Women's hormones have been front page news in recent years. From supportive research findings to media scares and random talk of soy and herbs, reports seem confusing until we have a complete picture. So let's look at the full spectrum of holistic gynecology and see where the pieces fit.

Our Bodies and Their Changes:
During our menstrual years, each cycle lasts approximately 28 days, starting with the onset of a period. During the first 14 days of the cycle, as a fresh egg ripens, the ovaries produce increasing amounts of estrogens - peaking at ovulation. Estrogens are growth-promoters that stimulate rebuilding of the uterine lining (endometrium) following a period. After ovulation and for the second 2 weeks, the area of the ovary from which the egg was released secretes progesterone, which matures and stabilizes the lining, preparing the body for a possible pregnancy. If the egg is not fertilized it dies, hormone levels fall, the endometrium comes away in a period, and the cycle starts over. If pregnancy occurs, progesterone climbs tremendously high, stabilizing the contents of the uterus for nine months.

Around menopause, hormone levels start to decline and the supply of eggs starts to dwindle. If no egg ripens, ovulation is missed and there may be two or more months between periods. Progesterone levels can start to fail 10 or more years before actual menopause, either not rising high enough or not staying high for long enough in the second half of the cycle. Without enough progesterone to thin the endometrium, periods may come too frequently or last too long, with heavier flow or “flooding”, there may be spotting between periods, increased PMS or menstrual cramps.

Low-estrogen symptoms may follow: hot flashes, night sweats, memory loss, difficulty concentrating (“mental fog”), anxiety or depression, bladder irritability, vaginal dryness, and sometimes headaches or joint pains. Sudden drops, surges and fluctuations of estrogen can intensify symptoms.

Treatments for Early Menopause
Early in the menopausal process, while the ovaries still have some hormone reserves (and periods may occur now and then), we can use plants to encourage the body's own hormones. These plants do NOT contain female hormones (though they are sometimes misleadingly named "phytoestrogens"): mammals make estrogens - plants certainly cannot. However, these helpful plants do contain compounds that stabilize or enhance the body's own hormone levels, and can be very effective at evening out a woman's own hormone output.

In early menopause, foods and herbs can relieve symptoms for months or years, if taken in effective forms. Soy is best eaten organic in whole foods such as tempeh, soy nuts or whole-soy bean casserole - there are questions about the breast safety of capsule concentrates (isoflavones). Tempeh is delicious (use like chicken breast), soy nuts are a wonderful low-fat snack, and whole dry soy beans can be delicious baked. Flax seed oil has additional heart and immune benefits. Vitamin E is most effective if it includes the whole family of natural mixed tocopherols; gamma-linolenic acid is a helpful omega-6 oil used in a concentrate or found in
blackcurrant or evening primrose oil. Herbs like black cohosh, dong quai, chasteberry, red clover, licorice root, motherwort, false unicorn and alfalfa are most potent in tinctures (liquid concentrates), or in standardized extracts; capsules of whole powdered herb may be too weak. Black haw, dandelion root and wild yam are amongst herbs that enhance progesterone levels. Each herb has unique actions on ovaries or pituitary and should be chosen purposefully according to the individual’s symptoms, menstrual pattern and blood hormone levels.

In addition, exercise, acupuncture, and reducing coffee, smoking and alcohol can help early menopausal symptoms. For menstrual cramps, a diet higher in fruits and vegetables, with increased Omega-3 fats for one week before the period is advisable. Calcium and magnesium citrate or chelates are useful to relax the uterus, as are herbs including cramp bark, amisana and black haw. For women with very heavy periods, styptic herbs including shepherd’s purse, trillium, erigeron, cinnamon, geranium and hydrangea, can dramatically lighten the flow. Also blood counts, vitamin B-12 and ferritin (iron) stores should be checked regularly, and iron replacement may be needed.

Eventually the body’s hormone reserves decline and no amount of botanical encouragement helps. When symptoms are no longer relieved by nutrition or herbs, a woman may consider biologically-identical hormones. This involves supplementation with true hormones, estrogens and progesterone identical to those produced by the human body, and made from plant sources. Women who no longer have a uterus may be told they only need estrogen, but in fact they can also benefit from progesterone.

**Taking Hormones - the Options:**
There are two broad categories of reasons for taking hormones: Firstly for immediate relief of menopausal symptoms: When the body’s hormone reserves have dropped too low to respond to the encouragement of botanicals, and no amount of soy or beneficial herbs can help because the ovaries can no longer produce hormones. Secondly for long-term protective benefits. Some women may not suffer from menopausal symptoms, but are eager to protect their bone density, reduce their risks of macular degeneration and colon cancer, or protect their hearts from cardiac artery plaque.

If hormones are to be used, common sense tells us that the best choice would be hormones identical to those made by our bodies. These “biologically-identical” hormones have been available for decades, and their safety record/profile is outstanding. However, their profit potential is low because natural hormones cannot be patented or exclusively owned. Nobody can own the rights to a substance or hormone that exists in Nature - no one can own water or salt or a hormone such as insulin, because they are ubiquitous in the natural world.

Conventional practice offers pharmaceutical “HRT” menopause drugs or the oral contraceptive pill for menopausal symptoms. These drugs are synthetic chemicals, they do not exist in Nature or the human body, thus they can be patented and owned by their manufacturer - the drug company. Patented, brand-name drugs can sell for large profits (as only the patent owner produces them).

The menopause industry profited hugely for decades from the commonest pharmaceutical, Premarin - catapulted into mass use by Robert Wilson MD’s book “Feminine Forever” (1968), apparently funded by Premarin’s manufacturer!. Premarin contains conjugated equine estrogens extracted from pregnant mare’s urine, including the strongest of estrogens in proportions quite unlike that of humans.
By the early 1970’s women with their uteruses intact were in addition given *Provera* (MPA) - a completely synthetic drug that thins the lining of the uterus. *Provera* contains NO progesterone and nothing that exists in Nature. If we test the blood of a woman taking *Provera* we will NOT find any significant progesterone in her body. *Provera* was prescribed for millions of women for 2½ decades, without adequate research.

But there have long been serious concerns about the dangers of synthetics: Since at least the early 1990’s books and studies described *Provera*’s risks including spasm of the heart arteries, increased blood clots and increased heart disease. And about 40% of *Provera*-takers have so-called “minor” side effects including headaches, bloating, weight gain, lethargy, fatigue and feeling irritable.

Sadly the side-effects and risks of *Provera* were not publicized on a large scale until July 2002 when alarming headlines announced *Provera* to be the specific problem in the Women’s Health Initiative study. In this study, there were several groups of women. One group taking *Premarin* and *Provera* (“PremPro”) had higher breast and heart disease risks, and were abruptly told to stop early. Another group of women, who’d had hysterectomies in the past, took *Premarin* only: they did not have any higher risks. Obviously *Provera* was the culprit. Subsequent research has definitively linked *Provera* with lobular breast cancer - a disorder that is otherwise rare in non-*Provera* takers (Fred Hutchinson Cancer Center report January 2008 - “Combined therapy increases risk of lobular breast cancer fourfold after just three years of use”).

Women taking *Premarin* only continued though the conclusion of the WHI study in 2004. Their results, together with the “Million Women Study” in England 1996 through 2001, and numerous other studies, confirmed the benefits of estrogens in protecting against bone loss, Alzheimer’s (verified 1996-97, JAMA 2002), colon cancer and macular degeneration. Also Stanford’s 2006 re-analysis of the WHI data further substantiated that estrogens alone had no deleterious effect on breast cancer risk.

By contrast, biologically-identical (“natural”) hormones are molecules identical to those made by the human body, and prescribed in biologically-matching proportions. Women’s bodies naturally make three main estrogens, as well as progesterone and testosterone. The two strong estrogens, estrone (E1 for short) and estradiol (E2), comprise about 10% each of the total estrogen pool. Estriol (E3) has much milder estrogenic effects and makes up about 80%. Preliminary information indicates that E3 and progesterone may protect against breast cancer.

Bio-identical hormones are derived from plants such as soy. The patient and doctor decide together on the ideal combination of hormones matched to each individual woman’s symptoms, health history and blood levels. The doctor’s prescription specifies the ingredients and amounts, which are made up by expert compounding pharmacies into capsules, creams or drops. These should only be in natural bases without pharmaceutical fillers. Some pharmacies are particularly experienced in making hormone preparations with the maximum absorbability, that give patients the smoothest and most “even” feeling of wellbeing. We do not recommend over-the-counter "progesterone creams" because their doses cannot legally be stated on the package by manufacturers.

Prescriptions are tailored for each patient: a lady with a history of benign breast cysts may take 90% E3, or as in Europe only E3 with progesterone. Someone particularly concerned about bone density may take more progesterone for its potential bone benefits. Dosage needs vary. Because of differences in absorption or metabolism, one woman may need a four-fold higher dose than another patient of similar size and age to achieve the same effects.
It is extremely important to carefully test and track individual responses to ensure the doses are right: just enough estrogen to gain all the benefits with ample progesterone to stabilize the endometrium.

The Best of All Worlds: Combining & Customizing Care:
A lady early in menopause or with few symptoms and good bone density may choose not to take hormones. For bones, ample calcium is recommended (current recommendations are 800+mg daily, the maximum bones can absorb per day, best as chelate or citrate). Vitamin K, boron and silica are also important elements in bone architecture, and of course so is weight-bearing exercise. Magnesium in its own right has been shown to stimulate new bone growth; botanicals including ipriflavone, best prescribed by a professional, look promising. There has been an abundance of outstanding recent information on Vitamin D, which not only helps bone density (it directs calcium from the gut to the blood and thence to the bones), but also may drastically reduce breast cancer risk, and protect against colon cancer, MS, depression and SAD, low immunity, and cardiovascular disease.

For vaginal dryness, a custom blend of almond, flax and pure Vitamin E oil or Vitamin E suppositories can help replenish the tissues. Or a lady may use estriol (E3) vaginal gel, almost none of which enters the rest of her body. Heart protectors include garlic, legumes, oats, green tea; avoiding processed fats or cured foods; hawthorn and Coenzyme Q10, and exercise. Colon health is furthered by ample fiber, botanicals like triphala or psyllium (not laxatives) to encourage daily bowel movements, and a high-quality multivitamin that may halve the risk of colon cancer. Eye protection is offered by lutein, alpha-lipoic acid, bilberry, Vitamin C and zinc.

Hormones can be most welcome if a woman has intolerable menopausal symptoms such as insomnia and resulting exhaustion, mood swings or vaginal or bladder symptoms. And long term, a patient may choose estrogens to protect against heart disease, bone loss, Alzheimer’s or colon cancer.

Hormones obviously act throughout the body, also affecting non-gynecological tissues. Research in 2006 showed that women taking estrogen had a lower risk of osteoarthritis (wear-and-tear arthritis). In June 2007 the New England Journal of Medicine published a stunning research result showing that women taking estrogen replacement had up to 60% less plaque in their coronary arteries. This was land-mark news, as heart disease is the number one killer for women. Since then, the Lancet in Britain, a major medical journal, published a study in March 2012 showing that women taking estrogen had 23% less risk of developing breast cancer.

In July and August 2013, Yale University published the results of a retrospective looking at heart disease and breast cancer in women who had stopped their estrogen in 2002 versus women who continued on estrogen: the group taking estrogen had significantly fewer new cases and fewer deaths from breast cancer and heart disease. One theory we have is that environmental pollutants that are hormone disruptors or xeno-estrogens, like plastic degradation products, may cause breast cancer by attaching to estrogen receptors and then triggering abnormal cell behavior. Real estrogen may occupy the receptors, thus preventing carcinogens from attaching and harming breast tissues.

For osteoporosis, nearly two decades of university research (academic rather than pharmaceutically-funded) shows progesterone to be a probable bone-builder, and extremely safe. Many women have enjoyed reversal or improvement of osteoporosis or low bone density.
There is mounting evidence that bio-identical progesterone and estriol (E3) may be breast-protective - unlike synthetic Provera which we know increases breast risk. Indeed progesterone may at times be used to treat breast tumors. Progesterone does not appear to have ill effects on the heart or good cholesterol (HDL), unlike Provera. Regarding body weight and BMI, bio-identical progesterone is said to build lean body mass - muscle, and of course bone.

As of today, increasing numbers of patients who gave up pharmaceuticals are now choosing bio-identical estrogens and progesterone. Current medical knowledge indicates that in many cases bio-identical hormones likely bring many benefits with minimal if any risks. Quite possibly more benefits will be discovered in coming years. As research continues, more information will be available.

So what to choose when? Each woman should have the chance to weigh her likely benefits versus risks and make an informed decision. And a hormone decision is not irrevocable: hormones can be phased out or resumed again at any time. Most importantly, a woman must be comfortable with her choice, knowing that she can change her mind as new research emerges.

**BIOGRAPHY:** Initially an M.D., Dr. Herdman specialized as a teaching hospital Pathologist at the University of London, England. In 1995 she earned a Doctorate in Naturopathic Medicine (N.D.) from Bastyr University, Seattle. Dr. Herdman is the founder and Medical Director of Pacific Center for Naturopathic Medicine in Bellingham, WA. This thriving clinic combines thorough medical evaluation with a rich palette of effective holistic treatments. Dr. Herdman has regularly taught at institutes and universities in the US and Europe. She is the inventor of the patented online "Custom Health Guide", author of "Feast Your Way to Health", featuring scrumptious recipes with specific health benefits developed from her many Food and Healing seminars, and she formulated the "Heart and Soul Chocolate Dip".

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**References:**
- ‘Taking estrogen for seven years or more after menopause reduces calcification of the arteries—a key indicator of atherosclerosis—by as much as 60%. High levels of calcification are generally considered a predictor of increased heart attack risk.’
- ‘Women taking estrogen had 42% less calcification of their arteries. Women who had taken at least 80% of their daily doses of the drug had 61% less calcification.’