

Natural Progesterone and synthetic alternatives - Dont Be Confused!

This article is about Natural Progesterone, and how as a naturally occurring hormone in the body it protects against hormonally driven estrogen-responsive cancers like breast cancer.

It should not be confused (but often is) with synthetic alternatives, which have been linked to an increased risk of breast cancer in women.

The Womens Health Initiative in the USA runs from 1997 to 2005 using SYNTHIETIC hormones. One trial within it looked at HRT. It was split into two separate parts:

A group of women who took estrogen-only synthetic HRT, and a group who took estrogen/progesterone synthetic HRT .

In August 2003 the latter group trial was stopped. The synthetic mixed HRT had increased breast cancer cases 100 per cent.

The synthetic estrogen-only group was allowed to continue, it had only seen a 27 per cent increase.

The difference between the two groups? **SYNTHETIC PROGESTERONE.**

The subgroups in the WHI study were quite small. But the research has been confirmed by a much larger study, namely Cancer Research UKs Million Women Study. Here scientists found that women using combination synthetic HRT were twice as likely to develop breast cancer as non-users (In other words, again, a 100 per cent increase).

In developing countries, amongst 1000 post-menopausal women who do not use HRT, there will be about 20 cases of breast cancer between the ages of 50 and 60. For every 1000 women who begin 10 years of HRT at 50, those on estrogen-only will develop about five extra cases, those on estrogen-progesterone combination HRT will develop 19, or four times more cases.

Nylon Versus Cotton

Now, there are some doctors who feel that synthetic progesterone is a significant cause of cancer. We receive letters from them. The indications are certainly there.

However, many people (doctors included) get completely confused between synthetic progesterone and natural progesterone. They are as different as two shirts, one made of nylon and the other of cotton. Synthetic progesterone in fact, should not be even called progesterone. Its name in the UK is **proqestagen** and in the USA, **proqestin**.

Patently Different

Icon recently covered research showing that vitamin A had a significant effect on a cancer. The conclusion of the research was that now drugs could be made to have a real effect on the cancer. But why not use vitamin A? The answer is simple. **A natural substance cannot be patented**. Without a patent there is **no profit** for a pharmaceutical company and **no incentive** to recommend the treatment. Sad but true. And **doctors receive most of their information from pharmaceutical companies** so they never come across the original research, which lies dormant.

“ Many people get completely confused between synthetic and natural progesterone ”

So too, with natural progesterone: made from **natural sources** it cannot be patented and is thus an outcast - confined to the dustbin marked "not a source of profit". Meanwhile the man-made equivalents are widely used. BUT. Progestagens are synthetic hormones, similar **but not identical to** natural progesterone. Even slight changes in hormones can, and do, cause considerable side effects in the human body.

Natural Function And Cancer

Progesterone is the hormone produced by the female ovary after ovulation. However in the Western world, diet and lifestyle have made periods far more irregular and, although a woman may bleed, she may not have ovulated. Thus she may make far less actual progesterone across the average year than God intended.

One of the major evolutionary functions of natural progesterone is to balance and oppose estrogen. After ovulation the ovaries produce approximately 20 mgs per day of progesterone, stopping any further estrogen-induced ovulations. During pregnancy the placenta produces more than 300 mgs of progesterone per day for similar reasons. Indeed Cancer Research UK has shown that breast cancer rates fall the more children a woman has.

A 30 year retrospective study at John Hopkins University in the USA showed conclusively that women who were progesterone deficient had 5.4 times the level of breast cancer and 10 times more deaths from cancers of all types. (AM J.Epidem 114.2 1981).

Other Benefits

Progesterone supports and maintains pregnancy. It is a precursor to a number of other hormones. It has receptor sites in bone cells, nerve sheaths and in brain cells indicating that it plays a role in all their functions. There are two or three scientific trials (e.g. Smith, Gung, Hsu - Nature 1998 and Magill P, Br.-J Gen Pract; Nov 1995) that imply it will help in PMS.

The Progesterone Problem

“ Progesterone supports and maintains pregnancy ”

Menopause is not something that happens suddenly. From the age of 35 most women's progesterone levels start to decline as they gradually stop ovulating or "splutter" out of eggs (significant levels of progesterone are only produced from the empty follicle after a woman ovulates).

At these times the adrenals are the sole source of the natural hormone, but only producing 3 per cent of the original amount. Indeed less progesterone than is normally produced by a man.

On the other hand, estrogen levels can remain high right up until menopause when they will decline to approximately 40 - 60 per cent of original levels, just enough to stop ovulation, (estrogen is also the hormone that builds up the womb lining).

Thus estrogen is still produced in quite large quantities (it is also made in muscles for example) yet progesterone is drastically reduced. Couple this with the effects of certain pesticides or toiletry ingredients, for example, which are known to mimic the action of estrogen in the body, and a woman can suddenly experience severe estrogen dominance. **And excess estrogen is linked to an increased risk of cancer.**

The balance between estrogen and progesterone poses other questions. For example, if osteoporosis is a condition of the menopause when estrogen declines, why are so many women with regular cycles

reaching menopause with osteoporosis well underway? One counter argument is that the bone building benefits of progesterone have been severely hampered over time by the synthetic versions in the pill or other synthetic estrogen providers.

Hot flushes can occur when the estrogen is declining around the age of menopause when a woman is having anovulatory cycles (not ovulating) and the follicle stimulating hormone is working like fury trying to squeeze any last drop of estrogen from the ovaries.

Is the solution to increase your estrogen further by taking HRT with all the associated risks of cancer, or is it to try to maintain the original balance by increasing natural progesterone instead?

“ Why are so many women with regular cycles reaching menopause with osteoporosis well underway? ”

That high levels of estrogen are ever present in women is all too clear to scientists if not to doctors. A recent study on estrogen confirmed that overweight post-menopausal women actually have higher estrogen levels than thin pre-menopausal women, thus exploding the myth that somehow your estrogen levels have declined dramatically! Moreover, the new aromatase inhibitor drugs have been designed to cut high estrogen levels in post-menopausal women. Now, I thought doctors had been dishing out HRT because post-menopausal women had so little estrogen - silly me.

So, is estrogen deficiency even the cause of osteoporosis? The progesterone receptor sites and bones might indicate otherwise. As we have stated before in icon, the Western world has the highest levels of blood calcium and the lowest levels of bone calcium in the world. Both are directly due to a high dairy consumption. Dairy depresses magnesium and vitamin D levels, both essential for calcium uptake into bones. One of the standard answers to osteoporosis is "consume more dairy". The real answer is clearly more complex than this and involves hormones like progesterone, and importantly actually consuming less dairy (a good helping of green vegetables will give you your daily calcium).

Breast Cancer

Dr Paul Layman wrote to us recently to clear up an error in the Tony Howell interview. Paul writes, "*An eighteen year study on the protective effect of natural progesterone has recently been confirmed. The estrogen receptor status of breast cancer is now thought to be of significance in recurrence rates, but the Imperial College study seemed to suggest that the timing of breast surgery was more important than receptor status*".

And he is perfectly correct. Choosing the correct point in your monthly cycle to have a breast operation can increase your 10-year survival by two thirds! Every woman and their doctor should know this fact.

“ Choosing the correct point in your monthly cycle to have a breast operation can increase your 10-year survival by two thirds ”

The Imperial Cancer Research Fund (Cancer, 15th Nov 1999) states clearly that "Women having breast tumors removed during the follicular phase of their cycle (that is days 3-12 when their estrogen is high) have a 10-year survival rate of only 45 per cent, compared to a 10-year survival rate of 75 per cent for women having surgery during the luteal phase (when progesterone is high)."

Indeed the research also showed that estrogen receptor positive and progesterone receptor positive tumors had the highest survival rates if surgery was performed in the second half of a woman's cycle.

This work confirmed an earlier study from Guys Hospital by Cooper, Gillett, Patel, Barnes and Fentiman in August 1999 and yet earlier work by Hrushesky et al (Lancet 7989).

Natural Progesterone Confers Protection

A further study (Formby and Wiley, Journal Nat. Cancer Inst. June 7997) shows that natural progesterone actually inhibits growth and induces cell death in breast cancer cells by affecting p53 and Bcl-2 gene expression.

This followed work by Chang, Lee et al (Fertility and Sterility vol 63 7995) that, while estradiol (the most potent estrogen hormone) increases the number of cycling epithelial cells, natural progesterone actually decreases them.

The study further states that natural progesterone secretion suppresses estradiol receptors in both the endometrium and breast tissue, and has an anti-estrogen effect (just as, for example, the latest aromatase inhibitors aim to do), but that very high concentrations of synthetic progestins can stimulate human breast cancer cells. Which takes us back to where we started. Cotton is good, nylon certainly is not.

And Men?

“ There is an important balancing role for natural progesterone in prostate cancer too ”

The work on receptor sites for prostate cancer is nowhere near as advanced. What is known is that testosterone (converted to the dangerous DH4T) and estradiol both have to be present (Monash Cancer Centre, Australia); although, according to work by Dr Thompson (Aug 2003 - Houston, Texas), estradiol is the driving force. Quite possibly, then, there is an important balancing role for natural progesterone in prostate cancer too.

Take from Chris Woollams article on the book “Everything you need to know to beat cancer”