

Postpartum Depression (PPD)

Women's Health Connecticut Practice Guideline

Definitions

Baby Blues

Very common, affects about 70-85% of new mothers. Also known as postpartum blues, usually start within three days of giving birth and can last up to 14 days. Typically resolve on their own without treatment and rarely require more than a few days of rest and support.

Postpartum Depression (PPD)

This is more intense and must be present for more than 2 weeks to distinguish it from "baby blues." About 10% of new mothers suffer from PPD in the first year after giving birth. It can occur after any birth beginning any time after delivery, but usually within two to three weeks after giving birth. PPD can last for months – up to a year and half or longer, if untreated. PPD often requires counseling and treatment.

Postpartum Depression is the most under-diagnosed obstetrical complication in the U.S. However, early diagnosis and treatment of postpartum depression can prevent hospitalizations and help women to be healthier parents.

Postpartum psychosis (PPP)

This affects only 1 in 1,000 women and most often occurs the first four weeks after delivery. Patients with PPP are severely impaired the first four weeks after delivery. These patients with PPP may have paranoia, mood shifts, or hallucinations and delusions that frequently focus on the infant's dying or being demonic. These hallucinations often command the patient to hurt either herself or others. This condition requires immediate medical attention and, usually, hospitalization.

Etiology

Various theories based in physiological changes have been postulated:

- Hormonal excesses or deficiencies of estrogen, progesterone, prolactin, thyroxine, tryptophan among others.

Risk factors for PPD:

- History of mood disorder prior to pregnancy
- Marital conflicts
- Childcare difficulties (feeding, sleeping, health problems).
- Anxiety/depression during pregnancy
- Baby blues following current delivery
- History of family or personal depression
- Stressful life events
- Poor social support

Symptoms

Symptoms for Postpartum Depression include a 2 week period of any of the following:

- Hopelessness
- Helplessness
- Persistent sadness
- Irritability
- Low self-esteem
- Loss of pleasure in activities
- Mood changes
- Inability to adjust to role of motherhood
- Inability to concentrate
- Sleep/appetite disturbances

Diagnosis

At 6 week postpartum check up patients should be asked to complete an Edinburgh Postnatal Depression Scale (EPDS) that can usually be completed in less than 5 minutes. Responses are scored 0, 1, 2 or 3 according to increased severity of symptoms. Total score is determined by adding together the scores for each of the 10 items. Patients who score 13 or higher on the scale or answer positively on Question 10, should be considered for treatment of PPD.

Treatment

Most clinicians will use a multidisciplinary approach to treatment that may include antidepressant medications, psychotherapy, teaching parenting skills and assistance with the development of networks of social support. The choice of treatment often depends on the women's preference, and the severity of her symptoms. It is important that follow-up visits are made and kept, regardless of mode of treatment. If unable to do this in the office, referral to behavioral health professionals is indicated.

Some women have had a good experience with antidepressants in the past and may wish to try that again. Others prefer psychotherapy because they are breastfeeding and do not want to expose their infant to medication. Some wish to try both.

There are clinical trials involving antidepressant medication and pregnant and breastfeeding women because of the fear of birth defects and maternal/child transmission. Those that have been completed do show that the drug class known as Serotonin Reuptake Inhibitors (SSRIs) [examples include: Prozac® (fluoxetine), Zoloft® (sertraline) or Paxil® (paroxetine)] present little risk to infants and may provide significant benefits to women with PPD. Most of the clinical trials concluded that a combination of medication and therapy provided the best results.

NOTE: Please review the literature review on current trials: *Treatment of Postpartum Depression in Nursing Mothers* when determining pharmacological treatments for patients.

REFERENCES:

- The American College of Obstetricians and Gynecologists, *Answers to Common Questions about Postpartum Depression*; Jan 2002
- Weissman A, Levy B, Hartz A, et al: *Pooled Analysis of Antidepressant Levels in Lactating Mothers, Breast Milk and Nursing Infants*; American Journal of Psychiatry 2004; 161:1066-1078.
- Emedicine Provider education - Last updated August 8, 2004 <http://www.emedicine.com/med/topic3408.htm>
- Gjerdingen D. *The Effectiveness of Various Postpartum Depression Treatments and the Impact of Antidepressant Drugs on Nursing Infants*; Journal American Board of Family Practice; 2003 Sep-Oct; 16(5):372-82
- Wisner KL, Parry BL, Piontek CM: *Postpartum Depression*; NEJM 2002; 347: 194-199
- Hendrick V, Fukuchi A, Altshuler L, et al: *Use of Sertraline, Paroxetine and Fluvoxamine by Nursing Women*. Br J Psychiatry. 2001 Aug; 179:163-6
- Winans EA: *Antidepressant Use During Lactation*; J Hum Lact 2001; 17(3): 256-261

Resource	Reference/Source	Summary
Weissman A, Levy B, Hartz A, et al: Pooled Analysis of Antidepressant Levels in Lactating Mothers, Breast Milk and Nursing Infants.	Am J Psychiatry 2004; 161:1066-1078	<ul style="list-style-type: none"> ➤ Electronic searches of MEDLINE, PreMEDLINE, Current Contents, Biological Abstracts & PsycINFO. ➤ Authors identified 57 studies of maternal plasma, breast milk, &/or infant plasma antidepressant levels of nursing mother-infant pairs, measured by liquid chromatography. ➤ Authors concluded that currently available data reveals breast feeding infants exposed to nortriptyline, paroxetine, or sertraline are unlikely to develop detectable or elevated plasma drug levels, while infants exposed to fluoxetine appear to be at higher risk of developing elevated levels, especially following prenatal exposure. Citalopram may produce elevated levels in some infants, but additional data are needed before firm conclusions can be drawn. ➤ Includes charts that outline various study specifics i.e. authors, mother's body weight/antidepressant, dose/duration of treatment, breast milk drug level & infant age/sex/weight/plasma drug levels/potentially related effects.
Emedicine Provider education- Last updated August 8, 2004	http://www.emedicine.com/med/topic3408.htm Note: Information contained is for a variety of conditions as well as for NON-breastfeeding women.	<ul style="list-style-type: none"> ➤ Information includes: Overview/epidemiology, discussion of postpartum blues, postpartum depression, postpartum psychosis, screening for postpartum mood disorders, treatment and conclusions (with author's comments). ➤ The severity of illness should guide treatment. ➤ Nonpharmacologic treatment strategies are useful for women with mild to moderate depressive symptoms. Individual or group psychotherapy (cognitive-behavioral and interpersonal therapy) is effective. Psychoeducational or support groups may also be helpful. These modalities may be attractive to nursing mothers who wish to avoid taking medications. ➤ Pharmacologic strategies are indicated for moderate to severe depressive symptoms or when a woman does not respond to nonpharmacologic treatment. Medication may be used in conjunction with nonpharmacologic therapies. ➤ Selective serotonin reuptake inhibitors (SSRIs) are first-line agents and are effective in women with postpartum depression. Use standard antidepressant dosages, e.g., fluoxetine (Prozac) 10-60 mg/d, sertraline (Zoloft) 50-200 mg/d, paroxetine (Paxil) 20-60 mg/d, citalopram (Celexa) 20-60 mg/d, or escitalopram (Lexapro) 10-20 mg/d. Adverse effects of this drug category include insomnia, jitteriness, nausea, appetite suppression, headache, and sexual dysfunction. ➤ Serotonin-norepinephrine reuptake inhibitors (SNRIs), such as venlafaxine (Effexor) 75-300 mg/d or duloxetine (Cymbalta) 40-60 mg/d, are also highly effective for depression and anxiety. ➤ Tricyclic antidepressants (e.g, nortriptyline 50-150 mg/d) may be useful for women with sleep disturbance, although some studies suggest that women respond better to the SSRI drug category. Adverse effects of the tricyclic antidepressants include sedation, weight gain, dry mouth, constipation and sexual dysfunction.

		<ul style="list-style-type: none"> ➤ Preliminary data suggest that estrogen alone or in combination with antidepressant may be beneficial; though antidepressants remain first line of treatment. ➤ Women who plan to breastfeed must be informed that all psychotropic medications, including antidepressants, are secreted into breast milk. Concentrations in breast milk vary widely. ➤ Data on use of tricyclic antidepressants, fluoxetine, Sertraline & paroxetine during breastfeeding encouraging; serum antidepressant levels in nursing infants are either low or undetectable. Reports of toxicity in nursing infants are rare, although the long-term effects of exposure to trace amounts of medication are not known. ➤ Avoid breastfeeding in premature infants or in those with hepatic insufficiency who may have difficulty metabolizing medications present in breast milk.
Gjerdingen D. The effectiveness of various postpartum depression treatments and the impact of antidepressant drugs on nursing infants.	J Am Board Fam Pract. 2003 Sep-Oct; 16(5):372-82	<ul style="list-style-type: none"> ➤ Literature search on treatment for postpartum depression (i.e. drug therapy, individual and group therapy, and other support therapy) was performed by searching MEDLINE. ➤ Evidence suggests that postpartum depression improves with antidepressant drug therapy, estrogen, individual psychotherapy, nurse home visits & group therapy. ➤ Of the most frequently studied antidepressant drugs in breastfeeding women, nortriptyline, paroxetine, sertraline have not been found to have adverse effects on infants. ➤ Fluoxetine should be avoided in breastfeeding women due to detectable infant serum drug levels. ➤ Chart outlines various studies found on MEDLINE search, authors, maternal antidepressant dose, infant age, infant serum drug levels, and adverse events.
Wisner KL, Parry BL, Piontek CM: Postpartum Depression	NEJM 2002; 347: 194-199	<ul style="list-style-type: none"> ➤ Article: case vignette, includes DSM-IV criteria, screening, treatment and considerations in breastfeeding women. ➤ Author states that all antidepressants are excreted in breast milk; therefore optimal clinical management dictates using lowest effective dose of antidepressants in lactating mothers. Observation of infant's behavior before treatment lets clinicians avoid misinterpreting typical behavior as potentially drug related. ➤ SSRI sertraline has been recommended as first line treatment in breastfeeding mothers on the basis of multiple case series by several investigators that suggest that this agent may be used with little risk. ➤ Colic has been reported in 3 infants breastfed by mothers taking fluoxetine. ➤ TCA's are not typically found in measurable amounts in nursing infants. Since these agents are not first line for depression, the only representative drugs nortriptyline and desipramine (having fewer side effects than others in the class) are evaluated in this article. Of the drugs in this class nortriptyline has been studied the most. ➤ Chart included with the following information: antidepressant, recommended dose/day, potential side effects to the mother, and implications for use during breastfeeding.

<p>Hendrick V, Fukuchi A, Altshuler L, et al: Use of sertraline, paroxetine and fluvoxamine by nursing women.</p>	<p>Br J Psychiatry. 2001 Aug; 179:163-6</p>	<ul style="list-style-type: none"> ➤ Study included 50 nursing mother-infant pairs at UCLA's Pregnancy and Postpartum Mood Disorder's Program. ➤ Women were on standard doses of antidepressant medication; two women additionally were on nortriptyline and another was on alprazolam. None of the infants were on medications of any category. ➤ Maternal and infant serum samples were obtained at a minimum of 2 weeks following a fixed dose of antidepressant. For woman who took antidepressants during pregnancy, serum samples were obtained a minimum of 2 weeks following delivery. ➤ Results: No detectable medication was present in any infant exposed to paroxetine or fluvoxamine. ➤ Detectable medication (parent &/or metabolite) was present in 24% (8/33) of the serum samples obtained from infants exposed to sertraline. ➤ Presence of detectable medication serum concentrations were not associated with adverse effects in infants. ➤ Maternal serum concentrations and dosage of medication can be employed to estimate infant serum concentrations. ➤ Mothers were asked to report adverse effects on infants; none were reported.
<p>Winans EA: Antidepressant use during lactation.</p>	<p>J Hum Lact 2001; 17(3): 256-261</p>	<p>Literature review:</p> <ul style="list-style-type: none"> ➤ Burch and Wells reported the successful use of fluoxetine (20mg/day) in a breastfeeding woman. No side effects noted; normal developmental milestones were reported for the infant after 2 months of fluoxetine exposure. In contrast, Lester and colleagues reported a development of colic in a 6-week old infant whose mother received fluoxetine 20mg/d. Infant was noted to exhibit increased crying, vomiting, decreased sleep and watery stools that correspond to breast milk containing fluoxetine. Symptoms subsided 4 days after breastfeeding was discontinued. A rechallenge with breast milk 3 weeks later precipitated colic symptoms. ➤ Ohman and colleagues reported on excretion of paroxetine in 6 women. Although serum concentrations were not taken from the infants, all were reported to be free of adverse events and thriving normally. Mothers had received a stable dose for at least 8 days, yet duration of exposure and age of the infants were not reported. Therefore, long term safety cannot be implied. Because paroxetine is typically administered once daily, infant exposure may be minimized by avoiding feeding for 4-7 hours after the dose administration. ➤ Fluvoxamine is excreted in breast milk. Only 2 case studies were noted and no signs of acute developmental concerns were reported. However, fluvoxamine is a potent inhibitor of the hepatic cytochrome p450 3A4 isoenzyme system, which is responsible for caffeine metabolism. Thus infants receiving caffeine for apnea or respiratory disorders with exposure to fluvoxamine should be monitored closely.

		<ul style="list-style-type: none"> ➤ Two case reports of use with citalopram revealed that peak citalopram milk concentrations occurred between 4 and 6 hours after ingestion. Thus these reports indicate that avoiding breastfeeding 4 to 6 hours after dose administration can lower infant exposure to citalopram. ➤ Wisner and colleagues reported that despite the presence of sertraline and its metabolite in the serum of most of these infants, all were thriving and no adverse events were reported. Stowe and colleagues collected milk and serum samples from 12 women and their infants at different times. Peak sertraline and desmethylsertraline serum concentrations in milk occurred at 7 to 8 hours and 5 to 11 hours post dose administration. The authors estimated that for an infant feeding every 3 hours, discarding a single feeding 7 to 8 hours after the maternal dose will reduce the infant's daily dose of sertraline and desmethylsertraline by approximately 24%. ➤ Due to adverse events reported in a preterm neonate whose mother took nefazodone, and lack of additional case reports, it is suggested that nefazodone should be avoided in mothers nursing preterm neonates and infants. ➤ Briggs and colleagues reported the presence of bupropion and its metabolites in a woman nursing a 14 month old twice a day with no adverse events reported. This report suggests that bupropion may be appropriate for mothers who are nursing older infants less frequently. However, because of the decreased hepatic metabolism in neonates and young infants, a recommendation cannot be determined in this population. In addition, because this drug is associated with increased risk of seizure, it should be avoided by those with a history of seizures. ➤ Ilett and colleagues reported on the excretion of immediate-release venlafaxine and its metabolite in the breast milk of three women. Venlafaxine was not detected in the plasma of infants, yet its equipotent metabolite was. Despite this all infants were reported to be healthy and experienced no side effects. This reports suggests that infants as young as 10 days old are capable of metabolizing immediate-release venlafaxine when exposed via breast milk.
<u>Patient Resources</u>		
Brigham and Women's hospital guidelines for depression	http://www.brighamandwomens.org/patient/Depression.pdf	Website includes patient resource that describes the different types of depression women may experience during different stages of life, symptoms of depression & treatments available.
Emedicine Patient education	http://www.emedicinehealth.com/articles/10311-6.asp	Information includes: Postpartum depression overview, causes, symptoms, when to seek treatment, treatment, and additional information resources.
<p>**Note: The above information is not exclusive and each body of literature should be reviewed by the individual provider. These summaries are for informational purposes only and it is recommended that providers view the information in the original copyrighted format and derive their own conclusions. Limitations exist for each of the above and should be taken into account when making clinical decisions. Treatment may include behavioral and/or counseling therapy with or without pharmacologic agents, and therefore should be individualized based on the patient and provider. This information is in no way making suggestions for treatment.</p>		

EDINBURGH POSTNATAL DEPRESSION SCALE

You recently had a baby and we would like to know how you are feeling. Please CIRCLE the answer which comes closest to how you have felt in the PAST 7 DAYS, not just how you are feeling today. If you feel you may be depressed (even if your symptoms do not match this questionnaire), consider speaking with your clinician about this. It is very common and he/she can help you.

1. I have been able to laugh and see the funny side of things <i>0—As much as I always could. 2—Definitely not so much now.</i> <i>1—Not quite so much now. 3—Not at all.</i>
2. I have looked forward with enjoyment to things <i>0—As much as I ever did. 2—Definitely less than I used to.</i> <i>1—Rather less than I used to. 3—Hardly at all.</i>
3. I have blamed myself unnecessarily when things went wrong <i>3—Yes, most of the time. 1—Not very often.</i> <i>2—Yes, some of the time. 0—No, never.</i>
4. I have been anxious or worried for no good reason <i>0—No, not at all. 2—Yes, sometimes.</i> <i>1—Hardly ever. 3—Yes, very often.</i>
5. I have felt scared or panicky for no very good reason <i>3—Yes, quite a lot. 1—No, not much.</i> <i>2—Yes, sometimes. 0—No, not at all.</i>
6. Things have been getting on top of me <i>3—Yes, most of the time I haven't been able to cope at all.</i> <i>2—Yes, sometimes I haven't been coping as well as usual.</i> <i>1—No, most of the time I have coped quite well.</i> <i>0—No, I have been coping as well as ever.</i>
7. I have been so unhappy that I have had difficulty sleeping <i>3—Yes, most of the time. 1—Not very often.</i> <i>2—Yes, sometimes. 0—No, not at all.</i>
8. I have felt sad or miserable <i>3—Yes, most of the time. 1—Not very often.</i> <i>2—Yes, quite often. 0—No, not at all.</i>
9. I have been so unhappy that I have been crying <i>3—Yes, most of the time. 1—Only occasionally.</i> <i>2—Yes, quite often. 0—No, never.</i>
10. The thought of harming myself has occurred to me <i>3—Yes, quite often.</i> <i>1—Hardly ever.</i> <i>2—Sometimes.</i> <i>0—Never</i>

To be completed by the Provider: Division Name: _____

Total Score: _____

Plan: _____