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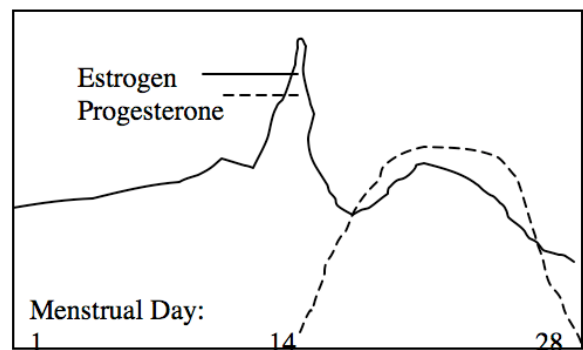
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## Surgical and Natural Menopause (09/2016)

After 50 years of hormone use, our field of medicine has finally produced the most definitive and reliable data for women over age 50 making decisions about use of estrogen and/or estrogen with progestins. We now have information for women having bothersome menopausal symptoms, whether they have had a hysterectomy and need only estrogen, or have their uterus and need the two hormones. First, here are the basics to understand so that you can manage yourself well

**Basic Ovarian Function.** During the reproductive years, estrogen is produced in varying amounts on a continuous basis by the cells surrounding the egg follicles in the ovary.

**Estrogen** released into the blood stimulates the cells in the uterine lining and the breast ducts to grow. Once ovulation has occurred, usually around post-menstrual day 14, the same follicle then secretes progesterone for about two weeks.



**Progesterone** directs the uterine lining cells to stop growing and to mature into a fertile lining ready for a potential pregnancy to implant. If no pregnancy occurs, with declining levels of both hormones around day 28 of the cycle, the lining of the uterus sheds as a menstrual period. Physiologically, menopause begins when the ovaries run out of eggs resulting in very low levels of estrogen (20 pg/dl), and no more ovulations. The sudden large drop of estrogen, at the average age of 51, can result in hot flashes, insomnia, night sweats, and dry vagina. Many women elect to soften this sudden decrease by using low doses of estrogen for a short while, 'til symptoms resolve and do not recur. They use lower doses as they age till they have tapered off completely, with no symptoms. Above is a profile of natural menopause, with estrogen levels falling around age 50. Usually the drop in estrogen levels cause remarkable hot flashes, insomnia and night sweats, but not always. It is important to appreciate that estrogen and progesterone have many other actions besides the cyclic transformations of the uterine lining and breast ducts. Estrogen supports the lining of the upper vagina and maintains a lush wall of tissue to allow secretion of lubrication during sexual excitement. Estrogen effect in the vagina, along with testosterone, is responsible for libido in women. It also supports the back wall of the bladder and urethra and helping to maintain strength and continence, preventing bladder infections. Estrogen promotes bone maintenance by inhibiting of calcium absorption from the bone.

**Menopause Defined.** Menopause is defined as the time after menses have ceased for at least 12 months. Women can enter this period with many different patterns of cessation of hormone secretion. The most common are 1) a gradual tapering off of the two hormones and decrease in

menstrual flow and frequency or 2) an abrupt cessation of secretion of both hormones which is frequently associated with hot flashes, insomnia, and sometimes changes in mood, and 3) the confusing picture with loss of one hormone while the other continues. Some women will enter menopause with a decrease in secretion of estrogens while still ovulating. This results in the often-confusing profile of hot flashes while the menses continue on a regular basis. The most troublesome pattern occurs when progesterone secretion decreases while estrogen secretion continues. This pattern usually causes irregular, painless and occasionally profuse bleeding from the buildup of the uterine lining without progesterone cycling. These women are at higher than average risk for cancer of the uterine lining.

**Early symptoms:** Many women will have multiple symptoms at the start of menopause but a few have none at all. Early symptoms result from the sudden drop in estrogen and may include traditional hot flashes, palpitations, and psychological alterations in mood, such as irritability and depression (which may be related to sleep loss due to nighttime hot flashes). These acute symptoms usually abate in most women after one to five years; however, some women will continue to have hot flashes throughout their lives after menopause. For some women these symptoms are mild and not bothersome, but for other women, they can be distracting to intolerable, disrupting their lives and requiring treatment for as long as the symptoms are bothersome.

**Later symptoms:** Other symptoms that usually occur later in the menopause from prolonged low estrogen levels in the pelvis include vaginal dryness, painful sexuality, and urinary incontinence, urinary urgency or bladder infections. Restoring estrogen to the pelvic tissues can restore libido, improve sexual experience, reduce urinary tract infections, reduce urinary leakage, and improve vaginal lubrication and odor.

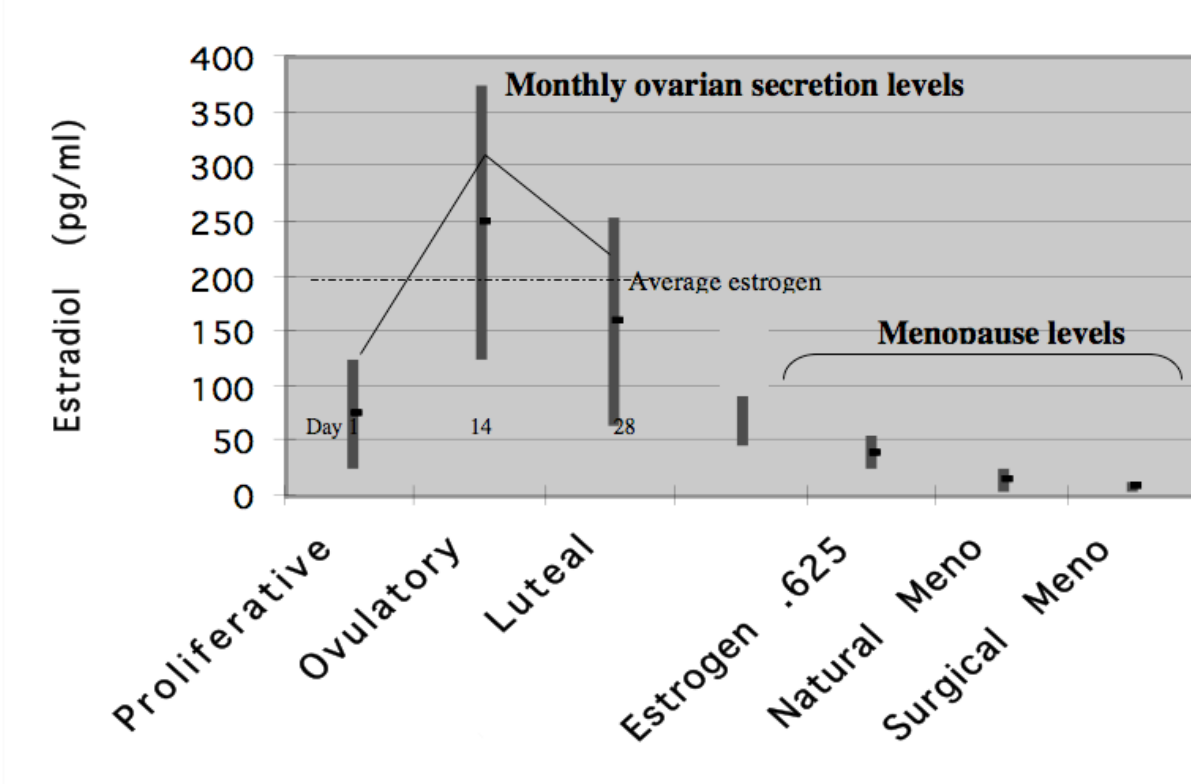
**For bothersome symptoms:** Fortunately, there are multiple hormonal and non-hormonal modalities available to help menopausal women maintain normal, functional, comfortable lives after their ovaries have stopped secreting hormones. That is the goal: normal, functional living, as naturally as possible.

### **Relief from bothersome hot flashes, night sweats, insomnia.**

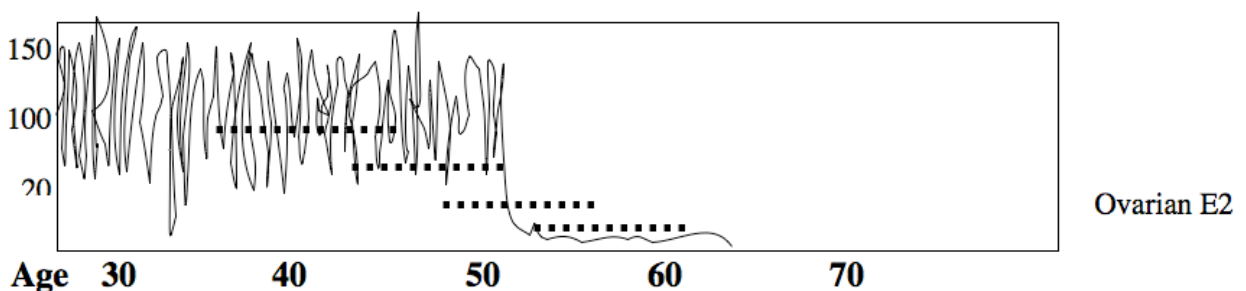
It is not controversial to prescribe hormone therapy to younger women (under age 51) entering the menopause, whose ovaries either naturally stopped or were surgically removed with her uterus. In fact, if the ovaries are removed or shut down for over ten years before age 50 and low-dose hormones are taken to prevent hot flashes, the breast cancer risk is reduced by 50% for life! Even in women who have the Breast/Ovary Cancer gene (BrCa 1,2), removing the ovaries and taking low dose estrogen causes a 50% reduction in breast cancer risk. From the chart below, notice that the ovaries secrete a continually much higher level of estrogen than the levels attained by any of the replacement regimens. Normal ovarian secretion needs to be high to stimulate a thick uterine lining for possible pregnancy implantation. Such high levels also stimulate endometrial plaques outside of the uterus (endometriosis) to grow as well. Hot flashes and insomnia can be resolved with much lower doses. This is why women who have their ovaries removed before age 50 have a lower risk of breast cancer, even if they use low doses to estrogen to prevent hot flashes, and even if they are BrCa 1 or 2 positive. Breast and ovary cancer, and gallstone risk is not elevated by hormone therapy in women under age 51, (the average age of menopause), or on estrogen-only regimens (for women who have had their uterus removed). REPLACEMENT PRESCRIPTIONS AFTER REMOVAL OF OVARIES PROVIDE LOWER ESTROGEN LEVELS THAN THE OVARIES USED TO PROVIDE AND WOMEN FEEL NORMAL. Here is why: Say a woman age 41 has severe endometriosis and needs a hysterectomy and removal of both of her ovaries. Her ovaries normally always maintained an average of 150pg/dl estrogen in the blood, with spikes to 300 at ovulation.

After removal of the ovaries, the estrogen levels would drop to 20 or so, but to prevent her from having hot flashes and insomnia with such a low estrogen level, she starts estrogen pills, patch or ring, which will keep her blood levels of estrogen at about 60-80pg/dl. This much lower level is just enough to make her feel normal, but still much lower than her natural ovaries were producing before on a monthly basis to make the uterus ready for a pregnancy (and cultivate painful endometriosis).

## Serum Estradiol throughout life



Some recent research suggests that women whose ovaries were removed, and who did not use their replacement estrogen prescriptions, were at increased risk of heart disease. The WHI data confirms that women on estrogen receive some protection from heart disease, so if the ovaries are removed to prevent cancer or pain, then it is really important to take estrogens prescribed until, at least, age 50.



See the diagram: estrogen level by pill, patch or ring provides a much lower level of estrogen than the average woman's fluctuating levels with active ovaries. So the plan for a woman under 50 having ovaries removed would be to take the estrogen pill or patch until she turns 50 or so and then to taper down and later go off estrogen, just like other women when their ovaries naturally quit at age 51. If she takes estrogen after age 51, keeping a level of 60, then her estrogen levels will then be higher than the average (not taking hormones) woman's level of 20 in this age group. Research tells

us that a woman who has her ovaries removed at age 30 and takes estrogens for 21 years until age 51 has only a 6% lifetime chance of breast cancer, half of the regular risk of 12%.

Thus, starting at age 51, she should see if the estrogen is still needed and go off her estrogen once a year, resume it at any time that the hot flashes, night sweats, or insomnia recur. If they don't recur, then there is no further need for taking estrogen.

### **Systemic estrogen therapy for menopausal symptoms: lowest effective dose, as long as needed to ameliorate bothersome symptoms.**

The drop in estrogen levels from normal ovarian secretion levels of 150-300 down to menopausal levels around 20 can cause significant symptoms. Most women will develop symptoms in the early menopause and will want some form of hormonal therapy just for while the symptoms are disruptive to their lives. Hot flashes can be debilitating and un-restful sleep can cause depression. But fortunately, these symptoms will abate with the usually prescribed very-low doses of estrogen, with levels at 40-80. After the body gets used to the lower levels for a few years, the HRT dose can be further lowered or discontinued without return of symptoms for many women. It is thought that the symptoms go away either because the body accommodates to lower levels of estrogen, or because when discontinuing the replacement hormones, the drop is so much smaller than the original plummet from the active ovarian secretion levels of 150.

Bothersome systemic symptoms (hot flashes, night sweats, insomnia, loss of mental focus) that resolve with hormone therapy should be treated with the lowest effective dose for as long as they continue in a bothersome manner. For some 10% of women, this may mean lifelong HRT in lower and gradually lower doses, so that they can continue to feel normal.

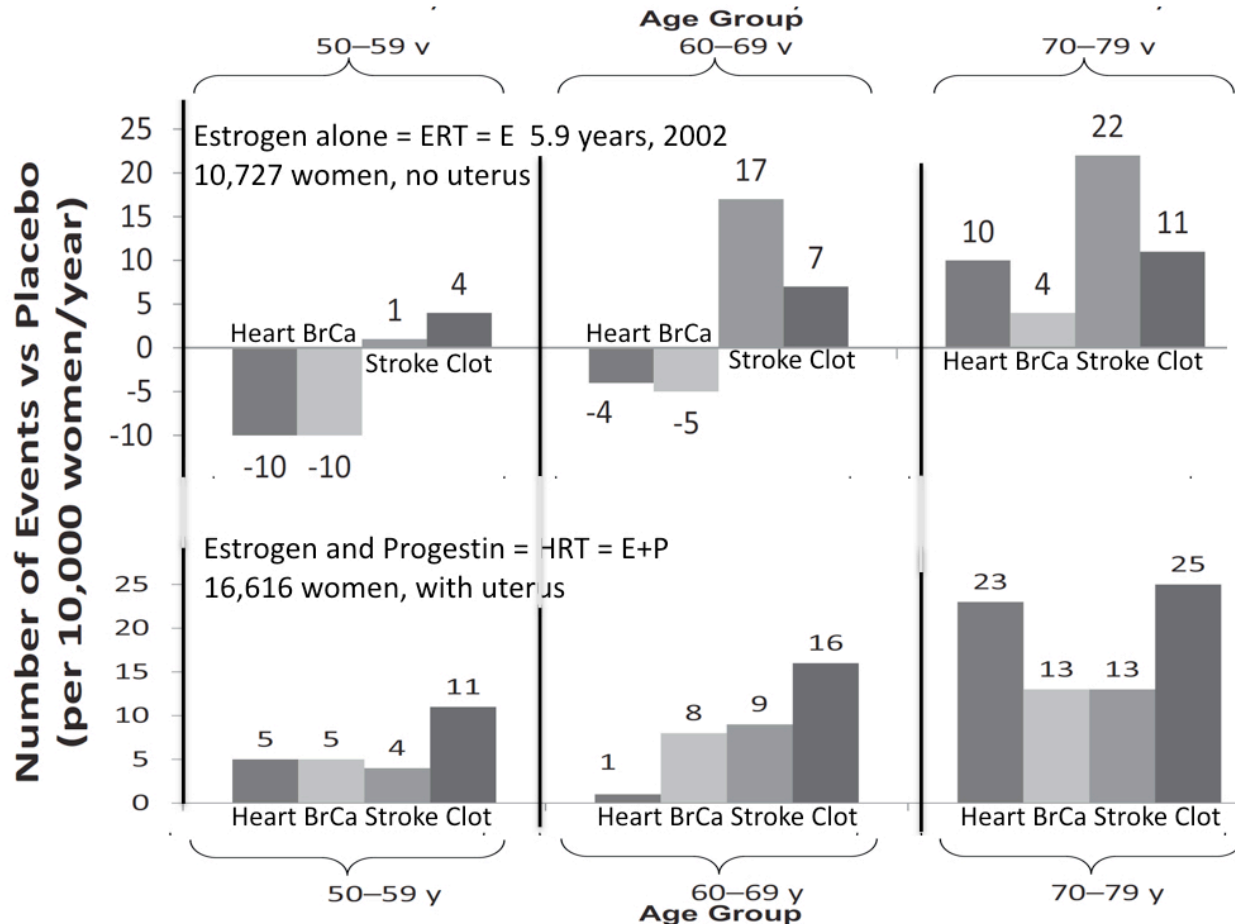
**YOU HELP ADJUST THE DOSE:** Too high or too low? For systemic symptoms (hot flashes or insomnia, loss of acuity), estrogen pills, or continuous release patch .05 mg, or vaginal ring are highly effective. "Pill or Patch or Ring" is simply based on your preference and skin type: you decide; all doses are available. Can you remember to take the pill? Would your skin break out with a patch? Will it stick? Will it bother you? Can you insert and remove a ring in your vagina? Estrogen is given continuously without stopping at the end of the month or while taking progestones (if your uterus is present). You should feel perfectly normal on the ERT, or the dose needs to be adjusted. The goal is to keep you on the lowest dose of estrogen that abates your symptoms and makes you feel perfectly normal. A few women will have symptoms that don't resolve quickly, but this may be due variations in saturations of the tissues during the first month or so. Before considering a higher oral dose, try waiting one month.

**ESTROGEN TOO LOW:** The major symptoms of too low estrogens are hot flashes and insomnia. If these persist more than a month after starting ERT, the dose needs to be increased. If you have low-estrogen symptoms but are on a dose that seems right, it may become useful to check a blood level to see if you aren't absorbing it well. You may need a higher dose or different route.

**ESTROGEN TOO HIGH:** If you have tender breasts or feel bloaty on estrogens alone, the dose is probably too high and needs to be reduced. Estrogen therapy alone mimics day 10 or so, when you feel most normal and have no pain or moodiness or tender breasts.

**Discontinuing estrogen.** Most women will notice that their hot flashes disappear after a 2-5 years in menopause, either because they forget to take their hormones for a few weeks and feel fine, or they simply forego them for a few weeks and notice no difference. They should stay off the estrogen if the hormones make no noticeable difference. In fact, all women on estrogen after age 51 should

try discontinuing it every year for a few weeks just to see if they still need it. If their symptoms of hot flashes, loss of focus, or insomnia recur, restart the estrogen. If no significant differences are noted off of estrogen for more than a month, then it is time to discontinue it. Get a baseline bone density at this time to see if extra prevention of osteoporosis by medication should be employed, because the estrogens have been conferring protection up until this point.



Women's Health Initiative Trial, Gurney et al, Journal of Steroid Biochemistry & Molecular Biology, 2014.

**Women over 50 without a uterus: Estrogen only (ERT):** We know, finally, 10 years after the WHI Study, that for women age 50-59 without a uterus, needing estrogen therapy for their symptoms, there is **absolutely no risk** to taking estrogen alone for 5+ years: no increase in breast cancer (23% reduction), heart attack, better brain function, stronger bones, less colon cancer, and extremely minimal increase in stroke, or blood clot, and. For women over age 60 still needing estrogen for their symptoms, some unfavorable risks appear with oral ERT: the rate of stroke increases from 0.33% to 0.44%, a tiny change. Also, the risk of blood clots in the legs increased from 0.15% to 0.21%, also tiny. But: the risk of heart attack decreases from 0.24% to 0.14%, and breast cancer incidence decreased by 33% and deaths by 73% compared to women taking no ERT. Women on ERT had less heart calcifications.

The WHI suggests that estrogen should be used like any medication: whenever it has proven benefits (reducing bothersome menopausal symptoms) which outweigh the tiny risks (individualize). It is recommended that women take menopausal hormone regimens at least until age 50, and after that for

as long as they need them after 50, and discontinue using them when no benefit is appreciated or predicted, and then receive appropriate follow-up surveillance testing once the hormones are discontinued. (Anderson et al JAMA, 2004)

**Women over 50 with a uterus: Estrogen with progestin (HRT):** We know, finally, from the WHI Study, that for women age 50-59 with a uterus, needing estrogen therapy for their symptoms, there is **extremely little risk** to taking estrogen with a progestin for 5+ years: .07% increase in breast cancer, .10% increase in heart attack, .08% increased stroke, or .18% increased blood clot, but better brain function. For women over age 60 still needing estrogen and progestin for their symptoms, a change to transdermal route is essential to minimize the risk of blood clots and stroke that oral routes are associated with. All of these changes are teeny-weeny and frankly ignorable for the healthy woman with significant symptoms who needs to feel like her normal self. It is recommended that women with a uterus take menopausal estrogen and progestins *at least until age 50*, and for as long as they need them after 50, and discontinue using them when no benefit is appreciated or predicted, and then receive appropriate follow-up surveillance testing once the hormones are discontinued.

**About Progestins (for all women who have a uterus).** All women who have a uterus should be given cyclic or continuous progesterone to prevent endometrial overgrowth into hyperplasia and cancer, which occurs in one-third of cases when prescribed estrogens are not balanced by adequate progestins. Endometrial cancer is epidemic in menopausal women with the strongest risk factors being obesity and age. This is because menopausal women make no progesterones, but their fat cells do make estrogens. The more fat cells, the higher the risk and earlier age of endometrial cancer. Obese women have a 25-40% lifetime risk of developing endometrial cancer, even without prescribed estrogens.

Most women have no side effects from the cyclic or continuous oral or vaginal progesterone, but some will describe PMS type symptoms such as flattening of the mood to frank depression, requiring experimenting with various doses, cycles and routes of progestins. Natural progesterone may be less likely to cause PMS like symptoms than medroxyprogesterone acetate (MPA), the most commonly used synthetic regimen, and the one used in the WHI, showing increased risks of breast cancer, heart disease, and venous thromboembolism. While natural progesterone may have similar effects if tested over the long term, it appears that it might be better for the cholesterol profile than MPA. Natural progesterone is a natural sedative and may cause sleepiness, so it should be taken last thing at night. A very few women may choose cessation of all progestins followed by yearly biopsy to check for pathological uterine changes, but hysterectomy should really be considered here, as the rate of pre-cancer or cancer of the uterine lining on estrogen-only regimens is 33% (PEPI Trial data).

It is important to keep in mind that the commonly used progestins will all reduce some of the benefit of estrogen on the cholesterol profile. While estrogen-only regimens improve the HDL by 11%, addition of natural progesterone to estrogen increases the good HDL by 8%, and addition of MPA increases HDL by 3%. Natural progesterone also does not blunt the benefit of estrogen on the prevention of plaque buildup in the arteries, according to research done on monkeys who have similar cholesterol profiles as humans. Thus, women who have a uterus and who have an abnormal lipid profile, or are obese or have a history of coronary vascular disease should use natural progesterone to optimize the cardiovascular benefit of the hormone replacement therapy for their bothersome symptoms.

Additionally, it should be noted that high quality data shows that progesterone contributes to the risk of breast cancer. Thus, combination HRT should only be taken for reduction of hot flashes as long as they are bothersome.

**Continuous progestin regimens.** Most women with a uterus will prefer a continuous regimen because it is usually associated with no bleeding on any scheduled basis. Half of women, however, will develop the most common side effect of this regimen—unscheduled bleeding, which may require a biopsy of the uterine lining. Use of 2.5 mg MPA or 100 mg natural progesterone daily can result in regression of the uterine lining to such extent that spotting occurs and may require temporary or permanent use of the cyclic regimen for over half of women. Obese women should use 200 mg natural progesterone for continuous treatment.

**Cyclic progestin regimens.** Cyclic regimens are the easiest to employ in the beginning of menopause, as they are associated with the lowest rates of unscheduled bleeding. The only detriment of this regimen is that most women will have a predictable shedding of the uterine lining on a regular basis.

Use of natural progesterone (NP), 200 (300 if obese) mg/day, or less preferably MPA, 10 mg/day, for a minimum of 14 days per month, or for 14 days every two or three months can prevent hyperplasia in most women. (Ettinger, Selby, Citron et al., 1994) A withdrawal bleed usually occurs one to three days before or after completion of the progestin cycle, but this is most often scant and gradually decreases to spotting with time. Some women on natural progesterone don't bleed at all. Great! It is reasonable to stretch out the interval for women on monthly cycles that have only spotting or who do not have any withdrawal bleed to cycle every two to three months. Should bleeding or spotting occur during the prolonged interval, then the interval should be shortened to that length which prevents spotting. A biopsy should be performed in these women if they have not had one in the preceding year.

Obese women should use the higher doses in the preceding monthly guidelines, and may require 20 mg/day of MPA or 300 mg/day NP if they wish to cycle every two to three months.

**PMS from E+P:** Unfortunately, if you used to get “Pre-Menstrual Syndrome” (PMS) tender breasts and moodiness just before your periods during your menstruating years, you may also experience any of the familiar PMS symptoms during the progesterone phases of your therapy as the combination of estrogen and progesterone in your blood mimics the time in the menstrual cycle during which PMS develops. Consider trying cyclic progesterones every three months.

### **Local estrogen: when no systemic symptoms, lowest effective dose**

**Urinary symptoms and Vaginal Dryness: Use only local estrogens.** Vaginal dryness may not be adequately treated with the lowest doses of systemic (pill, patch, ring) estrogen. In fact, many menopausal women will still notice vaginal dryness because the levels of systemic estrogen (systemic--in your blood, travels over the entire body) are much lower. Vaginal estrogens are often necessary to keep the vagina moist and comfortable. They are inserted as vaginal cream, pills or rings, and provide very low doses of estrogen into the vaginal fluid, but none into the systemic blood, conferring no risk of cancer, according to abundant research. (Note: if you have breast cancer, it is still okay to use these vaginal-only doses every day. Ask to see the research papers proving this in my office.)

For all perimenopausal and post-menopausal women with symptoms of vaginal irritation, or vaginal dryness, a low-dose local regimen of estrogen cream, pills or ring is safe and effective. A 1.0 gm estrogen cream (1/4 applicator 2x/week) or a tiny estrogen vaginal pill can be inserted twice weekly; or vaginal ring to be replaced every 10-12 weeks, will relieve frequent urinary tract infections, and a dry or painful vagina, without increasing the blood levels of estradiol. Multiple studies have shown that even after daily and prolonged use, such low doses of “topical” (applied to the skin) estrogen are not associated with systemic elevations of serum estrogens or reflective of systemic estrogenic

activity and do not stimulate the endometrium, as it is one eighth of the usual oral dose. Many women prefer the ring (more expensive) because the silastic ring can be left in the vagina, even during sex, for up to 3 months, with no cleansing required, then replaced with a new ring. Some women prefer the cream because it provides a small amount of additional lubrication. All have been well researched and are safe for women with breast cancer, for whom many think that systemic estrogens should be avoided.

**Women with Previous Breast Cancers.** A history of breast or endometrial cancer has been viewed as a contraindication to administration of systemic estrogens. The chemotherapy for breast cancer usually results in ovarian failure and sudden severe menopausal symptoms. Consequently, these women are at risk for premature bone loss change in brain function, and increased heart disease, and they usually seek treatment for relief of their hot flashes, painful sexual activity from a dry vagina, and insomnia. Concerns (but no data) about estrogen receptors in the remaining normal breast tissue, as well as potential nests of persistent or metastatic breast or endometrial cancer has brought about the widespread refusal to prescribe any estrogen regimen to young women (age < 51) who have menopausal symptoms after breast or endometrial cancer therapy. Six studies on over 10,000 women with breast cancer have been conducted to show that pregnancy with its extremely high levels of hormones confers no reduction in survival. (Partridge, Oncology, 2005) There are many significant case control and cohort studies documenting the safety of administering estrogen only replacement hormones to women with prior breast or endometrial cancer showing no adverse effects to estrogen alone.(von Schoultz, Lancet, 2004)

The Women's Health Initiative showed that women ages 50-60 did not have a higher risk of breast cancer using estrogen alone for 6 years. Estrogen therapy did not interfere with mammographic detection of cancer. In fact, there was a 23% reduction in Breast cancer incidence, and a 68% lower chance of dying from it among the women who did develop breast cancer while on the E alone. "The continued post-intervention effect of estrogen on breast cancer incidence is akin to that reported for other hormone-targeted drugs shown to reduce breast cancer incidence" meaning Tamoxifen and Raloxifene. Interestingly, the WHI also showed that vitamin D, as low as 400IU daily with 1,000mg of Calcium reduced breast cancer incidence significantly, and *tended* to reduce colon cancer.

The HABITS study showed that women with breast cancer on estrogen alone did not have an increased risk of recurrent breast cancer compared to those not on any hormones. Women using estrogen and progestins in the HABITS did have an increased risk of breast cancer recurrence, so the entire study was terminated. Large studies of women having hysterectomy and removal of the ovaries show that breast cancer risk is halved when the ovaries are removed premenopausally, even if estrogen is given for hot flashes. This is likely because a woman's own source of progestin is removed. While some breast cancers retain the surface estrogen receptors that all breast tissue has, it does not mean that estrogen caused the cancer. The cell's surface receptors just did not disappear when the mutation to a cancer happened. The belief is that if no cancer cells remain, then estrogens will not cause harm. If cancer cells are present, then estrogens may result in a slightly earlier *but still inevitable* re-presentation of the cancer.

Thus hysterectomy/ovariectomy for young women with breast cancer and then subsequent low dose pure estrogen therapy appears safe. Many gynecologic oncologists are currently prescribing systemic estrogen (pill, patch, ring) to select breast cancer patients with severe menopausal symptoms. Although the few published accounts suggest no adverse effects, very few doctors have familiarized themselves with the actual data and are willing to risk medico-legal responsibility. Women with breast cancer have fallen into a very sad gap between specialists, because their medical oncologists rarely read the gynecologic hormone literature, and gynecologists rarely read breast cancer literature.



For more information and to see the studies, go to my website (ohanlan.com) and look at the many links there, including the [extensive research](#) link.

**Women with Previous Endometrial Cancers.** A history of endometrial cancer used to be viewed as a contraindication to use of estrogen for menopausal symptoms after the removal of the cancerous uterus and related ovaries, but four randomized and prospective (quality, believable) studies have shown that use of estrogen for symptomatic menopausal woman having hysterectomy for endometrial cancer, even if radiation if required, does not increase risk of recurrence or death. Gynecologic Oncologists now routinely prescribe estrogens to symptomatic women who have had endometrial carcinoma.

**Women with DVT, Thrombotic conditions, and Pulmonary Embolus.** A history of pulmonary embolus has been viewed as a contraindication to estrogen replacement therapy, but strong and quality research confirms that transdermal estrogen (patch or gel), even in women with inherited genetic clotting defects, does not increase blood clot or stroke risk. Oral estrogen will increase DVT and stroke risk by increasing liver synthesis of clotting proteins, but transdermal does not affect liver synthesis because it is slowly absorbed through the skin, and not “dumped” in bulk into the liver as a pill is.

**Women with Osteoporosis.** Estrogen is one of four therapies that stop bone loss and can be useful for women with very low bone density, called osteoporosis. Estrogen and any of four other drugs are used to effectively halt progression of measured bone density loss in women who have mild bone loss, called osteopenia, to prevent further loss into the lower osteoporotic range. Every woman should have bone density testing after she quits taking estrogen or if she becomes menopausal and does not need to take any estrogen, in order to see if she has early thinning of the bones and needs heightened prevention or has advanced thinning and needs medical therapy.

**Alternatives to Estrogens.** Many regimens for abating the various bothersome symptoms are available and safe, and offer partial amelioration of symptoms. Research trials show *they do not work predictably or in everyone*, but can be tried safely to see if they work. Some patients report that vitamin E (alpha-tocopherol) at 1,000-2,000 I. U. ameliorates their flashes. Soy Bean Extracts, called isoflavones (Promensil 40-80mg or any isoflavone with other name brands, 40-80 mg), or soy itself in quantities up to 80 grams have relieved hot flashes for some. Black Cohosh in the dried rhizome form at 300-2000 three times daily in a tea or as a tablet in 20-80 mg may help. Use of Tamoxifen or raloxifene can abate some hot flashes in older women, but may cause them in younger women. Low-dose Clonidine patches or oral tablets may be employed, with the limiting side effect of low blood pressure. Bellergal has been shown to reduce frequency of hot flashes as well. Effexor and Prozac are antidepressants that can significantly reduce hot flashes, and may be a great choice if depression is present.

Troublesome insomnia can be treated with Melatonin 3-6mg. Depression is a reasonable temporary response to life’s issues, including developing cancer or sustaining a rapid drop in estrogen levels, but persistent or prolonged depression may also be a result of insomnia or hormone loss and may require a trial of estrogen reinstatement and/or psychological counseling and possible pharmacological therapy. Physicians must keep an open mind to experimenting with some or all of

these regimens, and be open to their exceptional patients bringing in ideas and regimens of their own.

**Many women complain of low libido.** This can be for lots of reasons: too hectic a schedule, tension between partners, tiredness from childrearing or work, depression, or because they are tired of having sex that was never really rewarding to them before. The remedy for the first three causes is to fix your schedule and keep your relationship in good repair, perhaps with counseling for either or both of you. Many women have trouble reaching orgasms in partner sex, and 10% simply never do have orgasms. While some 25% can achieve orgasm from vaginal thrusting activity, over 75% of women require direct clitoral stimulation by fingers or mouth to achieve orgasms. The average time for a woman to reach orgasm is over 20 minutes with direct clitoral stimulation. Women secrete less lubrication and take longer to climax as we age. Ask yourself: are you getting enough quality stimulation? Many are afraid to require our partners to take the time we women naturally need for an orgasm. If you don't like your partner or spouse any more, you won't have much libido within your relationship. Lack of orgasms can also reduce drive for sex. Lack of orgasms can come from never receiving what one needs to have an orgasm, feeling unable to communicate to our partner what we need done to us to have an orgasm, or having a partner that is unable to learn to do what is needed to generate orgasms in us. In these situations the remedy is to learn what makes an orgasm happen in yourself by practicing it on yourself (Yes, Joycelyn Elders was right on!) and then communicating this information to your partner. While many partners think they are great at giving sexual pleasure, they may not know what you love the most to have done to you, and they may need to hear that from you. There are great books in bookstores for teaching yourself to become grandly sexual, and for teaching your partner what you need to become jointly grandly sexual.

Low libido is also caused by poor fitness and by low body-self-concept. We are under constant influences in our society that tell us we should look like a playboy bunny, when none of us do. So get content with your aging body. Maybe in therapy. Also, get fit in your body by exercising, stretching and making that place where you live a proud and fun place to play in. Do whatever it takes to feel physically great, starting with exercise and stretching. Exercising with your partner has the best effects on libido.

If you are menopausal, with no hot flashes, and have low libido and dry vagina, consider vaginal estrogens to make certain that your vagina feels fresh, resilient, moist and happy to play. If your ovaries are working regularly with regular ovulations, then your drop in libido is not because of hormones, so consider other life influences. Most women retain their normal libido on oral estrogen alone, but some may benefit from transdermal estrogen (patch or ring) as these routes do not bind the available testosterone. Some women may also need a little added testosterone to get their sexual urges back to their normal. In such cases, testosterone in intermittent and very low doses can help restore libido. A few women will notice mild hot flashes or new onset of mild acne as a side effect of the androgen dose and may want to alternate with a plain estrogen tablet (without androgen) every other day or every two days. If there is no acne, however, then worries about androgen-induced excess facial and body hair, lowering of the voice, balding or clitoromegaly are entirely unfounded. Some women have found improved libido from applying an androgen cream to their clitoris nightly. A 2% testosterone cream can be compounded by local pharmacies. Let me know if we need to talk about this...it is healthy to have healthy great sex, so go for it.

## **HRT does not replace a healthy lifestyle.**

Heart disease almost never occurs as a surprise. It usually occurs after twenty or more years of poor lifestyle, and/or elevated risk factors. About 45% of women die of heart disease, which is largely preventable by lifestyle (eating and exercise, smoking) changes. When estrogen levels drop, the cholesterol profile can worsen some, as it can also due to natural aging, lack of exercise, poor diet and obesity. Hormones will never replace a healthy lifestyle and diet. Exercise, healthy eating and maintaining a healthy weight, alone reduce heart disease by 40-50%, improve blood pressure, triglyceride levels and diabetes, with no side effects. Women with unfavorable cholesterol profiles should have consultation with a specialist in cardiac disease prevention and be encouraged to follow all of the current recommendations for cardiac disease risk reduction: low fat diet, exercise, weight optimization, management of blood glucose, blood pressure and cholesterol.

It has been shown from WHI that neither ERT nor HRT slow progression of Alzheimer's disease in women over age 65.

**Healthy without hormones:** Women of every age should be painstakingly counseled by every one of their physicians that:

1. The evidence is strong that exercise, defined as 30-minute segments (60minutes if weight is not optimal), 4 times weekly, resulting in a 1.3-2.0-fold increase in resting heart rate, reduces the risk of coronary vascular disease and osteoporosis and many cancers. Weight-bearing exercise is a standard in prevention of osteoporosis and heart disease, as well as colon and breast cancer.
2. Cessation of smoking reduces risk for heart diseases, osteoporosis and cancers.
3. While one alcoholic beverage a day may be beneficial in preventing cardiac disease, more than one alcoholic beverage daily will increase risk of cancers and osteoporosis (and overweight, too!).
4. Monitoring blood pressure, blood sugar and cholesterol and maintaining an optimal weight (BMI < 25) will reduce risk of heart disease and stroke. Preventing excess gastric acid with H-2 inhibitors (antacid medications) reduces intestinal cancers.
5. Maintaining a Body Mass Index (BMI) under 25 will reduce risk of heart disease and stroke. BMI = (Your weight in pounds) x 703, divided by your height in inches twice. 20 to 25 ideal, 25-30 overweight, and 30+ is obese. Lowering your BMI reduces heart attacks, cancers, and early death.
5. A low-fat, high-fiber, predominantly vegetarian diet is the most cardiac wise, most cancer-protective, and most osteoporosis-preventive. Get selenium, Vitamin A, B, C, D and E in foods and supplements. Low-dose aspirin or NSAID reduces heart disease, stroke and colon cancer.
6. High calcium intake (calcium carbonate or citrate well-tolerated by most) from both dietary sources and supplements reduces risk of osteoporosis, colon cancer and hypertension. Total intake from both sources should be at least 1000 mg of elemental calcium for women with either endogenous or exogenous estrogen, and 1500 mg for women who do not have or take estrogens.

*Conclusions: All during a woman's life, good health habits should be cultivated and practiced. This requires a specific focus from the caring physician and a motivated patient, with attention to the variability and individuality of each woman's presenting concerns, as well as to the larger picture of each woman's cardiac and bone health as well as cancer risks. It requires a strong effort on the part of every woman to learn, grow and change; always becoming her better and her best. Interestingly, focus on each of these issues helps reduce cancer rates, heart disease, lung disease, and stroke, the four most common causes of death in women past the menopause.*

*Nuthin a woman can't do after forty. period.*