

# Female Hormones and the Ideal Protein Protocol

## Preface

The female hormone system is arguably far more complicated than that of the male. During the Ideal Protein Protocol, changes in the concentrations of certain hormones can bring about various physiological changes. This is because fat cells store excess hormones including estrogens and “xeno-estrogens” (estrogen-like substances that mimic some of estrogen’s effects) and male hormones such as testosterone and androgens (DHEA, androstenedione). As fat is lost, these substances are released into the bloodstream and may cause certain temporary changes. It must be stressed that these changes are temporary and when the weight loss is complete, the body will return to its hormonal balance. While on Phase 1, hormonal changes will occur in all females, but the effects will vary. The coach or physician should make mention of these possible transient effects during the Initial Consultation, so the client will not be alarmed should they appear.

## Spotting in Postmenopausal Women

During perimenopause, a woman’s periods will likely become irregular with light to heavy flow or intermittent spotting. Once she enters menopause (which is defined as one full year without a period), they will cease. In addition, during both perimenopause and menopause, other unpleasant symptoms may occur. These include hot flashes, night sweats, vaginal dryness, decreased libido, mood changes, and insomnia. HRT (hormone replacement therapy) may be prescribed by her gynecologist to alleviate these bothersome conditions. It is not uncommon for the woman to have some spotting with initiation of hormone supplementation. Typically, she will take a combination of estrogen and progesterone in the form of pills, patch, cream, or troche. When women lose fat on the Ideal Protein Protocol, stored estrogens in the fat cells are released, and they may have spotting. Her gynecologist should be aware of any spotting since she may need evaluation with biopsy and adjustment in her hormone dosage. **The good news is that with clinically significant weight loss, the woman may experience a marked improvement in menopausal symptoms.**

Sometimes women wonder, “If I’m having ‘periods’ again, **can I become pregnant?**” **The answer is “no”** if they are in true menopause and **egg production has ceased.** This postmenopausal bleeding usually occurs as a response of the lining to the changing hormonal levels that occur with weight loss. **However, if it has not been a year since their last period then they may want to ask their gynecologist for an FSH (follicle stimulating hormone) level.** If this simple blood test shows high levels of FSH, then **they are in true menopause** and the woman is considered infertile. It is always important for the woman to report any occurrence of spotting to her gynecologist (whether due to HRT or fat loss) so the physician can confirm that it is due to hormonal changes and not from another cause.

## Birth Control Pills and Contraceptive Patches

These prescription methods of birth control usually work by altering a woman’s hormone levels so that ovulation does not occur and therefore makes fertilization very unlikely (99% effective). Because estrogens (and other hormone-like substances) can be released by the fat cells during the weight loss phase of the Protocol, **premenopausal women should use a reliable method of contraception** of their choice if pregnancy is not desired. Some studies have shown that even **5-10% weight loss can result in improved fertility.** Women who do not want to conceive should remain on **some form of contraception through all phases of the Protocol.**

## Menstrual Irregularities

**Premenopausal women** may notice changes in their monthly cycles while on the Ideal Protein Protocol. They may miss a period, have spotting, have a very light flow or experience a heavy, prolonged flow, and in rare circumstances **have multiple periods per month.** Again, this is due to temporary changes in hormone levels and is not dangerous or permanent. Basically, these changes indicate that the client is compliant as she is losing her body fat and also releasing fat-stored hormones as expected. Should she miss a period, it may be wise to **have her do a pregnancy test** to rule out that possibility if circumstances warrant it. If she experiences heavy or **prolonged flows** and they are bothersome, refer the client to her gynecologist, who may prescribe a short course of **progesterone** to alleviate this condition.

**ASK DR. PAUL ABOUT NATURAL PROGESTERONE**

## Temporary Hair Loss

While this temporary condition only occurs in a small percentage of females, it can be very traumatic, especially if the woman does not understand what is happening. Any sudden change in certain hormone levels can stun the hair follicle as they are very sensitive to hormones, sending it into a period of “hibernation.” This temporary state of dormancy may last up to nine months, but typically resolves within six months. Moreover, it only affects the hairs that are in the Telogen Phase (or final stage) of the hair growth cycle and are in the process of eventually falling out. The new hair shaft that will replace the old hair is temporarily thwarted in its development. This phenomenon is known as “Telogen Effluvium” and is both reversible and not permanent (unlike permanent male pattern baldness, known as Androgenetic Alopecia). The latter condition also has a hormonal cause: high levels of the testosterone metabolite DHT (dihydrotestosterone), which kills the hair follicle.

Telogen Effluvium may also occur during pregnancy, or more commonly postpartum. During pregnancy and right after delivery, the mother’s hormonal balance changes significantly. This is why gynecologists employing the Ideal Protein Protocol in their practices rarely get concerned about this, as it is relatively common in obstetrics. The good news for the new mothers and Ideal Protein clients experiencing this condition is that their new hair will be thicker, shinier, and healthier when it comes in. Hair is made of protein, primarily keratin. During pregnancy, much of the mother’s nutrition is used to “grow a baby,” so there may not be enough protein to keep the rest of her body in optimal repair. Similarly, many Ideal Protein clients have previously had poor eating habits, such as too many carbohydrates and not enough protein. With an adequate amount of these nutrients, clients will likely see positive changes in hair, skin, and nails.

## A Word About PCOS (Polycystic Ovarian Syndrome)

PCOS is a condition that affects approximately 6-12% of women in North America and is on the rise. It is brought about by abnormal changes in a woman’s hormones. Polycystic ovarian syndrome may include menstrual irregularity, hirsutism, and polycystic ovaries seen on transvaginal ultrasound. Normally, a woman’s ovaries begin to develop about 20 eggs during each monthly cycle. These eggs begin to mature in little cysts, and over the course of the month, one egg becomes dominant by receiving most of the “egg ripening hormones” the woman is producing. This egg will eventually be released and fertilized or shed in the menses if no sperm is available. In PCOS, the selection of a dominant follicle and release of an egg is abnormal due to insufficient FSH stimulation. What results is that all 20 eggs develop somewhat, but remain as cysts, triggering the production of androgens (male hormones, including testosterone) and little to no production of progesterone to balance this. These cysts then accumulate in the ovaries month after month, and even more male hormones are produced, causing a wide variety of symptoms.<sup>1</sup>

Androgenetic Alopecia (permanent male pattern baldness) can occur in women suffering from PCOS. Elevated levels of these male hormones may produce other symptoms, such as acne, coarse facial and body hair (hirsutism), infertility, amenorrhea, ‘skin tags’ (usually on the neck, arm pit area, or bra line), and a condition known as Acanthosis Nigricans, which is a darkening and thickening of the skin around the neck, underarms, groin, and skin folds.

Historically, gynecologists and endocrinologists have used hormone supplementation as the main therapy to correct these imbalances. However, in recent years, research has shown high levels of insulin coupled with insulin resistance to be one of, if not the primary cause of this disorder. Approximately 40-85 percent of women with PCOS have overweight or obesity compared with age-matched controls. Insulin resistance is present in 70 percent of women with obesity with PCOS. Weight loss can restore ovulatory cycles and improve metabolic risk so should be the first line of intervention.

<sup>1</sup> CDC Reference: <https://www.cdc.gov/diabetes/basics/pcos.html>