

Progesterone Hormone Information Sheet

Hormone deficiencies can wreak havoc with a woman's health and feeling of well-being. Mainstream medicine has focused on the drop of oestrogen as being the culprit behind menopausal miseries. The scientific literature, however, reveals that an imbalance of several hormones is responsible for many of the discomforts and lethal diseases that women face during most phases of their lives. Concern about the life-threatening side effects of synthetic drugs has caused many women to be deprived of the benefits of safe natural hormone therapy. When hormones are properly replaced, the risk of contracting degenerative disease is reduced. Attaining optimal hormone balance can also dramatically improve women's emotional and physical spheres of life. This article introduces a new concept to explain why so many females suffer hormone-related problems and provides a simple solution that has been overlooked by most conventional doctors.

With female life span currently hovering around 80 years, the fact is most women spend a significant percentage of their lives in a state of hormone imbalance that began with the onset of menopause. In the Australia alone, approximately 3 million women have entered menopause, and many of those women experienced troublesome symptoms both before and during "the change." As long as there has

been menopause, there have been women who suffer greatly as a consequence of this transition. Once they've passed through this complex transition, women find themselves at increased risk of heart disease, osteoporosis and cancer.

Efforts to help those women who suffer from menopausal symptoms and diseases of aging have moved along two paths. Mainstream medicine's path has led to the widespread prescription of conjugated oestrogens, most commonly sold today as Premarin, and synthetic progestins. The second path has led to the development and use of natural estrogens and progesterone. While the first path has led to temporary relief for many women, it has done so at great cost. The second path, although given little credence by the medical mainstream, works without the side effects characteristic of conjugated estrogens and progestins, because its goal is to duplicate the hormonal balance that naturally occurs in a healthy young woman's body.

Conventional vs. natural hormone replacement therapies.

The primary aim of both types of hormone replacement therapy (HRT) is to relieve menopausal symptoms. Both have proven capable of achieving this end. HRT research has also focused on its ability to

reduce risks of age-related diseases such as heart disease, osteoporosis and cancer.

Possible Premenopausal Symptoms:

- Weightgain
- Bloating
- Depression
- Migraine headaches
- Fibrocystic breasts
- Breast tenderness
- Hypothyroidism
- Uterine fibroids
- Decreased libido
- Extremely heavy or extremely painful periods
- Moderate to severe PMS
- Endometriosis
- Infertility
- Repeated miscarriage

Conjugated oestrogens and progestins effectively relieve menopausal symptoms but at the risk of significant side effects, including breast tenderness, vaginal bleeding and mood changes. Some studies have appeared to support HRT's effectiveness at preventing heart disease, but the overall weight of the research data does not support it as preventive medicine against cardiovascular diseases.

The most recent large-scale study showed that this combination of synthetic hormones increased the likelihood of strokes (41%), invasive breast cancer (26%) and heart attacks (29%) in women who used it for less than five years. The results of this study, which involved over 16,000 menopausal women, were so alarming that it was halted prematurely.

Natural estrogens and progesterone, on the other hand, pose little to no risk of adverse effects when they are used properly. Unlike the synthetic progestins

and conjugated estrogens, their molecular structure is identical to the hormones made in the human body. When the molecular structure of a hormone is "tweaked" to make it patentable (thus enabling drug companies to charge what they like without fear of competition), it does not function the same as its natural counterpart. This can lead to other actions in the body resulting in unpleasant or dangerous side effects. Natural progesterone and estrogens, which are made from soy or wild yams, are bioidentical – indistinguishable from the real thing, both under a microscope and within the human body. Bioidentical progesterone and oestrogens, when used appropriately, also relieve vasomotor symptoms and help to build bone.

They pose no increased risk of heart attack, and their physiological effects on the circulatory system are likely to aid in the prevention of cardiovascular disease.

Evidence exists that natural (bioidentical) progesterone is more effective at building bone than synthetic estrogens.

Natural hormones are also useful for maintaining or reviving libido during "the change." Unlike any type of synthetic HRT, natural hormones – more specifically, natural progesterone – appear to help prevent breast cancer.

An added advantage of natural hormone therapy is that it can be used by women who have yet to pass into menopause. Growing numbers of women in Westernised nations begin to experience premenopausal symptoms as early as their 30s and 40s (see a partial list of premenopausal symptoms, above left).

Most women who experience premenopausal symptoms are not

ovulating with each menstrual cycle, and so do not make the progesterone needed to balance out the estrogens that build up the uterine lining. Studies have shown that by the age of 35, approximately 50% of women are having at least some anovulatory cycles.

Constant exposure to oestrogen-mimicking chemicals in the environment – found abundantly in everything from plastics to cleaning solutions – further elevates these women's oestrogen load. The result is an imbalance that hormone expert and author John Lee, M.D. has named oestrogen dominance. Oestrogen dominance occurs when the tissue-building properties of oestrogen are not adequately countered by the normalizing, balancing effects of progesterone, a hormone that can be physiologically supplemented in a manner that mimics the hormonal cycles of a healthy young woman.

A common age for the initial detection of breast cancer is five or more years before menopause. This indicates that factors in play before the menopausal transition – most likely, oestrogen dominance – create an ideal environment for the development of breast tumours. According to Dr. Lee and biochemist David Zava, Ph.D., the authors (along with medical writer Virginia Hopkins) of *What Your Doctor May Not Tell You About Breast Cancer* (Warner Books, 2002) balancing hormone levels through the proper use of natural progesterone can prevent breast cancer in oestrogen dominant women. Even younger women, including those in their teens and 20s, can suffer from oestrogen dominance. Their symptoms may include PMS, weight gain, fibrocystic breasts, bloating, troublesome periods, infertility, endometriosis, depression or repeated miscarriage. Natural progesterone works to relieve symptoms in these younger

women as well. Some menopausal women find that their symptoms are relieved with natural progesterone alone. This is due to two factors: first, oestrogens are made in fat cells, which means that heavier (or extremely oestrogen dominant) premenopausal women may actually continue to be oestrogen dominant well into menopause; and second, natural progesterone supplementation has the effect of "waking up" oestrogen receptors, increasing their uptake of available estrogens.

Hazards of Oral Contraceptives Birth control pills contain the same synthetic hormones that have been linked to serious health risks when used after menopause. They have been found to increase risk of cardiovascular disease (strokes, heart attacks and blood clots that can become lodged in leg vessels or vessels that feed the lungs), as well of the risk of developing cancer of the breast, cervix and liver. The cardiovascular risks of the Pill use are often underestimated. It is likely that the increasing use of oral contraceptives for the symptoms of premenopausal will lead to more cardiovascular adverse events, because women in the premenopausal age bracket already have elevated risk of such problems. In some women, oral contraceptives cause depression, anxiety and mood swings. These side effects can be severe enough to affect quality of life and the ability to have healthy relationships.

The use of oestrogen drugs in women with premenopausal symptoms is not helpful. That's because the last thing any oestrogen dominant woman needs is more oestrogen, and synthetic progestins can't replace the real thing. Many women with premenopausal symptoms end up using oral contraceptives to control them, and these drugs have their own

hazards. This is no surprise when one considers that they contain the same kinds of synthetic hormones found in conventional HRT (see "The hazards of oral contraceptives," left). Dr. Lee and other experts have found that natural progesterone is the best treatment for the symptoms of oestrogen dominance, and thousands of women have discovered this firsthand. If natural hormones are superior to synthetic ones, one might ask, where is the research to support this claim? Natural substances cannot be patented, and so the potential for huge profits from their manufacture and sale can't match those of synthetic versions. Because of this fact, it has been impossible to secure the funding necessary for the large-scale trials that could pit natural hormone therapy against the synthetics. Some studies have been done to show the bioavailability and overall value of natural HRT,^{4,16,17} but natural hormone researchers have not been able to compete with the enormous, pharmaceutical company-funded studies that have been published on conventional HRT. As a result, most women have been led to believe that conventional hormone replacement therapy was their only option at menopause. The role of synthetic progestins in HRT has been relegated to little more than a preventive measure against uterine cancer. Mainstream medicine has ignored the many important roles natural progesterone plays in reproductive health and in the complete health picture of women in every stage of their life spans. Natural progesterone, delivered to the body via a lozenge that contains this hormone, is all that many women need to regain and maintain hormone balance. Women who are in or past menopause may also need other hormones, including natural estrogens and testosterone. The many uses of natural progesterone

Progesterone's best-known role is in maintaining a healthy pregnancy. When a woman ovulates, the follicle that has burst to release the ovum becomes the corpus luteum. The corpus luteum secretes anywhere from 4 mg to 28 mg of progesterone per day during the two weeks between ovulation and menstruation, with the average being 22 mg to 25 mg. If pregnancy takes place, the corpus luteum continues to make progesterone throughout the first trimester, playing an indispensable role in maintaining the pregnancy until the placenta can take over the job of providing progesterone. By the third trimester of pregnancy, the placenta is making up to 400 mg a day of this progestational hormone.

Women who suffer from repeated miscarriages may suffer from luteal insufficiency, meaning that their ovaries are not making enough progesterone to protect the pregnancy through the first trimester. It makes sense for women vulnerable to miscarriage to supplement with natural progesterone, starting as soon as they know they are pregnant. A recent study has concluded that injections of a metabolite (breakdown product) of progesterone are highly effective at preventing pre-term births in women who are at risk for them. Transdermal progesterone is likely to have the same beneficial effect. It is important for women who are pregnant or trying to conceive to use a pure progesterone cream—one that contains no estrogens or estrogenic herbs. If you would like to use progesterone cream to prevent miscarriage, enhance fertility or prevent pre-term birth, consult with an obstetrician or other health practitioner knowledgeable in the use of natural hormones, or refer to *What Your Doctor May Not Tell You About Premenopausal* by John Lee, M.D., Jesse Hanley, M.D. and Virginia Hopkins (Warner Books, 1999).

If ovulation does not occur during the menstrual cycle, no progesterone is made. Anovulatory cycles are not easily detected, since menstruation still happens on schedule as long as oestrogen does its part. The resulting imbalance of oestrogen (which reaches its highest levels at around the 12th day of the menstrual cycle, with the first day falling on the first day of menstruation) and progesterone leads to a condition of oestrogen dominance. When this cycle repeats itself frequently, and when it is amplified by environmental estrogens and those made in excess body fat, the body is in a near-constant state of oestrogen overload. Oestrogen-sensitive tissues get the message to grow and proliferate, and the symptoms are the end result. By adding progesterone back into each cycle, and gently augmenting progesterone production during ovulatory cycles, balance can be re-established.

Women who are in or past menopause can also benefit from natural progesterone supplementation. Natural progesterone stimulates the formation of new bone and may help to prevent breast cancer. It counteracts the blood clotting effects of estrogens, improves vascular tone (the ability of blood vessels to stretch and contract in response to the body's requirements), and is believed to protect against the build up of atherosclerotic plaques and coronary artery spasms that lead to heart attack.

It's a gentle mood enhancer and helps to maintain normal libido. Low thyroid activity is a common problem for postmenopausal women. Oestrogen inhibits thyroid hormone activity.

Balancing excess estrogens with progesterone enables the body to

better utilize thyroid hormone, and can help women to wean themselves off of thyroid hormone replacement drugs.

Progesterone builds bones

One of the main arguments in favour of HRT is that it has been shown in multiple studies to preserve bone mass and protect against osteoporotic fractures. The truth is that while estrogens – even the horse-derived estrogens that comprise Premarin – do preserve bone mass, the overall risks of HRT have been found to outweigh any beneficial effects it might have on bone health. The synthetic progestin medroxyprogesterone has been found to increase bone density when given to young women who are not menstruating or ovulating.²⁰ The work of John Lee, M.D., and other like-minded clinicians has shown that natural progesterone has the same bone-building effect in both pre- and postmenopausal women, without the side effects that often occur with the synthetic progestins. Oestrogen maintains bone mass by subduing the activity of osteoclasts – specialized bone cells that break down old bone to make room for new. Progesterone builds bone by stimulating the activity of osteoblasts, bone cells that pull calcium, magnesium and phosphorus from the blood so that it can be incorporated into the bones. Progesterone and breast cancer Progesterone modulates much more than the course of a pregnancy. It interacts with oestrogen in dozens of ways; the best detailed explanation of these effects can be found in Dr. Lee's writings. The short story on progesterone's relationship with cancer is that while oestrogen encourages cellular growth (which is why it is carcinogenic in excess), progesterone encourages cells to differentiate, or mature. Immature cells are more likely to turn into cancerous cells.

Progesterone also encourages cells to

undergo apoptosis – programmed cell death. A cell that becomes cancerous avoids apoptosis; it can continue to divide and survive as long as it has fuel and a place to grow. The mechanisms by which oestrogen encourages cell growth are also thought to help switch off the genetic machinery that brings on programmed cell death.⁹⁻¹² Progesterone also reduces the production of a carcinogenic form of oestrogen (4-hydroxyestrone) and enhances the production of estriol, a safer, non-carcinogenic oestrogen. Breast cancer surgery or biopsy performed during the luteal phase of the menstrual cycle – the phase during which progesterone levels peak – is associated with significant improvements in prognosis and survival time.²¹⁻²³ Progesterone counteracts oestrogen's effects on breast duct cells, which are usually the place where breast tumours begin to form. Oestrogen encourages breast duct cell proliferation; progesterone encourages those cells to mature and differentiate. This is how oestrogen and progesterone interact during pregnancy to ready the breasts for lactation. Mature, differentiated cells are far less vulnerable to cancerous changes, a fact that explains why women who have had full-term pregnancies are at less risk of developing breast cancer.

How to Supplement with natural progesterone/ Bio-Identical Progesterone

Natural progesterone can be given in the form of suppositories and injections, troche (lozenge), Cream and Capsule. Both work to move progesterone into the bloodstream, but the first is messy and the latter is inconvenient. The simplest way to supplement with progesterone orally by capsule taken at night time or troche. A troche is commonly prescribed transbucally in the form of a lozenge (Once absorbed through the mucosa of the mouth, the progesterone molecules

gradually diffuse into the circulation). This method provides the closest possible approximation to the natural production of progesterone by the ovaries – as long as the dosages are properly timed. The other convenient method is apply a cream once or twice daily as required for a more gradual effect. A

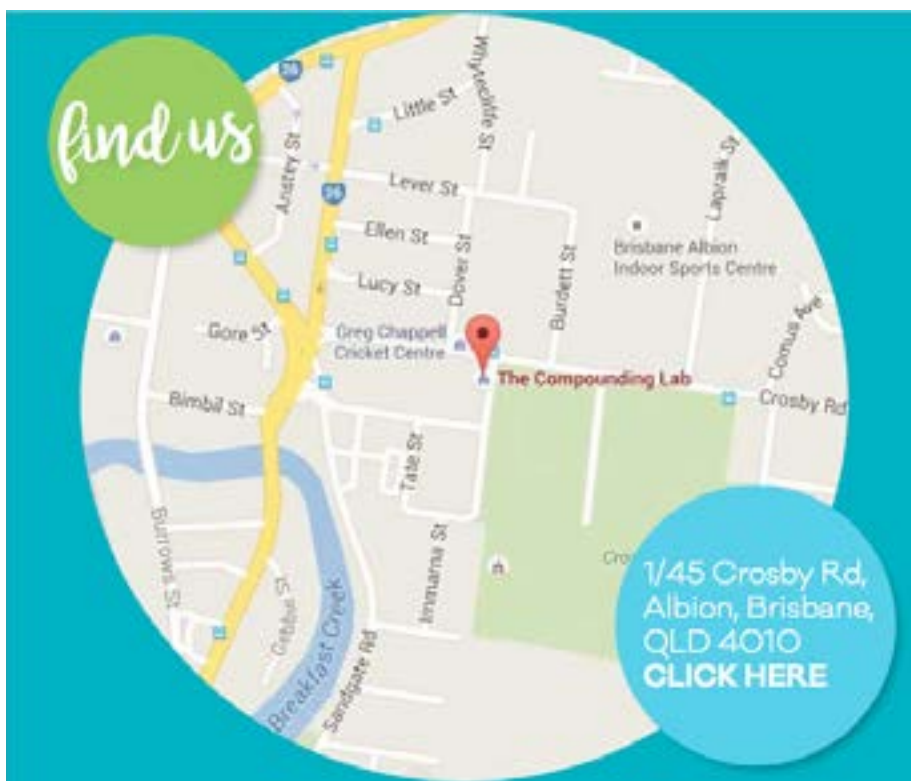
At the Compounding lab we prepare all types of Progesterone in hundreds of different strengths. From 0.01% through to 10% Cream, Troche or Capsule.

Premenopausal women and PMS:

Women who have not gone through menopause and have oestrogen dominance symptoms (including fibrocystic breasts and ovarian cysts) should use are generally prescribed a troche containing 150 to 200mg of progesterone and use $\frac{1}{4}$ twice a day from day 15-26 of the menstrual cycle. Progesterone can also be used in the form of a slow release capsule if women find the troches unpleasant to taste or if they have gum sensitivity to the troche. This method is not quite as efficient at delivering the progesterone into the blood as some of it is denatured by the stomach acid and the progesterone has to first pass through the liver. If dosage is adjusted correctly results can be almost as good as troches. Natural progesterone is increasingly being used in lieu of synthetic progestin drugs. Like any hormone – natural or synthetic – it's bound to have more significant effects in some people than in others, because of subtle biochemical differences. Fortunately, there is no risk involved in trying it as long as it is used properly.

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