



Progesterone Therapy ***Patient Information, EDI***

Definition:

Progesterone is a hormone that is released from the ovary during the latter half of an ovulatory menstrual cycle. Progesterone prepares the lining of the uterus for a fertilized embryo.

Anatomy/Physiology:

The ovary, specifically the corpus luteum, secretes progesterone following ovulation. If pregnancy occurs, the corpus luteum produces even more progesterone to support the ongoing pregnancy. If pregnancy does not occur, the progesterone secretion falls and the lining is shed. The regular shedding of the lining of the uterus is required to reduce the risks of uterine cancer.

During ovarian superovulation procedure, greater levels of both estrogen and progesterone are released. In the hopes of maintaining the balance between the highly elevated estrogen and slightly elevated progesterone levels, additional progesterone is often given either by daily injections, vaginal suppositories, orally or by vaginal gel. Progesterone may be considered a natural supplement when an inadequate amount is being naturally produced, both in the younger and the post-menopausal woman.

Indications:

1. Luteal Phase Defect (LFD): Progesterone supplementation is used when women have defects in their ovaries and follicles, which result in the delayed maturation of the lining of the uterus.
2. In Vitro Fertilization: Routine IVF, egg recipients and those undergoing hormone replacement Frozen Embryo Transfer cycles are candidates for progesterone therapy.
3. Recurrent Pregnancy Loss
4. Superovulation Techniques: When using Clomiphene Citrate and gonadotropin injections
5. Menopause: Those women who do not have any consistent ovarian function, such as those with menopause, progesterone is often prescribed to decrease the risks of the build-up of the endometrial lining and reduce the risks of uterine cancer.
6. Ovulatory Dysfunction: Used for the periodic shedding of the uterine lining.

Contraindications:

Women who have had previous adverse reactions to progesterone should not use this medication. Concerns about the risk of birth defects and natural progesterone are theoretical and not of true clinical significance. One needs to be cautious in reading the lay press and even the package insert when comments are made that progesterone may lead to the formation of abnormal offspring. "Unnatural" progesterone from birth control pills was the past issue, which is not the same as the "natural" progesterone being given to you. The

inaccurate package inserts are not only confusing but can be quite alarming. Further proof that “natural” progesterone is safe during pregnancy is shown by the fact that a brand name medication called **Crinone Gel** (a natural progesterone gel used to support the lining of the uterus in early pregnancy) has been FDA approved for use in pregnancy. ***Rest assured that progesterone is a natural hormone that is necessary for the well being of a pregnancy.***

Administration:

Your physician will decide the precise dosage of medication you are to take. Progesterone may also be continued should you become pregnant often until about eight weeks gestational age. Women without any ovarian function may have the progesterone continued until closer to 10-12 weeks gestational age. It is very important that you not start taking the progesterone until instructed to do so by the medical staff of Embryo Donation International (EDI). Taking the medication earlier than instructed can severely affect the chances for pregnancy. Do not start progesterone before an intrauterine insemination or an IVF egg retrieval procedure.

Complications:

Most women tolerate the progesterone without any difficulties. However, there may be some of the following difficulties:

- Vaginal dryness along with a slight increased incidence of yeast infections may occur when the vaginal suppositories are used. Placing the suppositories via the rectum is usually quite well tolerated.
- With injections, there may be local irritation at the injection sites. Pain may also result from the injections of the progesterone.
- Oral medications when taken in higher dosages can make you sleepy.
- If ovulatory medications are also being given, the combination of the elevated levels of estrogen and progesterone may make the breasts swell and become tender.
- Progesterone supplementation may result in the delay of the onset of the menstruation. This issue is quite frustrating to many women because the delay may falsely indicate an early pregnancy. If the menstruation is delayed greater than or equal to 16 days following any insemination or embryo transfer procedure and the urine or blood pregnancy test is negative, the progesterone supplementation may be discontinued. Please record the number of days that followed your insemination procedure until menstruation occurs (luteal phase length).

General Results:

Blood levels and endometrial biopsies may be needed to assess the efficacy of the hormone treatment. The nursing staff will assist you in scheduling these tests if your physician feels they are necessary.

Summary:

Progesterone is frequently given to supplement the natural progesterone being produced by your body. The extra progesterone may enhance the chances that a woman will conceive and carry her pregnancy successfully. In others, the progesterone will reduce the risks of endometrial cancer.



Fact Sheet

From ReproductiveFacts.org



The Patient Education Website of the American Society for Reproductive Medicine

Progesterone Supplementation During In Vitro Fertilization (IVF) Cycles

What is progesterone?

Progesterone is a hormone produced by the ovary. It is first detected in the middle of the menstrual cycle when an egg is released (ovulation). Progesterone prepares the lining of the uterus (endometrium) to allow a fertilized egg (embryo) to stick or implant. If a pregnancy does not take place, progesterone levels will fall and you will have your period. If an embryo implants into the lining of the uterus, the ovary will produce progesterone until eight weeks into the pregnancy. After that time, progesterone will be produced by the placenta throughout the rest of the pregnancy.

Why do doctors prescribe progesterone during fertility treatments?

During an in vitro fertilization (IVF) cycle, medications are usually used to prevent you from releasing an egg early (premature ovulation). These medicines affect your progesterone levels. Therefore, your doctor may prescribe a progesterone supplement to make up for this decrease in your ovary's ability to make progesterone. That way, an embryo can implant and grow inside your uterus (womb). Many scientific studies have looked at pregnancy rates in IVF cycles that used progesterone. These studies have shown that the rates are much higher compared to cycles where no progesterone was used.

When and how should I take progesterone?

Doctors usually prescribe progesterone supplementation to start on the day the eggs are harvested. If a pregnancy takes place, the doctor may tell you to continue taking progesterone throughout the first trimester. Progesterone can be taken as an intramuscular injection or vaginally (suppositories, gel or vaginal tablets). There appears to be no difference in the chances of becoming pregnant or continuing a pregnancy if progesterone is given by injection or intravaginally. You should talk to your doctor about which form of progesterone will better fit your needs.

What are the risks of taking progesterone?

Many studies have been performed to look at the use of natural progesterone during infertility treatment cycles. These studies have shown that progesterone will pose no significant risk to you or your baby. In 1999, the US Food and Drug Administration (FDA) did an in-depth review of progesterone. They found that using synthetic progesterone may be associated with birth defects. Synthetic progesterone is primarily derived from the male hormone testosterone. Therefore, natural progesterone agents should only be used during early pregnancy.

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