



# Perinatal Depression – A Health Risk



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## INTRODUCTION

Infant Mental Health (IMH) encompasses prevention, promotion, early intervention, and treatment of social and emotional issues with young children. Prevention of infant mental health disorders may be achieved by adequately addressing perinatal depression. Because of the potential effect of perinatal depression on the fetus and developing young child, it is important for obstetricians to be aware that, if left unaddressed, perinatal depression is a common and primary risk factor for poor pregnancy and birth outcomes. Obstetricians are on the front lines of a new era in which the need for integrated care is recognized and practitioners are beginning to attend to both behavioral and physical health care simultaneously.

## PERINATAL DEPRESSION

Perinatal (peripartum) depression is defined by the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) as an episode of major depressive disorder occurring during pregnancy or within the first four weeks postpartum. Most experts in the field consider a diagnosis of postpartum depression up to 12 months postpartum. It is one of the most common complications of both the prenatal and postpartum period. The prevalence is estimated at 10% to 15% in women of childbearing age. The clinical diagnosis of major depressive disorder as specified in the DSM-5 requires that the patient have five or more of the depressive symptoms over a two-week period, most of the day, nearly every day. At least one of the symptoms must be either a depressed mood or a loss of interest or pleasure. Signs and symptoms may include:

- Depressed mood, such as feeling sad, empty or tearful (in teens, depressed mood can appear as constant irritability).
- Significantly reduced interest or feeling no pleasure in all or in most activities.
- Changes in weight, including significant weight loss when not dieting; weight gain or a decrease or increase in appetite.
- Changes in sleep, including insomnia or increased desire to sleep.

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- Psychomotor agitation or retardation.
- Fatigue or decrease of energy nearly every day.
- Feelings of worthlessness, or excessive or inappropriate guilt.
- Diminished ability to think or concentrate or indecisiveness, nearly every day.
- Recurrent thoughts of death or suicide ideation with or without a specific plan, or a suicide attempt.

According to the DSM-5, the diagnosis of major depressive disorder can be coded as Mild, Moderate, Severe, or with Psychotic features.

### Frequently Used Terms

The following terms are used frequently in literature and in healthcare to refer to depression in the perinatal period.

**Postpartum blues** Mood changes within 10-14 days of delivering, known as the “postpartum blues,” which may be difficult to distinguish from clinical depression without specific screening. Postpartum blues is a relatively common emotional disturbance occurring in about 80% of the population exhibited by crying, confusion, mood lability, anxiety, and depressed mood. The symptoms appear during the first week postpartum, last for a few hours to a few days and have few negative sequelae, typically resolving on their own. Treatment options include patient education, reassurance, identifying social support, and encouraging sleep and exercise.

**Postpartum depression** begins in or extends into the postpartum period. Core features include dysphoric mood, fatigue, anorexia, sleep disturbances, anxiety, excessive guilt, and suicidal thoughts.<sup>1</sup> Treatment options include patient education regarding the need for appropriate exercise and social support, as well as strategies to improve sleep. Additionally, providers should consider therapy, psychotropic medications, or a combination of both.

**Postpartum psychosis** is a relatively rare but very severe form of a mood disorder and considered a medical emergency. It occurs in about 1 out of every 1,000

deliveries. The onset of postpartum psychosis is usually acute, within the first two to four weeks of delivery, with delusions, hallucinations, and gross impairment in functioning. It appears to be more common in women with a history of bipolar disorder or severe depression. Treatment includes hospitalization and initiation of psychotropic medications, including mood stabilizers and/or antipsychotics. Electroconvulsive therapy (ECT) may also be considered.

### Period Prevalence

The Agency for Health Care Research and Quality (AHRQ) published the results of a review of 30 studies providing estimates of the prevalence of perinatal depression which are shown below.<sup>2</sup>

#### During Pregnancy

Major depression—12.7%

Major and minor depression combined—18.4%

#### Postpartum (after 3 months)

Major depression—7.1%

Major and minor depression combined—19.2%

### Contributing Factors to Perinatal Depression

Depressive disorders are caused by a combination of genetic, biological, environmental, and psychological factors. Recent research findings from both animal and human studies implicate hormonal dysregulation, abnormalities in hypothalamic-pituitary-adrenal (HPA) axis activity, and the contributions of genetics and epigenetics as playing key roles in the development of perinatal depression.<sup>3</sup> One characteristic of this HPA axis activity is the altered ability to manage stress and inability to maintain emotional regulation. Hyperactivity of the HPA axis is a major biological finding associated with major depression.<sup>4</sup> There is also thought that some women are more sensitive to the fluctuations of estrogen and progesterone. Thus, the increases and decreases in the hormones may precipitate or exacerbate the symptoms of depression.

Women with a personal or family history of depression or other mood disorders are at a higher risk for the onset of perinatal depression. This is compounded by the fact that

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many people with depression were raised by parents with depression resulting in both genetic and psychosocial transmission. Epigenetics is now considered a factor in multi-generational presence of depression. The process known as methylation, which is influenced by life experiences, results in a stable but potentially reversible change in gene expression. DNA methylation patterns can remain throughout the life of the cell and may be passed along through multiple generations potentially causing the organism's genes to behave differently and providing an explanation for how early life experiences, such as early childhood adversities, can leave a persistent mark on the brain and influence behavior and health throughout life.

For this vulnerable population, major life stressors such as a difficult birth or challenges caring for the infant may trigger the onset of depressive disorders.<sup>5</sup>

The prevalence of perinatal depression is higher in vulnerable groups with certain risk factors. Young single mothers, experiencing complications, with history of stress, loss or trauma are much more likely to experience depression.<sup>6</sup> Women who have experienced socioeconomic disadvantage also report depressive symptoms during pregnancy.<sup>7</sup> The National Center on Poverty reported the data in Table 1 on the prevalence of depression of women in child-bearing years showing that the presence of depression is based on several factors.

**Table 1: Prevalence of depression of women in child-bearing years**

Approximately 12% of all women experience depression in a given year.
For low-income women, the estimated prevalence doubles to at least 25%.
Estimated rates of depression among pregnant, postpartum, and parenting women in general range from 5% to 25%.
Low-income mothers of young children, and pregnant and parenting teens, report depressive symptoms in the 40% to 60% range.
Over half the mothers (52%) in a study of 17 Early Head Start programs reported depressive symptoms.
Another study found that an average of 40% of young mothers at community pediatric health centers screened positive for depressive symptoms (site specific rates ranged from 33% to 59%).
Studies of women participating in state welfare-to-work programs indicate that depression and elevated levels of depressive symptoms range from 35% to 58%. <sup>8</sup>

### The Impact on the Woman and Her Pregnancy

Perinatal depression can have serious consequences for the mother, the developing fetus, and the infant. Depressive disorders have an impact on multiple body systems including the way people think (cognitive), the way they feel (mood and anxiety), the way they act (behavior) and the regulation of the sleep / wake cycle which affects energy. In addition, depression is known to alter the stress-response system in the body, known as the hypothalamic-pituitary-adrenal-limbic system (HPAL). Cortisol has a normal 24-hour cycle within the HPAL system. When exposed to chronic stress, anxiety or depression, the HPAL system is not regulated normally, which creates cellular changes throughout the body. These changes affect immune, inflammatory, circulatory, cognitive and metabolic changes that may be permanent.

When a woman is pregnant and depressed, it is now becoming clear that all of these physical, system-wide changes simultaneously may alter fetal development through the placenta. See “Changes Seen in Depression and/or Stress” diagram, Figure 1 on next page.

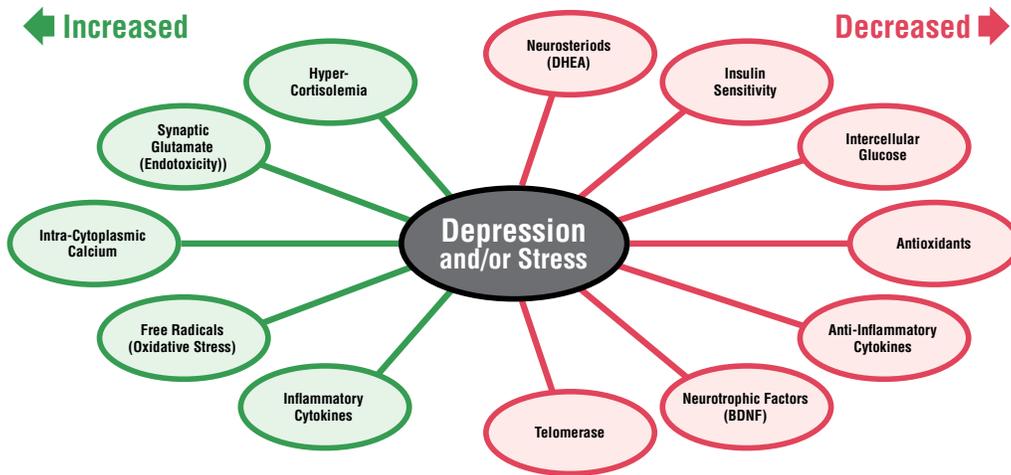
### Untreated depressive disorders pose a significant risk to the pregnancy.

Women who experience depression and anxiety during pregnancy may be more likely to have a premature delivery, pre-eclampsia, restricted fetal growth, and low-birth weight infants. Studies have also linked perinatal depression to inconsistent or lack of prenatal care, poorer nutrition, and other negative health behaviors such as substance use. Screening for stress and depression is key to early detection and prevention of these poor outcomes.



Figure 1

## Changes Seen in Depression and/or Stress



### The Impact on Infant and Child Outcomes

Postpartum, women with depression have been shown to have lower rates of breastfeeding initiation and also may have a lower likelihood of using pediatric services for well-child check-ups or immunizations.<sup>9</sup> Depressed mothers generally show less attentiveness and responsiveness to their children's needs. The consequences for the child of a mother with postpartum depression are not restricted to infancy, but can extend into toddlerhood, preschool age, and even school age. Studies have also shown that maternal depression can impact the child's social, emotional, cognitive, and behavioral development. The infant of a depressed mother is at risk for developing

insecure attachment, negative affect, and dysregulated attention and arousal.<sup>10</sup> Toddlers and preschoolers of depressed mothers are at risk for developing poor self-control; internalizing and externalizing problems; and have difficulties in cognitive functioning and in social interactions with parents and peers.

Studies on large samples consistently demonstrate the negative impact of maternal postpartum depression on a child's cognitive development. Early experience with insensitive maternal interactions (as in maternal postpartum depression) appears to be predictive of poorer cognitive functioning.<sup>11</sup>

## RECOMMENDATIONS FOR SCREENING AND HEALTH CARE

The US Preventive Services Task Force (USPSTF) recommends screening adults, including pregnant and postpartum women, for depression when staff-assisted depression care is in place to assure accurate diagnosis, effective treatment and follow-up. Staff-assisted depression care are clinical staff that can provide direct supports and services or coordination, case management, or mental health treatment.<sup>12</sup>

The American Congress for Obstetrics and Gynecology (ACOG) committee opinion from May 2015 recommends that all Ob/Gyns screen pregnant women at least once during the perinatal period for depression. Additionally, screening is not enough and the recommendation is for

providers to initiate pharmacotherapy, if indicated, as well as refer to mental health professionals.<sup>13</sup>

A commonly used and validated tool that is used in the postpartum period is the [Edinburgh Postnatal Depression Scale](#) (EPDS). The 10-question screen can be filled out in the waiting room by the patient and then scored and reviewed by the provider. A score above 12 should alert the provider to further investigate for symptoms of depression. This [screening tool](#) is free and can be found online.

For more information on screening for perinatal depression in obstetrics please see the companion document [Brief #5: Screening for Perinatal Depression](#).



The American Academy of Pediatrics (AAP) and ACOG together have issued *Guidelines for Perinatal Care* that addresses perinatal depression. The guidelines recommend that prior to delivery, women should be informed about psychosocial issues that may occur during pregnancy and in the postpartum period. A woman experiencing negative feelings about her pregnancy should receive additional support from the healthcare team. All patients should be monitored for symptoms of postpartum depression and offered culturally appropriate treatment or referral to a community treatment provider. Specifically, the psychosocial status of the mother and newborn should be subject to ongoing assessment after hospital discharge. Women with postpartum blues should be monitored for the onset of continuing or worsening

symptoms because these women are at high risk for the onset of a more serious condition. The postpartum visit at approximately 4-6 weeks after delivery should include a review of symptoms for clinically significant depression to determine if intervention is needed.<sup>14</sup> The postpartum visit is also an ideal time to have the patient complete the [Edinburgh Postnatal Depression Scale](#) (EPDS).

Depression is a highly treatable condition. Treatment routinely consists of both psychotherapy and medication. For more information on the use of medications during pregnancy, please see [A Summary of Monitoring Physical Health and Side-Effects of Psychiatric Medications in the Severely Mentally Ill Population](#), developed by the University of South Florida.

## SUMMARY

Women's risk for developing depression peaks during her child-bearing years and when it occurs during pregnancy or postpartum it can place the mother and unborn fetus at risk. The risk for pre-term birth with potential long-term health consequences of the infant is high. Additionally, the possibility of life long impact on the development of the child related to both physiological and psychosocial factors such as the

mother's decreased capacity to parent effectively is also increased. OB/GYNs and primary care providers have the opportunity to interact with women on regular intervals during the prenatal, postpartum, and well-child visits. These interactions provide the opportunity for the physicians and their staff to identify women with perinatal depression and to provide the supports and treatment necessary for her to obtain effective treatment.



## REFERENCES

- 1 American Psychiatric Association. (1994). *Diagnostic and Statistical Manual of Mental Disorders (4th edition)*. Washington, District of Columbia: American Psychiatric Association.
- 2 Gavin, N. I., Gaynes, B. N., Lohr, K., Meltzer-Brody, W., Gartlehner, G., Sinson, T. (2005). Perinatal depression: A systemic review of prevalence and incidence. *Obstetrics and Gynecology*, 106, 5(1), 1071-83.
- 3 Meltzer-Brody, S. (2011) New insights into perinatal depression: pathogenesis and treatment during pregnancy and postpartum. *Dialogues Clinical Neuroscience*, 13(1), 89-100.
- 4 Gold, P. W., Gabry, K. E., Yasuda, M. R., Chrousos, G. P. (2002). Divergent endocrine abnormalities in melancholic and atypical depression: clinical and pathophysiologic implications. *Endocrinology and Metabolism Clinics of North America*, 31(1), 37-62.
- 5 Children's Defense Fund. (2011). *Zero to Three Research to Policy Project: Maternal Depression and Early Childhood Full Report*, 8.
- 6 Vesga-Lopez, O., Blanco, C., Keyes, K., Olfson, M., Grant, B. F., Hasin, D.S. (2008). Psychiatric disorders in pregnant and postpartum women in the United States. *Archives of General Psychiatry*, 65, 805-15.
- 7 Bennet, H. A., Einarson, A., Taddio, A. (2004). Prevalence of depression during pregnancy: systematic review. *Obstetrics and Gynecology*, 103, 698-709.
- 8 National Center for Children in Poverty at Columbia University. (2008). *Reducing Maternal Depression and Its Impact on Young Children: Toward a Responsive Early Childhood Policy Framework*. Project Thrive Issue Brief No. 2. NY: Columbia University. Retrieved from [http://www.nccp.org/publications/pdf/text\\_791.pdf](http://www.nccp.org/publications/pdf/text_791.pdf)
- 9 Zajicek-Farber, M. L. (2009). Postnatal depression and infant health practices among high-risk women. *Journal of Child and Family Studies*, 18, 236–245. doi: 10.1007/s10826-008-9224-z
- 10 Martins, C., Gaffan, E. A. (2000). Effects of early maternal depression on patterns of infant-mother attachment: A meta-analytic investigation. *Journal of Child Psychology & Psychiatry & Allied Disciplines*, 41(6), 737. Retrieved from [https://auth.lib.unc.edu/ezproxy\\_auth.php?url=http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=3673783&site=ehost-live&scope=site](https://auth.lib.unc.edu/ezproxy_auth.php?url=http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=3673783&site=ehost-live&scope=site)
- 11 Murray, L., Hipwell, A., Hooper, R., Stein, A., Cooper, P. (1996). The cognitive development of 5-year-old children of postnatally depressed mothers. *Journal of Child Psychology and Psychiatry*, 7, 927–35. doi: 10.1111/j.1469-7610.1996.tb01490.x
- 12 U.S. Preventive Services Task Force. (2009). *Screening for depression in adults: U.S. Preventive Services Task Force Recommendation Statement*. Rockville, MD: Agency for Healthcare Research.
- 13 American Congress of Obstetrics and Gynecology. (2015). Committee Opinion No. 630: Screening for depression during and after pregnancy. *Obstetrics and Gynecology*, 125(5), 1268-1271.
- 14 American Academy of Pediatrics, American Congress of Obstetricians and Gynecologists. (2007). *Guidelines for perinatal care, 6th ed*. Elk Grove Village Ill: American Academy of Pediatrics and Washington, D. C.: American Congress of Obstetricians and Gynecologists.

