

Information for Physicians on Prescription Products to Treat Perinatal Depression - September 2007

Treatment decisions should be based on patient characteristics and clinical judgment.

For questions, call the UIC Perinatal Mental Health Project at 1-800-573-6121 or visit <http://www.psych.uic.edu/research/perinatalmentalhealth/>

Anti-depressants	Advantages During Pregnancy	Disadvantages During Pregnancy	Estimated % of Maternal Dose to Breastfeeding Baby**	Reported Side Effects to Breastfeeding Babies***	Teratogenicity
Bupropion (Wellbutrin [®])	<ul style="list-style-type: none"> No sexual side effects No excess weight gain Helps with smoking cessation 	<ul style="list-style-type: none"> Limited data available No behavioral studies in human pregnancy Lowers seizure threshold Can cause insomnia May increase risk of miscarriage 	2%	Seizures	Morphologic - none found Behavioral - unknown
Citalopram (Celexa [®])	<ul style="list-style-type: none"> Few interactions with other medications 	<ul style="list-style-type: none"> Limited data available No behavioral studies in human pregnancy 	0.7% -9.0%	Uneasy sleep, drowsiness, irritability, weight loss	Morphologic - none found Behavioral - unknown
Desipramine (Norpramin [®])	<ul style="list-style-type: none"> More studies in human pregnancy, including neurodevelopmental follow-up 	<ul style="list-style-type: none"> Maternal side effects additive to pregnancy effects (sedation, constipation, tachycardia) Orthostatic hypotension, risking decreased placental perfusion Fetal and neonatal side effects: tachycardia, urinary retention 	1.0%	None	None found
Duloxetine (Cymbalta [®])	<ul style="list-style-type: none"> Also treats diabetic peripheral neuropathic pain Balanced antidepressant; may be effective when selective agents are not 	<ul style="list-style-type: none"> No systematic studies in human pregnancy 	Unknown	Unknown	Unknown
Escitalopram (Lexapro [®])	<ul style="list-style-type: none"> Few interactions with other medications 	<ul style="list-style-type: none"> No systematic studies in human pregnancy 	3.9% - 7.9%	Enterocolitis	Unknown
Fluoxetine (Prozac [®])	<ul style="list-style-type: none"> More studies in human pregnancy, including meta-analysis and neurodevelopmental follow-up 	<ul style="list-style-type: none"> More reports of neonatal side effects than some other antidepressants 	1.2% - 12.0%	Excessive crying, irritability, vomiting, watery stools, difficulty sleeping, tremor, somnolence, hypotonia, decreased weight gain, hyperglycemia	None found
Mirtazapine (Remeron [®])	<ul style="list-style-type: none"> No sexual side effects Helps restore appetite in women who are not gaining weight Less likely to exacerbate nausea and vomiting 	<ul style="list-style-type: none"> Limited data available No behavioral studies in human pregnancy Can cause excessive weight gain Tends to be sedating May increase risk of preterm birth 	0.6% - 2.8%	None	Morphologic - none found Behavioral - unknown
Nortriptyline (Pamelor [®])	<ul style="list-style-type: none"> More studies in human pregnancy, including neurodevelopmental follow-up Balanced antidepressant; may be effective when selective agents are not 	<ul style="list-style-type: none"> Maternal side effects additive to pregnancy effects (sedation, constipation, tachycardia) Orthostatic hypotension, risking decreased placental perfusion Fetal and neonatal side effects: tachycardia, urinary retention 	1.3%	None	None found
Paroxetine (Paxil [®])	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> No behavioral studies in human pregnancy Specific association with cardiovascular malformations More reports of neonatal side effects than most other antidepressants 	0.1% -4.3%	Irritability, sleepiness, constipation, SIADH	Morphologic - Possible increased risk of cardio vascular malformations Behavioral - unknown
Sertraline (Zoloft [®])	<ul style="list-style-type: none"> Relatively well-studied in human pregnancy Fewer reports of neonatal side effects than other antidepressants 	<ul style="list-style-type: none"> Possible specific association with omphalocele and septal defects* 	0.4% -2.3%	Benign sleep myoclonus, agitation	Morphologic - possible increased risk of omphalocele and septal defects Behavioral - none found
Venlafaxine (Effexor [®])	<ul style="list-style-type: none"> Balanced antidepressant; may be effective when selective agents are not 	<ul style="list-style-type: none"> Limited data available No behavioral studies in human pregnancy 	5.2% -7.6%	Decreased weight gain	Morphologic - none found Behavioral - unknown

* Absolute risk is small

** These are weight-adjusted estimates that include the agent and its active metabolites.

*** These are based on case reports; this does not mean that it is confirmed to be due to the medication.

Physicians may consider initiating treatment with these agents at half of the lowest recommended therapeutic dose. Treatment decisions should be based on patient characteristics and clinical judgment. Recommended dosages can be found in the Physician's Desk Reference, 60th ed. Table based on Wisner et al Postpartum Depression Article in N Eng J Med, Vol. 347, No. 3, July 18, 2002, pg. 196 and related articles. For other references, call the UIC Perinatal Mental Health Project at 1-800-573-6121.

General notes:

- Risks of antidepressants during pregnancy and lactation must be weighed against risks of untreated symptoms and treatment needs to be individualized.
- All antidepressants, if abruptly discontinued during pregnancy or at the time of birth, can lead to discontinuation side effects in the fetus or neonate. These signs can include respiratory distress, excessive crying, changes in sleep and behavioral state, difficulty feeding, increased or decreased tone, hyperreflexia, seizures or cardiac arrhythmias. Discontinuation side effects can be minimized by a partial dose taper during the last month of pregnancy, if the patient is asymptomatic, with a return to full dose after delivery to prevent postpartum recurrence.

All SSRI antidepressants (citalopram, escitalopram, fluoxetine, paroxetine, sertraline) may be associated with the following risks: possible increased risk of miscarriage, gestational age decreased by an average of 1 week, possible increased risk of persistent pulmonary hypertension in the newborn with exposure after 20 weeks gestation, although no teratogenicity has been found in prospective, controlled studies or meta-analyses, one case-control study found a possible increased risk of anencephaly, craniosynostosis and omphalocele, and a retrospective prescription events monitoring study found an increased risk of anomalies in general; absolute risks were small.

- Medications vary in the amount and quality of data available about effects in human pregnancy. A better-studied medication may have more reported side effects than a less-studied medication because more is known about it, not necessarily because it is riskier.
- Data presented here are based on studies during human pregnancy. The Food and Drug Administration's Pregnancy Risk Categories, as found in the Physician's Desk Reference, are based on a combination of animal and human studies.