



## Notable NBDPS Accomplishments

- **Antibiotics** – Antibiotics are often needed during pregnancy to treat infections. In the NBDPS data, the antibiotics most frequently used by pregnant women are cephalosporins (e.g. Keflex), penicillins, and erythromycins. Generally, women who used these medications were not at greater risk for most birth defects. However, women should talk to their doctors about which antibiotics are effective for treatment and safest to use during pregnancy.
- **Antidepressant Medications** – The most frequently used class of antidepressant medications are Selective Serotonin-Reuptake Inhibitors (SSRI). NBDPS researchers investigated whether or not there was an association between SSRI use during early pregnancy and risk for certain birth defects. For most of the birth defects studied, including heart defects, SSRI use during pregnancy was not associated with an increased risk. SSRIs were linked to a higher risk for three birth defects: anencephaly, craniosynostosis, and omphalocele, but the increased risks were small. Overall, these results are reassuring. Women should talk with their doctor about the best options for management of their depression during pregnancy.



- **Assisted Reproductive Technology (ART)** – Findings from research using NBDPS data suggest that some birth defects occur more often among infants conceived through ART, but the data are still limited since many couples who use ART have other risk factors that are associated with birth defects (e.g., older maternal age, multiple births as a result of fertility treatments). More research is needed, and those considering ART should be informed of all potential risks and benefits.



- **Diet Quality** – Although individual nutrients (e.g. dietary folate) have been studied extensively for their association with birth defects risk, NBDPS investigators studied whether better overall maternal diet quality is associated with a reduced risk for some birth defects. Results showed that healthier maternal diet patterns in the year before pregnancy were associated with reduced risks of neural tube defects (NTDs), such as anencephaly and spina bifida, as well as cleft lip (with or without cleft palate).
- **Prescription Pain Medications** – The most commonly reported prescription pain medications (also known as opioids) were codeine, hydrocodone, oxycodone, and meperidine. NBDPS researchers confirmed findings by another study that found that maternal prescription pain medication use early in pregnancy was associated with certain types of birth defects, including congenital heart defects, which are significant contributors to infant morbidity and mortality. It is important that health care providers discuss the potential risks and benefits of these medications with patients who are or may become pregnant.
- **Thyroid Disease** – Several studies have suggested an association between maternal Graves' disease (hyperthyroidism) and craniosynostosis, and data from the NBDPS analysis provides strong evidence for this association. The NBDPS results emphasize the importance of identifying women with active thyroid disease or a history of thyroid disease so that appropriate monitoring and optimal treatment can be provided during pregnancy.

For more information on the NBDPS, go to [www.cdc.gov/ncbddd/birthdefects/NBDPS.html](http://www.cdc.gov/ncbddd/birthdefects/NBDPS.html)

### National Center on Birth Defects and Developmental Disabilities

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