



For more information about the Organization of Teratology Information Specialists or to find a service in your area, call (866) 626-6847 or visit us online at: [www.OTISpregnancy.org](http://www.OTISpregnancy.org).

## Depot medroxyprogesterone (Depo Provera<sup>®</sup>) and Pregnancy

This sheet talks about the risks that exposure to depot medroxyprogesterone can have during pregnancy. With each pregnancy, all women have a 3% to 5% chance of having a baby with a birth defect. This information should not take the place of medical care and advice from your health care provider.

### *What is depot medroxyprogesterone?*

Depot medroxyprogesterone is a synthetic hormone similar to the female hormone progesterone. Depot medroxyprogesterone is marketed under the brand name Depo Provera<sup>®</sup>.

Depot medroxyprogesterone contraceptive injection is effective for preventing pregnancy for approximately 90 days but may be found in the bloodstream longer. It is recommended that women receive a shot every 90 days to prevent pregnancy. Depot medroxyprogesterone is not the same as oral birth control pills which contain other hormones.

Depot medroxyprogesterone can also be used to treat menstrual disorders and, at high doses, can be used to treat certain types of cancer. This fact sheet is written specifically for the contraceptive depot medroxyprogesterone injection.

### *How does it work?*

Depot medroxyprogesterone acts to prevent pregnancy by stopping the release of the egg during a woman's monthly cycle. If a woman does not release an egg during her monthly cycle, she cannot become pregnant.

### *I got pregnant within three months of my depot medroxyprogesterone shot; will my baby be more likely to have birth defects?*

High doses of the hormone in depot medroxyprogesterone and other synthetic hormones have been associated with ambiguous

genitalia in animal and human studies. These effects do not change the internal reproductive organs or sexual behavior and are felt to occur infrequently (less than 1% of the time).

The majority of studies have not found an association between non-genital birth defects after depot medroxyprogesterone exposure during the first trimester. In addition, children exposed to depot medroxyprogesterone during pregnancy or breastfeeding did not show adverse effects on their long-term health or development, including sexual maturity.

One study suggested an increased risk of polysyndactyly and chromosomal abnormalities in both babies exposed to depot medroxyprogesterone during pregnancies and babies born to mothers who had taken and stopped depot medroxyprogesterone prior to becoming pregnant. This has not been confirmed by other studies.

### *Are there any other problems depot medroxyprogesterone can cause?*

One study found that babies born to mothers who received their last depot medroxyprogesterone shot within four weeks of getting pregnant were a little more likely to have lower birth weight babies than those born to mothers who had unplanned pregnancies for other reasons. Other studies of mothers on depot medroxyprogesterone have not supported this association. Further studies are needed to determine if there is an increased risk for lower birth weight if you become pregnant when using depot medroxyprogesterone for contraception.

***What are the effects on my baby if I was already pregnant when I received my depot medroxyprogesterone shot?***

One study showed there may be an increased risk of neonatal and infant death when exposed to depot medroxyprogesterone during pregnancy. Again, these babies were more likely to have a lower birth weight than babies not exposed. No other studies have shown an increase in birth defects or long term health issues from use of depot medroxyprogesterone during pregnancy. In addition, there is no indication that depot medroxyprogesterone causes an increase in pregnancy loss or miscarriage. However, when you know you are pregnant you should not continue getting the depot medroxyprogesterone injections.

***Are there any effects if I use depot medroxyprogesterone while breastfeeding?***

One study found that the amount of prolactin, the hormone necessary for breast milk production, is slightly increased in women using depot medroxyprogesterone. Based on this, it is unlikely that depot medroxyprogesterone will decrease the amount of breast milk produced. If, however, a woman is going to use depot medroxyprogesterone, the World Health Organization has recommended waiting 6 weeks after the baby's birth to ensure that an adequate milk supply has been established. In women using depot medroxyprogesterone during breastfeeding the amount of hormone found in the breast milk is small. Many studies have shown that the hormone in breast milk appears to have no effect on the baby's long term growth and development. The use of depot medroxyprogesterone has been approved by the American Academy of Pediatrics for use in breastfeeding mothers.

**References:**

Dahlberg K. 1982. Some effects of depotmedroxyprogesterone acetate (DMPA): Observations in the nursing infant and in the long-term user. *Int J Gynaecol Obstet* 20:43-48.

Hale T. *Medications and Mothers' Milk*, 2002. Texas: Parmasoft Medical Publishing.

Jaffe B, et al. 1990. Health, growth and sexual development of teenagers exposed in utero to medroxyprogesterone acetate. *Paediatr Perinat Epidemiol* 4:184-95.

Jimenez J, et al. 1984. Long-term follow-up of children breast-fed by mothers receiving depotmedroxyprogesterone acetate. *Contraception* 30:523-533.

Koetsawang S, et al. 1982. Transfer of contraceptive steroids in milk of women using long-acting gestagens. *Contraception* 25:321- 331.

Pardthaisong T, et al. 1992. The long-term growth and development of children exposed to Depo-Provera during pregnancy or lactation. *Contraception* 45:313-24.

Pardthaisong T and Gray RH. 1991. In utero exposure to steroid contraceptives and outcome of pregnancy. *Am J Epidemiol* 134:795-803.

Pardthaisong T and Gray RH. 1991. In utero exposure to steroid contraceptives and survival during pregnancy. *Am J Epidemiol* 134:804-811.

Pardthaisong T, et al. 1988. Steroid contraceptive use and pregnancy outcome. *Teratology* 38:51-58.

Rathanon S and Taneapanichskul S. 2000. Depot medroxyprogesterone acetate and basal serum prolactin levels in lactating women. *Obstetrics & Gynecology* 96(6):926-8.

Saxena BN, et al. 1977. Levels of contraceptive steroids in breast milk and plasma of lactating women. *Contraception* 16:605-613.

Virutamasen P, et al. 1996. Pharmacodynamic effects of depot-lprogesterone acetate (DMPA) administered to lactating women on their male infants. *Contraception* 54:153-157.

Yovich JL, et al. 1988. Medroxyprogesterone acetate therapy in early pregnancy has no apparent fetal effects. *Teratology* 38:135-144.

