

### Section Overview

The breastfeeding and postpartum period is a time of dramatic physical and emotional change for women, yet it is often an afterthought in nutrition and follow-up healthcare. Often, the time is focused on the new baby rather than on the mother's needs. Nutrition care for breastfeeding and postpartum women is optimized when centered on the woman's motivation and focused on small simple steps to maintain good health.

This section of the nutrition care guidelines is not intended to duplicate the in-depth training and resources that accompany the required week-long breastfeeding training for all Arizona WIC staff. Rather, it provides a broad overview of guidelines specific to nutrition care for the breastfeeding and postpartum woman. Refer to the *Breastfeeding Answers Made Simple* textbook for detailed information on breastfeeding concerns.

### Anthropometric Assessment



Anthropometry is the measurement of the size, weight, and proportions of the human body. In the early postpartum period we also consider pre-pregnancy BMI and the amount of weight gained during pregnancy. After six months postpartum, we will consider current BMI rather than pre-pregnancy BMI in the A assessment. The anthropometric assessment covers WIC codes in the 100s.

#### Why Is This Important?

WIC can support breastfeeding and postpartum women in achieving their weight goals in a healthy way while also maintaining a realistic appreciation of differences in body size.

### A Assessment Considerations for Breastfeeding and Postpartum Women

During the first six months after delivery, a woman's current weight is not an accurate indicator of BMI. In WIC, we refer to the pre-pregnancy BMI as an indicator for WIC code assignment in the first six months after birth. Once a woman is more than six months postpartum, we use her current BMI as the basis for assigning WIC codes. This is because women will still be retaining extra body fluids produced during pregnancy, as well as extra fat during the first six months postpartum. If a woman gained an adequate amount of weight during pregnancy, her postpartum weight will likely be more than her pre-pregnancy weight. Studies indicate that the average postpartum weight retention (weight gained during pregnancy but not lost during the postpartum period) is approximately 2.2 pounds for each live birth. There are no current guidelines in place regarding the time frame in which a new mom is expected to return to her pre-pregnancy weight; however, in general, breastfeeding promotes an earlier return to pre-pregnancy weight. Healthy breastfeeding women can lose as much as one pound per week and still supply adequate milk to maintain their infant's growth. It takes nine

months to put the weight on during pregnancy, so it may take that long to lose weight during the postpartum period. Healthy weight loss occurs at a rate of approximately one pound per week. It is recommended that women maintain physical activity and monitor food portions while avoiding extreme weight-loss programs to promote healthy weight loss.

### **A Breastfeeding and Postpartum Assessment Concerns**

#### **Ask:**

- “At what weight do you feel best?”
- “How are you feeling about weight changes since your pregnancy ended?”

#### **Assess:**

- Accuracy of self-reported pre-pregnancy weight
- Postpartum weight since last visit
- Postpartum weight goals

#### **Concern:**

- **Pre-pregnancy BMI less than 18.5 if under six months postpartum, or current BMI less than 18.5 if six or more months postpartum** (WIC Code 101).

BMI less than 18.5 for women may be influenced by genetics, illness, activity levels, or poor nutrition. Pre-pregnancy weight, amount of weight gain during pregnancy, race, age, parity (number of pregnancies), and lactation all influence postpartum weight. By six months postpartum, body weight is more stable and may be close to the pre-pregnancy weight. Pre-pregnancy weight is a better indicator of weight status than postpartum weight in the first six months after delivery. Assess accuracy of pre-pregnancy BMI, the postpartum weight, and the woman’s feelings about her postpartum body changes.

- **Pre-pregnancy BMI greater than or equal to 25 if under six months postpartum, or current BMI greater than or equal to 25 if six or more months postpartum** (WIC Code 111).

Pre-pregnancy weight is a better indicator of weight status than postpartum weight in the first six months after delivery. By six months postpartum, body weight is more stable and may be close to the pre-pregnancy weight. Weight during the early postpartum period is very unstable. During the first four to six weeks, fluid shifts and tissue changes cause fluctuations in weight. After six weeks, weight loss varies among women. Pre-pregnancy weight, amount of weight gain during pregnancy, race, age, parity (number of pregnancies), and

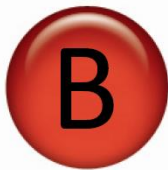
lactation all influence postpartum weight. Assess the postpartum weight and the woman's feelings about her postpartum body changes.

- **Pregnancy weight gain above recommended range** (WIC Code 133)

The amount of weight gained during pregnancy may affect postpartum weight. Pregnancy weight gain above the recommended range may increase the risk of future chronic disease. Assess the postpartum weight and the woman's feelings about her postpartum body changes.

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### Biochemical Assessment



In WIC, the biochemical, or *B* in the ABCDE assessment, includes the assessment and gathering of information related to specific blood tests. WIC screens for whether participants are at risk of anemia by measuring hemoglobin blood levels. WIC also screens for high blood lead concentrations by asking women if they have had their blood lead concentrations tested by their healthcare providers, referring them back to their providers if they have not. The biochemical assessment includes WIC codes in the 200s.

#### Why Is This Important?

Iron deficiency is the most common cause of anemia. It may be caused by a diet low in iron, insufficient absorption of iron from the diet related to illness, a medical condition, or increased iron requirements due to postpartum recovery. The increase in maternal blood supply during pregnancy greatly increases the demand for iron as well as the likelihood of anemia beyond pregnancy into the postpartum period. The identification of anemia during the postpartum period by WIC is important in providing referrals to the woman's healthcare provider and also in providing early nutrition interventions. Discussing lead screening with women and referring them back to their healthcare providers for screening, exposure, and risk assessment is another valuable resource that WIC provides.

#### **B Breastfeeding and Postpartum Assessment Considerations**

Iron-deficiency anemia is a condition that reduces the blood's ability to carry oxygen. There are two kinds of nutritional iron. Heme iron is found in animal products (especially red meat) and is easily absorbed into the body. Non-heme iron is much less easily absorbed and is found in plant foods such as dried beans and peas, fortified breads and cereals, dark green leafy vegetables, and tofu. Foods with vitamin C, such as bell peppers, broccoli, spaghetti sauce, and citrus fruits and juices, help the body absorb iron and can be eaten with iron-rich foods to increase the amount of iron that is absorbed. Iron deficiency weakens the body's defense against lead absorption, while lead poisoning can cause iron deficiency. Women considered at risk for lead poisoning are those living in houses built before 1978 (the year that regulations began requiring that lead-containing paints could not be used in households) or in older homes (built before 1970) with lead-based pipes. Other women who may be at high risk are those who immigrate to the United States from a foreign country that does not regulate the use of lead, those using imported bowls glazed with lead-based paint, or those using traditional folk remedies such as *greta* (powdered lead oxide) or *azarcon* (lead tetroxide).

### **B Breastfeeding and Postpartum Assessment Concerns**

#### **Ask:**

- “What has your doctor said about your iron and lead levels since your pregnancy ended?”
- “What have you heard about iron and lead testing?”

#### **Assess:**

- Accuracy of value, and repeat the test if needed
- Current use of prenatal vitamins or supplements containing iron
- Exposure to lead-based paint, pipes, pottery/bowls, or home remedies

#### **Concern:**

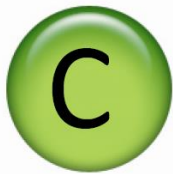
- **Low hemoglobin/low hematocrit** (WIC Code 201)

Hemoglobin (Hgb) and hematocrit (Hct) are the most commonly used tests to screen for iron deficiency anemia. Measurements of hemoglobin and hematocrit reflect the amount of functional iron in the body. While neither test is a direct measure of iron status and does not distinguish among different types of anemia, these tests are useful indicators of iron deficiency anemia. Low hemoglobin or hematocrit in women, without adjusting for altitude, is a hemoglobin level of less than 11.0 or a hematocrit level of less than 33.0. Assess for anemia and iron supplements.

- **High blood lead levels** (WIC Code 211)

Elevated lead levels are any levels equal to or greater than 10 µg/deciliter within the past 12 months. Blood lead screenings may not be routine by all healthcare providers. Assess for lead poisoning diagnosis, environmental exposure, and recent move from another country.

### Clinical Assessment (Medical Conditions)



The clinical assessment, or C section of the ABCDE assessment in the nutrition care process, is the assessment of clinical or medical conditions. Women may report a medical condition that was a concern during pregnancy but was resolved after they had the baby. Medical documentation from a healthcare provider is generally not needed to be able to assign a WIC code. Understanding the impact on nutrition can be complicated. The clinical assessment includes WIC codes in the 300s. The Arizona WIC Nutrition Care Guidelines serves only in providing a general overview of C assessment guidelines and does not include a comprehensive detail of nutrition care guidelines specific to each individual condition. To find more detail about each condition, refer to the Nutrition Risk Manual.

#### Why Is This Important?

A basic understanding of medical conditions is important to be able to determine how the medical condition influences the woman's nutrition status and eating patterns.

#### C Breastfeeding and Postpartum Assessment Considerations

Questions and conversations that may surface as a result of gathering the C information in the assessment may be sensitive or challenging to navigate. This can include a broad range of conditions requiring healthcare and related services beyond basic, routine care. It is important to understand how the clinical or medical condition will affect nutritional needs and how to make appropriate referrals when necessary. The effect on nutritional needs may include inadequate energy and nutrient intake to support health, medication-nutrient interactions, need for enteral (tube) feedings, chronic constipation or diarrhea, and use of alternative or complementary therapies or products. The identification of these clinical and medical codes through the WIC assessment process may require an evaluation by the WIC Registered Dietitian (RD).

#### C Breastfeeding and Postpartum Assessment

##### Ask:

- “What has the doctor said about your health?”
- “What concerns do you have about your health?”
- “What has your dentist said about your oral/dental health?”

If diagnosis is mentioned, further probing questions include the following:

- “What has your doctor told you about how your condition may affect you during the postpartum period?”
- “How does this condition affect the way you eat?”

- “What special instructions have you been given?”

### Assess:

- The impact of the medical condition on pregnancy and the woman’s health
- Frequency of prenatal visits and care
- Coping strategies

### Concern:

- **History of gestational diabetes** (WIC Code 303)

Women who have had a pregnancy complicated by GDM are 40–60% more likely to develop diabetes, usually type 2, within 15–20 years. This risk of subsequent diabetes is greatest in women with GDM who are diagnosed early in the pregnancy, exhibit the highest rates of hyperglycemia during the pregnancy, and are obese. Approximately 30–50% of the women with a history of GDM will develop GDM in a subsequent pregnancy. Assess the recommendations and directions provided by the healthcare provider, history of GDM and DM, and overall health.

- **History of preeclampsia** (WIC Code 304)

Preeclampsia is defined as pregnancy-induced hypertension (less than 140mm Hg systolic or 90mm Hg diastolic blood pressure) with proteinuria developing usually after the twentieth week of gestation. Symptoms of preeclampsia may include edema (swelling) and renal (kidney) failure. Assess the recommendations and directions provided by the healthcare provider, frequency of prenatal visits, and overall health.

- **History of premature delivery** (WIC Code 311)

History of preterm delivery is defined as the birth of an infant at less than or equal to thirty-seven weeks gestation. Preterm birth causes at least 75% of neonatal deaths not due to congenital malformations. In most cases of preterm labor, the cause is unknown. Assess the recommendations and directions provided by the healthcare provider, social support system, and overall health.

- **History of low birth weight** (WIC Code 312)

History of low birth weight is defined as the birth of an infant weighing less than 5 lb. 8 oz. ( $\leq 2500$  grams). The pregnant woman’s weight gain is one of the most important associations with infant birth weight. Assess



recommendations/directions provided by the healthcare provider, social support system, and overall health.

- **History of fetal or neonatal loss** (WIC Code 321)

Adverse outcomes related to history of fetal loss may include recurrent loss in future pregnancies, low birth weight (including preterm and small for gestational age infants), premature rupture of membranes, neural tube defects, and major congenital malformations. Important vitamins, minerals, and nutrients to support healthy outcomes in pregnancy include energy or calories, protein, folate, zinc, and vitamin A. Assess the recommendations and directions provided by the healthcare provider, social support system, and overall health.

- **Pregnancy at a young age** (WIC Code 331)

Pregnancy at a young age is defined as conception at equal to or less than 17 years of age. Pregnancy at a young age, before a woman's growth is complete, constitutes a nutritional risk because of the potential for competition for nutrients between the needs of the pregnancy and the woman's body. Assess the recommendations and directions provided by the healthcare provider, social support system, and overall health.

- **Closely spaced pregnancies** (WIC Code 332)

Closely spaced pregnancies are defined as conception before 16 months postpartum. Pregnancy requires an adjustment of the mother's body to a new state, which results in rapid depletion of maternal stores of certain nutrients. Mothers with closely spaced pregnancies may not have sufficient time to replenish the nutritional deprivations of the previous pregnancy. Assess the recommendations and directions provided by the healthcare provider, social support system, and overall health.

- **High parity (number of pregnancies) and young age** (WIC Code 333)

This is defined as women under age 20 at date of conception who have had three or more previous pregnancies of at least 20 weeks duration. This may increase the risk of delivery of low birth weight infants in future pregnancies. Assess the recommendations and directions provided by the healthcare provider, social support system, and overall health.



- **Multi-fetal gestation** (WIC Code 335)

Multi-fetal gestation includes more than one fetus in a current pregnancy. Multi-fetal pregnancies may be associated with low birth weight, fetal growth restriction, placental and cord abnormalities, preeclampsia, anemia, short gestation period, and an increased risk of infant mortality. The risk of pregnancy complications is greater in women carrying twins and increases as the number of fetuses increases. Pregnant women with twins have greater requirements for all nutrients than women with only one infant. Assess the recommendations and directions provided by the healthcare provider, social support system, and overall health.

- **History of large for gestational age (LGA)** (WIC Code 337)

This includes any history of giving birth to an infant weighing greater than or equal to nine pounds (4,000 grams), also known as macrosomia. Women with a history of LGA infants are at an increased risk of giving birth to a large-for-gestational-age infant in future pregnancies. Macrosomia may be an indicator of maternal diabetes (current or gestational) or a predictor of future diabetes. LGA infants may also be at risk for injury during birth. Assess the recommendations and directions provided by the healthcare provider, and assess overall postpartum health.

- **History of birth with a congenital defect** (WIC Code 339)

This includes women who have given birth to an infant who has a congenital or birth defect linked to inappropriate nutritional intake, including inadequate zinc, folic acid, or vitamin A in excess. Assess the recommendations and directions provided by the healthcare provider, and assess overall postpartum health.

- **Nutrient deficiency disease** (WIC Code 341)

This is a diagnosis given by a healthcare provider that includes nutritional deficiencies or a disease caused by insufficient dietary intake of specific nutrient. Diseases include but are not limited to protein-energy malnutrition, scurvy, rickets, beriberi, hypocalcemia, osteomalacia, vitamin K deficiency, pellagra, cheilosis, Menkes disease, and xerophthalmia. Persistent deficiency may lead to growth problems or malnutrition. Assess the recommendations and directions provided by the healthcare provider, and assess overall postpartum health.

- **Gastro-intestinal disorders** (WIC Code 342)

This is a diagnosis given by a healthcare provider that includes any gastrointestinal (GI) condition that interferes with the intake or absorption of

nutrients. Disorders may include gastroesophageal reflux disease (GERD), stomach or intestinal ulcers, short bowel syndrome, inflammatory bowel disease (including colitis or Chron's disease), pancreatitis, gall bladder disease, or malabsorption disorders. Assess the recommendations and directions provided by the healthcare provider, and assess overall postpartum health.

- **Diabetes mellitus** (WIC Code 343)

This is a diagnosis given by a healthcare provider that includes a group of metabolic diseases resulting in hyperglycemia (elevated blood sugar), which occurs due to defects in insulin secretion, insulin action, or both. The two major classifications of diabetes are type 1 diabetes (insulin deficiency) and type 2 diabetes (insulin resistance). Diabetes is identified when a patient has a fasting plasma glucose greater than 126 mg/dL. Hyperglycemia is defined as equal to or greater than 200 mg/dL. Assess the recommendations and directions provided by the healthcare provider, management of diabetes, and assess overall postpartum health.

- **Thyroid disorders** (WIC Code 344)

This diagnosis given by a healthcare provider relates to abnormal secretions of thyroid hormones. Types of disorders may include hyperthyroidism, hypothyroidism, congenital (present from birth) hyperthyroidism, and congenital hypothyroidism. Thyroid hormones influence all organ systems in the body and regulate how the body gets energy from food. Assess the recommendations and directions provided by the healthcare provider, and assess overall postpartum health.

- **Hypertension and pre-hypertension** (WIC Code 345)

Hypertension (commonly referred to as high blood pressure) is the most common medical complication of pregnancy. Hypertension during pregnancy may lead to low birth weight, fetal growth restriction, and premature delivery. Hypertensive disorders of pregnancy are categorized as follows:

- Chronic hypertension: Hypertension that was present before pregnancy. Women with chronic hypertension are at risk for complications of pregnancy such as preeclampsia.
- Preeclampsia: A pregnancy-specific syndrome observed after the twentieth week of pregnancy with elevated blood pressure accompanied by significant proteinuria.
- Eclampsia: The occurrence of seizures in a woman with preeclampsia that cannot be attributed to other causes.
- Preeclampsia superimposed upon chronic hypertension: Preeclampsia occurring in a woman with chronic hypertension.

- Gestational hypertension: Blood pressure elevation detected for the first time after mid-pregnancy without proteinuria. It presents minimal risks to mother and baby when it does not progress to preeclampsia.

Assess the recommendations and directions provided by the healthcare provider, impact of the condition during the postpartum period, and overall postpartum health.

- **Renal disease** (WIC Code 346)

Renal means, “of or relating to the kidney”. This is a diagnosis given by a healthcare provider that may include pyelonephritis and persistent proteinuria but excludes urinary tract infections (UTI) involving the bladder. Assess the recommendations and directions provided by the healthcare provider, and assess overall postpartum health.

- **Cancer** (WIC Code 347)

This is a diagnosis given by a healthcare provider that may include any type of cancer. Cancer is a disease caused by the uncontrolled division of abnormal cells in a part of the body. The type of cancer and stage of disease progression determines the type of medical treatment and, if indicated, nutrition management. Assess the recommendations and directions provided by the healthcare provider, frequency of healthcare visits, and overall postpartum health.

- **Central nervous system disorders** (WIC Code 348)

The central nervous system (CNS) comprises the brain and spinal cord and is a network of nerve tissues that controls the activities of the body. CNS disorders are diagnoses given by a healthcare provider that may affect the number of calories an individual needs, her ability to feed, oral dysfunction, and growth. A common CNS disorder is having seizures, or epilepsy. Assess the recommendations and directions provided by the healthcare provider, and assess overall postpartum health.

- **Genetic and congenital disorders** (WIC Code 349)

This diagnosis, given by a healthcare provider, may include hereditary or congenital conditions at birth that cause physical or metabolic abnormalities. These conditions may include but are not limited to cleft lip or palate, Down’s syndrome, thalassemia major, sickle cell anemia (not sickle cell trait), and muscular dystrophy. Assess the recommendations and directions provided by the healthcare provider, and assess overall postpartum health.

- **Inborn errors of metabolism (IEM)** (WIC Code 351)

This is a diagnosis given by a healthcare provider that generally refers to gene mutations or gene deletions that alter metabolism in the body. The inheritance of most metabolic disorders is rare. IEM disorders may manifest at any stage of life, from infancy to adulthood. Several medical foods or formulas designed for the specific treatment of the identified disorder can be made available through the participant's health insurance plan, through the AHCCCS plan, or by prescription through WIC. Assess the recommendations and directions provided by the healthcare provider, and assess overall postpartum health.

- **Infectious diseases** (WIC Code 352)

This is a diagnosis given by a healthcare provider that includes diseases caused by growth of pathogenic microorganisms in the body that are severe enough to affect nutritional status. Infectious diseases typically increase the nutrient needs of the body. Assess the recommendations and directions provided by the healthcare provider, and assess overall postpartum health.

- **Food allergies** (WIC Code 353)

Food allergy reactions occur when the body's immune system responds to a harmless food as if it were a threat. The foods that most often cause allergic reactions are called allergens and include cow's milk (and foods made from cow's milk), eggs, peanuts, tree nuts (walnuts, almonds, cashews, hazelnuts, pecans, Brazil nuts), fish, shellfish (e.g., shrimp, crayfish, lobster, and crab), wheat, and soy. Assess for specific food allergens, severity of reaction, management of allergy, recommendations and directions provided by the healthcare provider, and overall postpartum health.

- **Celiac disease** (WIC Code 354)

Celiac disease (CD) is a diagnosis given by a healthcare provider that refers to an autoimmune disease in which eating gluten (a protein in wheat, rye, and barley) results in damage to the small intestine and malabsorption of the nutrients from food. Celiac disease can result in a wide range and severity of symptoms. Symptoms may include chronic diarrhea, vomiting, constipation, pale foul-smelling fatty stools, and weight loss. The vitamin and mineral deficiencies that can occur from continued exposure to gluten may result in conditions such as anemia, osteoporosis, and neurological disorders such as ataxia, seizures, and neuropathy. Treatment includes strict management in

following a gluten-free diet. Assess the recommendations and directions provided by the healthcare provider, and assess overall postpartum health.

- **Lactose intolerance** (WIC Code 355)

Lactose is a sugar present in milk. Lactose intolerance is the syndrome of one or more of the following: diarrhea, abdominal pain, flatulence, and/or bloating after lactose ingestion. Assess the recommendations and directions provided by the healthcare provider, and assess overall postpartum health.

- **Hypoglycemia** (WIC Code 356)

Hypoglycemia can occur as a complication of diabetes, as a condition in itself, in association with other disorders, or under certain conditions such as prolonged fasting or long periods of strenuous exercise. Assess the recommendations and directions provided by the healthcare provider, and assess overall postpartum health.

- **Eating disorders** (WIC Code 358)

Eating disorders (anorexia nervosa and bulimia), may include a distorted sense of body image and morbid fear of becoming fat. Symptoms may include abnormal eating patterns including but not limited to self-induced vomiting, purging, alternating periods of starvation, use of drugs such as appetite suppressants, thyroid preparations or diuretics, and self-induced significant weight loss. Anorexia nervosa and bulimia are serious eating disorders that affect women in the childbearing years. These disorders result in general malnutrition and may cause life-threatening fluid and electrolyte imbalances. Women with eating disorders are at risk of developing chemical and nutritional imbalances, deficiencies, or weight gain abnormalities if disordered eating behaviors are not controlled. Assess the woman's current relationship with food, feelings about her changing body in pregnancy and now in the postpartum period, overall mental and physical health, and support system. (Be mindful of the ways any assessment questions relating to weight may influence struggles in managing disordered eating.)

- **Recent surgery, trauma, burns** (WIC Code 359)

These include major surgeries (including C-sections), trauma, or burns severe enough to compromise nutritional status that have occurred within the past two months or more than two months previous that require continued need for nutritional support. The body's response to recent major surgery, trauma, or burns may affect the nutrient requirements needed for recovery and lead to

malnutrition. There is a catabolic response to surgery; severe trauma or burns cause a hyper metabolic state. Injury causes alterations in glucose, protein, and fat metabolism. Assess the recommendations and directions provided by the healthcare provider, and assess overall postpartum health.

- **Other medical conditions** (WIC Code 360)

These include diseases or conditions with nutritional implications that are not included in any of the other medical conditions. The current condition or treatment for the condition must be severe enough to affect nutritional status. This includes but is not limited to arthritis, lupus, heart disease, cystic fibrosis, and asthma. Assess the recommendations and directions provided by the healthcare provider, and assess overall postpartum health.

- **Depression** (WIC Code 361)

This may include the presence of clinical depression, including postpartum depression. The average onset is around age 30, and depression occurs twice as frequently in women as in men. Depression has a variety of symptoms, but the most common are deep feelings of sadness or a marked loss of interest in pleasure or activities. Other symptoms of depression may include appetite changes, resulting in unintended weight losses or gains; insomnia or oversleeping; loss of energy or increased fatigue; restlessness or irritability; and feelings of worthlessness or inappropriate guilt and difficulty thinking clearly, concentrating, or making decisions. The incidence of postpartum depression in new mothers can range from approximately 12% to 35% or more in some high-risk groups. High-risk groups include women of low income, younger age, low education level, and histories of stressful life events or traumatic experiences. Postpartum depression is distinguished from “baby blues”—a common reaction following delivery—both by its duration and by the severity of the mom’s feelings about herself and her children. “Baby blues” includes mild depressive symptoms, tearfulness (often without reason), anxiety, irritableness, mood fluctuations, increased sensitivity, and fatigue. The “blues” typically peak four to five days after delivery, may last hours to days, and resolve by the tenth day after delivery. Successful breastfeeding may have a positive impact on mental health because it helps to reduce stress. At the same time, breastfeeding difficulties can increase the risk of depression, especially if women are experiencing associated guilt in not meeting their own breastfeeding expectations and/or goals. Assess the recommendations and directions provided by the healthcare provider, social support, access to community support services, and overall postpartum health.



- **Developmental delays, or sensory or motor delays interfering with the ability to eat** (WIC Code 362)

A developmental disability is defined as a severe chronic disability that is attributable to a mental or physical impairment or combination of mental and physical impairments. This includes developmental, sensory, or motor disabilities that restrict the ability to intake, chew, or swallow food or that require tube feeding to meet nutritional needs. Developmental disabilities affect individuals of all ages and are not a disease state. They are conditions caused by abnormalities, birth defects, and metabolic and chromosomal disorders. No single nutrition intervention therapy will work for all individuals. Many multidisciplinary teams use a range of treatments; nutrition interventions may not be a family's first priority in overall care, so it is important to appropriately recognize and respond to the family's cues. Assess the recommendations and directions provided by the healthcare provider, and assess overall postpartum health.

- **Maternal smoking** (WIC Code 371)

This includes any smoking of tobacco products (i.e., cigarettes, pipes, or cigars). Smoking during pregnancy causes health problems and other adverse consequences for the mother, the unborn fetus, and the newborn infant, such as pregnancy complications, premature birth, low birth weight, stillbirth, infant death, and risk for Sudden Infant Death Syndrome (SIDS). Women who smoke are at risk for chronic and degenerative diseases such as cancer, cardiovascular disease, and chronic obstructive pulmonary disease. They are also at risk for loss of bone density. In addition, maternal smoking exposes infants and children to environmental tobacco smoke. Because smoking increases oxidative stress and metabolic turnover of vitamin C, the requirement for this vitamin is higher for women who smoke. Assess smoking cessation efforts, recommendations, and directions provided by the healthcare provider, and assess overall postpartum health.

- **Alcohol and illegal drug use** (WIC Code 372)

For pregnant women, this includes any alcohol use and/or any illegal drug use. Drinking alcoholic beverages during pregnancy can damage the developing fetus. Excessive alcohol consumption may result in low birth weight, reduced growth rate, birth defects, and mental retardation. Fetal Alcohol Syndrome (FAS) is a name given to a condition sometimes seen in children of mothers who drank heavily during pregnancy. The child has a specific pattern of physical, mental, and behavioral abnormalities. Since there is no cure, prevention is the only answer. The exact amount of alcoholic



beverages that pregnant women may drink without risk to the developing fetus is unknown, and the risk from periodic bouts of moderate or heavy drinking is likewise unknown. Alcohol has the potential to damage the fetus at every stage of the pregnancy. Therefore, the recommendation is not to drink any alcoholic beverages during pregnancy. Assess for frequency of alcohol consumption and/or illegal drug use, access to and use of social support services, the recommendations and directions provided by the healthcare provider, and overall postpartum health.

- **Oral health conditions** (WIC Code 381)

Periodontal disease may increase the woman's risk of atherosclerosis, rheumatoid arthritis, and diabetes. These oral health problems are highly prevalent in women of childbearing age, particularly among low-income women and members of racial and ethnic minority groups. Socioeconomic factors, lack of resources to pay for care, barriers to accessing care, lack of public understanding of the importance of oral health, and lack of effective self-care practices all represent reasons that women may experience dental problems. Assess the frequency of oral care at home, access to dental care, and overall health.

### Dietary Assessment



The dietary assessment, or *D* section of the ABCDE assessment in the nutrition care process, is the assessment of dietary, or food specific, information. The dietary assessment includes WIC codes in the 400s as well as the breastfeeding related codes in the 600s.

#### Why Is This Important?

A healthy diet is important during the postpartum period to replenish the nutrient stores depleted during pregnancy. A mother's nutritional status after pregnancy can also influence the outcome of future pregnancies. The supplemental foods provided through WIC can help support a healthy postpartum recovery.

#### ***D* Breastfeeding and Postpartum Assessment Considerations**

Many of the same nutrition factors from pregnancy will apply to the breastfeeding and postpartum woman. The same basic nutrition guidelines apply to breastfeeding mothers as apply to non-breastfeeding women and the rest of the family. "Diet rules" have been cited as a barrier to breastfeeding, as women may see diet rules as being too hard to follow or too restrictive. However, breastfeeding women do not need to follow a "perfect" diet to provide good-quality milk for their babies. Energy needs during lactation are slightly higher than for the postpartum woman who is not breastfeeding. On average, breastfeeding women benefit from an additional 400 calories per day. For example, the additional 400 calories may be added with the addition of two cups of oranges and strawberries as snacks throughout the day and eight ounces of low-fat yogurt. This is the same as the energy needs during the second trimester of pregnancy. There is no need for an average-weight breastfeeding woman to keep track of calories. Breastfeeding and postpartum women may be encouraged to eat to hunger and use their appetite as their guides. New moms often tend to focus on the care and nourishment of their newborn, putting their own eating habits second to that of the infant. As the woman selects nutrition goals that are right for her, offer simple and easy recommendations to support her in reaching her goal. It is also helpful to identify sources of support in the family unit that may assist in the preparation of meals.

**Foods to Eat or Avoid.** In general, there are no specific foods that breastfeeding and postpartum women should consume or avoid. A breastfeeding woman can eat any nutritious foods she chooses. If she suspects that a particular food is causing her infant discomfort, she can work with a registered dietitian (RD) and her healthcare provider to explore options for dietary changes. During the first year, only 5% of breast-fed babies react to a food their mothers consume. Cow's milk is the food babies most commonly react to.

**Caffeine.** As with pregnancy, caffeine consumption for breastfeeding and postpartum women should be moderate. This would be the equivalent of one to two cups of coffee per day.

**Alcohol.** While alcohol consumption is discouraged for all postpartum women, specific recommendations on alcohol and breastfeeding vary. In general, an occasional alcoholic drink around celebratory occasions or gatherings is considered compatible with breastfeeding. *Medications and Mother's Milk* states that “significant amounts of alcohol are secreted into breast milk, although it is not considered harmful to the infant if the amount and duration are limited.” Alcohol clears a mother’s bloodstream quickly, so she can usually minimize her baby’s exposure by drinking right after breastfeeding. A postpartum woman with a drinking problem is unlikely to volunteer this information. If alcohol abuse is suspected, contact her healthcare provider and refer her to a substance abuse counselor.

**Vegetarian and Vegan Diets.** Vegetarian diets may vary widely, but vegetarian-style eating patterns have been associated with improved health outcomes and are recognized as a healthy dietary choice. Vegans do not consume any animal products, while lacto-ovo vegetarians consume milk and eggs. Some individuals eat diets that are primarily vegetarian but may include small amounts of meat, poultry, or seafood. It is important to ask a vegetarian mother what specific foods she avoids. Mothers following vegan diets need vitamin B12 and iron supplements to prevent deficiency because the primary source of vitamin B12 is animal protein, and iron is not as readily absorbed from plant-based sources as from animal sources.

### **D Breastfeeding and Postpartum Assessment**

The WIC program plays a key role in the prevention of nutrition-related health problems and the promotion of lifelong healthy eating habits. Education specific to the needs and interests of the participant may be offered after the completion of the full ABCDE assessment.

#### **Ask:**

- “What has the doctor told you about the need for vitamins or supplements after pregnancy?”
- (If breastfeeding): “How do you feel breastfeeding is going?”

## Arizona WIC Nutrition Care Guidelines: Breastfeeding and Postpartum Women

- “What concerns do you have about your diet or nutrition during the postpartum period?”
- “What has your doctor told you about resuming regular physical activity or exercise?”

### Assess:

- Continued prenatal vitamin or multivitamin use
- The types of foods and beverages consumed
- How foods are being prepared
- Food preferences
- Food allergies (See C Section WIC Code 353)
- Food intolerances (See C Section WIC Code 353)
- Cultural and/or religious eating practices
- Food access and availability
- Activity levels

### Concern:

- **Consuming dietary supplements with potentially harmful consequences** (WIC Code 427.1)

Women taking inappropriate or excessive amounts of dietary supplements, such as single or multivitamins or minerals, or botanical (including herbal) remedies or teas, are at risk for adverse effects such as harmful nutrient interactions. Most nutrient toxicities occur through excessive supplementation of particular nutrients such as vitamins A, B-6 and niacin, iron, and selenium. Besides nutrient toxicities, nutrient-nutrient and drug-nutrient interactions may adversely affect health. Many herbal and botanical remedies have cultural implications and are related to beliefs about postpartum health and/or breastfeeding. Assess supplement use, type, and frequency as well as dietary intake.

- **Consuming a diet very low in calories and/or essential nutrients** (WIC Code 427.2)

Women consuming highly restrictive diets are at risk for primary nutrient deficiencies, especially during critical recovery periods, such as in postpartum recovery. Strict vegan diets may be highly restrictive and result in nutrient deficiencies. Nutrients of potential concern that may require supplementation are iron, riboflavin, zinc, vitamin B12, vitamin D, calcium, and selenium. Assess reasons for restrictive diet, excluded foods, and cultural or religious eating practices.

- **Compulsively ingesting non-food items (pica) (WIC Code 427.3)**

Pica, or eating non-food items, may lead to lead poisoning and exposure to other toxins, anemia, displacement of nutrients, gastric and small bowel obstruction, and infection. It may also contribute to nutrient deficiencies by either inhibiting absorption or displacing nutrient-dense foods in the diet. Assess types of non-food eaten, frequency of eating non-food items, and attempts to address the concern that have or have not worked.

- **Inadequate vitamin/mineral supplementation recognized as essential by national public health policy (WIC Code 427.4)**

The recommended dietary allowance (RDA) of iron for postpartum women is 27 mg per day. Iron supplementation may be recommended by the woman's healthcare provider during the postpartum period to replenish iron stores lost during pregnancy. It is also recommended that all women of childbearing age consume 400 µg of folic acid per day. Assess use of prenatal or multivitamin and dietary patterns.

### Other Concerns for Breastfeeding and Postpartum Women

#### **Breastfeeding Complications (WIC Code 602)**

This includes the following breastfeeding complications: engorgement, plugged ducts, mastitis, and flat or inverted nipples. Severe breast engorgement may be caused by infrequent nursing and/or ineffective removal of milk. This severe breast congestion causes the nipple-areola area to become flattened and tense, making it difficult for the baby to latch on correctly. This can cause sore, damaged nipples and poor milk transfer during feeding attempts. This may also affect milk supply. When the infant is unable to latch on or nurse effectively, alternative methods of milk expression are necessary. A clogged duct is a temporary backup of milk that occurs when one or more of the lobes of the breast do not drain well. This may result from incomplete emptying of milk. Mastitis is a breast infection that causes a flu-like illness accompanied by an inflamed, painful area of the breast—putting both the health of the mother and successful breastfeeding at risk. Infants may have difficulty latching on correctly to nurse when nipples are flat or inverted. Severe nipple pain, discomfort lasting throughout feedings, or pain persisting beyond one week postpartum is atypical and suggests the baby is not positioned correctly at the breast. There are several other causes of severe or persistent nipple pain, including Candida, or staph infection. Referrals for lactation counseling and/or examination by the woman's healthcare provider are indicated. Refer to *Breastfeeding Answers Made Simple* for detailed care and education. Assess breastfeeding status, concerns, frequency, and support systems.

### **Physical Activity for Breastfeeding and Postpartum Women**

Encourage breastfeeding and postpartum women to resume exercise a few weeks after delivery after lactation is well established and with healthcare provider approval. The same basic physical activity recommendations apply for breastfeeding and postpartum women as they would for all other healthy adult females. Most importantly, exercise has emotional benefits valuable for all women in the postpartum period, breastfeeding or otherwise, with many new mothers reporting exercise to be a great stress reliever. Lack of time can make it difficult to fit physical activity into daily routines. Encourage a new mom to find opportunities to exercise with her baby, such as taking the baby out for a walk. Exercise during the postpartum period may start gradually, working up to 30 minutes per day. This may be broken up into shorter periods, such as three 10-minute exercise breaks.

### Environmental Assessment (Including Other Social and Safety Factors)

**E** The environmental assessment, or *E* section of the ABCDE assessment, includes assessing environmental, social, and safety factors that influence nutritional status. The common environmental factors assessed in WIC that affect women include smoking, abuse, and substance abuse. This includes WIC codes in the 900s.

#### Why Is This Important?

Environmental factors directly affect health and well-being. Referrals and follow up are important opportunities to motivate and empower women with options to explore.

#### *E* Breastfeeding and Postpartum Assessment Considerations

Information gathered from the *E* assessment can sometimes include sensitive topics that are challenging to address. Women are best supported when WIC avoids associations with shame or blame, and makes women feel safe to share. Based on different women's motivations and interests, WIC may provide key connections to community resources and programs.

#### *E* Pregnancy Assessment

##### Ask:

- “What concerns do you have about feeling safe in your relationship?”
- “What are your thoughts about smoking in your home?”
- “What concerns do you have about alcohol or drug use?”

##### Assess:

- Safety concerns
- Foster status
- Tobacco use in the home
- Alcohol and drug use
- Access to community services

##### Concern:

- **Recipient of abuse** (WIC Code 901)

Abuse includes any physical or mental assault on a woman. Postpartum women experiencing partner-related stress or physical abuse are at increased risk of developing postpartum depression. They may also be more likely to be anemic; consume an unhealthy diet; and abuse drugs, alcohol, and cigarettes. Women may be reluctant to share this information, and they can



benefit from safety and discretion in sharing, community support, and referral services. Assess the woman's safety and access to community services.

- **Woman or infant/child of primary caregiver with limited ability** (WIC Code 902)

This may include women who are young moms (17 years of age or younger); are mentally disabled/delayed and/or have a mental illness such as diagnosed depression; are physically disabled to a degree which restricts or limits food preparation abilities; or are currently using or have a history of abusing alcohol or other drugs. Assess support system for the woman and access to community services.

- **Foster care** (WIC Code 903)

Foster care children have higher rates of chronic conditions such as asthma, diabetes, and seizure disorders. They are also more likely than children in the general population to have birth defects, inadequate nutrition, and growth retardation, including short stature. This may be the result of abuse or neglect prior to entry into the foster care system and/or the history and frequency of moves from foster homes. For example, the foster caregiver accompanying a foster child to a WIC clinic for a first-time certification may have no knowledge of the child's eating patterns, special dietary needs, chronic illnesses, or other factors. Without any anthropometric history, failure to grow—often a problem for foster children—may not be diagnosed. The nutrition education, referrals, and service coordination provided by WIC can support the foster parent in developing the skills and knowledge to ensure that the foster child receives appropriate nutrition and healthcare. A foster parent may have inadequate information about a new foster child's health needs; therefore, through the ABCDE assessment, WIC can alert foster parents to the nutritional risks that many foster care children have and suggest ways to improve the child's nutritional status. Code 903 will be automatically assigned by HANDS (the Arizona WIC computer system) based on the information provided on the certification screen. Assess linkages to community services.

- **Exposure to environmental tobacco smoke** (WIC Code 904)

WIC defines the environmental tobacco smoke (ETS) code as exposure to smoke from tobacco products inside the home. Studies suggest that the health effects of ETS exposure at a young age could last into adulthood. This includes risk of cancer, specifically lung cancer, and cardiovascular diseases. There is strong evidence that ETS exposure to infants results in permanent

lung damage. Assess smoking inside the home and utilization of ASHLine cessation and referral services.

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### Education for Breastfeeding and Postpartum Women

Education may be offered after the completion of a complete ABCDE assessment and is based on the woman's identified concerns, interests, and motivation. Education for breastfeeding and postpartum women may emphasize the following:

- MyPlate guidelines
- Breastfeeding support and guidance
- Emphasize health and wellbeing rather than just a focus on weight and weight loss/gain
- Physical activity recommendations

### A Anthropometric WIC Code Education:

Education specific to concerns identified during the A assessment may include:

#### A Education Messages:

- “The postpartum period is a time of recovery.”
- (If weight is a concern): “Becoming a new mom can be overwhelming. Take time to rest, and ensure you are getting enough to eat. WIC can help you set realistic goals for yourself so that you reach a weight that is right for you.”

### B Biochemical (Bloodwork) WIC Code Education:

Education specific to concerns identified during the “B” assessment may include:

#### B Education Messages Related to Bloodwork:

- “Hemoglobin is related to the amount of iron in the body. The amount of iron you obtain from foods affects your hemoglobin. Low iron can cause you to feel tired and affect your ability to care for your baby.”
- “It is helpful to continue to take your prenatal vitamins during the postpartum period. They contain iron and other important vitamins to help replenish body stores that you may have lost during pregnancy.”
- “It is important to meet your vitamin and mineral needs from foods, not just vitamins or supplements. You can increase the amount of iron in your diet by eating meat, fish, poultry, beans, and iron-fortified cereals and whole grains provided through WIC.”
- “Adding vitamin C-rich foods to high-iron foods can help increase the absorption of iron from foods.”
- “Homes built before 1978 may have lead-based paint. Other lead sources can be soil, toys (depending on where they were made), imported ceramics or old pottery, and imported herbal remedies.”

**C Clinical (Medical Conditions) WIC Code Education:**

Education specific to concerns identified during the *C* assessment may include:

**C Referral Messages for Medical Conditions:**

- “How do you feel about talking to your doctor about your condition?”
- “What are your concerns about your nutrition that WIC can help you with?”
- “What referrals can WIC help you with to make sure you are getting all of the support you need?”

**D Dietary (Nutrition) WIC Code Education:**

Education specific to concerns identified during the *D* assessment may include:

**D 427.1 Education messages on consuming dietary supplements with potentially harmful consequences:**

- “Herbs, teas, and other supplements may contain compounds that could be harmful to you and make you ill.”
- “For any vitamin or supplement, follow your doctor’s instructions on proper use.”
- “Eat a variety of foods from each of the food groups to meet your vitamin and nutrient requirements for a healthy postpartum recovery.”

**D 427.2 Education messages on consuming a diet very low in calories and/or essential nutrients:**

- “It is typically not recommended that women follow a strict diet after pregnancy. Your body is trying to recover and replenish your nutrient stores, and this may be hard to do with such a highly restrictive diet.”

**D 427.3 Education messages on compulsively ingesting non-food items (pica):**

- “When women eat non-food items, it is called pica. Common items that pregnant women may eat include carpet fiber, clay, foam, paint chips, or dirt. This can be highly toxic for you.”
- “Follow up with your doctor if this concern seems to be something you do not feel you will be able to overcome. Continue taking your prenatal vitamins, and make sure you are also eating a variety of healthy foods.”

**D 427.4 Education messages on inadequate vitamin/mineral supplementation recognized as essential:**

- “It is recommended that all women of childbearing age increase their intake of folic acid. Folic acid is found naturally in some foods, such as leafy vegetables, beans, and whole grains. Folic acid is also added to foods, such as certain breakfast cereals, breads, and pastas. It is hard to meet your folic acid requirements from food alone, so it is important to make sure you also continue to take your prenatal vitamin.”

- “Hemoglobin measures the amount of iron in the body. The amount of iron you get from foods affects your hemoglobin. Low iron can cause you to feel tired and can affect your ability to care for your baby.”
- “You can increase the amount of iron in your diet by eating meat, fish, poultry, beans, and iron-fortified cereals provided through WIC.”
- “Adding vitamin C–rich foods to high-iron foods can help increase the absorption of iron from foods.”

### **Breastfeeding complications (WIC Code 602)**

- Refer to *Breastfeeding Answers Made Simple* book

### **E Environmental WIC Code Education:**

Education specific to concerns identified during the *E* assessment may include:

- Provide local agency referral list
- Encouraging the caregiver to follow up on community support services
- Refer to social and community services

### **E Referral messages for environmental concerns:**

- “May I give you this referral list of services available here in our community that may help you?” (Provide local agency referral list.)
- “Arizona 211 is a community information and referral service. Let’s explore some options together, and I will also show you how to find this information from your home.”

### *Take-Home Messages for Breastfeeding and Postpartum Women*

The following is a summary of key messages that may be shared with participants based on the concerns they may share and the goals that they set for themselves.

- Encourage appreciation of differences in body size, emphasizing health over weight.
- Doctors recommend feeding only breast milk for the first six months. Continue breastfeeding in addition to feeding solid foods until your baby is at least one year old or older.
- Make half your plate fruits and vegetables.
- Make at least half your grains whole.
- Use skim or 1% milk.
- Vary your protein choices.
- Use oils to replace solid fats when possible.
- Avoid calories from added sugars and solid fats.
- Be cautious when drinking alcohol. (Educators: See *Breastfeeding Answers Made Simple* for specific messaging for breastfeeding women).
- Aim for 2½ hours per week of physical activity.
- Drink to thirst, mostly water.

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