

ovulation). Thus, one of the more common treatments is to give **HCG** by intramuscular injection on **Peak + 3, 5, 7 and 9**. This will boost the production of **Progesterone and Estrogen** from the corpus luteum of the ovary and lengthen the post-Peak phase (or the luteal phase of the menstrual cycle). It is very reproducible and extremely effective in accomplishing this. The injections are also well tolerated.

Another way to boost progesterone is to give the **natural progesterone** either as an oral capsule, a vaginal capsule or a skin cream. All of these need to be specifically made up by a **compounding pharmacist** so that they have the right dosages and the appropriate type of progesterone in them. In any regard, they can be given starting on **Peak + 3 of the menstrual cycle and continued through Peak + 12**. In this way, the progesterone is given **cooperatively** with the menstrual cycle and does not interfere in any way with cycle function. In fact, it **improves cycle function** and, if pregnancy were to occur, **will do no damage at all** but rather will be **supportive of the pregnancy**.

In women who have **severe Premenstrual Syndrome**, intramuscular progesterone may be needed. This is especially true for women with **premenstrual migraines**. While intramuscular progesterone is a little more difficult to receive, it can be quite well tolerated if given properly.

While there is **no cure** for these ovarian hormone problems at the present time, **there is good and reliable treatment available** so long as one is willing to **NaProTRACK** their menstrual cycles, get a **good evaluation of the hormone function** and see a **physician who has expertise** in the implementation of these treatment strategies.

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The symbol on the front cover symbolizes the creation of a new human person. It represents the equation $1 + 1 + 1 = 1$. A man, a woman and God all come together to create the new child.

FOR MORE INFORMATION,
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THE EVALUATION AND TREATMENT OF OVARIAN HORMONE DYSFUNCTION



A
FERTILITYCare™
EDUCATION
BROCHURE

Thomas W. Hilgers, M.D.

THE EVALUATION AND TREATMENT OF OVARIAN HORMONE DYSFUNCTION

Abnormal hormone function is a common problem in women. Over the years, it has also been a very difficult problem to evaluate. However, recent advances at the **Pope Paul VI Institute for the Study of Human Reproduction** have allowed for significant improvements to be made in its evaluation and subsequently in its treatment.

The main difficulty in the evaluation of the ovarian hormones has been the fact that they are **produced in variable amounts from day to day**. These variations are linked to the timing of ovulation. For example, **Estradiol-17 Beta** (the major estrogen hormone associated with ovulation) is produced in **increasing amounts just prior to ovulation**, then it decreases and **rises again a second time** during the postovulatory period of the cycle. The hormone **progesterone** is generally produced only in small amounts during the preovulatory phase but it is the **dominant postovulatory hormone**. This day to day variation in the production of these hormones has always made it difficult to accurately and reproducibly evaluate their function.

For years, physicians have treated the evaluation of these hormones **as if all women had 28 day menstrual cycles**. In this way, they would measure progesterone, for example, on **day 22** of the menstrual cycle. However, **only five to ten percent of women have 28 day menstrual cycles and ovulation occurs on the 14th day in only 13 percent of cycles**. Thus, the hormones cannot

be evaluated based on a "day of the cycle" mentality.

Because of the research work that has been done at the **Pope Paul VI Institute for the Study of Human Reproduction** with the natural methods for the regulation of fertility and the development of **The CREIGHTON MODEL FertilityCare™ System** women are now taught how to **NaProTRACK** their menstrual cycles (a recording of the events of menstruation, cervical mucus discharge, the identification of the Peak day, the pre and post-Peak phases of the cycle, etc.). **By recording these various biological markers, a very specific assessment of the menstrual cycle can now be done.**

SYMPTOMS RELATED TO ABNORMAL HORMONES

There are many symptoms that are associated with **abnormal ovarian hormone function**. For example, some of the most common causes of **abnormal menstrual bleeding** are related to abnormal production of progesterone or other hormones. Women who have the **Premenstrual Syndrome** have the abnormal production of **progesterone** and **Beta-Endorphin**. Women who have **recurrent ovarian cysts** often have abnormal **progesterone** production. Women who have **infertility** or **repetitive miscarriage** have abnormal production of these various hormones as well.

There are a variety of other hormones that can also be observed to be abnormal. These include **FSH and LH, Estradiol-17 Beta, Prolactin** and the **Androgens (male hormones)**.

EVALUATION OF HORMONES

To do a **targeted hormone evaluation**, one must learn how to **NaProTRACK the cycle**. Once the recording of the events occurs and one can identify when ovulation and fertility exist, **one can then identify when one is postovulatory or periovulatory**. The appropriate hormone evaluation can then be accomplished.

A **post-Peak hormone profile**, for example, can be obtained by drawing the blood on **Peak + 3, 5, 7, 9 and 11**. Appropriate hormones such as **Progesterone, Estradiol-17 Beta, TSH and Thyroid Profile, Beta-Endorphins, and others may be obtained**. If one wants to do a **preovulatory Estradiol profile**, one can subtract five days from the occurrence of the Peak day and do an Estradiol level every other day from that day forward through **Peak + 2**. With the use of these techniques, **very specific evaluations** of these hormones can be accomplished. Once an accurate assessment of the hormone function is finished, then subsequent **treatment programs** can be implemented.

TREATMENT OF OVARIAN HORMONE DYSFUNCTION

There are **multiple ways** in which this can be treated. One of the most common is with the use of a drug called **HCG (Human Chorionic Gonadotropin)**. This is a **naturally occurring hormone** which is observed in pregnancy (and, in fact, is the hormone that is measured when a pregnancy test is done). The hormone HCG is chemically very similar to the hormone **LH** (but LH is not available). One of the roles of HCG is to **stimulate the ovary to produce its own progesterone and estrogen** (so long as it is given only after