**Depo-Provera**

**General Information**

**Definition:**
Depo-Provera (Medroxyprogesterone Acetate) is an injectable progestin used in over 80 countries throughout the world by over 6,000,000 women over the past 20 years.

**Anatomy/Physiology:**
Depo-Provera is a progestin that is closely related to the natural hormone progesterone. Depo-Provera signals the pituitary gland to reduce the release of LH (Luteinizing Hormone) and FSH (Follicle Stimulating Hormone), which results in the human egg not being released from the ovary. This reduction in ovarian function is not complete, however, in that some estrogen is still made which prevents menopausal symptoms from occurring.

**Indications:**
Depo-Provera may be used as a contraceptive or simply as a method to stop menstruation. Depo-Provera is indicated for women with anemia, painful periods, PMS, ovulatory pain and endometriosis. Depo-Provera may be indicated for patients who are unable to take the combined oral contraceptives. Women who smoke over the age of 35 or who have experienced elevated blood pressure, headaches or leg pain while on oral contraceptives may be candidates for Depo-Provera administration. In general, women who cannot take estrogen are often good candidates for Depo-Provera.

**Advantages:**
- Woman who are breast feeding may use Depo-Provera
- Decreases the likelihood of a seizures occurring in woman with underlying seizure disorder
- Reduced menstrual flow resulting in less anemia
- Excellent alternative for those with born with heart defects
- Excellent alternative for the sickle cell disease patient
- Reduction in pelvic inflammatory disease
- Possible reduction of endometriosis

**Absolute Contraindications:**
- Uterine bleeding of unknown cause
- Pregnancy
- Active liver disease
- Active blood clot
**Administration:**
Depo-Provera is usually injected at a dosage of 150 mg every three months and is usually given within the first 5 days of a menstrual cycle. The injections may be given at more frequent intervals depending upon the reason for administration.

**Complications:**
- When used as a form of contraception, the failure rate (i.e., pregnancy rate) is estimated at less than 1%. An additional form of contraception should be used for two weeks following the first injection.
- A return to fertility may take an average of 10 months after the last injection. 2-5% of the individuals on Depo-Provera may not menstruate for up to 15 months after their last injection.
- There are some recent studies that indicate that there may be a small amount of temporary bone loss while on Depo-Provera. Bone loss increases the longer Depo-Provera is used. Bone growth begins again when the woman stops using the shot. The recovery of bone mass is probably complete – except in older women who have reached menopause. Because the bone loss is temporary, it is unlikely that it will lead to a greater risk of bone fracture much later in life. To protect your bones, stop smoking, limit your alcohol, get regular exercise and get extra calcium either through your diet or by using calcium and vitamin D supplements.
- Approximately 1/3rd of the women taking Depo-Provera will have some irregular uterine bleeding. This usually takes the form of unpredictable spotting. If persistent or heavy bleeding occurs, your physician may recommend further evaluation and treatment. The bleeding may be minimized through the use of additional estrogen or an increase in the frequency of the injections. Your physician may also choose to observe the bleeding to see if it spontaneously resolves. After 12 months, at least 50% of women using Depo-Provera will stop getting their period. By 24 months of use approximately, 70% will no longer get their period. While not getting a period may make a woman think she is pregnant, due to the low pregnancy rates while on Depo-Provera, it would be extremely unlikely for pregnancy to occur.
- Using Depo-Provera while actually pregnant may lead to an increase in neonatal and infant mortality rates due to low birth weight infants.
- It may take up to 9 months for pregnancy to occur after discontinuing Depo-Provera (delay > 12 months is unlikely)

**Infrequent Complications:**
- Changes in sexual drive (increase or decrease)
- Changes in weight (increase or decrease)
- Inflammation at the injection site
- Depression
- Headaches
- Dizziness
- Allergic reactions
- Decreasing HDL blood levels (decreasing HDL levels are associated with a greater risk for heart disease)

**Summary:**
Depo-Provera is an excellent contraceptive. It also is an excellent alternative for the control of woman's menstrual cycle with a minimal probability for adverse drug reactions.