diabetes; and are less likely to suffer from ear infections, respiratory infections, gastroenteritis, and eczema (a skin disorder) than infants who are formula-fed.<sup>8</sup> Breastfeeding also has important short- and long-term health benefits for women. A



woman's risk of breast cancer is decreased 4.3% for every 12-month increment of breastfeeding over her lifetime. Her risk of ovarian and endometrial cancer is decreased through breastfeeding as well.<sup>9</sup>

Breastfeeding should be started as soon as possible after delivery, because it stimulates the uterus to contract and helps to prevent postpartum hemorrhage. New studies also indicate that newborns should begin breastfeeding during the first 2 hours of life when they are most alert and able to start nursing.<sup>10</sup>

Breastfeeding is not recommended if you must take potentially harmful medications that can be passed through the milk to your infant, or you are HIV positive. If you cannot breastfeed or you decide not to breastfeed, there are measures you can take to suppress lactation. You can wear a tight-fitting bra and apply ice packs to the breasts. Do not attempt to express milk from your breasts, as this only stimulates the breasts to produce more milk.

Most breastfeeding mothers feed their infants on demand or every 2 to 3 hours. At first, plan to feed your baby for at least 15 minutes at a time, or until your child falls asleep. Also, stop feeding after 15 minutes if the baby is simply sucking on the nipple, but is not taking in any milk. How do you know if your baby is getting sufficient milk? An infant who is taking in enough milk usually produces between six to 10 wet diapers a day, with stools present in most diapers.<sup>11</sup>

**Remember:** Whether you choose to breast- or bottle-feed, you should learn about your infant's nutritional requirements. You also need to become skilled at feeding techniques that will encourage your baby to eat. Skilled support from lactation consultants, mothers with breastfeeding experience, and health professionals can provide invaluable help for new mothers who want to breastfeed.

When breastfeeding, it is important to keep the breasts clean. Shower everyday, but avoid washing the breasts with soap because soap tends to dry the skin. Wash your hands thoroughly before each feeding. Use disposable bra pads to absorb leaking milk. Do not purchase bra pads with plastic linings because the plastic keeps the breasts from drying properly. Remember to change the pads frequently to lower the risk of infection.

One problem you may encounter is breast engorgement, which can be very painful. It helps to apply moist heat to the breasts before feeding your baby, and cold compresses following the feeding. You can also massage the breasts before and during the feeding. If these measures do not work, try hand expressing your milk or using a breast pump to extract excessive milk.

Another problem associated with breastfeeding is nipple soreness. To prevent sore nipples, make sure your infant grasps the entire area around the nipple, and not just the nipple. Also, insert your finger between the baby's mouth and nipple to break the suction after the baby finishes his/her feeding and alternate breasts to prevent excessive sucking on one nipple. A lactation consultant, experienced mother, or health professional can help with positioning to minimize nipple soreness. If you develop cracked nipples, notify your healthcare provider immediately. Cracked nipples put you at risk of developing mastitis (a serious breast infection). Signs of breast infection include fever, swelling of the breasts, and tenderness.

Remember that while breastfeeding suppresses ovulation, it is not a 100% effective form of contraception. If you have reestablished sexual relationships, discuss contraceptive measures with your primary care provider to prevent an unintended pregnancy.

If you do not exclusively breastfeed, you should feed your baby about an ounce of formula at a time every 3 to 4 hours during the first couple of days. Then you should increase the feedings to 2 to 3 ounces per feeding over the first 2 weeks. Most infants who are 12 weeks old are able to ingest 5 to 6 ounces every 3 to 4 hours.<sup>4</sup>

### ***Taking Your Baby Home***

Before you take your new baby home from the hospital or birthing center, you need to receive adequate instruction concerning the care of your infant and yourself.

During your stay in the hospital, the staff should instruct you how to:

- Bathe your newborn baby. You should not immerse the baby in water for 7 to 10 days after birth. By this time, the infant's umbilical cord will have dried and come off.
- Breast- or bottle-feed your child. You should be able to demonstrate that you are comfortable with feeding techniques before you take the baby home.
- Determine if your baby is receiving adequate nourishment and know the signs of malnourishment.
- Use a bulb syringe to remove excess nasal secretions that can cause a baby to choke. You should always keep a bulb syringe close to your baby, so that you can grab it quickly if necessary.
- Take an ancillary temperature to determine if your baby has a fever.
- Cleanse the baby's perineal area with each diaper change to prevent irritation and diaper rash.
- Plan your daily schedule so that you get periods of adequate rest and relaxation.
- Find and schedule responsible people who can provide you and your partner some time together away from home. While your major consideration should be the new baby,

**Caution:** Signs that your baby is not receiving enough milk include dehydration, lethargy, sunken fontanels (soft spots that are between the cranial bones), and decreased urine output. Notify your healthcare provider immediately if these signs develop.

remember to engage in activities that will maintain a good relationship with your partner, friends, and family.

- Arrange for a visiting nurse to come to your home so that you can ask questions about any problems you are having with caring for your infant.

The hospital staff should also remind you to:

- Make an appointment with your healthcare provider 6 weeks after delivery for a postpartum check-up.
- Make an appointment with your baby's healthcare provider.
- Make an appointment with an employee assistance program (EAP) counselor if available at your job. It may help to discuss how you can most easily return to the workplace following your maternity leave.

**Remember:**

**If you or your partner have problems reading, speaking, or understanding English, request an interpreter to be present when you receive instructions from healthcare providers. Also, ask for learning materials that are presented in your own language whenever possible.**

***Understanding Postpartum Blues and Depression***

While having a new baby is usually a happy event, it is also a stressful event - both physically and emotionally. For this reason, many women experience **postpartum blues** during the first two weeks following childbirth. Postpartum blues are usually mild, and last for only a few days or so.

The exact cause of postpartum blues is not known. Possible causes include hormonal changes, fatigue from childbirth, and loss of rest and sleep related to the care and feeding of a newborn. New parents may also need to adjust to changes in their relationship and lifestyle. In addition, some parents face new financial concerns related to having a baby; for example paying for a nanny if both parents work.

**Postpartum depression** affects approximately 10% to 20% of women following childbirth.<sup>12</sup> Some risk factors for postpartum depression include anxiety over having a baby, extreme ambivalence toward the pregnancy and the new baby, a poor relationship with the baby's father, previous bouts of depression, serious financial problems, and a lack of friends and extended family who can offer support.

Signs and symptoms of postpartum depression are similar to the manifestations of any major depression. They include:

- Deep feelings of guilt and failure.
- Loneliness.
- Low self-esteem.
- Severe anxiety.
- Fatigue and insomnia.
- Headache.
- Appetite changes (unusual hunger or loss of appetite).
- Anger toward the baby and/or the baby's father.
- Withdrawal from the baby and/or the baby's father.
- Fear of the baby or of harming the baby.
- Thoughts of suicide.

If you develop any of these symptoms and they persist for more than 2 weeks, or they develop 2 weeks following delivery, contact your primary healthcare provider or a mental health professional immediately. You should also discuss your problems with your partner and with close friends and relatives so that they understand what you are going through.

Treatment for postpartum depression includes **antidepressants** and **counseling**. With professional care and family support, women do recover from postpartum depression and are able to successfully assume their vital role as mothers.

If you feel a little blue when you first come home with your baby, there is no need for concern. As you adjust to your new role, the blue mood should lift, and you will begin to feel like your old self. However, if the feelings persist or deepen, contact your healthcare provider right away. You may be at risk for postpartum depression.

## References

1. Mayo Foundation for Medical Education and Research (MFMER). *First trimester prenatal care*. Available at: <http://www.mayoclinic.com/health/prenatal-care/PROOOO8>. Accessed June 20, 2007.
2. American Academy of Family Physicians. Information from your family doctor. Pregnancy: keeping yourself and your baby healthy. *Am Fam Physician*. 2005;71(7):1321-1322.
3. Potera C, Kennedy M. New evidence on vitamins, minerals, and pregnancy. *American Journal of Nursing*. 2007;107:19-21.
4. Wilkinson JM, Wambach K. *Registered nurse maternal newborn care review edition 5.1*. Kansas: Assessment Technologies Institute; 2004.
5. Hastings-Tolsma M, Vincent D, Emeis C, Teresa F. Getting through birth in one piece: Protecting the perineum. *The American Journal of Maternal/Child Nursing*. 2007;32:158-165.
6. Childbirth Connection. *What every pregnant woman needs to know about cesarean section*. 2nd ed. New York, NY: Childbirth Connection; December 2006. Available at: [www.childbirthconnection.org/article.asp?ck=10164](http://www.childbirthconnection.org/article.asp?ck=10164). Accessed on August 14, 2007.
7. Moore ER, Anderson GC, Bergman N. Early skin-to-skin contact for mothers and their healthy newborn infants. *Cochrane Database Syst Rev*. 2007 Jul 18;(3):CD003519.
8. Shealy K, Li R, Benton-Davis S, Grummer-Strawn L. *The CDC Guide to Breastfeeding Interventions*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; 2005.
9. Collaborative Group on Hormonal Factors in Breast Cancer. Breast cancer and breastfeeding: collaborative reanalysis of individual data from 47 epidemiological studies in 30 countries, including 50,302 women with breast cancer and 96,973 women without the disease. *The Lancet*. 2002;360:187-195.
10. Komara C, Teasdale C, Shay B. Intervening to promote early initiation of breastfeeding in the LDR. *The American Journal of Maternal/Child Nursing*. 2007;32:117-121.
11. March of Dimes Birth Defects Foundation. *Let's eat: A picture guide to breastfeeding your new baby, 2007*. Available at: [http://www.marchofdimes.com/printableArticles/1808\\_19954.asp?printable=true](http://www.marchofdimes.com/printableArticles/1808_19954.asp?printable=true). Accessed on June 30, 2007.
12. Mental Health America. *Postpartum disorders: postpartum depression*. Available at: <http://www.mentalhealthamerica.net/go/postpartum>. Accessed on August 27, 2007.