

## 361 Depression

### Definition/Cut-off Value

Presence of clinical depression, including postpartum depression.

Presence of condition diagnosed, documented, or reported by a physician, clinical psychologist, or someone working under a physician's orders, or as self reported by applicant/participant/caregiver. See the [Clarification](#) section for more information about self-reporting a diagnosis.

### Participant Category and Priority Level

| Category                | Priority          |
|-------------------------|-------------------|
| Pregnant Women          | I                 |
| Breastfeeding Women     | I                 |
| Non-Breastfeeding Women | III, IV, V, or VI |

### Justification

According to the National Institute of Mental Health (NIMH), nearly 10 percent of the U.S. population ages 18 and older suffers from depression each year, with 6.7 percent suffering from major depressive disorders (1). Although depression can occur at any age, the average onset is around age 30 (1, 2). 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 include: appetite changes resulting in unintended weight losses or gains, insomnia or oversleeping, loss of energy or increased fatigue, restlessness or irritability, feelings of worthlessness or inappropriate guilt and difficulty thinking, concentrating or making decisions (1-3). Further, depression can increase the risk for some chronic diseases such as coronary heart disease, myocardial infarction, chronic pain syndromes, premature aging, and impaired wound healing. Therefore, untreated depression has the potential to impact long term health status (4). For information about children and depression, please see the [Clarification](#) section.

### Pregnancy and Depression

Depression is common during pregnancy. Between 14 and 23 percent of pregnant women will experience depressive symptoms (5, 6). Several studies have found that depression risk is highest during the last trimester of pregnancy (4). Women who experience depression during pregnancy are found to be less likely to seek prenatal care (3). They may also suffer from episodes of nausea/vomiting or initiate/increase the use of drugs, alcohol and nicotine (4). Pregnant women with depression may be at risk for preeclampsia, preterm delivery or delivery of low birth weight infants and have higher perinatal mortality rates (5, 6).

### Pregnant Adolescents

In the United States, 10 percent of women become pregnant during adolescence (7). The prevalence of teen pregnancy is highest among African and Native Americans, lower socioeconomic groups, and those living in stressful family environments. The prevalence rate of depression among pregnant adolescents is between 16 and 44 percent, which is almost twice as high as among their adult counterparts and non-pregnant adolescents (7).

Adolescence is a stage of rapid metabolic, hormonal, physiological and developmental changes. Depressive symptoms are likely to emerge when the physiologic and psychological changes that occur during pregnancy are superimposed upon normal developmental change. (8)

Teens who are under stress, lack social and/or family support, experience significant loss, or who have attention, learning or conduct disorders are at greater risk for developing clinical depression (9). Depression in young people often occurs with mental disorders, substance abuse disorders, or physical illnesses, such as diabetes (10). Pregnant adolescents with depressive symptoms are more likely to delay or refuse prenatal care and have subsequent, short interval pregnancies (within 24 months), both of which have shown to result in poor pregnancy outcomes (11, 12).

### **Antidepressant Use in Pregnancy**

Negative consequences for the newborn such as fetal growth changes and shorter gestation periods have been associated with both depression symptoms and use of antidepressant medications during pregnancy. Although rare, some studies have linked fetal malformations, cardiac defects, pulmonary hypertension and reduced birth weight to antidepressant use during pregnancy, however, more research in this area is needed. (4, 6, 13) For more information about specific drug therapies used for treating depression, please see the [Clarification](#) section (14).

A fetus exposed to antidepressants throughout pregnancy or during the last trimester may, in rare instances, experience temporary withdrawal symptoms— such as jitters or irritability — at birth (15, 16). Some health care providers may suggest tapering dosages until after birth to minimize newborn withdrawal symptoms though it is unclear whether this method can reduce harmful effects. This strategy may also be unsafe for new mothers as they enter the postpartum period — a time of increased risk of mood swings and problems with anxiety. Therefore, it is imperative that prenatal women discuss the risks and benefits of antidepressant therapy with their health care provider.

### **Postpartum Depression and Related Mood Disorders**

Postpartum depression was historically hypothesized to be caused by low estrogen and progesterone levels immediately following birth, however, this hypothesis has been found to have limited scientific support (17). Emerging studies have found that reproductive hormones have an indirect relationship on depression because of the influence on stress hormones, immune markers or sleep quality. The incidence of postpartum depression in new mothers can range from approximately 12 to 25 percent, to up to 35 percent 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. Some studies have higher percentage rates for depression because they include both subjects with diagnosed major depression and those with depressive symptoms, thus accounting for the wide range in rates. (4)

Postpartum depression is distinguished from “baby blues” - a common reaction following delivery - both by its duration and the debilitating effects of the indifference the mother has about herself and her children (17). “Baby blues” are characterized by mild depressive symptoms, tearfulness (often for no discernible 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 10th postnatal day (18).

### **Inflammation and Depression**

Inflammation was once recognized as one of several risk factors for depression. New research has found that inflammation is not *a* risk factor—but rather it is *the* risk factor that underlies all others. This represents a shift in how inflammation contributes to depression. Emerging research has revealed that depression is associated with

inflammation manifested by increased levels of proinflammatory cytokines. Common experiences of new motherhood; sleep disturbance, postpartum pain and past or current psychological trauma, act as stressors that cause proinflammatory cytokine levels to rise. This finding may explain why psychosocial, behavioral and physical risk factors increase the risk of depression (19). Additionally, inflammation levels normally rise during the last trimester of pregnancy, which may explain, as stated in the [Pregnancy and Depression](#) section above, the higher risk for experiencing depression during pregnancy (4).

### Breastfeeding and Depression

Successful breastfeeding has a protective effect on maternal mental health because it attenuates stress and modulates the inflammatory response. Conversely, breastfeeding difficulties such as nipple pain can increase the risk of depression and should be addressed promptly. (19)

### Implications for WIC Nutrition Services

Individuals diagnosed with depression can benefit from WIC nutrition services and supplemental foods. Through participant-centered counseling, WIC staff can, as necessary:

- Reinforce and support the treatments and therapies prescribed by the participant’s health care provider.
- Make referrals to the primary health care provider and/or to other appropriate mental health and social service programs. A 2010 brief from the [Urban Institute](#) , recognized the WIC Program as a viable access point to identify and refer mothers with depressive symptoms (20). To learn more about mental health resources in your area please access the U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration’s website. <http://store.samhsa.gov/mhlocator> or <http://www.samhsa.gov/prevention/>.
- Provide follow-up to ensure that the woman is receiving the necessary mental health treatment.
- Encourage food choices that promote nutritional well-being (to include good sources of Omega-3’s for their anti-inflammatory properties).
- Educate about the increased risk of depressive symptoms during the third trimester of pregnancy as well as the prevalence, risks and signs of postpartum depression.
- Provide adequate breastfeeding education, assessment and support (e.g., peer counseling) to women with existing depression; both prenatally and in the postpartum period.

A supplement to this criterion was developed to provide WIC State and local agencies with more information about the treatment of depression and WIC’s role in providing nutrition services to women at risk of or diagnosed with depression: [Guidance for Screening and Referring Women with or At Risk for Depression](#).

### References

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### Additional References

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### Clarification

Self-reporting of a diagnosis by a medical professional should not be confused with self-diagnosis, where a person simply claims to have or to have had a medical condition without any reference to professional diagnosis. A self-reported medical diagnosis (“My doctor says that I have/my son or daughter has...”) should prompt the CPA to validate the presence of the condition by asking more pointed questions related to that diagnosis.

Depression may be present in young children; however, it is generally not diagnosed until later in life. At this time, there is no evidenced-based research to support the diagnosis of depression as a risk criterion for WIC children participants. It is important to note, however, that a child’s health may be at risk if the mother has a diagnosis of depression.

Nutrition Risk Criterion #902; *Woman or Infant/Child of Primary Caregiver with Limited ability to Make Feeding Decisions or Prepare Food*, is an appropriate risk criterion assignment for an infant or child of a WIC mother diagnosed with clinical depression.

There are three major classes of antidepressants. Of the three classes listed below, the first two, Tricyclic antidepressants (TCAs) and Selective serotonin reuptake inhibitors (SSRIs) are generally viewed as safe options for pregnant and breastfeeding women. MAOIs such as Nardil (Phenelzine) and Parnate (Tranlycypromine) are always contraindicated during pregnancy and breastfeeding as reproductive safety has not been established. (20)

- **Tricyclic antidepressants (TCAs)** are the oldest, least expensive and most studied of the antidepressants with a proven track record of effectiveness and include medications such as Amitriptyline (Elavil) and Desipramine (Norpramin). Noted drawbacks are complex dosing, unpleasant side effects and risk of suicide.
- **Selective serotonin reuptake inhibitors (SSRIs)** are used most frequently in pregnant and breastfeeding mothers. Sertraline (Zoloft) and paroxetine (Paxil) are recommended first line treatments for breastfeeding women due to fewer side effects than other antidepressants and a once-a-day dosing schedule. Paroxetine (Paxil) is generally discouraged during pregnancy because it has been associated with fetal heart defects when taken during the first three months of pregnancy. Infants of mothers on these medications should be monitored for the following symptoms: sedation, agitation, irritability, poor feeding and GI distress.

- **Monoamine oxidase inhibitors (MAOIs)** work by inhibiting the enzyme monoamine oxidase to allow for more norepinephrine and serotonin to remain available in the brain. As stated above, these types of medications are **always** contraindicated during pregnancy and breastfeeding as reproductive safety has not been established. Furthermore, MAOIs have many drug and diet contraindications.

Nutrition Risk Criterion #357 [Drug-Nutrient Interactions](#) may be assigned, as appropriate, to women taking antidepressants.